

Asbestos Protection Program

Contact: Director of Risk Management

1. Rogue Community College is committed to the safety of all employees regarding the potential exposure to Asbestos in the workplace. Rogue Community College is also committed to complying with all applicable federal, state and local health and safety codes and regulations. To ensure that all affected employees are provided with the necessary information and training, the following Asbestos Protection Program has been established. All employees of Rogue Community College will participate and comply with all sections of the Asbestos Protection Program. The written Asbestos Protection Program will be reviewed, updated and maintained by the Rogue Community College Risk Management Department. A printed copy of the program is available at the Risk Management office and online at <https://web.roguecc.edu/risk-management/campus-occupational-safety>.
2. Responsibilities
 - a. Employer
 - i. Rogue Community College will evaluate, develop and implement each area of the Asbestos Protection Program as required by OAR Division 2 Subdivision Z rule 1910.1001 – Asbestos
 - b. Employee
 - i. All employees of Rogue Community College will comply with each area of the Asbestos Protection Program while employed at Rogue Community College.
3. What is Asbestos
 - a. Asbestos is a naturally occurring mineral fiber. It was used in numerous building materials and vehicle products for its strength and ability to resist heat and corrosion before its dangerous health effects were discovered. Individual asbestos fibers cannot be seen by the naked eye, which puts workers at an increased risk. The Oregon Occupational Safety and Health Administration (OSHA) has regulations to protect workers from the hazards of asbestos.
 - b. Since 1972, OSHA has regulated asbestos exposure in general industry thereby causing a significant decline in the use of asbestos-containing materials. The revised standard continues to protect workers, in general, who are exposed to asbestos-containing materials but now includes provisions that apply to workers performing brake and clutch repair and to those doing housekeeping in buildings and facilities where asbestos-containing materials exist.
4. What is the Hazard

- a. Asbestos fibers are released into the air during activities that disturb asbestos-containing materials. The asbestos fibers can then be inhaled without knowing and trapped in the lungs. If swallowed, they can become embedded into the digestive tract as well. Asbestos is a known human carcinogen and can cause chronic lung disease as well as lung and other cancers. Symptoms and/or cancer may take many years to develop following exposure. Years of exposure to asbestos can cause numerous disabling or fatal diseases. Among these diseases are asbestosis, an emphysema like condition; lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the cells of membranes covering the lungs and body organs; and gastrointestinal cancer.

5. Where is the Hazard

- a. The hazard may occur during manufacturing of asbestos-containing products; performing brake or clutch repairs; renovating or demolishing buildings or ships; or cleanup from those activities; contact with deteriorating asbestos-containing materials and during cleanup after natural disasters. Some materials are presumed to contain asbestos if installed before 1981. Examples of these materials, as well as other presumed asbestos-containing materials are:
 - i. Thermal system insulation
 - ii. Roofing and siding shingles
 - iii. Vinyl floor tiles
 - iv. Plaster, cement, putties and caulk
 - v. Ceiling tiles and spray-on coatings
 - vi. Industrial pipe wrapping
 - vii. Heat-resistant textiles
 - viii. Automobile brake linings and clutch pads
- b. In buildings built before 1980, treat thermal system insulation and sprayed-on and troweled-on surfacing materials as asbestos-containing materials, unless properly analyzed and found not to contain more than 1 percent asbestos.
- c. Treat asphalt and vinyl flooring materials installed no later than 1980 as asbestos-containing, unless properly analyzed and found to contain no more than 1 percent asbestos.

6. OSHA Standards

- a. OSHA has three standards to protect workers from the hazards of asbestos depending on the type of workplace. Two of these standards potentially apply to Rogue Community College employees depending on the type of work they are performing. For complete information on all of the requirements, see the specific standards below:
 - i. General Industry: 29 CFR 1910.1001 covers work in general industry, such as exposure during brake and clutch repair, maintenance work, and manufacture of asbestos-containing products.

- ii. Construction: 29 CFR 1926.1101 covers construction, alteration, repair, maintenance, or renovation and demolition of structures containing asbestos.

7. Duties of Rogue Community College

- a. At any time, Rogue Community College may demonstrate, for purposes of this standard, that PACM does not contain asbestos. Rogue Community College is not required to communicate information about the presence of building material for which such a demonstration pursuant to the requirements of this standard has been made. However, in all such cases, the information, data and analysis supporting the determination that PACM does not contain asbestos, shall be retained pursuant to this standard.
- b. An employer or owner may demonstrate that PACM does not contain asbestos by the following:
 - i. Having a completed inspection conducted pursuant to the requirements of AHERA (40 CFR 763, Subpart E) which demonstrates that no ACM is present in the material; or
 - ii. Performing tests of the material containing PACM which demonstrate that no ACM is present in the material. Such tests shall include analysis of bulk samples collected in the manner described in 40 CFR 763.86. The tests, evaluation and sample collection shall be conducted by an accredited inspector or by a CIH. Analysis of samples shall be performed by persons or laboratories with proficiency demonstrated by current successful participation in a nationally recognized testing program such as the National Voluntary Laboratory Accreditation Program (NVLAP) or the National Institute for Standards and Technology (NIST) or the Round Robin for bulk samples administered by the American Industrial Hygiene Association (AIHA) or an equivalent nationally-recognized round robin testing program.
 - iii. Rogue Community College may demonstrate that flooring material including associated mastic and backing does not contain asbestos, by a determination of an industrial hygienist based upon recognized analytical techniques showing that the material is not ACM.

8. Exposure Limits

- a. Time-weighted average limit (TWA). Rogue Community will ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air as an eight (8)-hour time-weighted average (TWA) as determined by the prescribed method or by an equivalent method.
- b. Excursion limit. Rogue Community will ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes as determined by the prescribed method prescribed or by an equivalent method.

9. Exposure Controls

- a. Where the TWA and/or excursion limit is exceeded, Rogue Community College will establish and implement a written program to reduce employee exposure to or below the TWA and to or below the excursion limit by means of engineering and administrative controls and by the use of respiratory protection where required or permitted under this section.
- b. Engineering Controls
 - i. Local exhaust ventilation and dust collection systems shall be designed, constructed, installed, and maintained in accordance with good practices such as those found in the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979.
 - ii. All hand-operated and power-operated tools which would produce or release fibers of asbestos, such as, but not limited to, saws, scorers, abrasive wheels, and drills, shall be provided with local exhaust ventilation systems.
- c. Administrative Controls
 - i. Insofar as practicable, asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers so as to expose employees to levels in excess of the TWA and/or excursion limit, unless the usefulness of the product would be diminished thereby.
 - ii. No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos, shall be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to prevent effectively the release of airborne fibers.
- d. Personal Protective Equipment
 - i. Respiratory Protection
 - B. Any employee who is required to use a respirator due to possible or confirm asbestos exposure will:
 - a. Will be enrolled in the Rogue Community College Respiratory Protection Program and will meet all requirements as part of that program.
 - b. Use a respirator during periods necessary to install or implement feasible engineering and work-practice controls.
 - c. Use a respirator during work operations, such as maintenance and repair activities, for which engineering and administrative controls are not feasible.
 - d. Use a respirator during work operations for which feasible engineering and administrative controls are not yet sufficient to reduce employee exposure to or below the TWA and/or excursion limit.

- e. Respirators must be selected from among those jointly approved by the Mine Safety and Health Administration (MSHA) and NIOSH under the provisions of Title 30, CFR Part 11. Rogue Community College must provide a powered, air-purifying respirator in lieu of any negative-pressure respirator when the employee chooses it and when the respirator provides adequate protection.
- f. Employees who use a filter respirator must use a high-efficiency filter and must change filters whenever an increase in breathing resistance is detected. Employees who wear respirators must be allowed to wash their faces and respirator face pieces whenever necessary to prevent skin irritation associated with respirator use. An employee must not be assigned to tasks requiring the use of respirators if a physician determines that the employee is unable to function normally wearing a respirator or that the employee's safety and health or that of others would be affected by the employee's use of a respirator. In this case, Rogue Community College must assign the employee to another job or give the employee the opportunity to transfer to a different job that does not require the use of a respirator. The job must be with Rogue Community College and with the same seniority, status, rate of pay, if such a position is available.
- g. Rogue Community College must ensure that a respirator issued to an employee fits properly exhibits and minimum facepiece leakage. Rogue Community College must perform quantitative or qualitative fit tests, whichever are appropriate, at the time of initial fitting and at least every 6 months for each employee wearing negative-pressure respirators. Protocols for fit tests are set forth in 29 CFR 1910.1001 Appendix C of the standard. Tests must be used to select facepieces that provides required protection.

ii. Clothing

- B. If an employee is exposed to asbestos above the TWA and/or excursion limit, or where the possibility of eye irritation exists, Rogue Community College will provide at no cost to the employee and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:
 - a. Coveralls or similar full-body work clothing;
 - b. Gloves, head coverings, and foot coverings; and
 - c. Face shields, vented goggles, or other appropriate protective equipment which complies with 1910.133.
- C. Removal and storage.

- a. Rogue Community College will ensure that employees remove work clothing contaminated with asbestos only in approved changing rooms.
- b. Rogue Community College will ensure that no employee takes contaminated work clothing out of the change room, except those employees authorized to do so for the purpose of laundering, maintenance, or disposal.
- c. Contaminated work clothing shall be placed and stored in closed containers which prevent dispersion of the asbestos outside the container.
- d. Rogue Community College will ensure that containers of contaminated protective devices or work clothing, which are to be taken out of change rooms or the workplace for cleaning, maintenance or disposal, bear required labels.
- e. Rogue Community College will ensure that change rooms are in accordance with 1910.141(e), and are equipped with two separate lockers or storage facilities, so separated as to prevent contamination of the employee's street clothes from his protective work clothing and equipment.
- f. Rogue Community College will ensure that employees who work in areas where their airborne exposure is above the TWA and/or excursion limit, shower at the end of the work shift.
- g. Rogue Community College will ensure that employees who are required to shower do not leave the workplace wearing any clothing or equipment worn during the work shift.

D. Cleaning and replacement.

- a. Rogue Community College will clean, launder, repair, or replace protective clothing and equipment required by this paragraph to maintain their effectiveness. Rogue Community College will provide clean protective clothing and equipment at least weekly to each affected employee.
- b. Rogue Community College prohibits the removal of asbestos from protective clothing and equipment by blowing or shaking.
- c. Laundering of contaminated clothing shall be done so as to prevent the release of airborne fibers of asbestos in excess of the permissible exposure limits.
- d. Rogue Community College will inform any person who launders or cleans protective clothing or equipment contaminated with asbestos of the potentially harmful effects of exposure to asbestos.
- e. Rogue Community College will ensure that contaminated clothing is transported in sealed impermeable bags, or other closed, impermeable containers, and labeled as required.

e. Specific compliance methods for brake and clutch repair:

- i. Engineering controls and administrative controls for brake and clutch repair and service. During automotive brake and clutch inspection, disassembly, repair and assembly operations, Rogue Community College will institute engineering controls and administrative controls to reduce employee exposure to materials containing asbestos using a negative pressure enclosure/HEPA vacuum system method or low pressure/wet cleaning method. Rogue Community College may also comply using an equivalent method which follows written procedures which the employer demonstrates can achieve equivalent results.
- ii. Rogue Community College may also comply by using an equivalent method which follows written procedures, which the employer demonstrates can achieve equivalent exposure reductions as do the two "preferred methods." Such demonstration must include monitoring data conducted under workplace conditions closely resembling the process, type of asbestos containing materials, control method, work practices and environmental conditions which the equivalent method will be used, or objective data, which document that under all reasonably foreseeable conditions of brake and clutch repair applications, the method results in exposures which are equivalent to the prescribed methods.

10. Regulated Areas

- a. Rogue Community College will establish regulated areas wherever airborne concentrations of asbestos and/or PACM are in excess of the TWA and/or excursion limit prescribed in this program.
- b. Regulated areas shall be demarcated from the rest of the workplace in any manner that minimizes the number of persons who will be exposed to asbestos.
- c. Access to regulated areas shall be limited to authorized persons.
- d. Each person entering a regulated area shall be supplied with and required to use a respirator.
- e. Warning signs must be provided and displayed at each regulated area and must be posted at all approaches to all regulated areas. Where necessary, signs must bear pictures or graphics, or be written in appropriate language so that all employees understand them. These signs must bear the following information:

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|---|
| Danger Asbestos Cancer and Lung Disease Hazard Authorized Personnel Only Respirators and Protective |
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Clothing
Are Required in This Area

11. Warning Signs and Labels

- a. At the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM and/or PACM Rogue Community College will post signs which identify the material which is present, its location, and appropriate work practices which, if followed, will ensure that ACM and/or PACM will not be disturbed. Rogue Community College will ensure, to the extent feasible, that employees who come in contact with these signs can comprehend them. Means to ensure employee comprehension may include the use of foreign languages, pictographs, graphics, and awareness training.
- b. Labels shall be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers. When Rogue Community College identifies previously installed ACM and/or PACM, labels or signs shall be affixed or posted so that employees will be notified of what materials contain ACM and/or PACM. Rogue Community College will attach such labels in areas where they will clearly be noticed by employees who are likely to be exposed, such as at the entrance to mechanical room/areas. Signs required under this paragraph may be posted in lieu of labels so long as they contain the information required for labeling.
- c. In addition to the requirements of above paragraph, Rogue Community College will ensure that labels of bags or containers of protective clothing and equipment, scrap, waste, and debris containing asbestos fibers include the following information:
 - i. DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

12. Waste, scrap, debris, bags, containers, equipment, and clothing contaminated with asbestos consigned for disposal, shall be collected, recycled and disposed of in sealed impermeable bags, or other closed, impermeable containers.

13. Housekeeping

- a. All spills and sudden releases of material containing asbestos shall be cleaned up as soon as possible.
- b. All surfaces shall be maintained as free as practicable of ACM waste and debris and accompanying dust.

- c. HEPA-filtered vacuuming equipment shall be used for vacuuming asbestos containing waste and debris. The equipment shall be used and emptied in a manner which minimizes the reentry of asbestos into the workplace.
- d. Shoveling, dry sweeping and dry clean-up of asbestos may be used only where vacuuming and/or wet cleaning are not feasible.

14. Prohibited Practices

- a. Compressed air shall not be used to remove asbestos or materials containing asbestos unless the compressed air is used in conjunction with a ventilation system which effectively captures the dust cloud created by the compressed air.
- b. Sanding of asbestos-containing flooring material is prohibited.

15. Hazard Communication

- a. Employers shall include asbestos in the hazard communication program established to comply with the HCS (§1910.1200). Rogue Community College will ensure that each employee has access to labels on containers of asbestos and to safety data sheets, and is trained in accordance with the requirements of HCS.

16. Information and Training

- a. Rogue Community College must develop a training program for all employees who are exposed to airborne concentrations of asbestos at or above the PEL and/or EL. Training must be provided prior to or at the thereafter. The time of initial assignment and at least yearly thereafter. The training program must inform employees about ways in which they can safeguard their health.
- b. In addition, Rogue Community College must provide an awareness training course for employees who do housekeeping operations in facilities where asbestos-containing materials or presumed asbestos-containing materials are present. The elements of the course must include:
 - i. the health effects of asbestos;
 - ii. The relationship between smoking and exposure to asbestos producing lung cancer;
 - iii. locations, signs of damage and deterioration of asbestos-containing materials and presumed asbestos-containing materials;
 - iv. the proper response to fiber release episodes;
 - v. where the housekeeping requirements are found in the standard.
 - vi. The quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos;

- vii. The engineering controls and work practices associated with the employee's job assignment;
 - viii. The specific procedures implemented to protect employees from exposure to asbestos, such as appropriate work practices, emergency and clean-up procedures, and personal protective equipment to be used;
 - ix. The purpose, proper use, and limitations of respirators and protective clothing, if appropriate;
 - x. The purpose and a description of the medical surveillance program maintained by Rogue Community College.
- c. This training must be held annually and conducted so that all employees understand it.
- d. Also, all training materials must be available to the employees without cost and, upon request, to the Assistant Secretary for OSHA and the Director of NIOSH.

17. Exposure Monitoring

- a. Rogue Community College will perform initial monitoring of employees who are, or may reasonably be expected to be exposed to airborne concentrations at or above the TWA permissible exposure limit and/or excursion limit.
- b. Where Rogue Community College has relied upon objective data that demonstrate that asbestos is not capable of being released in airborne concentrations at or above the TWA permissible exposure limit and/or excursion limit under the expected conditions of processing, use, or handling, then no initial monitoring is required.
- c. Where Rogue Community College has monitored after March 31, 1992, for the TWA permissible exposure limit and/or the excursion limit, and the monitoring satisfies all other requirements of this program, Rogue Community College may rely on such earlier monitoring results to satisfy the requirements of this program.
- d. Rogue Community College must reinitiate monitoring whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to asbestos above the PEL and/or EL, or when Rogue Community College has reason to suspect that a change may result in new or additional exposures above the PEL and/or EL.
- e. After the initial determinations required by the program, samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees. In no case shall sampling be at intervals greater than six months for employees whose exposures may reasonably be foreseen to exceed the TWA permissible exposure limit and/or excursion limit.

- f. Determinations of employee exposure shall be made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee.
- g. Representative 8-hour TWA employee exposures shall be determined on the basis of one or more samples representing full-shift exposures for each shift for each employee in each job classification in each work area. Representative 30-minute short-term employee exposures shall be determined on the basis of one or more samples representing 30-minute exposures associated with operations that are most likely to produce exposures above the excursion limit for each shift for each job classification in each work area.
- h. Methods of Monitoring
 - i. All samples taken to satisfy the monitoring requirements of this program shall be personal samples.
 - ii. All samples taken to satisfy the monitoring requirements of this program shall be evaluated using the OSHA Reference Method (ORM) or an equivalent counting method.
 - iii. If an equivalent method to the ORM is used, Rogue Community College shall ensure that the method meets the following criteria:
 - B. Replicate exposure data used to establish equivalency are collected in side-by-side field and laboratory comparisons; and
 - C. The comparison indicates that 90% of the samples collected in the range 0.5 to 2.0 times the permissible limit have an accuracy range of plus or minus 25 percent of the ORM results at a 95% confidence level as demonstrated by a statistically valid protocol; and
 - D. The equivalent method is documented and the results of the comparison testing are maintained.
 - iv. To satisfy the monitoring requirements of this program, Rogue Community College must use the results of monitoring analysis performed by laboratories which have instituted quality assurance programs.
- i. Employee notification of monitoring results.
 - i. Rogue Community College must, within 15 working days after the receipt of the results of any monitoring performed under this section, notify each affected employee of these results either individually in writing or by posting the results in an appropriate location that is accessible to affected employees.
 - ii. The written notification shall contain the corrective action being taken by Rogue Community College to reduce employee exposure to or below the TWA and/or excursion limit, wherever monitoring results indicated that the TWA and/or excursion limit had been exceeded.
- j. Rogue Community College shall keep an accurate record of all measurements taken to monitor employee exposure to asbestos.

- k. This record shall include at least the following information:
 - i. The date of measurement;
 - ii. The operation involving exposure to asbestos which is being monitored;
 - iii. Sampling and analytical methods used and evidence of their accuracy;
 - iv. Number, duration, and results of samples taken;

18. Medical Surveillance

- a. Rogue Community College will institute a medical surveillance program for all employees who are or will be exposed to airborne concentrations of fibers of asbestos at or above the TWA and/or excursion limit.
- b. Rogue Community College will ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and shall be provided without cost to the employee and at a reasonable time and place.
- c. Before an employee is assigned to an occupation exposed to airborne concentrations of asbestos fibers at or above the TWA and/or excursion limit, a pre-placement medical examination shall be provided or made available by Rogue Community College.
- d. Periodic medical examinations shall be made available annually.
- e. Rogue Community College will provide, or make available, a termination of employment medical examination for any employee who has been exposed to airborne concentrations of fibers of asbestos at or above the TWA and/or excursion limit.
 - i. The medical examination shall be given within 30 calendar days before or after the date of termination of employment.
- f. No medical examination is required of any employee, if adequate records show that the employee has been examined in the past 1-year period. A pre-employment medical examination which was required as a condition of employment by Rogue Community College will not be used by Rogue Community College to meet the requirements of this paragraph, unless the cost of such examination is borne by Rogue Community College.
- g. Rogue Community College will provide the following information to the examining physician:
 - i. A copy of this program and the OSHA Asbestos standard including appendices D and E.
 - ii. A description of the affected employee's duties as they relate to the employee's exposure.
 - iii. The employee's representative exposure level or anticipated exposure level.
 - iv. A description of any personal protective and respiratory equipment used or to be used.

- v. Information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.
- h. Rogue Community College will obtain a written opinion from the examining physician. This written opinion shall contain the results of the medical examination and shall include:
 - i. The physician's opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos;
 - ii. Any recommended limitations on the employee or upon the use of personal protective equipment such as clothing or respirators;
 - iii. A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions resulting from asbestos exposure that require further explanation or treatment; and
 - iv. A statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.
- i. Rogue Community College will instruct the physician not to reveal in the written opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to asbestos.
- j. Rogue Community College will provide a copy of the physician's written opinion to the affected employee within 30 days from its receipt.

19. Recordkeeping

- a. Rogue Community College must keep an accurate record of all exposure measurements taken to monitor employee exposure to asbestos. This record must be kept for 30 years.
- b. Rogue Community College must maintain an accurate record for each employee subject to medical surveillance. This record must be maintained for the duration of employment plus 30 years and must include the following at a minimum:
 - i. The name and social security number of the employee;
 - ii. Physician's written opinions;
 - iii. Any employee medical complaints related to exposure to asbestos; and
 - iv. A copy of the information provided to the physician as required by the OSHA Asbestos Standard.
- c. In addition, Rogue Community College must maintain all employee training records for 1 year beyond the last date of employment by the employee.
- d. All records must be made available to the OSHA Assistant Secretary, the Director of the National Institute for Occupational Safety and Health (NIOSH), affected employees,

former employees, and designated representatives in accordance with 29 CFR Part 1910.20.

- e. Rogue Community College is also are required to maintain records about the presence, quantity of asbestos-containing material and presumed asbestos-containing material in the any building and/or facility.

20. Definitions

- a. Permissible Exposure Limit (PEL) for asbestos is 0.1 fiber per cubic centimeter of air as an eight-hour time-weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fibers per cubic centimeter over a 30-minute period. The employer must ensure that no one is exposed above these limits.
- b. Time-Weighted Average (TWA) - The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of (1 f/cc) as averaged over an 8-hour TWA day.
- c. Asbestos-containing material (ACM) means any material containing more than 1% asbestos.
- d. Excursion Limit (ELT) - The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (0.1 f/cc) as averaged over a sampling period of 30 minutes. OSHA has adopted the term "excursion limit" to refer to the short-term permissible exposure limit to be consistent with the terminology used by the American Conference of Governmental Industrial Hygienists (ACGIH).
- e. Authorized person means any person authorized by the employer and required by work duties to be present in regulated areas.
- f. Employee exposure means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- g. Fiber means a particulate form of asbestos 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.
- h. High-efficiency particulate air (HEPA) filter means a filter capable of trapping and retaining at least 99.97 percent of 0.3 micrometer diameter mono-disperse particles.
- i. Homogeneous area means an area of surfacing material or thermal system insulation that is uniform in color and texture.

- j. Industrial hygienist means a professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.
- k. PACM means “presumed asbestos containing material.”
- l. Presumed asbestos containing material means thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as "PACM" may be rebutted pursuant to paragraph (j)(8) of this section.
- m. Regulated area means an area established by the employer to demarcate areas where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limits.
- n. Surfacing ACM means surfacing material which contains more than 1% asbestos.
- o. 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).
- p. Thermal System Insulation (TSI) means ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.
- q. Thermal System Insulation ACM means thermal system insulation which contains more than 1% asbestos.