

ASBESTOS PROCEDURES

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1. **GENERAL**

- 1.01 This Practice identifies potential hazards to safety and health associated with work activities involving asbestos-containing materials (ACM), presumed asbestos-containing materials, and suspect asbestos-containing materials (see Section 4.01) and prescribes procedures for evaluation and control. All such materials are collectively referred to herein as "ACM." When a distinction is intended, the terms "confirmed ACM," "presumed ACM," and/or "suspect ACM" are used.
- 1.02 This Practice is being revised and reissued to incorporate operating practice changes resulting from new regulatory requirements. This Practice, and the procedures detailed herein, supersede all prior SW 010-100-904 practices, as well as all Southwestern Bell Telephone Company (SWBT) written directives, letters, policies, and/or procedures regarding asbestos management throughout the SWBT system. Any internal operating procedures which are developed shall be in accordance with this Practice.
- 1.03 ACM will be handled in compliance with all Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Department of Transportation (DOT), and state and local regulations applicable to ACM management. It is SWBT policy that:
- All employees who may encounter ACM (confirmed, presumed, or suspect) in the conduct of their job duties must receive initial Asbestos Awareness training and annual refresher training (in accordance with the protocols and procedures set forth in Section 12). This training will allow employees to perform work in the vicinity of ACM, but will not permit them to perform work which could result in a disturbance of ACM (e.g., disruption of the matrix of the material, crumbling or pulverizing it, or generating visible dust). Activities which may result in the disturbance of ACM MUST NOT be performed by SWBT personnel, except that ACM Vinyl Floor Tile, Exterior Siding, and Interior Wall Drilling Operations may be conducted as detailed herein (see Section 4.03).**
- 1.04 Environmental Management, with the assistance of Company Safety, will monitor and review proposed and new regulations related to ACM. When it is determined that new and/or proposed rules will have an impact on SWBT

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operations, a meeting of the SWBT Asbestos Committee will be called to review the rules, evaluate the impact to SWBT, and make determinations as to operational changes to be recommended. The Legal Department is represented on the Asbestos Committee and will provide assistance and guidance. Revisions to this Practice will be formally communicated to the appropriate organizations.

2. PURPOSE AND SCOPE

- 2.01 The purpose of this Practice is to provide SWBT employees with guidance in addressing issues which may arise while performing work activities involving ACM.
- 2.02 The procedures detailed herein are designed to minimize employee exposure to asbestos, and to provide for the safe and effective management of ACM by employees throughout the SWBT system.
- 2.03 Any forms or exhibits required for training or recordkeeping referred to in this Practice should be reproduced locally using the exhibits contained in this Practice.
- 2.04 Requests for information on training-related documents and on existing asbestos management regulations can be addressed to either Company Safety or to Environmental Management.

3. BACKGROUND

- 3.01 Asbestos is a family of naturally occurring materials found in the earth's crust. Asbestos fibers are detectable in the environment almost everywhere. Because of its ability to withstand extremely high temperatures, its fibrous structure, and resistance to chemical corrosion, naturally occurring asbestos has been processed and used commercially for many different purposes. Asbestos was widely used in building construction up to the mid-1970s. For this reason, asbestos is considered less likely to be present in buildings built after 1980.
- 3.02 Asbestos fibers have been linked to serious adverse health effects when airborne fibers find their way into the lungs of humans. The presence of asbestos in a building does not mean that the health of its occupants is endangered. As long as ACM remains in good condition and is not disturbed, exposure to asbestos fibers is unlikely. In

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fact, the EPA recommends in-place management (i.e., as opposed to removal) of undamaged ACM.

- 3.03 Whenever ACM is disturbed, whether through physical contact, repair, renovation, demolition, or natural disturbances such as water damage, asbestos fibers, which are otherwise firmly bound or encased, may be released. Released fibers can remain suspended in the air for many hours, and after settling, the fibers can be re-suspended by physical or air disturbances.
- 3.04 Because of the acute health hazard associated with asbestos, and the potential to encounter it in buildings, federal and state governments have issued regulations governing all aspects of asbestos management, to include maintenance, renovation, demolition, storage, transportation, and disposal activities. The regulations address established permissible exposure limits and include requirements for exposure monitoring and control when necessary, work control systems and procedures, and hazard communication.

4. PRESUMED AND SUSPECT ASBESTOS-CONTAINING MATERIALS

- 4.01 Many different types of building materials can contain asbestos. Due to the phase-out of asbestos use in the U.S. in the 1970's, buildings constructed after 1980 are less likely to contain ACM. OSHA requires that certain building materials installed before 1981 be presumed to contain asbestos unless laboratory analysis proves otherwise. Building materials which are presumed to contain asbestos are:
- 1) All thermal system insulation (i.e., insulation applied to pipes, fittings, boilers, breeching, tanks, ducts, or other structural components to prevent heat loss or gain) in buildings constructed before 1981;
 - 2) All surfacing material (i.e., material that is sprayed on, troweled on, or otherwise applied to surfaces, such as plaster on ceilings and walls, fireproofing materials on structural members, and other materials applied to surfaces for acoustical, fireproofing, or other purposes) in buildings constructed before 1981;
 - 3) Asphalt and vinyl flooring and floor tiles installed before 1981; and

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- 4) Dust, waste, and debris in the vicinity of accessible thermal system insulation or surfacing material which is not intact.

Asbestos can also be found in roofing materials, transite pipe sheet goods, wallboard, ceiling tiles, fire doors/stops, and other fireproofing materials. If, based on the construction date of the building, the installation date of the material, the material's product or brand name, its physical appearance, information supplied by the building owner, or other objective information or observation, an employee reasonably suspects that the material may contain asbestos, such material should be considered suspect and should be treated as ACM under the requirements of this practice, unless and until laboratory testing proves that it is not ACM.

- 4.02 Typical SWBT operations in which ACM may be encountered include building maintenance (HVAC thermal insulation, sprayed-on acoustical material), wire installation (sprayed-on insulation, building duct work and piping, firestops in central offices, exterior transite siding, and interior walls), and floor tile drilling for equipment installation.
- 4.03 OSHA has established stringent requirements for activities which disturb ACM and result in exposures above permissible limits. These requirements must be implemented unless exposure testing demonstrates that the activity will not result in an exposure above permissible limits. When exposure testing demonstrates that a specific work activity will not result in exposure above permissible limits, it is referred to as a "negative exposure assessment" (NEA).

NEAs have been made with regard to three specific work activities performed by SWBT employees, in accordance with current OSHA protocol. These activities are as follows:

- 1) Drilling Equipment Mounting Holes in Vinyl Floor Tile for Installation of Anchors for Central Office Equipment.
- 2) Asbestos Siding Hole Drilling Operations for Installation of Wire and Mounting Equipment.
- 3) Interior Wall Drilling Operations for Installation of Wire and Mounting Equipment.

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The NEAs demonstrated that standard SWBT procedures for drilling holes into asbestos siding and interior walls for installation of wire and mounting equipment do not result in exposures above permissible limits. Therefore, no other procedures are necessary for these drilling operations. However, Asbestos Awareness training is required for all employees engaged in these activities. The NEA for Vinyl Floor Tile Drilling Operations does require specific procedures (see Section 10.03) and training (see Section 10.04) for all employees engaged in ACM vinyl floor tile drilling operations.

5. COMPANY SAFETY RESPONSIBILITIES

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

5.01 Company Safety will:

- a. Provide advice and consultation along with Environmental Management when questions arise regarding the proper performance of work operations and OSHA requirements for ACM management.
- b. Be the primary source for monitoring and determining the impact of OSHA ACM regulations on SWBT operations and for modification of this Practice in accordance with the procedures described herein.
- c. Be contacted in any case involving a suspected accidental occupational exposure to asbestos.
- d. Respond to an employee complaint regarding asbestos exposure.
- e. Coordinate the annual NEA recertifications for all NEA's described in Section 4.03.
- f. Maintain all training materials for initial and annual refresher courses in Asbestos Awareness and Floor Tile Drilling Work Operations (see Section 12).

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6. ENVIRONMENTAL MANAGEMENT (EM) RESPONSIBILITIES

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

6.01 Environmental Management will:

- a. Provide advice and consultation along with Company Safety when questions arise regarding the proper performance of work operations and EPA, state, and local requirements for ACM management.
- b. Be the primary source for monitoring and determining the impact of EPA, state, and local ACM regulations (and, in conjunction with Procurement Services, DOT regulations) on SWBT operations.
- c. Be responsible for modification of this Practice, in conjunction with Company Safety, in accordance with the procedures described herein.
- d. Operate the Asbestos NEA Management Center (see Section 6.02).
- e. Verify all employee training stipulated herein, to include OSHA "Competent Person" training, and initial and annual Asbestos Awareness training (see Section 12).
- f. Be responsible for advising Company Safety of the need to perform the annual NEA recertification.
- g. Maintain documentation of disposal records from Vinyl Floor Tile Drilling Operations described in Section 10.
- h. Periodically audit shipment receipt records to verify proper disposition of waste and debris from Vinyl Floor Tile Drilling Operations described in Section 10.

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6.02 Asbestos NEA Management Center

The purpose of the NEA Management Center is to maintain various ACM-related documentation, including training documents SWBT requires by contract from certain suppliers (see Section 11) and completed NEA forms for all jobs completed under Section 10.03 (Vinyl Floor Tile Drilling Operations). The NEA Management Center will also maintain the annual recertifications of all three NEA's described in Section 4.03.

The NEA Center will be managed by Environmental Management and is located in Three Bell Plaza, Room 900, Dallas, Texas 75202. The Center can be contacted by calling:

1-800-854-5825

The method for collecting and maintaining NEA documentation is as follows:

- a. For Vinyl Floor Tile Drilling Operations conducted in accordance with Section 10 of this Practice:
 - (1) A person who has been trained as an OSHA Competent Person in accordance with Section 12 of this Practice will complete the NEA form (Exhibit 1) and mail or fax (214-464-1424) the original to the NEA Management Center within two (2) days of completion of the job.
 - (2) The NEA forms will be filed by state and Telephone Equipment Order (TEO) number.
 - (3) These records will be maintained for the life of the building plus 50 years.
 - (4) The annual NEA recertification for Vinyl Floor Tile Drilling Operations will also be maintained by Environmental Management at the NEA Management Center. Copies of the NEA and recertifications are available through Environmental Management at 1-800-854-5825.
- b. For ACM Exterior Siding and Interior Wall Drilling Operations conducted in accordance with standard SWBT procedures (see Section 4.03):

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The annual NEA recertifications for ACM Siding and Interior Wall Drilling Operations will be maintained by Environmental Management at the NEA Management Center. Copies of these NEA's and recertifications are available through Environmental Management at 1-800-854-5825.

- c. Training documents SWBT requires by contract from central office equipment installation vendors/suppliers (see Section 11) will also be maintained by the NEA Management Center.

7. CORPORATE REAL ESTATE (CRE)

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

7.01 Design and Construction Responsibilities:

- a. Coordinate and ensure that all demolition and renovation activities conducted in buildings owned or leased by SWBT are performed in accordance with the procedures detailed herein.
- b. Coordinate and ensure that all building repair and maintenance operations conducted in buildings owned or leased by SWBT are performed in accordance with the procedures detailed herein.
- c. Through the Asbestos Control Centers (ACCs), develop, implement, and update building Asbestos Operations and Maintenance (O&M) Plans in accordance with state specific requirements for content and preparation criteria. Property Management will ensure the O&M Plans are present in each affected building.
- d. Establish and maintain two Asbestos Control Centers (ACCs) to manage all renovation, demolition, and maintenance activities involving confirmed or presumed ACM. One ACC (located in Dallas, Texas) will be devoted to projects in Texas, and the other (located in St. Louis, Missouri) to all MOKA (Missouri, Oklahoma, Kansas, Arkansas) projects. Specific ACC responsibilities are detailed below.

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7.02 Renovation and Demolition Activities

a. Site Survey

Prior to beginning a renovation or demolition project, the Design and Construction Project Manager, through the ACC, will have the area inspected by an appropriately certified/licensed person for the presence of ACM. All presumed and suspect ACM will be tested to either confirm that it is ACM or to rule it out. The results of the inspection will be incorporated into the building asbestos O&M plan.

b. ACM Abatement

If it is determined that confirmed ACM may be impacted by the project, the material will be removed safely by appropriately certified/licensed personnel prior to renovation or demolition activities in accordance with federal, state and local regulations. In addition, ACC personnel will comply with the following SWBT minimum performance criteria:

- (1) Notify the Company Safety Manager for the relevant geographical area when full containment Asbestos Abatement Projects are performed.
- (2) Hire an appropriately certified/licensed abatement contractor to remove the ACM.
- (3) Hire an appropriately certified/licensed air monitoring contractor (separate from the abatement contractor, if necessary) to provide the air monitoring data required.
- (4) Notify the Company's insurance provider of the activity on a quarterly basis.
- (5) Verify that notification is made to the proper regulatory agency in the appropriate time frame.
- (6) At the conclusion of the project, gather all of the project documents, which include:
 - (i) - Bulk sample analysis
 - (ii) - Ambient and personal air monitoring results

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- (iii) - Building code and geographic location code
 - (iv) - Contractor name, address, phone & fax number
 - (v) - Consultant name, address, phone & fax number
 - (vi) - The state notification (if required)
 - (vii) - Design specifications (if required)
 - (viii) - Method of Procedures (MOP) (if required)
 - (ix) - Waste manifest and certificate of disposal
 - (x) - Copy of final bill or invoice
 - (xi) - Drawings showing all affected areas
- (7) Project documentation will be filed at the ACC locations in Dallas, TX or St. Louis, MO within 30 days of completion of the project.
- (8) Update the O&M Plan to reflect the abatement activity. Property Management is responsible for posting the updated plans in the buildings.

7.03 Property Management Responsibilities:

a. Building Repair and Maintenance

When it is determined that building materials are in need of repair and that such materials are confirmed, presumed, or suspect ACM, the ACC must be notified. The ACC, in conjunction with the person requesting repair, will determine whether time permits testing of any presumed or suspect ACM. If ACM is confirmed, or if time does not permit the testing of any presumed or suspect ACM, the ACC will arrange to have the repairs done by appropriately certified/licensed personnel in accordance with all federal, state, and local regulatory requirements. In addition, the ACC will comply with the following SWBT minimum performance criteria:

- (1) Verify that any required notifications are made to the proper regulatory agency in the appropriate time frame.
- (2) If required, hire an appropriately certified/licensed air monitoring contractor (separate from the maintenance/repair contractor,

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if necessary) to provide the air monitoring data required.

- (3) At the conclusion of the project, gather all of the project documents, which include:
 - (i) - Bulk sample analysis (if applicable)
 - (ii) - Ambient and personal air monitoring results (if applicable)
 - (iii) - Building code and geographic location code
 - (iv) - Contractor name, address, phone & fax number
 - (v) - Consultant name, address, phone & fax number
 - (vi) - The state notification (if required)
 - (vii) - Design specifications (if required)
 - (viii) - Method of Procedures (MOP) (if required)
 - (ix) - Waste manifest and certificate of disposal
 - (x) - Copy of final bill or invoice
 - (xi) - Drawings showing all affected areas

Project documentation will be filed at the ACC locations in Dallas, TX or St. Louis, MO within 30 days of completion of the project.

- (4) Update the O&M Plan to reflect the activity. Property Management is responsible for posting the updated plans in the buildings.
- b. Verify that an Asbestos O&M Plan is present at each building location as necessary.
 - c. Notify building employees of all ACM activities, location of the O&M Plan, and the necessity of their following the work practices stated in the plan.
 - d. Conduct regular surveillance of confirmed and presumed ACM in the building to determine if action is required to remove the material.
 - e. Notify building tenants of the presence and location of confirmed and presumed ACM in their leased spaces.
 - f. Notify custodial/housekeeping contractors and other contractors and SWBT employees who may encounter confirmed or presumed ACM in the conduct of their job duties of its presence and location.

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- g. Maintain proper signage and labeling of confirmed and presumed ACM.

7.04 Operations and Maintenance Plans

When all or part of confirmed or presumed ACM in a building is to be managed in place, there must be an O&M Plan developed for that building. The O&M Plan will detail locations of confirmed and presumed ACM and the requirements for management of the materials. The ACC is responsible for maintaining and updating the plan. The plan must be developed in accordance with state-specific requirements for content and preparation criteria.

Elements of the O&M Plan include:

- (1) A written statement of the intent of the program.
- (2) Notification of the presence and location of presumed and confirmed ACM, by proper signage and labeling or otherwise, to building occupants, contractors, and SWBT employees who may encounter the ACM.
- (3) Employee training and education.
- (4) Scheduling of O&M activities.
- (5) Establishment of good work practices and procedures for cleaning, maintaining, renovating, remodeling and repairing buildings wherever confirmed or presumed ACM is present.
- (6) Regular surveillance of confirmed and presumed ACM still present in the facility.
- (7) Maintenance of accurate records of all activities involving confirmed and presumed ACM.

7.05 Periodic Visual Inspections

Periodic visual inspections will be performed on buildings in which an asbestos survey has confirmed the presence and location of ACM or when it has been determined that presumed ACM exists. The Property Manager will be responsible for performing reassessments of the condition of confirmed and presumed ACM and for coordinating with the ACC to update the O&M Plan. The survey must be performed in accordance with applicable regulatory requirements for training, frequency, and method as specified in each site-specific O&M Plan. The frequency of the surveys will be based on specific building condition assessment criteria detailed in the O&M Plan.

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7.06 Training Requirements

At a minimum, all Design and Construction Project Managers, Property Managers, Air Conditioning Specialists, and other SWBT employees who may encounter ACM (confirmed, presumed, or suspect) in the conduct of their job duties or who evaluate building and operations for suspect ACM, must receive initial Asbestos Awareness training and annual refresher training in accordance with Section 12 protocols and procedures. This training will allow employees to perform work in the vicinity of ACM but will not permit them to perform work which could result in a disturbance of ACM (e.g., disruption of the matrix of the material, crumbling or pulverizing it, or generating visible dust). Activities which may result in the disturbance of ACM MUST NOT be performed by SWBT personnel, except that ACM Vinyl Floor Tile, Exterior Siding, and Interior Wall Drilling Operations may be conducted as detailed herein (see Section 4.03).

8. OUTSIDE PLANT (OSP) DESIGN ENGINEERS

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

8.01 OSP Design Engineers will have the following responsibilities when designing a cable job:

- a. When planning the job, contact the building owner/manager to determine if ACM (confirmed, presumed, or suspect) is known to be present in the area of the planned cable/wire route.
- b. If the building owner or representative reports no ACM, it is recommended that a request be made of the building owner to confirm this fact in writing. Documentation shall be filed in the Engineering Work Order.
- c. If the area is confirmed, presumed, or suspected to contain ACM which may be disturbed in the course of the activity, but the only operations which may disturb the ACM are hole drilling operations for installation of wire and mounting equipment in ACM exterior siding or interior walls, then, as long as current procedures for hole drilling are used, the work can proceed. As discussed at Section 4.03

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above, SWBT has obtained NEA's for these operations under current procedures. The NEA's are maintained and annually recertified by Environmental Management.

Copies may be obtained by contacting Environmental Management at 1-800-854-5825.

- d. If the area is confirmed, presumed, or suspected to contain ACM which may be disturbed in the course of the activity, and operations other than, or in addition to, those described immediately above in Paragraph C. are involved, a determination shall be made as to whether an alternate route which will not involve potential ACM disturbance is feasible.
- e. If no alternate route is feasible, and the activity may disturb the ACM, prior to performing the work, the building owner must either:
 - (1) Have the ACM removed by appropriately certified/licensed personnel; or,
 - (2) Have the area of potential ACM impact encapsulated or enclosed by appropriately certified/licensed personnel to provide safe access for SWBT personnel; or,
 - (3) Request that SWBT arrange for appropriately certified/licensed personnel to remove, enclose, or encapsulate the area of potential ACM impact; or,
 - (4) Request that SWBT arrange for appropriately certified/licensed personnel to place the cable; or,
 - (5) In the case of presumed or suspect ACM, have the material sampled and tested to rule out the presence of ACM.
- f. Any specific requirements/information relative to ACM evaluation must be included on the project work print.
- g. Training Requirements

At a minimum, all OSP Design Engineers and other SWBT employees who may encounter ACM (confirmed, presumed,

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or suspect) in the conduct of their job duties must receive initial Asbestos Awareness training and annual refresher training in accordance with Section 12 procedures and protocols. This training will allow employees to perform work in the vicinity of ACM, but will not permit them to perform work which could result in a disturbance of ACM (e.g., disruption of the matrix of the material, crumbling or pulverizing it, or generating visible dust). Activities which may result in the disturbance of ACM MUST NOT be performed by SWBT personnel, except that ACM Vinyl Floor Tile, Exterior Siding, and Interior Wall Drilling Operations may be conducted as detailed herein (see Section 4.03).

9. INSTALLATION AND MAINTENANCE OPERATIONS

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

These procedures are designed to address situations encountered by field technicians and supervisors when they come into contact with ACM. The most frequently encountered materials include sprayed-on/troweled-on structural membrane insulation, sprayed-on/troweled-on wall plaster, and asbestos siding. ACM may also be encountered less frequently in acoustical ceiling tiles. The following procedures shall be followed as they apply to construction, installation, and/or repair activities.

9.01 Design Engineering, Building Distribution System/Local Area Networks (BDS/LAN) and Field Installation and Maintenance Technicians.

If the work print does not indicate that an OSP engineer has previously assessed the job for potential ACM impact (see Section 8), the following procedures must be followed:

- a. When planning the job, the manager will contact the building owner/manager to determine if ACM (confirmed, presumed, or suspect) is known to be present in the area of the planned cable/wire route.
- b. If the building owner or representative reports no ACM, it is recommended that the manager request the building owner to confirm this fact in writing.

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Documentation shall be filed in the Engineering Work Order.

- c. If the area is confirmed, presumed, or suspected to contain ACM which may be disturbed in the course of the activity, but the only operations which may disturb the ACM are hole drilling operations for installation of wire and mounting equipment in ACM exterior siding or interior walls, then, as long as current procedures for hole drilling are used, the work can proceed. As discussed at Section 4.03 above, SWBT has obtained NEA's for these operations under current practices. The NEA's are maintained and annually recertified by Environmental Management. Copies may be obtained by contacting Environmental Management at 1-800-854-5825.
- d. If the area is confirmed, presumed, or suspected to contain ACM which may be disturbed in the course of the activity, and operations other than, or in addition to, those described immediately above in Paragraph C. are involved, then a determination shall be made as to whether an alternate route which will not involve potential ACM disturbance is feasible.
- e. If no alternate route is feasible, and the activity may disturb the ACM, prior to performing the work, the building owner must either:
 - (1) Have the ACM removed by appropriately certified/licensed personnel; or,
 - (2) Have the area of potential ACM impact encapsulated or enclosed by appropriately certified/licensed personnel to provide safe access for SWBT personnel; or,
 - (3) Request that SWBT arrange for appropriately certified/licensed personnel to remove, enclose or encapsulate the area of potential ACM impact; or,
 - (4) Request that SWBT arrange for appropriately certified/licensed personnel to place the cable; or,

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- (5) In the case of presumed or suspect ACM, have the material sampled and tested to rule out the presence of ACM.

9.02 Training Requirements

At a minimum, all Building Distribution System/Local Area Networks (BDS/LAN) and Field Installation and Maintenance managers and technicians and other SWBT employees who may encounter ACM (confirmed, presumed, or suspect) in the conduct of their job duties must receive initial Asbestos Awareness training and annual refresher training in accordance with Section 12 procedures and protocols. This training will allow employees to perform work in the vicinity of ACM, but will not permit them to perform work which could result in a disturbance of ACM (e.g., disruption of the matrix of the material, crumbling or pulverizing it, or generating visible dust). Activities which may result in the disturbance of ACM MUST NOT be performed by SWBT personnel, except that ACM Vinyl Floor Tile, Exterior Siding, and Interior Wall Drilling Operations may be conducted as detailed herein (see Section 4.03).

10. CENTRAL OFFICE OPERATIONS

NOTE: The term "ACM" means "confirmed, presumed, AND suspect asbestos-containing materials," unless otherwise indicated. (See Sections 1.01 and 4.01.)

10.01 Network Engineering Responsibilities

- a. The Equipment Engineer is responsible for identifying in the TEO (Telephone Equipment Order) when ACM may be encountered in the installation of anchors for central office equipment. If ACM may be encountered, the engineer shall include the following note in the TEO:

Certain types of asbestos-containing materials may be found in the building and equipment. These include resilient flooring, BDFB Power Boards, and cable hole firestop covers. BDFB Power Boards and cable hole firestop covers are to be removed intact. Activities which impact (e.g., removal, drilling) resilient flooring are prohibited unless performed in accordance with regulatory requirements for work controls and training. For activities involving drilling into

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vinyl asbestos floor tile only, SWBT established a Negative Exposure Assessment (NEA) for the activity. All SWBT employees and suppliers must either be trained in methods and procedures consistent with the NEA and meet OSHA "competent person" criteria, or be properly licensed/certified/trained in accordance with federal and state regulatory requirements.

- b. Except when the authorized Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile described below are used, whenever ACM is encountered (confirmed, presumed, or suspect), the engineer must contact the Asbestos Control Center (ACC) for MOKA or Texas.
- c. To drill equipment mounting holes in vinyl tile, employees must have received training and must follow prescribed Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile detailed in Section 10.03. Suppliers must have received training in procedures consistent with the NEA and must meet OSHA competent person criteria.
- d. Maintenance Engineering is responsible for conducting quality audits to ensure that both internal and external installation personnel adhere to SWBT's procedures as described herein when installing and removing equipment where confirmed or presumed ACM may be encountered.
- e. Maintenance Engineering shall request the installation supplier to verify that installers working on SWBT premises have received the training required to perform hole drilling operations for equipment mounting in vinyl floor tile.

10.02 Central Office Equipment Installation (COEI) Responsibilities

Central Office Equipment Installation (COEI) personnel shall adhere to SWBT's procedures, as described in this Practice, when installing and removing equipment where ACM (confirmed, presumed, or suspect) may be disturbed.

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10.03 Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile for Installation of Anchors for Central Office Equipment

All employees who perform drilling operations on ACM (confirmed, presumed, or suspect) vinyl floor tile must adhere to the procedures detailed herein and complete the compulsory training prescribed in Section 12 of this Practice prior to conducting the activity. Suppliers must comply with the terms stipulated in their contract as referenced in Section 11, receive training in procedures consistent with the NEA, and meet OSHA competent person criteria prior to performing the activities specified herein. Requirements and procedures for performing the activity are detailed below.

- a. The following equipment and supplies are required for the procedure:
 - (1) Impact drill with masonry bit.
 - (2) Debris encapsulant (LEPEC, shaving cream or shaving gel).
 - (3) Cleaning cloths.
 - (4) Self-Seal Plastic Bags.
 - (5) Sturdy Shipping Container (e.g. padded envelope or cardboard box).

- b. The properly trained OSHA competent person (see Section 12.02) will ensure that the proposed activity meets the conditions prescribed by the NEA for the activity as detailed in the training program.

- c. The location for the hole(s) will be marked on the flooring, and a properly trained OSHA competent person will drill the hole(s) as follows:
 - (1) Position the drill bit on the mark and apply an ample amount of debris encapsulant, covering about an inch of tile around the drill bit.
 - (2) Drilling will proceed at low speed until a hole is drilled into the concrete substrate to the required depth.
 - (3) Drilling will be stopped and the bit slowly retracted without disturbing the debris, concrete and encapsulant around the hole.

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- (4) Wipe the debris, concrete dust, and encapsulant off the drill bit with a wet cloth. Remove any debris, concrete dust, and encapsulant from the floor with a wet cloth, and place the cloths into a plastic bag and seal them.
- (5) All debris will be double bagged in self-seal plastic bags, placed in a sturdy shipping container, such as a padded envelope or cardboard box, and sealed. The package will be labeled "C.O. Drilling Tile" and sent via company mail to COEI, 11910 Shiloh Rd., Suite 180, Dallas, Texas.
- (6) The properly trained SWBT OSHA competent person will complete the NEA form (Exhibit 1) and forward it within two (2) days of the activity to the Environmental Management NEA Management Center (see Section 6.02). Suppliers will follow the procedures for documentation specified in their contracts (Section 11).

10.04 Training Requirements

Engineering and COEI employees involved in the Special Procedures for Drilling Equipment Mounting Holes into Vinyl Floor Tile, or involved in instructing others to perform these procedures, shall receive initial training and annual refresher training. The training required to perform these activities is as follows:

- a. Asbestos Awareness Training;
- b. Special Floor Tile Drilling Training Supplement; and,
- c. Annual Refresher Training.

Training will be performed and documented in accordance with the protocols and procedures detailed in Section 12.

11. PROCUREMENT SERVICES

11.01 Procurement Services will:

- a. Provide advice and consultation, along with Company Safety and Environmental Management, when questions arise regarding the proper performance of work operations and DOT requirements for ACM management.
- b. Be the primary source for monitoring and determining the impact of DOT ACM regulations on SWBT operations.

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- c. Be responsible for modifications of this Practice to comply with DOT regulations, in conjunction with Company Safety and Environmental Management and in accordance with the procedures described herein.

11.02 Procurement Contracting

All contractors applying for or bidding on work to be performed on property owned or leased by SWBT which may disturb confirmed or presumed ACM (and all housekeeping/custodial contractors in such buildings) must be notified of the presence of the confirmed and/or presumed ACM prior to application or bidding. Specific information on the type, location, and quantity of such ACM is to be provided by either the Design and Construction Project Manager or the Property Manager upon request of the contractor. Furthermore, all contracts for such work must include a statement advising the contractor of the presence of such ACM in the building. All contractors performing such work must contact either the Design and Construction Project Manager or the Property Manager for specific information before performing work in the building. Contractors shall train their employees in accordance with federal, state and local requirements. Specific additional language should be stipulated in the contracts for central office equipment installation, to include:

- a. Documented training in Asbestos Awareness as prescribed by OSHA and in methods and procedures for drilling equipment mounting holes in vinyl floor tile that are consistent with the NEA established for that specific activity and with OSHA "competent person" criteria.
- b. Detailed requirements for NEA and training documentation retention and submittal.
- c. A requirement that all waste and debris be disposed of in the manner described herein.

All training documentation required of central office equipment installation vendors/suppliers shall be submitted to and maintained by Environmental Management at the NEA Management Center (see Section 6.02).

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Procurement Contracting is responsible for negotiating and securing all contracts with suppliers for services which may disturb or involve physical contact with ACM in SWBT buildings. These services shall include, but not be limited to, ACM removal and disposal, air monitoring, sampling, repair and maintenance, central office equipment installation, custodial/housekeeping services, and other ACM related activities.

12. TRAINING PROTOCOLS AND PROCEDURES

12.01 Asbestos Awareness Training

As stated in Section 1.03, it is SWBT policy that all employees who may encounter ACM (confirmed, presumed, or suspect) in the conduct of their job duties must receive initial Asbestos Awareness and annual refresher training.

Current personnel who may encounter ACM in the conduct of their job duties and be subject to this requirement include:

- Building Distribution System/Local Area Networks (BDS/LAN) Technicians;
- Building Distribution System/Local Area Networks (BDS/LAN) Managers;
- Field Installation and Maintenance Technicians;
- Field Installation and Maintenance Managers;
- Outside Plant Design Engineers;
- Network Engineering TEO Engineers;
- Central Office Equipment Installers;
- Air Conditioning Specialists;
- Building Mechanics;
- Property Managers;

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- Design and Construction Project Managers;
- Environmental Managers;
- NEA Management Center Personnel;
- Safety Managers.

[Note: All suppliers installing central office equipment in ACM vinyl floor tile will be responsible for obtaining initial and refresher Asbestos Awareness training prior to performing work for SWBT. Training and documentation will be a stipulated contract requirement. Training documentation will be maintained by Environmental Management at the NEA Management Center in accordance with contract terms.]

Procedures for initial Asbestos Awareness and annual refresher training are as follows:

a. Initial Asbestos Awareness Training

The immediate supervisor of each employee who is required to take Asbestos Awareness training is responsible for ensuring that such training is completed and documented. Training materials, including an Asbestos Awareness video, and information on training are available from Company Safety. Initial training for all employees will be documented in MTRS by completing Exhibit 2 attached hereto. Non-management training will also be documented by supervisors on employee OP28 work observation cards. Management employees will be responsible for updating their own Record of Management Training Form SW 1006b.

b. Refresher Asbestos Awareness Training

The immediate supervisor of each employee required to take initial Asbestos Awareness training will be responsible for ensuring that such employee receives annual Asbestos Awareness refresher training, and that the training is documented as detailed herein. Asbestos Awareness refresher training will be performed using Safety Lesson Plan #75029, "Asbestos Refresher Training", available through Company Safety via fax on demand or by a subsequent viewing of the Asbestos Awareness video.

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For non-management personnel, refresher training will be documented by supervisors on employee OP28 work observation cards. Management employees will be responsible for updating their own Record of Management Training Form SW 1006b.

12.02 Training for Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile for Installation of Anchors for Central Office Equipment

In addition to Asbestos Awareness training detailed in Section 12.01, the following personnel (if they perform drilling operations or assume the role of a "competent person") must receive initial and annual refresher training for Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile for Installation of Anchors for Central Office Equipment. This training will qualify employees to be OSHA "competent persons" for purposes of NEA implementation and documentation.

- Network Engineering Engineers.
- Central Office Equipment Installers (COEI).
- Central Office Equipment Installer Managers.

[Note: All suppliers installing central office equipment in ACM vinyl floor tile must receive initial and annual refresher training in methods and procedures for drilling equipment mounting holes in vinyl flooring that are consistent with the NEA established for that specific activity and with OSHA "competent person" criteria. Training and documentation will be a stipulated contract requirement. Training documentation will be maintained by Environmental Management at the NEA Management Center in accordance with contract terms.]

Procedures for initial Vinyl Floor Tile Drilling and annual refresher training are as follows:

a. Initial Vinyl Floor Tile Drilling Training

Each manager supervising employees who are required to take initial training in Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile as identified above shall ensure that such personnel

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receive the training prior to performing any installation of anchors for central office equipment.

Initial training can be performed using one of the following methods:

- (1) SWBT personnel specially trained as trainers for Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile can perform the initial training; or,
- (2) Training can be received from an Environmental Management or Safety Staff approved outside vendor.

For all personnel, initial training will be documented in MTRS. Non-management training will also be documented by supervisors on employee OP28 work observation cards. Management personnel will be responsible for updating their own Record of Management Training Form SW1006b.

b. Refresher Vinyl Floor Tile Drilling Training

Each manager supervising employees who are required to take annual refresher training in Special Procedures for Drilling Equipment Mounting Holes in Vinyl Floor Tile as identified above shall ensure that such employees take the training. Refresher training is provided in Safety Lesson Plan #75029, "Asbestos Refresher Training," available through Company Safety via fax on demand.

For non-management personnel, refresher training will be documented by supervisors on the employee OP28 work observation cards. Management personnel will be responsible for updating their own Record of Management Training Form SW1006b.

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NEGATIVE EXPOSURE ASSESSMENT
for
DRILLING HOLES IN ASBESTOS FLOOR TILE

A. Initial information on work being performed

Job # _____

1. Description of work

This work will be performed at _____
Location
City
State

by employees of _____
Name of employer

based at _____
Location of work center

The procedure used for installation of equipment on asbestos-containing resilient floor tile includes drilling holes in the tiles, using an encapsulant to control debris and fiber release.

Procedure HD2: Hole drilling with encapsulant is attached to this NEA.

2. Type and amount of material

Work will be performed on 9" x 9" and/or 12" x 12" resilient floor tile, installed on a concrete floor, and the associated adhesive mastic.

3. Type and percent asbestos

The floor tile is presumed to contain asbestos and no samples have been taken for analysis.

4. Engineering controls - No engineering controls are required

5. Worker's training and experience

Workers have completed 2-hour Awareness Training course, plus training in use of the HD-2 procedure attached to this NEA. This training included "hands-on" exercises using non-asbestos floor tile similar to the asbestos-containing material on which the work will be performed.

6. Class of work

Class III work - Maintenance and repair on Class II material - resilient floor covering.

B. Methods of determining NEA (complete 1, 2 or 3)

1. Objective data determination - n/a

2. Initial Exposure Assessment (IEA)

a. *Name of person performing IEA:* Andrew F. Oberta, PE, CIH, The Environmental Consultancy, Austin, TX, a licensed asbestos consultant (TDH License No. 10-5430).

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b. *Was a project design completed for this project?* Yes. Test procedures and air sampling procedures were prepared, and a drawing of the test facility was provided.

c. *Were engineering controls implemented as designed?* Yes.

d. *Results of an 8-hr TWA:* No 8-hr TWA exposures were calculated. The sample results in Table 1 are for the actual duration of sampling, which ranged from 20 to 230 minutes (average =62). 8-hr TWA exposures would be 50% or less than the values in Table 1, all of which are below the PEL of 0.1 fibers/cc.

e. *Results of a 30-minute STEL:* All of the STEL samples (Table 1) are below the excursion limit of 1.0 fibers/cc.

f. *How were the samples analyzed?* Phase Contrast Microscopy using NIOSH Method 7400.

g. *Are the results less than the PEL and STEL?* Yes. In addition, the 95% UCL for all procedures is below the PEL and STEL, as shown in Table 1.

h. *Were the samples taken representative of all operations which will take place during the work?* Yes, provided that the workers receive training in using the Procedure HD2, that they use similar equipment and materials, and that work is limited to resilient floor tile. This NEA is not applicable to sheet vinyl linoleum with asbestos backing material.

3. Previous Data - n/a

CERTIFICATION OF NEGATIVE EXPOSURE ASSESSMENT

Based on the information described in Section B, the asbestos repair and maintenance operation can proceed with the engineering controls detailed in Section A.

Name: _____ Signature: _____ Date: _____
 PRINT name of competent person

Installer _____ [PRINT name] ID# _____

Installer _____ [PRINT name] ID# _____

Installer _____ [PRINT name] ID# _____

**Table 1. Summary of Personal Samples for Procedure HD2
 Sampling performed on October 10, 17, and 23, 1996***

	<u>PEL samples</u>	<u>STEL samples</u>
No. of tests	3	3
No. of samples.....	8	16
Range, fibers/cc.....	0.0053 - 0.0114	0.0237 - 0.098
Average, fibers/cc.....	0.008	0.033
95% UCL, fibers/cc.....	0.012	0.062

*** Employer is responsible for obtaining current (within 12 months) air sampling data.**

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Procedure HD2 - Hole Drilling with Encapsulant

1. This procedure is used for drilling holes through resilient floor tile with an impact drill and masonry bit for installation of equipment.
2. The following equipment and supplies are required for this procedure:
Impact drill with masonry bit, debris encapsulant (Palmolive™ shaving cream or equivalent), wet paper towels, marking pen.
3. The impact drill shall be on a GFCI circuit and safety glasses shall be worn.
4. Before starting to drill, wet several paper towels, folded flat, and put them in a plastic bag.
5. Mark the location of the hole(s) on the floor tile.
6. Drill the hole(s) as follows:
 - a. Position the drill bit on the mark and apply the debris encapsulant, making a mound about two-inches in diameter and a half-inch deep around the drill bit.
 - b. Turn the drill on low speed and slowly drill through the tile into the concrete to the required depth.
 - c. Turn off the drill and slowly retract the bit without disturbing the debris, concrete dust, and encapsulant around the hole.
7. Wipe the debris, concrete dust, and encapsulant off the drill bit with a paper towel. Put the towel in a sealable plastic bag - do not re-use it.
8. Remove the encapsulant from the floor with a wet paper towel. If any dust or debris got through the encapsulant, wipe it up with paper towels. Do not step on any concrete dust or tile debris. Put the towel in a sealable plastic bag.
9. Wipe the floor again around the hole with a wet paper towel, holding it flat against the floor with the palm of you hand. Wipe ONCE in an S-pattern. Do not re-use the towel.
10. Wipe the floor again in an S-pattern, at right angles to the direction that you wiped the first time. Do not re-use the towel.
11. Continue wiping in alternating S-patterns until you cannot see or feel any dust or debris. Put all paper towels in sealable plastic bags as soon as you finish using them.
12. Drill the remaining holes. After you finish using this procedure, dispose of the plastic bags with the paper towels according to the instructions for the building you are working in.

