Asbestos is a mineral-based material that is resistant to heat and corrosive chemicals, and was widely used in the construction industry before 1981. Typically, asbestos appears as a whitish, fibrous material which may release fibers that range in texture from coarse to silky. The heaviest exposure to asbestos occurs in the construction industry primarily during renovation or demolition when asbestos is removed or disturbed. Asbestos can cause disabling respiratory diseases and various types of cancers if the fibers are inhaled or ingested. The symptoms of asbestos diseases generally do not appear for 20 or more years after initial exposure.

In **Part 602** Asbestos Standards for Construction, asbestos work is divided into four categories:

- Class I asbestos work means activities involving the removal of thermal system insulation (TSI) and surfacing asbestos-containing material (ACM) and presumed asbestos-containing material (PACM).
- Class II asbestos work means activities involving the removal of ACM which is not TSI or surfacing material. This work 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.

**Highlights of MIOSHA Part 602 Asbestos Standards for Construction:**

- **Communication of the Asbestos Hazard:**
  - PACM: Thermal system insulation and surfacing material found in buildings constructed no later than 1980 are presumed to contain asbestos unless rebutted in accordance with Paragraph (k)(5) of Part 602.
  - Asphalt and vinyl flooring material installed no later than 1980 must also be considered as asbestos-containing unless an industrial hygienist determines that it is asbestos-free using recognized analytical techniques.
  - Before work is begun, building and facility owners must determine the presence, location, and quantity of ACM and/or PACM at the work site, and must notify all affected persons.
  - Also, before work in areas containing ACM and/or PACM is begun, employers must identify the presence, location, and quantity of ACM, and/or PACM, and also must inform all affected persons.
All employers who discover ACM and/or PACM on a worksite must: (1) comply with the applicable protective provisions to protect their employees (for example, remove their employees from the area until the asbestos hazard is abated), and (2) convey information concerning the presence, location, and quantity of such newly discovered ACM and/or PACM to the owner and to other employers of employees working at the work site, within 24 hours of the discovery.

- **Competent Person:** Each employer must designate a competent person who has the qualifications and authorities to ensure worker safety and health during all asbestos-related work on a construction worksite.

- **Multi-employer Worksites:**
  - An employer performing work requiring the establishment of a regulated area must provide certain required information to the other employers at the site.
  - Note: A regulated area is 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 accumulates; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed a permissible exposure limit.
  - The asbestos hazard must be abated by the contractor who created or controls the source of asbestos contamination. In addition, all employers of employees exposed to asbestos hazards must comply with applicable protective provisions to protect their own employees.
  - All employers with employees working adjacent to a regulated area must take steps on a daily basis to ascertain the integrity of the enclosure and/or the effectiveness of the control methods used by the asbestos contractor to assure that asbestos fibers are not migrating to the adjacent areas.
  - All general contractors must ascertain whether the asbestos contractor is in compliance with Part 602, and must require the asbestos contractor to come into compliance with Part 602 when necessary.

- **Exposure Assessments and Monitoring:** Each employer who has a workplace or work operation where exposure monitoring is required must perform monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed.

- **Permissible Exposure Limits (PELs):** Workplace exposure must be limited to 0.1 fiber per cubic centimeter of air (0.1 f/cc), averaged over an eight-hour work shift, and the excursion limit, which is one fiber per cubic centimeter of air (1 f/cc), averaged over a sampling period of 30 minutes.

- **Methods of Compliance:** Employers must control exposures using all feasible engineering and work practice controls. Whenever feasible controls are not sufficient to reduce employee exposure to or below a PEL, the employer must still use them to reduce employee exposure to the lowest levels attainable and must supplement them by the use of respiratory protection.

- **Regulated Areas:** All Class I, II, and III asbestos work must be conducted within a regulated area. All other covered operations must also be conducted within a regulated area where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed a PEL. Warning signs that demarcate the regulated area must be provided and displayed at each location where a regulated area is required.

- **Respirators:** An appropriate respirator must be selected and provided. A respiratory protection program must be implemented.
• **Protective Clothing**: The employer must provide and require the use of protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos that exceed a PEL, or for which a required negative exposure assessment is not produced, or for any employee performing Class I operations which involve the removal of over 25 linear or 10 square feet of thermal system insulation or surfacing ACM or PACM.

• **Labels**: Labels must be affixed to all products containing asbestos and to all bags or containers containing such products, including bags or containers of asbestos-containing or asbestos-contaminated protective clothing, equipment, scrap, waste, and debris.

• **Employee Information and Training**: The employer must train each employee who is likely to be exposed in excess of a PEL, and each employee who performs Class I through Class IV asbestos work, in accordance with the specific requirements of Part 602.

• **Recordkeeping**: Objective data, exposure measurements, medical records, training records, data to rebut PACM, and records of required notifications must be established and maintained. Medical and exposure records must be preserved and maintained for not less than 30 years.

• **Hygiene Facilities and Practices**:
  - For Class I work involving over 25 linear or 10 square feet of TSI or surfacing ACM or PACM, the employer must establish a decontamination area, appropriate entry and exit procedures, and lunch areas for consuming food or beverages.
  - For Class I work involving less than 25 linear or 10 square feet of TSI or surfacing ACM and PACM, and for Class II and Class III work where exposures exceed a PEL or where there is no negative exposure assessment produced before the work, the employer must establish an equipment room or area, and appropriate entry and exit procedures.
  - For Class IV work within a regulated area, the employer must provide these employees with the same facilities and practices that are provided for employees doing Class I, II, or III work in the regulated area.
  - The employer must ensure that employees do not smoke in work areas where they are exposed to asbestos.

• **Housekeeping**: HEPA-filtered vacuuming must be used. Asbestos-containing or asbestos-contaminated items must be promptly collected and disposed of in sealed, labeled, impermeable bags or other containers. All vinyl or asphalt flooring material must be maintained in accordance with Part 602.

• **Medical Surveillance**: The employer must institute a medical surveillance program for all employees who for a combined total of 30 or more days per year are engaged in Class I, II, and III work or are exposed at or above a PEL. For employees required to wear a negative-pressure respirator, employers must ensure that employees are physically able to perform the work and use the equipment. All medical examinations and procedures must be performed under the supervision of a licensed physician, and must be provided at no cost to the employee at a reasonable time and place.

• **Appendices**: The employer must comply with the requirements in mandatory Appendices A, C, D, and E.
Michigan Public Act 135 of 1986 Asbestos Abatement Contractor Licensing Act:

- Requires a contractor who removes or encapsulates friable ACM on another person's property to be a licensed asbestos abatement contractor. Contractors who are licensed in Michigan as plumbers, electricians, residential builders, residential maintenance & alteration contractors, or mechanical contractors are exempt from the asbestos abatement contractor licensing requirements if the asbestos abatement work they perform is incidental to their primary licensed trade and does not exceed 260 linear feet or 160 square feet of friable material.
- Requires the contractor to provide a 10-day project notification to the Department of Licensing and Regulatory Affairs (LARA) Asbestos Program for projects exceeding 10 linear feet or 15 square feet, or both, of friable asbestos materials.
- Requires contractors to perform clearance air monitoring at the completion of asbestos abatement projects involving a negative pressure enclosure.
- Authorizes penalties and fines for violations of the Act 135 of 1986, as amended.
- Authorizes suspension, revocation, and denial of an asbestos abatement contractor's license.

Michigan Public Act 440 of 1988 Asbestos Workers Accreditation Act:

- Requires persons (i.e., asbestos abatement workers, contractor/supervisors, building inspectors, management planners, and project designers) who perform asbestos-related work in schools, school buildings, and public and commercial buildings to be accredited through the MIOSHA Asbestos Program before performing the work.
- Requires trainers who train asbestos abatement workers, contractor/supervisors, building inspectors, management planners, and project designers in Michigan to be approved by the MIOSHA Asbestos Program before providing training for accreditation.
- Authorizes penalties and fines for violations of the Act 440 of 1988, as amended.
- Authorizes the suspension, revocation, or denial of accreditation and trainer approval.

For further information concerning asbestos related issues, contractor licensing, or worker accreditation in the State of Michigan, please visit the Asbestos Program website.