

Asbestos Safety Program

Purpose

The purpose of this program is to establish guidelines and procedures in the operations and maintenance of asbestos, asbestos materials, at E Light Electric Services to protect all employees, contractors, visitors and vendors from potential health hazards of asbestos related diseases.

This Program applies to all buildings and structures owned by E Light Electric Services, to all employees and subcontractors of E Light Electric Services, to occupants of E Light Electric Services buildings and to E Light Electric Services projects who may come into contact with or disturb asbestos-containing material in E Light Electric Services buildings. The Program applies to routine work during which an employee might encounter asbestos as well as work undertaken to repair or remove asbestos -containing material.

Policy

It is the policy of E Light Electric Services that only qualified employees shall be involved in any repairs, maintenance or removal of any materials or environments where the listed materials or gases are present. All unqualified employees shall be protected from exposure to asbestos fibers by isolating and controlling access to all affected areas during asbestos work. All tasks involving the disturbance of asbestos, asbestos material will be conducted only after appropriate work controls have been identified and implemented. A qualified supervisor shall be available at asbestos controlled work sites during all activities. Proper personal protective equipment, vacuums and HEPA filters shall be used and properly maintained. If outside contractors are used, the company shall ensure all contractor employees have been properly trained and have been issued proper equipment and protective gear.

Responsibilities

Management

- Ensure all Asbestos, asbestos Material is identified and labeled
- Ensure training is effective for employees
- Establish engineering controls for all work with asbestos, asbestos material
- Coordinate with building owners, owners' representatives and general contractors to ensure E Light Electric Services employees are not exposed to asbestos hazards and asbestos hazards are mitigated prior to the performance of work

- Ensure E Light Electric Service employees are informed of asbestos hazards and mitigations on each project.

Supervisors

- Qualified supervisors shall provide effective on-site management during work with asbestos, asbestos material
- Supervisors will notify the Director of Education and Loss Prevention immediately upon discovering asbestos material

Employees

- Qualified employees must follow the exact procedures established for the project for work in areas containing asbestos.
- Unqualified employees are to stay clear of all asbestos work areas and report any damaged asbestos containing material to their supervisor

Hazards

Asbestos is a common, naturally occurring group of fibrous minerals. Asbestos fibers have been used in a variety of building materials; however E Light Electric Services takes an aggressive effort to use non-asbestos, asbestos materials in new construction and renovation projects. Generally, most asbestos is found in pipe insulation, doors, textured paints and plasters, structural fireproofing, and floor tiles. Friable asbestos (that is, material that contains more than 0.1% asbestos by weight and can be crumbled by hand) is a potential hazard because it can release fibers into the air if damaged. Long term exposure to airborne asbestos is necessary for chronic lung disease. Significant and long-term exposure to asbestos from activities that directly disturb asbestos-containing materials (such as asbestos mining) can lead to a variety of respiratory diseases, including asbestosis and mesothelioma (cancer of the lung lining). Asbestosis is a non-malignant, irreversible disease resulting in fibrosis of the lung. Asbestos-related cancers tend also to result from substantial long-term exposure; however mesothelioma may result from much smaller exposures to asbestos.

Hazard Control

Engineering Controls

Engineering controls include the use of enclosures such as monitoring equipment, glove bags, tenting, negative pressure work areas, HEPA filters, controlled vacuums, water misters and other equipment to ensure containment and cleanup of asbestos work areas.

Administrative Controls

Written procedures and management authorizations are required for all work involving asbestos, asbestos material

Training Controls

All personnel shall receive annual training on asbestos hazards, mitigations and procedures. This training shall be coordinated by the Director of Education and Loss Prevention and records of training shall be kept and made available upon request.

Definitions

Asbestos - Asbestos is a generic term describing a family of naturally occurring fibrous silicate minerals. As a group, the minerals are noncombustible, do not conduct heat or electricity and are resistant to many chemicals. Although there are several other varieties that have been used commercially, the most common asbestos mineral types likely to be encountered in E Light Electric Services buildings are chrysotile (white asbestos), amosite (brown asbestos), and crocidolite (blue asbestos). Among these, white asbestos is by far the most common asbestos mineral present in E Light Electric Services buildings.

Friable Asbestos - Friable asbestos material means finely divided asbestos or asbestos-containing material or any asbestos-containing material that can be crumbled, pulverized or powdered by hand pressure. Individual fibers in friable asbestos-containing material can potentially become airborne and can then present a health hazard. Three types of friable material commonly used in buildings are:

Sprayed fibrous fireproofing;

Decorative or acoustic texture coatings;

Thermal insulation.

Non-friable Asbestos - Non-friable asbestos includes a range of products in which asbestos fiber is effectively bound in a solid matrix from which asbestos fiber cannot normally escape. Non-friable asbestos includes a variety of products including asbestos cement tiles and boards and asbestos reinforced vinyl floor tiles. Cutting, bracing, sanding, drilling of similar activities can release asbestos fiber from even non-friable asbestos materials.

Asbestos Work Categories -

Category 1

Work includes the installation or removal of non-friable asbestos in which the asbestos fiber is locked in a binder such as cement, vinyl or asphalt which holds

the material together. E Light Electric Service employees shall not participate in Category 1 work.

Category 2

Work involves work with friable asbestos that is of short duration in situations which create low levels of airborne asbestos. Example of category 2 work are enclosure of friable asbestos, application of tape or sealant to asbestos, asbestos pipe insulation and minor removal of friable asbestos and minor installation, maintenance or repair work above false ceilings where sprayed asbestos fireproofing is present on beams. E Light Electric Service employees shall not participate in Category 2 work.

Category 3

work involves possible exposure to friable asbestos over long periods of time or work that generates high levels of asbestos. Included in category 3 work are removal projects where relatively large amounts of asbestos are removed from a building including removal of friable asbestos from structural material, cleaning or removal of heating or air handling equipment that has been insulated with asbestos. **Also included in category 3 work are cutting or grinding of asbestos-containing materials using power tools.**

E Light Electric Service employees shall only conduct work in Category 3 and only as exposed during the course of their electrical operations, repair and installation. No E Light Electric employee shall conduct work that classified as Category 1 or 2.

General Rules

When in doubt, treat all material as containing asbestos and comply with all applicable rules and regulations and protective measures.

All Asbestos, asbestos Material (ACM) will be handled by certified and licensed asbestos abatement personnel. The friability of the ACM will dictate the type of removal/maintenance required. Removal and maintenance shall be done by specialty contractors.

Employees who are uncertified and unlicensed will not handle any ACM >1%. This will include encapsulation projects, renovation/removal and/or demolition of any type of structure. This will prevent the potential for accidental exposure from the mishandling of any ACM.

When an uncertified, unlicensed employee questions whether they may be handling suspect ACM, the employee will immediately contact their supervisor. The employee shall not resume working at the site until the area has been checked to verify the material is not ACM.

Uncertified, unlicensed employees will not cross over a barrier/containment area where asbestos projects are in progress.

Any employee who discovers ACM or suspect ACM in damaged or poor condition should report it to their supervisor so the identified material is repaired.

Asbestos Inventory

E Light Electric Services requires that the building owner or general contractor notify the Director of Education and Loss prevention of asbestos hazards in any building where work is to be performed and that a copy of any conducted surveys and prepared written inventories of the type and locations of asbestos-containing material be forwarded to the Director of Education and Loss Prevention. The Director of Education and Loss Prevention shall forward to the Project Manager and Supervision on each project the written reports which shall include but not be limited to the following:

- Procedures for periodic condition inspections

- Procedures for maintenance and repair of damaged asbestos

For each building the inventory containing the following information:

- Type of asbestos-containing material (sprayed fireproofing, texture coating, or thermal insulation).

- The location of the material.

- When it has been sampled, the type and percentage of asbestos present.

Also included in the survey information the sampling results showing the absence of asbestos in material which might be mistaken for an asbestos-containing material.

Asbestos Identification

Asbestos identification system is used to alert people to the presence of asbestos. Asbestos is identified by tags, stickers, pipe labels, signs and other high visibility means. Where feasible, stickers indicate the presence of asbestos in thermal insulation, in asbestos board and tiles and in other locations. Warnings may also be placed near the entrances of rooms -particularly mechanical rooms where unusually large amounts of asbestos may be present. The building owner or

general contractor shall provide to E Light Electric services the type of identification used and the key to the identification. This shall be provided to the Director of Education and Loss prevention. The Director of Education and Loss Prevention shall forward this information to the project manager and site supervision.

Inspection

The E Light Site Supervision shall be responsible for inspecting work areas prior to the start of procedures to ensure the absence of or the mitigation of asbestos hazards. The site supervision shall immediately notify the Director of Education and Loss Prevention and the building owners' representative of any asbestos hazards that are discovered and that are not listed on the asbestos inventory, identified or mitigated.

Access Control

Access to mechanical and electrical rooms, service shafts, tunnels and other locations is to be restricted where asbestos may be present in unusually large amounts and where other hazards may also be present. Such areas are locked and accessible only to authorized personnel. Where sprayed asbestos-containing fireproofing is present in a building above a false ceiling, access to the space is restricted to qualified personnel.

Repair and Maintenance of ACM

Should an employee or a contractor encounter material which is not identified and is not listed in the Asbestos Inventory and which might reasonably be expected to be asbestos, the person will stop any work which could create airborne asbestos and report the discovery to a supervisor. Where it is determined that friable asbestos-containing material is in a condition that could likely lead to inhalation exposure, the supervisor will immediately limit access to the location. Where there is reasonable doubt about the composition of a friable material, it will be treated as asbestos until testing demonstrates that asbestos is present at levels below 1%. E Light Electric Services employees shall not participate in cleanup activities.

When routine work is to take place in an area where asbestos is present or when the work might disturb friable asbestos, employees will be informed of the potential for exposure during their pre task safety briefing. If upon reviewing the work situation, the employee believes that normal work practices do not provide an adequate measure of safety, the employee will report these concerns to the supervisor. The supervisor will review the work situation and authorize any required additional precautions. All employees, visitors, vendors and contractors will be notified in advance when work

involving asbestos is to be carried out in any area of E Light Electric Services buildings or projects which they occupy.

Training

All E Light Electric Services employees will be trained to carry out their work without endangering themselves, their coworkers or other building occupants while working in areas containing asbestos materials.

Training Outline

All E Light Electric Services personnel shall complete Asbestos Awareness Training as part of new hire orientation. This training shall include:

The types, properties and uses of asbestos

Ways to recognize asbestos

The hazards of asbestos fiber inhalation

Types of activities which could release asbestos fibers

The E Light Electric Services Asbestos Safety Program

State and Federal regulations regarding work with asbestos and disposal of asbestos-containing waste

Ways to recognize and avoid damage to asbestos-containing material

Refresher training will be provided every year. Only those that have completed the training will be allowed to work in areas containing asbestos materials.

Subcontractors shall ensure all their employees have received Asbestos Awareness training. Subcontractors shall submit training records for all their employees to the Director of Education and Loss Prevention.

Contracted Work

Asbestos Removal Work

Major asbestos removal is contracted to external firms who specialize in asbestos removal work. E Light Electric Services requires that all such work be carried out in accord with the requirements established by the regulation of the State in which the project is located. At all such projects the contractor will ensure that cleanup is properly completed and that all asbestos and

asbestos contaminated material is collected and disposed of in accord with the state regulations. The contractor will be required to submit air testing results to demonstrate that the cleanup has been carried out properly and the area can be reoccupied safely.

ASBESTOS WORK PROCEDURES

Discovering Damaged Asbestos

When asbestos is discovered the following steps describe the actions to be taken by trades Employees and their supervisors. The steps comply with E Light Electric Services Asbestos Policy, which states the long-term goal is to remove all asbestos and the short term goal is to manage asbestos to minimize exposure to airborne asbestos.

- 1) Notification - The employee is to notify the supervisor immediately.
- 2) Notification by Supervisor. The supervisor is to notify the Director of Education and Loss Prevention and the building owner representative that a potential asbestos containing work area has been identified.
- 3) Testing and Mitigation: E Light Electric Services employees shall then coordinate with the building owner or building owners representative to test and mitigate the asbestos hazard based on the established procedures of the building owner.
- 4) Access- The supervisor shall stop all work activities, personal inspect the area and determine if access is to be restricted to the area.

Clean up of Asbestos, asbestos Material

Asbestos only poses a health hazard when it becomes airborne and people inhale the fiber. When asbestos-containing material has been disturbed, effective cleanup will ensure that asbestos does not present a health hazard. Clean up of dust which might contain traces of asbestos, such as a custodian might encounter in routine cleaning in buildings where asbestos is present, will not require special precautions. To ensure that cleanup of significant quantities of asbestos will not cause a health hazard, the following procedure will be followed:

Clean up of significant amounts of asbestos, asbestos material will be only be done by selected specialty contractors or the building owner.

Dry sweeping of asbestos-containing waste or other cleanup activities which will create airborne dust are not permitted

Non-friable ACM Work

Asbestos that is effectively bonded in a non-asbestos matrix cannot easily become airborne. As such, provided the material is not broken or abraded, there is little risk of inhalation exposure to asbestos. To ensure that minor work involving non-friable asbestos (including vinyl asbestos tile, asbestos asphalt roofing, and asbestos ceiling and wall tile) the following procedure will be followed.

Procedure:

Before beginning the work, the supervisor will carefully inspect the asbestos- containing material to ensure that the planned work will not create airborne asbestos dust.

Where dust that might contain asbestos fiber is present, the worker will clean the material using a wet method after a work plan has been developed and approved by site supervision.

Following completion of the task the worker will carry out any required clean wet methods.

If the work cannot be safely performed using wet methods, then mitigation plan shall be developed and approved prior to any work being performed.

Note:

Cutting, drilling, sanding or breaking the material are likely to create airborne asbestos dusts and will require additional precautions.

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Repairs to ACM

Where asbestos is known or believed to be present in damaged insulation, repairs or removal are needed to prevent asbestos fiber from becoming airborne. The following procedure will be used whenever minor repairs to asbestos, asbestos insulation is undertaken:

Procedure:

Access to areas where minor repair is to be carried out will be restricted to authorized people only. When necessary, signs will be posted advising of access restrictions.

Workers repairing asbestos, asbestos insulation will wear coveralls and a properly fitted, air purifying respirator equipped with a particulate filter designed to remove asbestos fibers from inhaled air.

Before beginning the repair, the area will be carefully cleaned using the Cleanup of Asbestos-Containing Material Procedure

When feasible a drop cloth shall then be placed beneath the insulation to be repaired.

Before beginning the repair, all feasible steps (wetting with amended water, encapsulating adjacent asbestos-containing material, etc.) will be taken to prevent the release of asbestos fibers, flyings or vapors.

Following the repair, the worker will carefully bag for disposal all asbestos- containing waste and clean the surrounding area using wet cleaning techniques.

NOTE: E Light Electric Service employees shall not participate in Asbestos Clean Up or Abatement procedures. Asbestos cleanup or abatement procedures shall be done by the building owner or a specialty contractor.

Disposal of Asbestos, asbestos Waste Materials

Handling and disposal of asbestos, asbestos waste is regulated by both State and Federal regulations. To ensure compliance with these regulations and to ensure that no-one is exposed to asbestos the following procedure is to be followed:

E Light Electric Services employees shall not handle asbestos waste or participate in asbestos removal. These procedures shall be performed by the building owner or a specialty contractor.