

ASBESTOS MANAGEMENT 1101

I. PURPOSE

To reduce/eliminate the potential for employee exposure to airborne asbestos fibers the company has instituted work practices and engineering controls to reduce and maintain employee exposure to or below the time-weighted average (TWA, PEL) and/or excursion limit.

II. REQUIREMENTS

It shall be the policy of GTC to use only asbestos free materials when replacing insulation, gaskets and other materials. Any exceptions to this policy must be approved.

Any activity, which results in disturbance of ACM or PACM, is strictly prohibited. Disturbance means any activities that disrupt the matrix of ACM or PACM, render ACM or PACM friable or generate visible debris. Sawing, cutting, drilling and sanding of ACM and PACM are examples of disturbance and are strictly prohibited.

All employees, visitors and non-asbestos contractors are in violation of work procedures and regulatory standards if they disturb ACM and/or PACM. Employees are instructed to report any/all activities in which they observe ACM and/or PACM to their Supervisor so that appropriate action may be taken.

III. DEFINITIONS

- A. **“ACM”** means asbestos containing materials containing more than 1-% asbestos.
- B. **“Asbestos”** is the name of a class of magnesium silicate minerals occurring in fibrous form that includes chrysotile, amosite, crocidolite, tremolite, anthrophyllite, actinolite, and any of these minerals that are chemically treated or altered.
- C. **“Competent person”** means one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate them.
- D. **“Demarcation”** means to set boundaries, separate or cord off areas.

- E. **“Excursion limit”** means no employee shall be exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as average over a sampling period of thirty (30) minutes.
- F. **“Fiber”** means a particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.
- G. **“Friable”** means that a material can be crumbled with hand pressure and, therefore, is likely to emit airborne fibers.
- H. **“PACM”** is presumed asbestos containing material. PACM means a thermal system insulation and surface material sprayed, troweled or otherwise applied to surfaces prior to 1980. PACM is treated as asbestos unless, and until, it is demonstrated by approved accredited testing methods to not be asbestos.
- I. **“PEL”** see TWA.
- J. **“Surfacing material”** means material that is sprayed, troweled on or otherwise applied to the surfaces. (i.e. structural members, acoustics, fireproofing)
- K. **“Thermal system insulation” (TSI)** means ACM applied to pipes, fittings, boilers, duct or other structural components to prevent heat loss or gain.
- L. **“Time-weighted average” (TWA / PEL)** means no employee shall be exposed to airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (0.1 f/cc) of air as an eight (8)- hour time-weighted average.

Note: No employee, visitor and/or non-asbestos contractor shall be exposed to an airborne concentration of asbestos in excess of the TWA / PEL, or excursion limit.

IV COMMUNICATION OF HAZARDS, IDENTIFICATION AND DOCUMENTATION

- A. A list of materials identified as ACM and/or PACM is maintained. This information is available to all employees and used in training when applicable.
- B. Material Safety Data Sheets (MSDS) for asbestos are maintained as part of the Hazard Communication Program.
- C. Warning signs are posted to communicate the presence of ACM and/or PACM. If a material does not contain asbestos demonstrated through approved analytical testing methods, this material is labeled as “asbestos free”. *Please see Section V, Labeling.*

- D. Asbestos awareness training is provided to all employees. *Please see Section X, Training*
- E. Visitors and non-asbestos contractors who will be performing work within regulated areas or adjacent to areas containing ACM and/or PACM materials are informed of their existence and instructed in this policy.
- F. All required air sampling will be performed by a Certified Industrial Hygienist (CIH) and analysis performed by an accredited laboratory.
- G. All abatement, encapsulation, cleanup and removal services will be contracted to a certified asbestos company.

V. LABELING

- A. The OSHA standard(s) for asbestos, require that identified ACM or PACM (materials containing greater than 1.0 % asbestos) shall have labels affixed or signs posted conspicuously for all employees to read and take necessary precautions before they enter the area that contains such materials. Labels and signs shall meet the OSHA Hazard Communication Standard 1910.1200(f), be printed in large, bold letters on contrasting background and shall contain the following information:

**DANGER
ASBESTOS
CANCER & LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY**

Areas wherever airborne concentrations of asbestos and/or PACM are in excess of the TWA and/or excursion limit are identified as "regulated areas". If an asbestos contractor is hired to perform work that meets the requirements of a regulated area, warning signs will be provided and displayed. Signs will be displayed such that employees may read the signs and take necessary protective steps before entering the area. The warning signs will bear the information outlined above. In addition, where the use of respirators and protective clothing is required in the regulated area the warning signs will include the following:

**RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA**

- B. Signs and labels are not required where asbestos has been modified by a bonding agent, binder or other material where the manufacturer can demonstrate that no airborne concentration of fibers in excess of PEL will be

released with foreseeable use. This applies particularly to vinyl asbestos floor tile.

- C. Any asbestos that is in a position to be easily damaged, (i.e. within seven feet of the floor or work surface) shall be labeled. However, ACM in remote locations, such as pipe insulation at ceiling level, need not be labeled if adequate alternative methods such as wall placards or signs are used.
- D. If a material contains less than 1.0 % asbestos as demonstrated through approved analytical testing methods, this material is labeled as "asbestos free".
- E. Management ensures comprehension of signs and labels through training.

VI. ASBESTOS CONTROL PROGRAM

- A. Training is conducted for employees who may come in contact with ACM and/or PACM to make them aware of the locations of asbestos and safe work procedures to protect against unnecessary exposure. This includes a review of the list of known asbestos samples. *Please see Section X, Training.*
- B. Management will designate a competent person as defined in the regulation to supervise repair and/or removal projects by certified asbestos contractors.
- C. All asbestos projects (cleanup, encapsulation, abatement, removal, etc.) must follow all applicable regulations (NESHAP, EPA, OSHA, MDCIS).
- D. At least annually a reassessment is made to determine the condition of ACM and/or PACM.
- E. All asbestos records (samples, reports, etc.) are kept for 30 years.

VII REMOVAL

The following four classes of asbestos work require specific engineering and work practice controls with Class I work presenting the greatest risk.

- A. CLASS I work involves the removal of thermal system insulation (TSI) and sprayed on or troweled-on surface ACM or PACM. Surfacing materials include plaster on ceilings, acoustical materials and structural fire proofing. TSI includes material applied to pipes, boilers, tanks, and ducts. This work requires certified asbestos removal and abatement contractors along with a competent person to supervise.
- B. CLASS II asbestos work involves removal of ACM which is not TSI or surfacing material. Removal of asbestos containing floor tile, ceiling tiles, siding, roofing,

siding shingles or transite panel are examples. A certified asbestos removal and abatement contractor is required along with a competent person to supervise.

- C. CLASS III asbestos work is the repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed. CLASS III asbestos work is limited to incidental cutting away of small amounts of these materials where a glove bag and wet methods maintain air concentrations of fibers below the PEL.
- D. CLASS IV asbestos work means maintenance and custodial activities during which employees contact, but do not disturb, ACM and PACM and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

NOTE: GTC currently contracts all asbestos work with a certified asbestos contractor when applicable.

VIII CONTRACTOR RESPONSIBILITIES

The GTC policy is to use only certified contractors for all asbestos removal and repair work. All asbestos work activities shall be preplanned and executed according to plan. An independent Certified Industrial Hygienist (CIH) shall conduct air sampling pre-project, periodic and after the asbestos removal project. The asbestos contractor shall make available all applicable records and analytical data.

- A. The certified asbestos contractor shall follow all applicable regulatory standards which include, but are not limited to, the following:
- B. Demarcate, post danger signs and secure regulated areas where asbestos removal activities will be performed. Inform other employees on the site of the nature of the work with ACM and/or PACM and the measures taken to ensure that other such employees are not exposed to asbestos.
- C. Provide documentation of training for all employees involved in the asbestos activity.
- D. Comply with applicable provisions under the respiratory protection standard and medical surveillance program for workers engaged in asbestos removal activities.
- E. Utilize wetting "wet method" procedures to reduce the potential for asbestos fiber release during the removal process activities.
- F. Provide air sampling/monitoring procedures per the required standards including pre-project, during activities and final clearance samples.

- G. Work containment procedures including the establishment and demarcation of a decontamination unit and use of critical barriers to seal all doors, vents, windows, and other openings. Also, use of negative air systems (i.e. bag transfers etc.).
- H. Asbestos removal procedures as required.
- I. Out loading, transportation and disposal procedures for ACM/PACM as required.
- J. Final cleanup procedures as required.
- K. Notification to the administrator, National Emissions Standard for EPA/DEQ of proposed removal well in advance of starting the project (i.e. annual or 10-day notice). There is both an owner and contractor responsibility under NESHAP.
- L. Maintain documentation and record keeping procedures including retention of exposure records and other critical data for a period of at least 30 years.
- M. Utilize only HEPA vacuum or "glove bag method" for small-scale removal, which involves short duration operations such as pipe repair, valve replacement, installing electrical conduit, installing or removing drywall, roofing and other general building maintenance or renovation.
- N. A competent person must oversee the asbestos project. The contractor shall comply with all applicable protective provisions to protect their employees as well as the host employer's employees.
- O. The contractor shall be required to de-brief management at the conclusion of any asbestos activity.

VIII EMPLOYEE INFORMATION AND TRAINING (When Applicable)

General Asbestos Awareness Training – all employees. (1 Hr.)

Asbestos Awareness/Controlling Exposure Training – any maintenance, custodial employees. (2 Hrs.)

Re-fresher Training – annually.

- A. Asbestos training is conducted in a manner in which the employee is able to understand and ensures comprehension of the necessary information concerning asbestos in the workplace. Content of the training program ensures that each employee is informed, at minimum, of the following:

1. Health effects associated with asbestos exposure.
2. Synergistic relationship between asbestos exposure and cigarette smoking.
3. The quantity, location, manner of use, release and storage of asbestos and the specific nature of operations which could result in exposure to asbestos.
4. Engineering controls and work practices to minimize the potential for employee exposure.
5. Specific procedures implemented to control employee exposure.
6. Personal protective equipment and clothing where appropriate. Personal hygiene issues.
7. Description/example of medical surveillance programs.
8. Content and requirements of the Asbestos Standard.
9. Contacts for public health organizations.
10. Housekeeping practices that minimize risk of unnecessary exposure to asbestos.
11. Requirements and meaning for signs and labels.
12. Reporting procedures for observed or suspect material.

B. Training records are maintained on file.

X SMOKING CESSATION PROGRAM INFORMATION

The following organizations provide smoking cessation information.

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| National Cancer Institute Building 31 Room 10A24 Bethesda, Maryland 20892 | 800 – 4 – cancer |
| American Cancer Society 3340 Peachtree Road NE Atlanta, Georgia 30026 | 404 – 320 – 3333 |
| American Heart Association 7320 Greenville Avenue Dallas, Texas 75231 | 214 – 750 – 5300 |
| American Lung Association 1740 Broadway New York, New York 10019 | 212 – 245 – 8000 |

XI REFERENCES

OSHA standards:

- 1910.1001: Asbestos
- 1910.1200: Hazard communication
- 1926.1101: Asbestos