

Requirements Documents

HMIS-RD-SP-15097

Asbestos Control - Construction Industry

Revision 0, Change 2

Published: 01/13/2025
Effective: 02/10/2025

Program: Safety Programs
Topic: Safety Programs

Subject Matter Expert: Hall, William L
Functional Manager: Nielsen, Christopher E

Use Type: N/A



- No USQ Required

JHA: Administrative

Periodic Review Due Date:10/28/2025

Publication Correction:01/13/2025

Rev. 0, Chg. 2

Change Summary

Description of Change

Various changes to Improve the documentation process when performing class III and Class IV asbestos work.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Table of Contents

1.0 PURPOSE AND SCOPE.....2

2.0 REQUIREMENTS.....5

 2.1 Hazard identification and Exposure Assessment.....5

 2.2 Employee Exposure Monitoring During Asbestos Work9

 2.3 Engineering Controls/Work Practices.....11

 2.4 Hygiene Facilities and Practices12

 2.5 Regulated Areas13

 2.6 Respiratory Protection15

 2.7 Protective Clothing20

 2.8 Housekeeping.....22

 2.9 Medical Surveillance23

 2.10 Hazard Communication26

 2.11 Employee Information and Training.....28

 2.12 Multi-Employer Workplaces31

3.0 SOURCES32

 3.1 Source Requirements32

 3.2 References.....32

Appendix A. Control by Work Classification.....33

Appendix B. Glossary41

Appendix C. Provisions by Work Class45

List of Tables

Table 1. Construction Standard Work Classifications.....3

Table 2. Respiratory Protection - Asbestos Construction18

Table 3. Asbestos Construction Training Requirements29

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

1.0 PURPOSE AND SCOPE

This Level 2 Requirements Document (RD) establishes the requirements for the identification and control of asbestos hazards during construction activities and is intended to assist the Hanford Mission Integration Solutions (HMIS) projects in achieving full compliance with the Occupational Safety and Health Act (OSHA) 29 CFR 1926.1101, *Asbestos (Construction)*. Asbestos hazards created by work activities not defined as construction activities under 29 CFR are governed by the OSHA 29 CFR 1910.1001, *Asbestos (General Industry)*, and by HMIS-RD-SP-15245, *Asbestos Control - General Industry*.

This RD is applicable to Hanford Mission Essential Services Contract (HMESC) team employees performing the following construction related work, as specified in 29 CFR 1926.1101:

- Demolition or salvage of asbestos containing structures.
- Construction, repair, alteration, maintenance, or renovation of structures or substrates with Asbestos Containing Material (ACM) or Presumed Asbestos-Containing Materials (PACM).
- Cutting, grinding, abrading, or otherwise rendering ACMs or PACMs friable.
- Deactivation, decontamination, and decommissioning activities involving facilities containing ACMs or PACMs.
- Removal, encapsulation, or installation of ACMs or PACMs.
- Asbestos spill/emergency cleanup.
- Transportation, disposal, storage, and containment of ACMs or PACMs.
- Construction-related housekeeping activities involving ACMs or PACMs.

29 CFR 1926.1101 classifies asbestos-related construction activities into four categories; each category requires *different levels of worker training and protection*. See Table 1.

For Definitions/Glossary see [Appendix B](#).

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Table 1. Construction Standard Work Classifications

Category	Description
Class I Asbestos Work	Activities involving removal of thermal system insulation (TSI) and surfacing ACMs or PACMs.
Class II Asbestos Work	Activities involving removal of ACM or PACM that is not TSI or surfacing material (SM). This includes but is not limited to the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, some other roofing material types (see exception following this table) and construction mastics.
Class III Asbestos Work	Repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed and the disturbed material fits into a 60-inch glove bag.
Class IV Asbestos Work	Maintenance and custodial activities during which employees contact but do not disturb ACM or PACM, and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

Exceptions

The requirements in this RD do *not* apply to asbestos-containing asphalt roof coatings, cements and mastics. Other ACM roofing materials are covered. See sections [D.4](#) and [F](#) in [Appendix A](#) for information regarding removal of covered roofing types.

Asbestos containing materials (ACMs): Any material containing more than 1% asbestos

OSHA separates typical ACMs into three categories:

- *Surfacing Material (SM):* Spray-applied or troweled-on ACM surfacing treatments installed for the purposes of fireproofing, acoustical insulation, or architectural finishes. Examples include structural fireproofing, acoustical ceiling textures and various plasters.
- *Thermal System Insulation (TSI):* ACM insulating materials associated with heating, ventilation, and air conditioning (HVAC) equipment that have the purpose of reducing heat gain or loss. Examples include insulation on piping, boilers, tanks, and ducts.
- *Miscellaneous Materials:* All remaining ACMs used in construction that are not characterized as surfacing materials or TSI. Common examples include floor tile, electrical insulators, cement-asbestos board materials, and gasket material.

PACMs, as defined in 29 CFR 1926.1101, are all TSI and surfacing material found in buildings constructed no later than 1980. Asphalt and vinyl flooring materials installed prior to 1980 shall also be treated as asbestos containing. Due to potential of ACM being installed after 1980, for

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

purposes of this RD, PACMs will be conservatively identified in buildings constructed no later than 1985. Material/or product specifications, building material application/installation dates, previous inspection results, or *Facility Condition Update Reports* (no longer required documents, but still available for some facilities) may provide information on age of materials. Designation of installed materials as PACM can only be rebutted by:

- Conducting an inspection pursuant to the requirements of EPA's Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763, Subpart E) which demonstrates the material is not ACM; or
- Performing tests of the PACM to demonstrate that no asbestos is present in the material. Such tests shall include Polarized Light Microscopy (PLM) analysis of bulk samples collected by an accredited inspector in the manner described in (40 CFR Part 763.86).

29 CFR 1926.1101, *Asbestos (Construction)* specifies, particularly for Class I asbestos work, detailed requirements for the following aspects of covered work activities: regulated areas, employee exposure assessments and monitoring, engineering controls and work practices, respiratory protection, protective clothing, hygiene facilities and practices, hazard communication, employee communications and training, housekeeping, medical surveillance and recordkeeping. Those requirements are addressed in section 2.0.

Applicable elements of 40 CFR Part 763, Appendix C to Subpart E, relative to the Environmental Protection Agency (EPA) Asbestos Model Accreditation Plan for training for personnel doing asbestos activities and asbestos work are also included in this RD where relevant.

Permissible Exposure limit (PEL)/Excursion Limit (EL)

29 CFR 1926.1101, *Asbestos (Construction)* establishes a PEL of 0.1 fiber/cc of air as an 8-hour Time-Weighted Average (TWA) and an EL of 1.0 fiber/cc of air as averaged over a sampling period of 30 minutes.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

2.0 REQUIREMENTS

NOTE: *This section addresses the following requirements (navigation links are provided):*

- Section 2.1 Hazard Identification and Exposure Assessment
- Section 2.2 Employee Exposure Monitoring During Asbestos Work
- Section 2.3 Engineering Controls/Work Practices
- Section 2.4 Hygiene Facilities and Practices
- Section 2.5 Regulated Areas
- Section 2.6 Respiratory Protection
- Section 2.7 Protective Clothing
- Section 2.8 Housekeeping
- Section 2.9 Medical Surveillance
- Section 2.10 Hazard Communication
- Section 2.11 Employee Information and Training
- Section 2.12 Multi-employer Workplaces

NOTE: *For the tables in this section under the requirement "type" column, "V" means verbatim, and "I" means interpreted.*

2.1 Hazard identification and Exposure Assessment

#	REQUIREMENT	TYPE V or I	SOURCE
1.	As part of the work planning process, line management shall ensure that the presence, location, and quantity of ACM or PACM that may be disturbed or impacted by planned construction activities is identified by performing one or more of the following activities: <ol style="list-style-type: none"> a. Obtain documentation describing the presence, location and condition of ACM and/or PACM in the building and/or associated structures. Applicable information may be found in <i>Facility Asbestos Assessment (A-6007-928)</i>, located in the Safety & Health Reference Information (SHRI) database. b. Request a suspect materials inspection be performed by an accredited asbestos inspector. c. Presume materials are asbestos-containing until proven otherwise, and manage accordingly. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	As appropriate, line management shall ensure that PACMs which will not be treated as ACMs do not contain asbestos (see section 1.0).	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
3.	<p>Line management, in consultation with an asbestos competent person (as defined in Appendix B) and the facility Safety & Health (S&H) professional, as necessary, shall determine the class of work to be performed, based on the class definitions contained Table 1. If more than one class of work occurs simultaneously or the activity is not in a work class, perform the work according to the highest hazard classification.</p> <p>NOTE: <i>Certain activities are not classified in any of the 4 work classes and have separate requirements to comply with the PEL for employee exposures. (See Appendix A)</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	<p>Line management shall designate a trained (per Table 3) asbestos competent person to supervise asbestos activities and perform assigned duties for the specific work classification.</p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	<p>Line management shall ensure the designated competent person, with assistance from the facility S&H professional as required, conducts an initial exposure assessment immediately before or at the initiation of any construction activity to determine expected exposures.</p> <p>NOTE: <i>Exception: Requirement 2.1.5 does not apply to Class IV activities.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
6.	<p>Line management shall ensure the initial exposure assessment is performed in time to comply with regulatory requirements (e.g. training and/or medical surveillance) triggered by exposure data or the lack of a negative exposure assessment, and to provide information necessary to assure planned controls are appropriate.</p> <p><i>NOTE: An initial exposure assessment must be based on jobsite monitoring until a negative exposure assessment has been made.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
7.	<p>Line management shall ensure that the initial exposure assessment is used to determine engineering controls, monitoring requirements, respiratory and protective clothing requirements.</p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
8.	<p>Line management shall ensure that employee exposures are demonstrated to be below the PEL for a specific asbestos job by producing a negative exposure assessment (NEA) as follows:</p> <ul style="list-style-type: none"> • Objective data demonstrating the activity and ACMs cannot release airborne fibers in concentrations exceeding the PEL and EL under work conditions having the greatest potential for release of asbestos; <i>or</i> • Monitoring data from within the past 12 months collected during a construction job under conditions closely resembling the present project, which demonstrate with a high degree of certainty that exposures for the current job will not exceed the PEL and/or EL; <i>or</i> • Results of initial exposure monitoring (representative 8-hour and/or 30-minute air sample) from the current job. <p><i>NOTE: This assessment can be applied when data obtained resembles the work and environmental conditions, controls methods and work practices in the current operations; and representative employees have similar training and work experience.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
9.	Line management shall ensure that, for all Class I activities, employees are assumed to be exposed in excess of the PEL and EL unless a NEA is produced or until exposure data proves otherwise.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
10.	Line management shall ensure employee exposure monitoring results and other observations or previous data indicating potential exposures for an activity, are included as part of this initial exposure assessment and included in the work documentation.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
11.	Line management shall ensure that each affected employee's Employee Job Task Analysis (EJTA) is modified, as necessary, to reflect the results of the exposure assessment.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
12.	Line management shall ensure that records of objective data are maintained with work control documentation. Include the products involved, testing protocol, source of data, and a description of how this data supports exemption from this program.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
13.	<p>Line management shall ensure that the following work documentation is maintained:</p> <ul style="list-style-type: none"> • <i>Asbestos Work Permit</i> (site form A-6003-118), for Class I, Class II, Class III, and/or Class IV work. • Job Hazard Analysis (JHA), if required. • Inspection or bulk sample results. • Initial or NEA results. • Other special instructions and associated records as applicable. <p><i>NOTE: Project notification of certain asbestos renovation or demolition activities is required by National Emission Standards for Hazardous Air Pollutants (NESHAP). The Washington State Department of Ecology is the responsible state agency for Notification of any Hanford Related asbestos projects north of Horn Rapids Road. Benton Clean Air Authority (BCAA) is the responsible agency for Hanford related facilities projects south of Horn Rapids Road.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	<i>Requirements for filing "Notice of Intent to Remove Asbestos" reporting releases, transportation and disposal are identified in HMIS Environmental procedures: HMIS-PRO-EI-15335, Environmental Permitting and Documentation Preparation, and HMIS-PRO-EI-15333, Environmental Protection Processes.</i>		

2.2 Employee Exposure Monitoring During Asbestos Work

#	REQUIREMENT	TYPE V or I	SOURCE
1.	<p>Line management shall ensure that daily monitoring, representative of the exposure of each employee assigned to work within a regulated area performing Class I or II work, is conducted, unless a NEA has been made for the entire operation.</p> <p>a. Employees required to wear supplied air respirators operated in pressure demand mode, or other positive pressure mode respirators do not require daily monitoring if using controls listed in Appendix A.</p> <p>b. For Class I work using modified or alternate controls other than those listed in Appendix A, daily monitoring is still required.</p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall ensure that periodic monitoring for employees involved in Class III or IV work who are reasonably expected to be exposed above the PEL or EL, is performed at intervals sufficient to document the validity of the exposure prediction.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	Line management shall consult with the facility S&H professional and the assigned competent person, as appropriate; to determine the appropriate level of monitoring and to ensure exposure monitoring is performed by qualified S&H personnel.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
4.	Line management shall ensure that exposure monitoring, when required, is performed by collecting personal breathing zone samples, representing 8-hour TWAs and 30-minute ELs, in accordance with the OSHA Reference Method in Appendix A of 29 CFR 1926.1101, <i>Asbestos (Construction)</i> . Exposure records shall be collected and maintained as required by HMIS-PRO-SP-409, <i>Industrial Hygiene, Monitoring, Reporting and Records Management</i> .	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	Line management shall ensure that a representative number of employees performing each task comprising an operation or activity are monitored.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management shall ensure that employees or their representatives are provided the opportunity to observe exposure monitoring.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
7.	The facility/project Industrial Hygienist shall ensure that notification(s) of exposure monitoring results are provided to affected employees within 5 working days of receipt of laboratory results and according to requirements in HMIS-PRO-SP-409, <i>Industrial Hygiene Monitoring, Reporting and Records Management</i> . NOTE 1: <i>Preliminary information may be used for this purpose, when followed by a final report.</i> NOTE 2: <i>If monitoring results indicate employee exposures are below the EL and PEL, periodic monitoring may be discontinued for employees whose exposures are represented by the monitoring.</i>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
8.	Line management shall ensure that exposure monitoring is re-instated whenever there is a change in process, control equipment, personnel or work practices that may result in new or additional exposures above the PEL/EL, until a new NEA representing the changed conditions has been completed.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

2.3 Engineering Controls/Work Practices

#	REQUIREMENT	TYPE V or I	SOURCE
1.	As part of work planning, line management shall ensure that engineering controls and work practices are chosen and implemented based on the class of work and available exposure data.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall enlist the aid of an asbestos competent person and, as appropriate, the facility S&H professional, when selecting engineering control strategies and equipment.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	Appendix A shall be used to determine mandatory controls for all asbestos work and additional controls for the specific asbestos work classes.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	Line management shall ensure that job-specific controls and work practices are documented and maintained as part of the work package documentation. <i>NOTE: If there are adequate barriers between activities, as determined by the competent person, controls from more than one class may be used.</i>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	Line management shall ensure that manufacturer's certification is procured and maintained to demonstrate HEPA vacuums are DOP-tested in accordance with MIL-STD 282, <i>Filter Units, Protective Clothing, Gas-Mask Components and Related Products: Performance Test</i> or other applicable standards as required. <i>NOTE: Other applicable standards pertaining to HEPA filter testing and certifications:</i> <ul style="list-style-type: none"> • <i>ISO 29463, High-efficiency filters and filter media for removing particles in air.</i> 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management shall ensure that asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing are collected and disposed of in	I	10 CFR 851.23 and 10 CFR 851, App A, item 6;

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	sealed, labeled, impermeable containers or bags, per the requirements in 29 CFR 1926.1101, <i>Asbestos (Construction)</i> .		29 CFR 1926.1101

2.4 Hygiene Facilities and Practices

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall ensure that hygiene facilities are installed and used for the following: <ul style="list-style-type: none"> • Class I construction activities. • Class II and III construction operations where employee exposures exceed the PEL or EL or where there is no documented negative exposure assessment available. • Class IV operations in regulated areas or where ACM/PACM debris is cleaned up. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall ensure that the following hygiene facilities for Class I construction operations involving over 25 linear or 10 square feet of TSI or surfacing ACM or PACM are included: <ul style="list-style-type: none"> • Decontamination areas connected to the regulated area consisting of an equipment room, shower room, and clean room in series. • Adjacent shower facilities, if used, complying with 29 CFR 1910.141(d)(3). <p>NOTE: <i>The requirement for adjacent shower facilities does not apply to outdoor work.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	Line management shall ensure that, for Class I construction work involving less than 25 linear or 10 square feet of TSI or surfacing ACM or PACM and for Class II and III construction work, the hygiene facilities include an equipment room adjacent to the regulated area sufficient in size to accommodate the cleaning of equipment and removal of Personal	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	Protective Equipment (PPE) without spreading contamination beyond the area.		
4.	For Class IV work, line management shall ensure the following hygiene facilities are provided and used: <ol style="list-style-type: none"> a. <u>For Class IV work performed in a regulated area</u>, the hygiene facilities requirements are the same as those used by other employees within that area. b. <u>For Class IV work not performed in regulated areas, but including the cleanup of TSI or surfacing ACM/PACM debris</u>, require the same hygiene facilities listed above for Class II and III work. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	When hygiene facilities are required, line management shall: <ul style="list-style-type: none"> • Provide lunchroom facilities for employees where airborne asbestos exposures are below the PEL and EL, and • Ensure employee use of hygiene facilities to prevent asbestos debris from leaving the work area. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

2.5 Regulated Areas

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall determine the need for a regulated area with the support of an asbestos competent person and facility S&H.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall ensure that regulated areas are established whenever: <ul style="list-style-type: none"> • Class I, II, and III construction activities are performed, and/or • Construction activities cause airborne concentrations of asbestos to exceed, or there is 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	a reasonable possibility they may exceed the PEL or EL.		
3.	<p>Line management shall ensure that asbestos competent person supervises work within all regulated areas, to include the following tasks.</p> <ul style="list-style-type: none"> • Set up and control regulated areas, enclosures or containments. • Inspect job site, materials and equipment, according to the following schedule: <ul style="list-style-type: none"> a. For class I jobs at least once during each work shift and as requested. b. For Class II, III, and IV jobs, inspect often enough to assess changing conditions. c. Upon employee request. • Examine PPE to be worn at least once per work shift. • Coordinate with facility S&H to ensure employee exposure monitoring is performed. • Ensure employees are wearing appropriate respiratory and dermal protective equipment. • Ensure implementation of appropriate, prescribed engineering controls, work practices, hygiene facilities and decontamination procedures, as specified in this RD. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	Line management shall ensure that regulated areas are demarcated to minimize the number of persons within the area, restrict access to authorized workers and protect persons outside the area from exposure to airborne asbestos.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	Line management shall ensure that warning signs that demarcate the regulated area are provided and displayed at each location where a regulated area is required, and the signs shall be placed at such a distance from the regulated area so that an employee may read the signs and take necessary protective steps before entering the regulated area.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
6.	<p>Warning signs shall be printed in large bold letters against a contrasting background and shall contain the following information:</p> <p style="text-align: center;">DANGER ASBESTOS MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS AUTHORIZED PERSONNEL ONLY</p> <p>and, when the use of respirators and protective clothing is required in the regulated area, the sign shall also say:</p> <p style="text-align: center;">WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA</p> <p>NOTE 1: <i>Critical barriers or negative pressure enclosures themselves may serve to demarcate the regulated area.</i></p> <p>NOTE 2: <i>See HMIS-PRO-EI-15333, Environmental Protection Processes, for additional requirements for asbestos waste containers.</i></p>	I V V	<p>10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101(k)(7)(ii)(A)</p> <p style="text-align: center;">29 CFR 1926.1101(k)(7)(ii)(B)</p>

2.6 Respiratory Protection

#	REQUIREMENT	TYPE V or I	SOURCE
1.	<p>Line management shall ensure the selection, issuance, and control of the appropriate level of respiratory protection in accordance with DOE-0352, <i>Hanford Site Respiratory Protection Program</i> and 29CFR 1910.134, <i>Respiratory Protection</i>.</p>	I	<p>10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101</p>

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
2.	Line management shall ensure that filtering facepiece respirators are not selected or used for respiratory protection against asbestos fibers.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	<p>Line management shall ensure that respiratory protection is chosen and used for covered asbestos work whenever:</p> <ul style="list-style-type: none"> • The potential exposure associated with an activity cannot be reduced below the PEL or EL by the use of engineering controls. • During all Class I asbestos projects. • During all Class II projects where the ACM or PACM is not removed in a substantially intact state. • During all Class II and III dry removal work and/or for which a documented negative exposure assessment is not available. • During all Class III work where TSI or surfacing ACM or PACM materials are disturbed. • During all Class IV work performed in a regulated area where employees performing other work in the area are required to wear respirators. <p><i>EXCEPTION: Roofing materials removed intact from a sloped roof where respirators are not required because of the NEA.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	Line management shall ensure that facility S&H professionals and the assigned asbestos competent person select respiratory protection. If radiological hazards are involved, seek assistance from radiological control personnel.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
5.	<p>Line management shall ensure, and the assigned asbestos competent person shall verify, that respirator wearers receive a quantitative fit test for each style and type of respirator used, as specified in Table 2, and in accordance with DOE-0352 Hanford Site Respiratory Protection Program.</p> <p>a. Asbestos workers are fit tested annually, as required by 29 CFR 1910.134, <i>Respiratory Protection</i> and DOE-0352, <i>Hanford Site Respiratory Protection Program</i>.</p> <p>b. Daily use of respirators includes a positive and negative fit check each time a negative pressure air-purifying respirator (APR) is donned or adjusted.</p> <p><i>NOTE: Qualitative fit testing is permitted only for testing of half-mask APR and requires prior approval from the Respiratory Protection Program Administrator and an approved qualitative fit testing program.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management shall ensure the appropriate levels of respiratory protection for emergency response/cleanup are provided, based upon the exposure potential.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
7.	<p>When respiratory protection is required line management, and the asbestos competent person shall:</p> <ul style="list-style-type: none"> a. Verify employees who are issued respiratory protection are medically qualified, fit tested and properly trained in respirator use and maintenance as required by DOE-0352, <i>Hanford Site Respiratory Protection Program</i>. b. Maintain appropriate doffing and field decontamination practices during respirator removal. c. Ensure asbestos contaminated respirators are placed into sealed bags and labeled with asbestos hazard warning labels before turning into the Respirator Maintenance Facility for decontamination and cleaning. <p>NOTE: <i>PAPR hoods and filters used for asbestos work shall be disposed of as asbestos waste debris at end of shift.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

Table 2. Respiratory Protection - Asbestos Construction

Airborne Asbestos/Conditions of Use	Required Respirator
<ul style="list-style-type: none"> • Not in excess of 1 f/cc (10 X PEL). • Class II and III jobs where no negative assessment is produced. • Class III jobs where TSI or surfacing ACM or PACM is disturbed. 	Half-mask APR, equipped with HEPA filter (other than filtering facepiece respirators)
<ul style="list-style-type: none"> • Not in excess of 5 f/cc (50 X PEL). 	<ul style="list-style-type: none"> a. Full-face APR, equipped with High-efficiency particulate air (HEPA) filter; or b. Half-mask powered air-purifying respirator (PAPR)

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Table 2. Respiratory Protection - Asbestos Construction

Airborne Asbestos/Conditions of Use	Required Respirator
<ul style="list-style-type: none"> Not in excess of 10 f/cc (100 X PEL). 	<ul style="list-style-type: none"> a. Full-facepiece (PAPR), equipped with HEPA filter, or b. Supplied air respirator (SAR) or airline respirator operated in continuous flow mode c. SAR or airline respirator operated in pressure demand or other positive pressure mode
<ul style="list-style-type: none"> All employees within regulated area when Class I work is being performed and a negative exposure assessment has NOT been produced and the exposure assessment of the area indicates that the exposure levels <u>will not exceed</u> 1 f/cc as an 8-hour TWA. 	<ul style="list-style-type: none"> a. Tight-fitting PAPR with HEPA filters, or b. Full-face SAR, operated in pressure demand mode, equipped with HEPA egress cartridges. Or c. Full-face SAR, operated in pressure demand mode, equipped with auxiliary positive pressure Self-contained breathing apparatus (SCBA).
<ul style="list-style-type: none"> All employees within a regulated area when Class I work is being performed and a negative exposure assessment has NOT been produced and the exposure assessment of the area indicates that the exposure levels <u>will exceed</u> 1 f/cc as an 8-hour TWA. 	<p>Full-face SAR, operated in pressure demand mode, equipped with auxiliary positive pressure SCBA.</p>
<ul style="list-style-type: none"> Not in excess of 100 f/cc (1000 X PEL). 	<ul style="list-style-type: none"> a. Full-face PAPR with HEPA filters, or b. Full-face SAR or airline respirator, operated in continuous flow, pressure demand mode or other positive pressure mode.
<ul style="list-style-type: none"> Greater than 100 f/cc (> than 1000 X PEL or unknown concentration). 	<p>SCBA, operated in pressure demand mode or other positive pressure mode.</p>

NOTE ON USE OF PAPRs, SARs, AIRLINE RESPIRATORS OR SCBA WITH HELMETS/HOODS: 29CFR 1910.134 specifies that PAPRs, SARs, airline respirators or SCBA with helmets/hoods have an assigned protection factor (APF) of 25 unless the employer (HMIS, in this case) possesses evidence, provided by the respirator manufacturer, that testing of such equipment demonstrates performance at a level of protection equal to or greater than 1000 to merit an APF of 1000. Absent such testing, PAPRs, SARs, airline respirators and/or SCBA with helmets/hoods

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Table 2. Respiratory Protection - Asbestos Construction

Airborne Asbestos/Conditions of Use	Required Respirator
<p>are to be treated as loose-fitting facepiece respirators and receive an APF of 25. Contact the HMIS Respiratory Protection Program Administrator to ensure that HMIS is in possession of necessary testing data before using PAPRs, SARs, airline respirators and/or SCBA with helmets/hoods in exposure situations where exposures could exceed 25 times the PEL.</p> <p>NOTE: A tight-fitting PAPR must be provided in lieu of any APR whenever: (1) the employee chooses <u>and</u> (2) the respirator provides adequate protection.</p> <p>1. This table is provided as a summary of the types of respirators acceptable for various types of asbestos construction work and for various employee exposure scenarios. Respirators with higher protection factors can be used during any of the specified work situations or employee exposure scenarios. Consult Table 1 in 29CFR 1910.134 for additional information regarding respirator assigned protection factors.</p>	

2.7 Protective Clothing

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall require employees to use at least the minimum levels of PPE required by the class of work performed.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall require the use of protective clothing whenever: <ul style="list-style-type: none"> a. The potential exposure to airborne asbestos cannot be reduced to below the PEL or EL by the use of engineering controls, and/or b. The required negative exposure assessment is not produced or available, and/or c. Class I operations involving removal of over 25 linear or 10 square feet of TSI or surfacing ACM or PACM are performed, and/or d. The asbestos competent person or the facility S&H professional judge that the job requires the use of protective clothing. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
3.	Line management shall ensure that activity characteristics, available exposure data, additional hazards that the control itself may introduce (such as heat stress hazards) and other relevant data are considered when prescribing protective clothing. Involve the asbestos competent person and facility S&H professional in the selection of protective clothing.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	Line management shall ensure that the protective clothing requirements are specified on the <i>Asbestos Work Permit</i> (site form A-6003-118).	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	Line management and/or the assigned asbestos competent person shall ensure that wearing of contaminated protective clothing is restricted to work areas and designated change areas and shall ensure that employees: <ul style="list-style-type: none"> a. Store contaminated work clothing in closed containers and label the containers as specified in Requirement 2.10.7. b. Prohibit shaking or removal as a means to remove asbestos fibers from work clothing and other surfaces. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management and/or the assigned asbestos competent person shall ensure that contaminated clothing or protective equipment is sealed and transported to prevent airborne release of asbestos fibers. Label or otherwise effectively communicate the hazards associated with the contents to anyone who handles or may come in contact with the clothing.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
7.	Line management and/or the assigned asbestos competent person shall ensure that non-disposable asbestos-contaminated work clothing is cleaned with HEPA vacuums before it is removed.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
8.	Line management and/or the assigned asbestos competent person shall ensure that, if work clothing or reusable (non-disposable) protective clothing becomes	I	10 CFR 851.23 and 10 CFR 851, App A, item 6;

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	contaminated with asbestos, the clothing is either disposed of as asbestos waste or prior arrangements with a vendor providing this type of laundry service have been made.		29 CFR 1926.1101

2.8 Housekeeping

#	REQUIREMENT	TYPE V or I	SOURCE
1.	When vacuuming methods are used, HEPA-filtered vacuuming equipment must be used. The equipment shall be used and emptied in a manner the minimizes the reentry of asbestos into the workplace	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Asbestos waste, scrap, debris, bags, containers, equipment and contaminated clothing consigned for disposal shall be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled impermeable containers, except in roofing operations where the practices/controls specified in Appendix A shall be followed.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	Unless flooring can be verified as non-ACM, all vinyl and asphalt flooring materials shall be maintained in accordance with the following provisions: <ul style="list-style-type: none"> • Sanding of flooring material is prohibited. • Stripping of finish shall be conducted using low abrasion pads at speeds lower than 300 rpm and via wet methods. • Burnishing or dry buffing may be performed only on flooring that has sufficient finish so that the pad cannot contact the flooring material. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
4.	<p>Waste or debris and accompanying dust in an area containing accessible TSI or SM ACM/PACM or visibly deteriorated ACM:</p> <ul style="list-style-type: none"> • Shall not be dusted or swept dry or vacuumed without using a HEPA filter; and • Shall be promptly cleaned up and disposed of in leak-tight labeled containers. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

2.9 Medical Surveillance

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall ensure that employees who perform Class I, II or III asbestos work and/or perform Class IV asbestos work which results in asbestos exposures above the PEL and/or EL are scheduled for medical surveillance.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	<p>Prior to the commencement of a work activity that will or is reasonably expected to expose employees to asbestos levels at or above the PEL and/or EL on any day, line management shall submit an initial or revised EJTA for each affected employee per HMIS-PRO-SP-11058, <i>Occupational Medical Qualification and Monitoring using EJTA</i>.</p> <p>NOTE 1: <i>For an employee not already enrolled in the Current Asbestos Workers Medical Program, revising their EJTA in a manner that indicates the need for enrollment in the program will trigger the scheduling of an initial asbestos medical exam for the employee. Annual asbestos exams are automatically scheduled for employees enrolled in the Current Asbestos Workers Medical Program.</i></p> <p>NOTE 2: <i>If HMIS subcontractor employees have potential for asbestos exposures, consult HMIS-PRO-SP-11058, Occupational Medical Qualification and Monitoring using EJTA.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
3.	<p>Line management shall revise an employee's EJTA, document the reason for the revision and re-submit the EJTA whenever:</p> <ul style="list-style-type: none"> • The number of days on which the employee is occupationally exposed to asbestos at or above the PEL and/or EL changes from less than 30 days per year to equal to or more than 30/days per year; or • The number of days on which the employee is occupationally exposed to asbestos at or above the PEL and/or EL changes from equal to or more than 30 days per year to less than 30 days per year; or • An employee in the asbestos medical surveillance program will no longer be exposed to asbestos at or above the PEL and/or EL, or • An employee in the asbestos medical surveillance program leaves HMIS or HMIS subcontractor employment. 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	Prior to or upon completion of an employee EJTA revision indicating asbestos exposure at or above the PEL and/or EL, line management shall ensure that the employee is enrolled in the appropriate type of asbestos training, as detailed in section 2.11.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	Project/facility S&H professionals shall notify line management of employees who need to be enrolled in the <i>Current Asbestos Workers Medical Program</i> as well as those who no longer meet the exposure criteria for continued enrollment. Such notifications shall be based on exposure monitoring data, hazard assessment results or other definitive means as identified in SP-PRO-SP-17916 , <i>Industrial Hygiene Baseline Hazard Assessments</i> .	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management shall ensure that provisions of the Site Occupational Medical Contractor (SOMC) or other employee-designated physician) medical opinion are strictly adhered to (subject to applicable terms of an in-	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
	<p>effect collective bargaining agreement), including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Protective measures; • Work limitations; • Respirator use restrictions. <p>NOTE: <i>10CFR 851, Appendix A, Item 8, as implemented by DOE-RL for Hanford Site contractors, gives the Hanford SOMC the responsibility to conduct medical surveillance for HMIS employees occupationally exposed to asbestos, according to the requirements in 29 CFR 1926.1101, Asbestos (Construction). The medical surveillance program is assumed to include the following activities:</i></p> <ul style="list-style-type: none"> • <i>Through the medical scheduling system, assisting line management in scheduling employees for baseline, periodic, and closeout asbestos medical surveillance exams, as per the contents of submitted employee EJTs;</i> • <i>Medical surveillance and monitoring per the provisions of 29 CFR 1910.1101(m)(2).</i> • <i>Informing both the employee and the employee's line management, of contents of the written medical opinion necessary to initiate compliance with protective measures, work limitations and/or respirator use restrictions.</i> 		
7.	Project/facility S&H professionals shall assist line management in interpreting the Industrial Hygiene aspects of medical opinions and recommendations and shall interface with the SOMC as necessary.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

2.10 Hazard Communication

#	REQUIREMENT	TYPE V or I	SOURCE
1.	<p>Line managers supervising asbestos construction projects, or the assigned asbestos competent person shall ensure communication of asbestos hazards during construction activities to all affected employer and employees, including those on multi-employer work sites, contractor/subcontractor, facility/building owner and building occupants.</p> <p><i>NOTE: Facility Manager/building owner requirements are specified in HMIS-RD-SP-15245, Asbestos Control – General Industry.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	<p>Line managers supervising asbestos construction projects, or the assigned asbestos competent person shall request from the facility manager documentation describing the presence, location, and condition of the ACM or PACM for the worksite.</p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	<p>Prior to commencement of all construction activities, line managers supervising asbestos construction projects, or the assigned asbestos competent person shall notify the facility manager (or designated building owner) and other managers of employees in the work area of planned activities that may disturb ACM or PACM, the engineering controls, work practices other measures taken to prevent asbestos exposure and the requirements of regulated areas, when established.</p> <p><i>EXCEPTION: This notification does not apply to materials that have been proven to be asbestos-free by using the determination specified in section 1.0.</i></p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	<p>Line management shall promote the use of asbestos-free products for new or replacement applications. If new asbestos containing products are installed, such as in some roofing materials, obtain hazard communication information or Safety Data Sheets</p>	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
8.	<p>Line managers and/or assigned asbestos competent persons shall advise building/facility owner of unlabeled/undesignated installed ACMs, to assist them in meeting their building/ facility owner responsibilities to label ACMs under HMIS-RD-SP-15245, <i>Asbestos Control – General Industry</i>.</p> <p>NOTE 1: <i>For installed ACMs, signs may be posted in lieu of the use of labels, if the appropriate hazard communication information is available to employees.</i></p> <p>NOTE 2: <i>Labels are not required when:</i></p> <ul style="list-style-type: none"> <i>Asbestos fibers have been modified by a bonding agent, coating or other material and the manufacturer can demonstrate that during reasonable use and handling, the airborne concentration of airborne fibers will not exceed the PEL or EL, or</i> <i>Asbestos is present in concentrations less than 1.0% by weight.</i> 	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
		V	29 CFR 1926.1101 (k)(8)(vi)(A)
		V	29 CFR 1926.1101 (k)(8)(vi)(B)

2.11 Employee Information and Training

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall ensure that initial training is provided, prior to job assignment to employees exposed or potentially exposed in excess of the PEL or EL and for employees performing Class I - IV work (see Table 3). The facility S&H professional shall be consulted to determine training requirements for specific activities.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101 40CFR 60 Subpart M 40 CFR 60.145(c)(8)
2.	Line management shall ensure that annual refresher training is provided for employees exposed or potentially exposed in excess of the PEL or EL and for employees performing Class I - IV work.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
3.	If the category of work is unclear, or there is a combination of activities, assume the higher, more restrictive category applies and line management shall ensure that the higher level of training is provided to affected employees.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	HMIS training shall provide proof of an employee's successful completion of training to the employee and employee's manager as required.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
5.	HMIS training shall maintain all employee records of training required by this program for at least one year beyond the length of employment.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

Table 3. Asbestos Construction Training Requirements

Role	Activity/Operation	Type of Training/Course
Asbestos Worker	Class I	Asbestos Abatement Worker ¹
	Class II	Asbestos Abatement Worker
	Other Class II	OSHA-specific (see below)
	Class III	Operations and Maintenance ²
	Class IV	Asbestos Awareness ³
Asbestos Competent Person	Class I and II	Asbestos Supervisor ⁴
	Class III and IV	Operations and Maintenance ²
Asbestos Inspector	Required for all persons who determine the presence/location or assess the condition of ACM/PACM by visual, physical exam or bulk sampling.	Asbestos Inspector ⁵
Asbestos Project Designer ⁶	Employees who design alternate control methods for Class I work.	Asbestos Project Designer ⁷

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Table 3. Asbestos Construction Training Requirements

Role	Activity/Operation	Type of Training/Course
Facility S&H professional	Recommended minimum training for facility S&H professionals performing general support of asbestos projects.	Asbestos Awareness ¹
	Facility S&H professionals designated or functioning as Asbestos Project Designer, Asbestos Inspector, Asbestos Competent Person.	Training for specific roles ^{4,5,6}
RCT	RCTs provide radiological control as primary support and are not considered asbestos workers.	Asbestos Awareness (recommended)
"Non-Asbestos" Workers	<ul style="list-style-type: none"> Workers performing incidental roof work. Employees exposed at or above the PEL. 	<ul style="list-style-type: none"> Asbestos Awareness or <u>OSHA-Specific Training</u> 1926.1101(k)(9)(viii) elements & additional training on specific controls + hands-on.
<p>¹ Course equivalent in curriculum, training method, and length as EPA Model Accreditation Plan (MAP) Asbestos Abatement Workers training, (40 CFR part 763, subpart E, appendix C, paragraph B, item 1).</p> <p>² Course consistent with EPA requirements for training of local education agency maintenance and custodial staff, as set forth in 40 CFR 763.92 (a)(2).</p> <p>³ Course consistent with EPA requirements for training of local education agency maintenance and custodial staff, as set forth in 40 CFR 763.92 (a)(1).</p> <p>⁴ Course meets criteria of EPA (MAP) for supervisors, 40 CFR part 763, subpart E, App. C, Paragraph B, item 2.</p> <p>⁵ Course meets criteria of EPA (MAP) for inspectors, 40 CFR part 763, subpart E, App. C, Paragraph B, item 3.</p> <p>⁶ Other activities to be performed by AHERA accredited Asbestos Project Designers are specified in 40 CFR part 763, subpart E, App. C, Paragraph B, item 5.</p> <p>⁷ Abatement project designer qualifications as specified by 40 CFR part 763, subpart E, App. C, Paragraph E.</p>		

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

2.12 Multi-Employer Workplaces

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Line management shall be responsible for determining the status of compliance with all requirements in this RD for HMIS subcontractors performing asbestos construction work on/at a facility under his/her jurisdiction and/or which potentially exposes employee he/she manages to asbestos and to implement measures to ensure the subcontractor comes into compliance, when necessary.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
2.	Line management shall require daily verification of effectiveness of control methods or integrity of enclosures to prevent migration of asbestos fibers into non-regulated areas when asbestos construction work is being performed on/at a facility under his/her jurisdiction and/or which potentially exposes employee he/she manages to asbestos.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
3.	On multi-employer work sites whose activities impact ACMs or PACMs, line management and/or the assigned asbestos competent person shall notify affected employers of work activities and planned measures to prevent asbestos exposure.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
4.	When activities require the establishment of a regulated area, the asbestos competent person shall provide written notification of planned activities to the facility manager (or designated building owner) and other worksite employers. Include information on the nature of the work with ACMs or PACMs, the requirements related to the regulated area and the preventive measures to prevent exposure to others on the work site.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

#	REQUIREMENT	TYPE V or I	SOURCE
5.	If asbestos hazards are created, line management and/or the assigned asbestos competent person shall implement appropriate measures to abate the hazard and notify the facility manager or designated building owner and managers of other employees working in the area affected by the hazard.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101
6.	Line management shall ensure protective measures are implemented for employees if they may be exposed to asbestos hazards created by other workforces.	I	10 CFR 851.23 and 10 CFR 851, App A, item 6; 29 CFR 1926.1101

3.0 SOURCES

3.1 Source Requirements

10 CFR 851, *Worker Safety and Health Program*
 29 CFR 1910.1001, *Asbestos (General Industry)*
 29 CFR 1910.134, *Respiratory Protection*
 29 CFR 1910.141, *Sanitation*
 29 CFR 1926.1101, *Asbestos (Construction)*
 40 CFR, Part 763, *Asbestos*

3.2 References

40 CFR 60, Subpart M, National Emission Standard for Asbestos
 DOE-0352, *Hanford Site Respiratory Protection Program*
[HMIS-PRO-EI-15333](#), *Environmental Protection Processes*
[HMIS-PRO-EI-15335](#), *Environmental Permitting and Documentation Preparation*
 HMIS-PRO-RM-10588, *Records Management Processes*
 HMIS-PRO-SP-11058, *Occupational Medical Qualification and Monitoring Using EJTA*
 HMIS-PRO-SP-409, *Industrial Hygiene Monitoring, Reporting and Records Management*
 HMIS-RD-SP-15245, *Asbestos Control - General Industry*
 ISO 29463, *High-Efficiency Filters and Filter Media for Removing Particles in Air*
 MIL-STD 282, *Filter Units, Protective Clothing, Gas-Mask Components and Related Products: Performance Test Methods*
 SP-PRO-SP-17916, *Industrial Hygiene Baseline Hazard Assessments*

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Appendix A. Control by Work Classification**A. Required/Prohibited Work Practices and Engineering Controls for All Classes of Asbestos Work Covered by this RD: 29 CFR 1926.1101(g)**

1. Regardless of the levels of exposure:
 - a. Vacuum cleaners equipped with HEPA filters to collect dust and debris containing ACM and PACM.
 - b. Wet methods or wetting agents during asbestos handling, mixing, removal, cutting, application and cleanup (except where not feasible due to other hazards, i.e. electrical).
 - c. Prompt cleanup and disposal of wastes and debris contaminated with asbestos in leak-tight containers.

NOTE: *Exceptions: Some roofing materials (see Parts [D](#) and [E](#))*

2. To maintain exposures below the PEL or EL:
 - a. Local exhaust ventilation equipped with HEPA filtered dust collection systems.
 - b. Enclosures or isolation of processes producing asbestos dust.
 - c. Ventilation of the regulated area to ensure movement of contaminated air away from the employee and towards a dust filtration or collection device equipped with HEPA filters.
 - d. Use of other controls/work practices, as feasible.

NOTE: *In all cases, specified engineering and work practice controls shall be utilized to reduce employee exposure levels to the lowest attainable levels. Use of respiratory protective equipment is required, as a supplemental control, whenever feasible engineering and work practice controls are not sufficient to reduce exposures below the PEL or EL.*

3. Prohibited practices, regardless of measured levels of exposure:
 - a. Use of high-speed abrasive disc saws without point of cut ventilator or HEPA filtered enclosures.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- b. Use of compressed air to remove ACM and/or PACM when the compressed air is not part of an enclosed system.
- c. Dry sweeping, shoveling or cleanup of dust and debris.
- d. Employee rotation as a means to reduce employee exposure.

B. Class I Asbestos Work: 29 CFR 1926.1101(g)(4)

In addition to following/observing all required/prohibited work practices and engineering controls specified in [Part A](#), the following is followed/observed for all Class I asbestos work covered by this RD.

1. Supervised by competent person, as defined by [Appendix B](#).
2. Critical barriers/isolation methods required to prevent migration of airborne asbestos from the regulated area if:
 - 25 linear or 10 square feet of TSI or SM removal.
 - <25 linear or 10 square feet of TSI or SM removal only if no "negative exposure assessment" where employees are working adjacent to the regulated area, while Class I work is being performed.
3. If isolation methods other than critical barriers are used for work specified in Item 2, a perimeter area surveillance is performed during each work shift at boundaries of the regulated area and perimeter area monitoring is conducted to ensure clearance levels specified in 40 CFR 763, Subpart E have been met or are no more than background level, representing the same area before asbestos work began. (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(4)(ii)(B)*).
4. HVAC isolation required. (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(4)(iii)*).
5. Drop cloths required. (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(4)(iv)* and (v)).
6. Directed ventilation if no negative exposure assessment or > PEL. (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(4)(vi)*).
7. One or more of the following controls must be used, as listed (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)*) and subject to the specifications/work practices in the referenced subsections of 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)*.

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- Glove bag for straight runs of pipe, elbows and other connections (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)(ii)*).
- Negative-pressure glove bag for pipe runs. (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)(iii)*).
- Negative pressure glovebox system for pipe runs (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)(iv)*).
- Water spray process for cold line piping (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)(v)*).
- Mini-enclosures (per 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)(vi)*).

8. For outdoor work:

- Perimeter monitoring or critical barriers not required, if using controls listed in 29 CFR 1926.1101, *Asbestos (Construction)(g)(5)* and there are no other employees working in the area adjacent to the regulated area.
- NPE (negative pressure enclosures) and mini-enclosures are not required if other workforces not in the area.

C. Class I Alternate Controls: 29 CFR 1926.1101(g)(6)

1. For < 25 linear or 10 square feet:

- Competent person evaluates work area, work practices, and engineering controls to ensure exposure is < PEL.
- Enclose, contain, or isolate, or capture or redirect away from employee's breathing zone.
- Worst case employee exposure monitoring.
- May omit perimeter or clearance monitoring for work completed outdoors where employees are not working in areas adjacent to regulated areas.

2. For > 25 linear or 10 square feet:

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- Enclose, contain, or isolate, or capture or redirect away from employee's breathing zone.
- Certified Industrial Hygienist (CIH) or Professional Engineer (PE), either of which must also be qualified and accredited as a "Project Designer", evaluates work area, work practices, and engineering controls, and certifies in writing that the control method is adequate to reduce direct and indirect exposures to below the PEL.
- Use worst-case exposure monitoring.
- Perimeter monitoring showing clearance levels of ≤ 0.01 f/cc or no more than background level before work began.

D. Class II Asbestos Work

In addition to following/observing all required/prohibited work practices and engineering controls specified in [Part A](#), the following are followed/observed for all Class II asbestos work covered by this RD.

1. Supervised by competent person, as defined by [Appendix B](#).
2. For indoor work only:
 - a. Critical barriers/isolation methods required if:
 - No negative exposure assessment.
 - When, during the job, conditions indicate exposures are or may be above the PEL.
 - ACM not removed in a substantially intact state.
 - b. Perimeter monitoring/clearance sampling required if critical barriers, as required in a., above, are not used.
 - c. Drop cloths required on surfaces beneath removal activity.
3. For removal of vinyl and asphalt flooring materials containing ACM/PACM, as required by 29 CFR 1926.1101 (g)(8)(i):
 - a. No sanding of flooring or floor backing.
 - b. HEPA vacuum used to clean floors.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- c. Wet methods used during removal/de-lamination of resilient floor sheeting and for scraping of residual adhesives and/or backings.
 - d. *No* dry sweeping/scraping, ripping of material.
 - e. Mechanical chipping prohibited unless done in negative-pressure enclosure.
 - f. Intact removal of tiles, if possible.
 - g. May use dry heat removal of tiles and omit wetting if tiles are kept intact.
 - h. Assume flooring material, mastic and backing contains asbestos unless analysis proves otherwise.
4. For removal of roofing materials containing ACM/PACM: (29 CFR 1926.1101 (g)(8)(ii):
- a. Intact removal, if possible.
 - b. Wet methods required for non-intact materials, unless a competent person determines wetting methods are not feasible because of additional safety hazards (not required for removal of INTACT materials).
 - c. Wet methods or respirators not required on sloped roof, based on negative exposure assessment and ACM removed is intact.
 - d. Wet methods and HEPA vacuum not required for removal of intact sections of ACM <25 sq ft in 1 day if manual methods of removal will keep material intact and no visible dust is created.
 - e. Continuous misting of cutting machine, unless a competent person determines the use will result in additional hazards.
 - f. HEPA vacuum dust and debris associated with non-intact sources of ACM.
 - g. Remove intact ACM from the roof as soon as practical or at end of work shift.
 - h. Dropping ACM roofing material to ground from roof is prohibited; carry by hand or by use of covered, dust-tight crane or hoist.
 - i. Non-intact material, once removed, are lowered to ground as soon as practical and by end of work shift. While non-intact materials remain on the roof it is kept wet, placed in waste bags or wrapped in plastic sheeting.

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- j. Bag, containerize, and label ACM dust and debris.
 - k. Unwrapped ACM materials are transferred to closed and labeled receptacles.
 - l. Roof vent system air intakes sources isolated, or HVAC shut down.
 - m. Use of power roof cutters to remove built up roofing with ACM roofing felts and aggregate surface requires HEPA; ACM felts with smooth surface can be HEPA or wet-swept.
5. For removal of cementitious asbestos-containing siding, shingles, or transite panels on building exteriors (other than roofs): (29 CFR 1926.1101 (g)(8)(iii):
- a. Intact removal, unless can demonstrate that method less likely to result in asbestos fiber release cannot be used.
 - b. Spraying with amended water prior to removal.
 - c. Unwrapped, unbagged panels immediately lowered to ground via dust-tight chute, crane or hoist by day's end or placed in waste bag/plastic sheeting and lowered to ground no later than end of shift.
 - d. Cut nail heads.
6. For removal of gaskets: (29 CFR 1926.1101 (g)(8)(iv):
- a. Intact removal, if possible.
 - b. Use glove bags if intact removal unlikely.
 - c. Immediate disposal.
 - d. Wet scraping to remove residue.
7. For other Class II work for which specific controls are not listed above, per 29 CFR 1926.1101 (g)(8)(v):
- a. Wetted with amended water.
 - b. Intact removal if feasible.

NOTE: *Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.*

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

- c. Cutting, grinding, abrading or breaking prohibited.
- d. Prompt bagging and disposal by end of shift.

E. Class II Alternate Controls: (29 CFR 1926.1101 (g)(8)(vi):

1. Competent person evaluates work area, work practices, and engineering controls, and certifies in writing that the control method is adequate to reduce direct and indirect exposures to below the PEL.
2. Worst case exposure monitoring under similar work conditions, employee training and experience to demonstrate exposures < PEL under any anticipated circumstances.

F. Class III Asbestos Work: 29 CFR 1926-1101 (g)(9):

In addition to following/observing all required/prohibited work practices and engineering controls specified in [Part A](#), the following are followed/observed for all Class III asbestos work covered by this RD.

1. Supervised by competent person, as defined by [Appendix B](#).
2. Area containment using drop cloths and barriers or isolation using Class I controls system if:
 - No negative exposure assessment.
 - >PEL via monitoring results.
3. Local HEPA exhaust required, where feasible.
4. If TSI or SM is drilled, cut, abraded, sanded, sawed, chipped or broken, drop cloths required and isolation using mini-enclosures or glove bag systems is required.
5. Wet methods.
6. Respiratory protective equipment in compliance with [Section 2.6](#) is required when TSI/SM is disturbed during Class III asbestos work or when there is not negative exposure assessment or there is or is anticipated to be an exceedance of the PEL.

G. Class IV Asbestos Work

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

In addition to following/observing all required/prohibited work practices and engineering controls specified in [Part A](#), the following is followed/observed for all Class IV asbestos work covered by this RD.

1. Supervised by a competent person, as defined by [Appendix B](#).
2. Employees cleaning up debris and waste in a regulated area where respirators are required wear respirators which are selected, used and fitted pursuant to provisions of section 2.6.
3. In areas where friable TSI or SM is accessible to employees and/or areas in which employees clean up waste and debris, the waste and debris is assumed to contain asbestos and shall be handled and disposed of accordingly.

H. Alternate Methods of Compliance for Installation, Removal, Repair and Maintenance of Certain Roofing and Pipeline Coating Materials

Provisions of 29 CFR 1926.1101 (g)(11) are complied with when installing, removing, repairing or maintaining intact pipeline asphaltic wrap, or roof flashings that contain asbestos fibers encapsulated or coated by bituminous or resinous compounds. If all provisions of 29 CFR 1926.1101, *Asbestos (Construction)*(g)(11) are not complied with or, if during the course of the job, the material does not remain intact, then the job is managed as a Class II asbestos activity and complies with the requirements for roofing materials noted in [Part D.4](#).

1. Prior to job, competent person inspects worksite to determine if material is intact and will remain intact.
2. Sanding, abrading, grinding is prohibited.
3. Wet methods must be used for removal of pipeline asphaltic wrap.
4. Manual methods of removal only, material remaining intact.
5. Dropping material to ground from roof is prohibited; carry by hand or by use of covered, dust-tight crane or hoist.
6. Material is removed from roof by end of work shift.
7. Employees are trained per requirements of 29 CFR 1926.1191 (k)(9)(viii).

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Appendix B. Glossary

Aggressive method means removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.

Amended water means water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered. For purposes of this procedure "asbestos" includes PACM, as defined below.

Asbestos-Containing Material (ACM), means any material containing more than one percent asbestos.

Authorized person means any person authorized by the employer and required by work duties to be present in regulated areas.

Building/facility owner is the legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by this procedure take place.

Certified Industrial Hygienist (CIH) means one certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.

Class I asbestos work means activities involving the removal of TSI and surfacing ACM and PACM.

Class II asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III asbestos work means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

Clean room means an uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Closely resemble means that the major workplace conditions which have contributed to the levels of historic asbestos exposure, are no more protective than conditions of the current workplace.

Competent person means, in addition to the definition in 29 CFR 1926.32 (f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2).

Critical barrier means one or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

Decontamination area means an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition means the wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

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 which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.

Employee exposure means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

Equipment room (change room) means a contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Excursion Limit (EL): The maximum level of airborne asbestos fibers an employee may be exposed to when measured as a 30-minute peak exposure. The EL is 1.0 f/cc of air, averaged over a 30-minute sampling period.

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Fiber means a particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Glovebag means not more than a 60 x 60-inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.

High-Efficiency Particulate Air (HEPA) filter means a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.

Homogeneous area means an area of surfacing material or thermal system insulation that is uniform in color and texture.

Industrial hygienist means a professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.

Intact means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

Modification for purposes of paragraph 29 CFR 1926.1101(g)(6)(ii), means a changed or altered procedure, material or component of a control system, which replaces a procedure, material or component of a required system. Omitting a procedure or component or reducing or diminishing the stringency or strength of a material or component of the control system is not a "modification" for purposes of paragraph 29 CFR 1926.1101(g)(6).

Negative Initial Exposure Assessment means a demonstration by the employer, which complies with the criteria in paragraph 29 CFR 1926.1101(f)(2)(iii) and Section 2.1 of this procedure that employee exposure during an operation is expected to be consistently below the PELs.

PACM means "presumed asbestos containing material".

Permissible Exposure Limit (PEL): The maximum level of airborne asbestos fibers an employee may be exposed to when measured as an eight-hour time weighted average (TWA). The PEL is 0.1 f/cc. Also see **excursion limit**.

Presumed Asbestos Containing Material (PACMs), as defined in 29 CFR 1910.1001, are all TSI, sprayed on and troweled on surfacing materials, asphalt and vinyl flooring materials found in buildings constructed no later than 1980. Due to potential of ACM being installed after 1980, for purposes of this RD, PACMs will be conservatively identified in buildings constructed no later than 1985.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Project Designer means a person who has successfully completed the training requirements for an abatement project designer established by 40 U.S.C. Sec. 763.90(g).

Regulated area means an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit. Requirements for regulated areas are set out in paragraph 29 CFR 1926.1101(e) and Section 2.5 of this procedure.

Removal means all operations where ACM and/or PACM is taken out or stripped from structures or substrates and includes demolition operations.

Renovation means the modifying of any existing structure, or portion thereof.

Repair means overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

Surfacing material means material that is sprayed, troweled-on, or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

Surfacing ACM means surfacing material which contains more than 1% asbestos.

Thermal System Insulation (TSI) means ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Appendix C. Provisions by Work Class

Quick Reference of Provisions by Work Class*

	Class I	Class II	Class III	Class IV
Definition	Removal of thermal system insulation (TSI) and surfacing material (SM) containing > 1% asbestos	Removal of material other than TSI or SM containing > 1% asbestos	Maintenance and repair operations disturbing material containing > 1% asbestos	Housekeeping and custodial cleanup of dust, waste, and debris from Class I, II, or III activities
Regulated Areas	Required (warning signs mandatory)	Required (warning signs mandatory)	Required (warning signs mandatory)	Required (warning signs mandatory)
Competent Person	<ul style="list-style-type: none"> ■ Must be onsite ■ Must inspect each workshift ■ Must attend supervisory training 	<ul style="list-style-type: none"> ■ Must be onsite ■ Must inspect often ■ Must attend supervisory training 	<ul style="list-style-type: none"> ■ Must be onsite ■ Must inspect often ■ Must attend operational and maintenance training 	<ul style="list-style-type: none"> ■ Must be onsite ■ Must inspect often ■ Must attend operational and maintenance training
Air Monitoring	<ul style="list-style-type: none"> ■ Initial if no negative exposure assessment (NEA) ■ Daily unless positive pressure mode respirator is used ■ Additional if conditions change <p>Note: Terminate if < permissible exposure limits (PELs)</p>	<ul style="list-style-type: none"> ■ Initial if no NEA ■ Daily unless positive pressure mode respirator is used ■ Additional if conditions change <p>Note: Terminate if < PELs</p>	<ul style="list-style-type: none"> ■ Initial if no NEA ■ Periodic to accurately predict if > PELs ■ Additional if conditions change <p>Note: Terminate if < PELs</p>	<ul style="list-style-type: none"> ■ Initial if no NEA ■ Periodic to accurately predict if > PELs ■ Additional if conditions change <p>Note: Terminate if < PELs</p>

37 *This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.

38

Quick Reference of Provisions by Work Class* (continued)

	Class I	Class II	Class III	Class IV
Medical Surveillance	Required if <ul style="list-style-type: none"> ■ Wearing negative-pressure respirator, or ■ > 30 days of work/year 	Required if <ul style="list-style-type: none"> ■ Wearing negative-pressure respirator, or ■ > 30 days of work/year 	Required if <ul style="list-style-type: none"> ■ Wearing negative-pressure respirator, or ■ > 30 days of work/year 	Required if <ul style="list-style-type: none"> ■ Wearing negative-pressure respirator, or ■ > PEL for more than 30 days/year
Respirators	Mandatory for all Class I jobs	Mandatory if <ul style="list-style-type: none"> ■ Non-intact removal, or ■ No NEA, or ■ > PEL, or ■ Dry removal (except for roofing), or ■ In emergencies 	Mandatory if <ul style="list-style-type: none"> ■ No NEA, or ■ TSI or SM disturbed, or ■ > PEL, or ■ Dry removal (except for roofing), or ■ In emergencies 	Mandatory <ul style="list-style-type: none"> ■ In regulated area where required, or ■ If > PEL, or ■ In emergencies
Protective Clothing and Equipment	Required for all jobs if <ul style="list-style-type: none"> ■ > 25 linear or 10 square feet of TSI or ■ SM removal, or ■ No NEA, or ■ > PEL 	Required for all jobs if <ul style="list-style-type: none"> ■ No NEA, or ■ > PEL 	Required for all jobs if <ul style="list-style-type: none"> ■ No NEA, or ■ > PEL 	Required for all jobs if <ul style="list-style-type: none"> ■ No NEA, or ■ > PEL
Training	Equivalent to EPA Model Accreditation Plan (MAP) asbestos abatement workers course	Equivalent to MAP course if critical barriers required; otherwise, train on specific work practices and engineering controls that must be used	Equivalent to AHERA course for maintenance and custodial staff	Equivalent to AHERA course for maintenance and custodial staff

*This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Quick Reference of Provisions by Work Class* (continued)

	Class I	Class II	Class III	Class IV
Employee and Equipment Decontamination	<p>Required if > 25 linear or 10 square feet TSI or SM removal</p> <ul style="list-style-type: none"> ■ Pull decon unit ■ Equipment room, shower, and clean room in series connected to the regulated area; other decon facility arrangements are acceptable if the specified series arrangement is not feasible (see 29 CFR Part 1926.1101, Subpart Z) ■ Lunch areas <p>Note: Must follow detailed decontamination procedures (see 29 CFR Part 1926.1101(j)(1)(iii))</p> <p>If < 25 linear or 10 square feet TSI or SM removal</p> <ul style="list-style-type: none"> ■ Equipment room/area required ■ Impermeable dropcloths required ■ Area must accommodate cleanup ■ Must decontaminate all personal protective equipment (PPE) ■ Must enter regulated area through equipment room/decon area <p>No smoking in work area</p>	<p>If > PEL or no NEA</p> <ul style="list-style-type: none"> ■ Equipment room/area required ■ Impermeable dropcloths required ■ Area must accommodate cleanup ■ Must clean work clothes with HEPA vacuum before removal ■ Must Decontaminate all PPE ■ Must enter regulated area through equipment room/decon area ■ Must enter regulated area through equipment room/decon area <p>No smoking in work area</p>	<p>If > PEL or no NEA</p> <ul style="list-style-type: none"> ■ Equipment room/area required ■ Impermeable dropcloths required ■ Area must accommodate cleanup ■ Must clean work clothes with HEPA vacuum before removal ■ Must Decontaminate all PPE ■ Must enter regulated area through equipment room/decon area ■ Must enter regulated area through equipment room/decon area <p>If NEA must vacuum</p> <p>No smoking in work area</p>	<p>If cleaning up asbestos containing surfacing material or thermal system insulation debris from a Class I or III activity after the activity is finished</p> <ul style="list-style-type: none"> ■ Equipment room/area required ■ Dropcloths required ■ Area must accommodate cleanup ■ Must clean work clothes with HEPA vacuum before removal ■ Must decontaminate all PPE ■ Must enter regulated area through equipment room/decon area <p>No smoking in work area</p> <p>Note: If cleaning up dust, waste, and debris while a Class I, II, or III activity is still in progress, the requirements of that activity apply.</p>

39

*This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.

Quick Reference of Provisions by Work Class* (continued)

	Class I	Class II	Class III	Class IV
Generally Required Work Practices and Engineering Controls	<ul style="list-style-type: none"> ■ Wet methods ■ HEPA vacuum ■ Prompt cleanup/disposal 	<ul style="list-style-type: none"> ■ Wet methods ■ HEPA vacuum ■ Prompt cleanup/disposal 	<ul style="list-style-type: none"> ■ Wet methods ■ HEPA vacuum ■ Prompt cleanup/disposal 	<ul style="list-style-type: none"> ■ Wet methods ■ HEPA vacuum ■ Prompt cleanup/disposal
Required Work Practices and Engineering Controls to Comply with PELs	<ul style="list-style-type: none"> ■ HEPA local exhaust ■ Enclosure or isolation ■ Directed ventilation ■ Other work practices ■ Respirators 	<ul style="list-style-type: none"> ■ HEPA local exhaust ■ Enclosure ■ Directed ventilation ■ Other work practices ■ Respirators 	<ul style="list-style-type: none"> ■ HEPA local exhaust ■ Enclosure ■ Directed ventilation ■ Other work practices ■ Respirators 	<ul style="list-style-type: none"> ■ HEPA local exhaust ■ Enclosure ■ Directed ventilation ■ Other work practices ■ Respirators
Prohibited Work Practices and Administrative Controls	<ul style="list-style-type: none"> ■ High-speed abrasive disc saws without HEPA ■ Compressed air without capture device ■ Dry sweeping/shoveling 	<ul style="list-style-type: none"> ■ High-speed abrasive disc saws without HEPA ■ Compressed air without capture device ■ Dry sweeping/shoveling 	<ul style="list-style-type: none"> ■ High-speed abrasive disc saws without HEPA ■ Compressed air without capture device ■ Dry sweeping/shoveling 	<ul style="list-style-type: none"> ■ High-speed abrasive disc saws without HEPA ■ Compressed air without capture device ■ Employee rotation
Controls and Work Practices	<ul style="list-style-type: none"> ■ Critical barriers/isolation methods required if <ul style="list-style-type: none"> • > 25 linear or 10 square feet of TSI or SM removal • < 25 linear or 10 square feet of TSI or SM removal only if no NEA or there are adjacent workers ■ HVAC isolation required 	<p>For indoor work only</p> <ul style="list-style-type: none"> ■ Critical barriers/isolation methods required if <ul style="list-style-type: none"> • no NEA • likely > a PEL • non-intact removal ■ Impermeable dropcloths required 	<ul style="list-style-type: none"> ■ Critical barriers required <ul style="list-style-type: none"> • If no NEA • > Pel via monitoring ■ Impermeable dropcloths required ■ Local HEPA exhaust required 	<p>See <i>Generally Required Work Practices and Engineering Controls</i> in this table.</p>

*This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS-PS to ensure the most current version is used to prevent unintended use of obsolete versions.

Asbestos Control – Construction Industry

Published Date: 01/13/2025

Effective Date: 02/10/2025

Quick Reference of Provisions by Work Class* (continued)

	Class I	Class II	Class III	Class IV
Controls and Work Practices (continued)	<ul style="list-style-type: none"> ■ Impermeable dropcloths required ■ Directed ventilation required if no NEA or > a PEL ■ Objects must be covered <p>One or more of the following controls must be used:</p> <ul style="list-style-type: none"> ■ Negative-pressure enclosure ■ Glove bag ■ Negative-pressure glove bag ■ Negative pressure glove box ■ Water spray process ■ Mini enclosure 	<p>For removal of vinyl and asphalt flooring materials</p> <ul style="list-style-type: none"> ■ No sanding ■ HEPA vacuum ■ Wet methods ■ No dry sweeping ■ Any mechanical chipping must be done in negative-pressure enclosure ■ Intact removal if possible ■ Dry heat removal allowed ■ Assume contains asbestos without an analysis <p>For removal of roofing materials</p> <ul style="list-style-type: none"> ■ Intact removal if possible ■ Wet methods if feasible ■ Cutting machine misting ■ HEPA-vacuum debris ■ Lower to ground as soon as possible but no later than day's end ■ Control dust of unbagged material ■ Prevent intake of airborne asbestos through roof vent system 	<p>Note: Enclosure or isolation of operation required if TSI or SM is drilled, cut, abraded, sanded, sawed, or chipped</p>	

41 *This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.

42 **Quick Reference of Provisions by Work Class* (continued)**

	Class I	Class II	Class III	Class IV
Controls and Work Practices (continued)		<p>For removal of cement-like siding, shingles, or transit panels</p> <ul style="list-style-type: none"> ■ Intact removal if possible ■ Wet Methods ■ Lower to ground via dust-tight chute, crane, or hoist immediately or place in an impervious waste bag or wrap in plastic sheeting and lower to ground by day's end ■ Cut nail heads <p>For removal of gaskets</p> <ul style="list-style-type: none"> ■ Use glove bags if not intact ■ Wet removal ■ Prompt disposal ■ Wet scraping <p>Additional requirements</p> <ul style="list-style-type: none"> ■ Wet methods ■ Intact removal if possible ■ Cutting, abrading, or breaking prohibited 		

*This is an overview of the standards' requirements. You must consult the standard for the specifics of the requirements for each class.