Asbestos Work Procedures

Contents

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Contents, continued

1. General

1.1 Purpose

This practice defines procedures and responsibilities for work activities in areas where asbestos might be located. Following the practice ensures that:

- The health and safety of GTE employees is protected.
- GTE is in compliance with all applicable environmental and occupational safety and health regulations.

NOTE: GTE employees will not be permitted to do Class I, II, III, or IV asbestos work as defined in the OSHA Asbestos Construction Standard. (See Section 2.4 of this practice for definitions of Class I, II, III, and IV asbestos work.)

GTE employees will be permitted to do only general industry activities as specified in the OSHA General Industry Asbestos Standard.

1.2 Filing Instructions and Supersedures

Discard all previous issues and associated addenda of this practice and file this issue numerically in your GTE Telephone Operations practices set.

This practice supersedes and cancels:

- All policies, procedures, general instructions, letters, and memoranda which address this subject.
- Any document which provides information contrary to the information contained in this practice.

1.3 Reason for Reissuing

This practice has been reissued to incorporate multiple changes in the content. Read this entire practice to ensure your familiarity with the new information.

1.4 Responsibility

This practice was published by the GTE Telephone Operations Administrative Services Department. For more information about this practice, contact the GTE Telephone Operations Headquarters Safety, Health, and Environmental Affairs Department.

1.5 Disclaimer

This practice was prepared solely for the use of GTE Telephone Operations. It must be used only by its employees, customers, and end users when installing, operating, maintaining, and repairing GTE Telephone Operations' equipment, facilities, and services. Any other use of this practice is forbidden. The information contained in this practice may not be applicable in all circumstances and is subject to change without notice. By using this practice the user agrees that GTE Telephone Operations will have no liability (to the extent permitted by applicable law) for any consequential, incidental, special, or punitive damages that may result.

2. Overview

2.1 Introduction

Asbestos is:

- A naturally-occurring family of mineral substance.
- Distinguished from other minerals by the fact that its crystals form long thin fibers.

Asbestos, once referred to as the "miracle mineral," became a popular commercial product because it:

- ls noncombustible.
- Is resistant to corrosion.
- Has a high tensile strength.
- Has a low electrical conductivity.

Asbestos fibers have been mixed with various types of materials to create an estimated 3,000 different commercial products, including:

- Building insulation.
- Pipe and boiler insulation.
- Floor tile.
- Roofing materials.
- Sealants.
- Cement pipe.
- Cement sheets.
- Brake and clutch linings.

Asbestos cannot be identified by merely looking at a product; laboratory analysis is required for positive identification. If it is uncertain whether or not a product contains asbestos, it must be presumed to contain asbestos.

2.2 Health Concerns

Medical studies of asbestos-related diseases have revealed that inhalation is the primary means of exposure. The following diseases have been linked to inhalation of airborne asbestos fibers:

- Asbestosis.
- Lung cancer.
- Mesothelioma.

WARNING: **Combining smoking with occupational exposure to asbestos increases the lung cancer rate above the rate due to either smoking or asbestos exposure alone. Information on self-help smoking cessation programs is available from the local Safety, Health, and Environmental Affairs Department. Employees doing work covered by the OSHA Construction Asbestos Standard must be informed of these programs.**

The presence of asbestos in a building does not necessarily mean that the building occupants' health is endangered. Exposure is unlikely as long as asbestos-containing material (ACM):

- Remains in good condition.

  AND

- Is not disturbed.

NOTE: **Most health risk data are based on asbestos workers with high exposure.**

2.3 References

The following chart provides sources of supplementary information relating to this practice. The documents could be required for performing certain tasks.

See...	For Information About...
117-400-003	Respiratory Protection Program
122-740-002	Environmental Site Assessments for Real Property Transactions
122-741-003	Asbestos Management-GTE Facilities
OSHA 29 CFR 1910.1001*	General Industry Asbestos Standard
OSHA 29 CFR 1926.1 101*	Construction Asbestos Standard
CAL OSHA CCR 1529*	California OSHA's Asbestos Standard

* OSHA documents are published by the U.S. Department of Labor, and are available through the U.S.Government Printing Office, Superintendent of Documents, or from the local Safety, Health, and Environmental Affairs Department.

2.4 Definitions

The following chart provides definitions for the acronyms and terms used in this practice.

Acronym or Term	Definition
ACM	Asbestos-Containing Material; any material containing more than 1% asbestos. **Exception: In California, any material containing more than 0.1% asbestos.**
Aqueous Solution	A solution containing an organic solvent or wetting agent which is used in the low pressure/ wet cleaning system for brakes and clutches.
Class I Asbestos Work	Refers to activities involving the removal of TSI and surfacing ACM and PACM.
Class II Asbestos Work	Refers to activities involving the removal of ACM which is not TSI 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	Refers to repair and maintenance operations where ACM, including TSI and surfacing material, is likely to be disturbed.

(continued)

2.4 Definitions, continued

Acronym or Term	Definition
Class IV Asbestos Work	Refers to maintenance and custodial activities during which employees contact ACM and PACM and activities to clean up waste and debris containing ACM and PACM. Exposure due to "intentional disturbance" of ACM or PACM is considered construction activity and therefore would be covered under the Construction Asbestos Standard 29 CFR 1926.1101. Exposure due to "unintentional disturbance" is covered under the General Industry Asbestos Standard 29 CFR 1910.1001.
Competent Person	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. Training must include successful completion of a course equivalent in curriculum and training method to the 16-hour operations and maintenance course developed by EPA for maintenance and custodial workers. A competent person must be available for Class I, II, III, and IV work. The competent person must make frequent inspections.
Disturbed	Refers to contact which releases fibers from ACM, PACM, or debris containing ACM or PACM. This term includes activities that disrupt the matrix of ACM or PACM, render ACM or PACM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM or PACM.
EL	Excursion Limit
EPA	Environmental Protection Agency
Exposure Assessment	The determination or estimation (qualitative or quantitative) of the magnitude, frequency, duration, and route of exposure.
f/cc	Fibers per Cubic Centimeter
Friable	Can be crumbled or reduced to powder by hand pressure
HEPA Filter	High Efficiency Particulate Air Filter; capable of trapping and retaining 99.97% of 0.3 micron diameter mono-disperse particles.

(continued)

2.4 Definitions, continued

Acronym or Term	Definition
HEPA Vacuum	A special vacuum cleaner with a HEPA filter designed to trap and retain asbestos fibers.
Intentional Disturbance	Refers to any situation where exposure to asbestos is purposely caused by activities such as removing, cutting, and/or drilling asbestos.
O&M	Operation & Maintenance
OSHA	Occupational Safety and Health Administration
PACM	Presumed Asbestos-Containing Material; TSI and surfacing material found in buildings constructed no later than 1980.
PEL	Permissible Exposure Limit
Surfacing material	Refers to material that is sprayed-on, 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).
TSI	Thermal System Insulation; ACM applied to pipes, fittings, boilers, breechings, tanks, ducts, or other structural components to prevent heat loss or gain.
TWA	Time Weighted Average
Unintentional Disturbance	Refers to any situation where the job being done does not require activities such as removing, cutting, and/or drilling asbestos, and any contact with ACM or PACM is unintentional.

2.5 OSHA Asbestos Regulations

There are two Federal OSHA asbestos regulations:

- Construction Asbestos Standard – 29 CFR 1926.1101.

  NOTE: GTE employees will not perform any asbestos work that is covered by the OSHA Construction Asbestos Standard. Construction asbestos work is classified as Class I, II, III, or IV asbestos work. (Refer to Section 2.4 for definitions.)

- General Industry Asbestos Standard – 29 CFR 1910.1001.

NOTE: Through a contract with Federal OSHA, the State of California has been permitted to administer their own state OSHA program. Under this program, CAL OSHA has promulgated an asbestos standard, CCR 1529. Any significant differences in the CAL OSHA asbestos standard are specified in this practice.

2.5 OSHA Asbestos Regulations, continued

2.5.1 Construction Asbestos Standard – 29 CFR 1926.1101

This standard covers Class I, II, III, and IV asbestos work and addresses the following situations:

- All removal, repair, demolition and salvage of structures where asbestos is present.
- Removal or encapsulation of materials containing asbestos.
- Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof that contain asbestos.
- Installation of products that contain asbestos.
- Asbestos spill/emergency cleanup.
- Transportation, disposal, storage, containment, and housekeeping activities involving asbestos or products containing asbestos on the site or locations at which construction activities are performed of asbestos containing material or presumed asbestos containing material.

Additionally, exposure to asbestos due to intentional "disturbance" of ACM or PACM is considered a construction activity and is covered under the OSHA Construction Asbestos Standard.

NOTE: GTE employees will not perform asbestos construction activities as defined above.

2.52 General Industry Asbestos Standard – 29 CFR 1910.1001

This standard applies to all general industry activities except construction activities as specified in Section 2.51.

Additionally, exposure due to "unintentional disturbance" is covered under the OSHA General Industry Asbestos Standard.

2.5.3 Application of OSHA Asbestos Standards

The information and requirements specified in this section apply to both OSHA asbestos standards unless a specific standard is noted.

2.6 Permissible Exposure Limit and Excursion Limit

OSHA and the EPA have defined guidelines for exposure to airborne asbestos. Employers must take specific action if employees are subjected to airborne asbestos concentrations that exceed the OSHA:

- Permissible Exposure Limit (PEL).
- Excursion Limit (EL).

Initial monitoring must be performed on employees who are or may reasonably be expected to be exposed to airborne asbestos concentrations at or above the PEL or excursion limit.

NOTE: Only monitoring done after March 31, 1992, can be used to meet this requirement.

2.6.1 Permissible Exposure Limit (PEL)

OSHA's Permissible Exposure Limit (PEL) is defined as:

- The maximum level of a contaminant that an employee may be exposed to.
- 0.1 f/cc, 8-hour TWA, as measured by phase contrast microscopy.

2.6 Permissible Exposure Limit and Excursion Limit, continued

2.6.2 Excursion Limit (EL)

OSHA's excursion limit is defined as:

- The maximum level of a contaminant that an employee may be exposed to during a short time period.
- 1 .O f/cc as averaged over a 30-minute sampling period.

2.7 Employer's Responsibilities

If an employee is exposed to asbestos air concentrations greater than the PEL or EL, the employer is required to:

- Institute an employee training program.
- Establish a medical surveillance program.
- Establish a respiratory protection program.
- Conduct daily personal air sampling.
- Establish regulated or restricted areas where the concentrations exceed the PEL.

2.8 Supervisors' Responsibilities

Supervisors must ensure that employees working where exposure to asbestos is due to unintentional disturbance:

- Have had exposure assessment completed for the specific job.
- Have successfully completed GTE Course No. 30010, Asbestos Safety, or an equivalent two-hour course.
- Use appropriate personal protective equipment.
- Are covered under the GTE Respiratory Protection Program (if exposed to asbestos levels above the PEL or EL. Refer to GTE Telephone Operations Practice 117-400-003 for further information.

Contact the local Safety, Health, and Environmental Affairs Department if you:

- Have any questions about asbestos requirements,
- Would like asbestos samples taken.

NOTE: The samples will be taken by qualified contractors.

3. Employee Training

3.1 Training Requirements for General Industry Asbestos Work above PEL and/or EL

A training program must be provided for all employees doing OSHA General Industry Asbestos work who:

- Are exposed to airborne concentrations of asbestos at or above the PEL and/or EL.

  OR

- Might have exposure due to unintentional disturbance of asbestos.

Training must be provided at the time of initial assignment and at least annually thereafter. Employees must successfully complete GTE Course No. 30010, Asbestos Safety, or an equivalent two-hour course, e.g., a detailed safety meeting lesson plan regarding asbestos.

Training must cover the following:

- The health effects associated with asbestos exposure.
- The relationship between smoking and exposure to asbestos.
- The quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos.
- The engineering controls and work practices associated with the employee's job assignment.
- The specific procedures implemented to protect employees from exposure to asbestos, such as appropriate work practices, emergency and cleanup procedures, and personal protective equipment to be used.
- The purpose, proper use, and limitations of respirators and protective clothing, if appropriate.
- The purpose and description of the medical surveillance program.
- The content of the OSHA General Industry Asbestos Standard including appendices.
- Names, addresses, and phone numbers of public health organizations which provide information on smoking cessation.
- The requirements for posting signs and affixing labels.

3.2 Training Requirements for Housekeeping Employees

An awareness training program must be provided for employees who perform housekeeping (janitorial) operations in facilities which contain ACM or PACM. The training, which may be provided by the employee's supervisor, must contain the following elements:

- Health effects of asbestos.
- Locations of ACM or PACM in the facility.
- Recognition of ACM and PACM damage and deterioration.
- Proper response to fiber release episodes.
- Access to information and training materials including the General Industry Asbestos Standard.
- Employee training annually.

3.3 Record Keeping

Document all asbestos training. The documentation must be maintained by the employee's supervisor in a permanent file for at least one year past the last day of employment

NOTE: **A detailed safety meeting lesson plan on asbestos may be used for the awareness training program.**

4. Medical Surveillance

4.1 Medical Surveillance Program

An employee must be placed under a medical surveillance program if that employee is:

- Engaged in Class I, II, and III work for a combined total of 30 or more days per year.
- Exposed to asbestos air concentrations greater than the PEL or EL for a combined total of 30 or more days per year.
- Required to wear a negative pressure respirator, even if only for one day per year.

NOTE: **CAL OSHA does not have the "30 or more days per year" requirements as part of their asbestos standard.**

4.2 Program Requirements

The medical surveillance program must include an annual medical examination. The following must be completed/performed by a physician:

- A physical examination.
- A medical history questionnaire.
- Medical tests that may include:
  - Pulmonary function tests.
  - Chest X-rays.
  - Electrocardiogram.
  - Other tests deemed necessary by the physician.

NOTE: **CAL OSHA also requires a "work history."**

The employer is required to provide the medical history questionnaire to the physician. Contact the local Safety, Health, and Environmental Affairs Department.

5. Equipment Requirements

5.1 Personal Protective Equipment

For any asbestos work with potential exposure levels greater than OSHA's PEL (0.1 f/cc, 8-hour TWA), an employee must wear asbestos-protective coveralls and respiratory protection.

5.2 Respiratory Protection Program

Any employer who requires or permits employees to wear a respirator must have a written respiratory protection program. Refer to GTE Telephone Operations Practice 117-400-003.

5.3 GTE Standard Equipment

The following equipment is available for employees who might have exposure to asbestos.

Equipment	Item ID
Asbestos Protective Coveralls	
For height to 5'8"	550132
For height 5'8" to 6'1"	550133
For height greater than 6'1"	550143
Asbestos Waste Bag (yellow)	315359
Asbestos identification Labels (3" x 5")	558076
Asbestos Warning Sign	556379
Asbestos Hand Spray Bottle (1 quart)	579779
Asbestos Spray Bottle (1.3 gallons)	579780
Asbestos Wetting Agent	556378
Asbestos HEPA Vacuum	631941
Asbestos HEPA Vacuum Bags	556377
Negative Pressure Respirators	
Full Face, Size - Small	574436
Full Face, Size - Medium	579871
Full Face, Size - Large	574437
Half Face, Size - Small	574438
Half Face, Size - Medium	579872
Half Face, Size - Large	574439
Replacement Filters (Box of 10)	556502
Positive Pressure Respirators	
Kit (*)	631942
Replacement Filters	556380
Replacement Battery	579781
Replacement Battery Charger	579783

(*) Respirator, case, filter, battery, battery charger, and air flow indicator.

6. Asbestos in the Work Area

6.1 Where Asbestos is Found

Employees installing or maintaining telecommunications equipment or conducting building maintenance or housekeeping/janitorial activities may unintentionally disturb asbestos:

- Above suspended/hung ceilings.
- In attics or crawl spaces.
- In steam tunnels.
- In boiler rooms
- On wall, ceiling, or pipe surfaces.

NOTE: The work noted above is covered by the OSHA General Industry Asbestos Standard because any contact made with ACM or PACM is not intentional.

6.2 Potential Exposure to ACM

The following types of equipment installation or maintenance work activities might expose employees to asbestos fibers if ACM is present in the work area:

- Placing cables or wires.
- Removing cables or wires.
- Installing cable trays or hangers.
- Placing or removing equipment or ironwork.
- Conducting building maintenance activities.
- Doing housekeeping/janitorial activities.

NOTE: The work noted above is covered by the OSHA General Industry Asbestos Standard because any contact made with ACM or PACM is not intentional.

6.3 When to Ask About the Presence of ACM

Ask about the presence of ACM in the work area if you are involved in:

- Placing initial bids (marketing).
- Engineering jobs (engineering).
- Prefielding jobs (supervisors).
- Installation activity (including vendor/contractor work).

6.4 Course of Action

The building owner's response dictates the course of action. The activities listed in this chart are covered by the General Industry Asbestos Standard.

If...	Then...
ACM is present in the work area	Proceed according to the chart in Section 6.5 of this practice.
ACM is not present in the work area	1. Obtain a written statement from the building owner attesting to the fact. 2. Proceed with the job.
The building owner does not know if ACM is present	Ask the building owner to take bulk samples. ● If the building owner refuses, ask if GTE can take bulk samples. If the building owner: - Agrees, contact the supervisor to arrange to take bulk samples. In most cases, local management contracts the job with a qualified asbestos contractor. - Refuses, assume that ACM is present. ● If the building owner agrees and it is determined that ACM is: - Present in the work area, proceed according to the chart in Section 6.5 of this practice. - Not present in the work area, proceed according to the second section of this chart.

6.5 ACM in the Work Area

If ACM is present in the work area, proceed according to the following chart.

If ACM is Present in the Work Area and It...	Then...
Will not be disturbed	Proceed with the job using extreme care to ensure that the ACM is not disturbed.
Might be unintentionally disturbed	1. Try to find an alternate route for the cable or wire. 2. If an alternate route is not feasible, ask the building owner to remove, clean up, or isolate the asbestos so there is no risk of exposure. 3. If this is not possible, then either: • Have the building owner do the job. OR • Contact your supervisor to determine proper procedures.

All or some of the following procedures may be necessary when ACM is present in the work place and might be unintentionally disturbed:

- Obtaining medical examinations prior to respirator use.
- Wearing a respirator.
- Wearing disposable coveralls.
- Building floor-to-ceiling polyethylene enclosures.
- Cleaning up appropriately (HEPA vacuum, Item ID 631941, or wet-wipe).
- Using proper disposal procedures.
- Monitoring employee exposure.

NOTE: Local management may decide to contract the job with a qualified asbestos contractor. Contact your local Safety, Health, and Environmental Affairs Department before:

- **Contracting the job with a qualified asbestos contractor.**
- **Attempting any of the above activities.**

Refer to Section 7 for guidance in performing specific work tasks involving ACM.

6.6 Small Repair or Service Order Jobs

When beginning small repair or service order jobs, the employee should observe whether or not any friable material is present in the work area. (Friable materials other than asbestos include cellulose and rock wool.) Proceed according to the following directions.

If Friable Material is Present in the Work Area and It...	Then...
Will not be disturbed	Proceed with the job using extreme care to ensure that it is not disturbed, as it may contain asbestos.
Might be unintentionally disturbed	Try to find an alternative route for the cable or wire. **NOTE: An alternative route can be as simple as moving to the other side of the room, hail or crawl space, or merely avoiding contact with the friable material.** **If an alternate route is not available, you must determine if ACM is present. If ACM is present, follow the chart in Section 6.4.**

6.7 Restrictions

GTE employees will **not** perform the following activities on customer premises:

- Taking bulk samples.
- Posting ACM warning labels.
- Moving, cutting, or removing ACM or PACM.
- Performing Class I, II, III, or IV asbestos construction work.

GTE building maintenance and housekeeping/janitorial employees will **not** perform the following activities:

- Projects involving Class I, II, III, or IV asbestos work.
- Sanding of ACM or PACM floor material.

When stripping finishes on ACM or PACM floor material, employees must use low-abrasion pads at speeds lower than 300 RPM and wet methods.

Burnishing or dry buffing ACM or PACM flooring can be performed only on flooring which has sufficient finish to prevent the pad from contacting the ACM

NOTE: Building owners, employers, and employees are required to treat installed TSI, sprayed-on and troweled-on surfacing material and asphalt and vinyl flooring material installed no later than 1980 as presumed asbestos containing material unless bulk samples have been analyzed and determined to be non-ACM.

7. Specific Asbestos Tasks

7.1 Cutting, Drilling, or Sawing

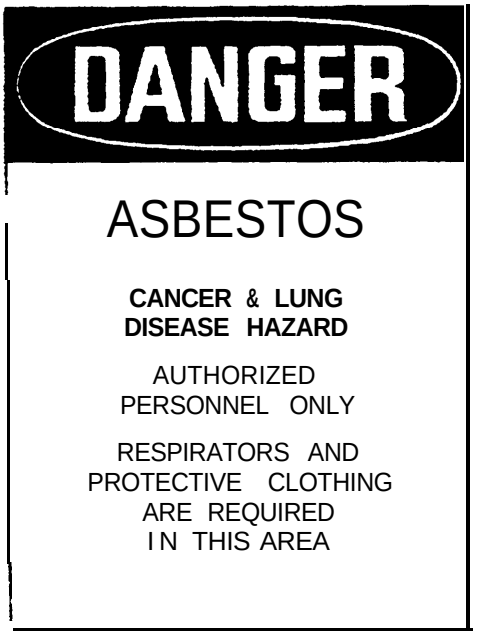
GTE Telephone Operations employees may **not** perform certain specific tasks in locations where ACM or PACM might be present. These activities are considered construction asbestos work:

- Drilling ACM floor tiles.
- Drilling in sprayed-on or troweled-on ACM.
- Cutting, sawing, or removing transite conduit, floor tiles, or transite wallboard, or other ACM or PACM material.

7.2 Friable ACM

When working in or around friable ACM, proceed according to the following instructions. These activities are covered under the OSHA General Industry Asbestos Standard.

If You Are...	Then...
Working in confined areas (e.g., crawl spaces or steam tunnels) which contain friable ACM	1. You must have an "exposure assessment" completed prior to beginning work. 2. Wear: • A respirator approved for asbestos. (See Section 5.) • Disposable coveralls approved for asbestos. (See Section 5.) 3. Shut down the air handling system serving the work area or seal all air ducts. 4. Post asbestos warning signs (Item ID 556379, illustrated below) and restrict other employees from entering the work area.



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7.2 Friable ACM, continued

If You Are...	Then...
Pulling cables above ceiling suspended below friable ACM	Try to find an alternate route. If you cannot find an alternate route, proceed as follows: 1. Gently push one tile straight up and place it to one side. **CAUTION: Friable ACM might have settled onto the top of the ceiling tiles.** 2. In the area where the cable is to be run, visually inspect the tops of the ceiling tiles for fallen ACM pieces. 3. To control any possible ACM exposure, use HEPA vacuum or wet wipe the nearby tops of ceiling tiles before beginning work. 4. If you feel the ACM might be unintentionally disturbed. use full measures including: • Wearing a respirator approved for asbestos. (See Section 5.) • Wearing disposable coveralls approved for asbestos. (See Section 5.) 5. Proceed with the job, avoiding contact with the ACM, and using caution to keep dust generation to a minimum.

7.3 Brakes and Clutches

When working on brakes and clutches that contain asbestos, proceed according to the following instructions.

If You Are...	Then...
Repairing or replacing rolling ladder brakes, vehicle brakes, and/or clutches	1. Use a low-pressure/wet cleaning system with an aqueous solution to wet and clean the equipment to be worked on. **NOTE: OSHA does not permit the use of spray bottles containing solvent due to their toxicity.** **CAUTION: Never use a dry brush or an air hose to blow the dust off. This procedure can pollute the air with asbestos fibers.** **2.** Remove all remaining asbestos dust using water-saturated cloth. 3. Clean up any spills immediately using a HEPA vacuum or wet cloth.

8. Disposal of Asbestos-Containing Material

8.1 Guidelines

The transport and disposal of asbestos/containing material is regulated by federal, state, and/or local environmental regulations. Contact the local Safety, Health and Environmental Affairs Department for information on proper disposal of ACM.