



Southern Global Safety Services, Inc. Standard Operating Procedures

Southern Global Safety Services, Inc has developed and implemented a standard operating procedure for performing abatement work to ensure maximum protection from asbestos exposure of the workers, visitors, public, owner's, employees, and the environment. It is the intent of the Standard Operating Procedures to comply with OSHA Regulation's 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1051, 29 CFR 1926.1101, 29 CFR 1910.1200, 29 CFR 1910.20, EPA and NESHAPS Regulations 40 CFR 763, 40 CFR 61, Subparts A, B, and M; and Department of Transportation Regulation 49 CFR Parts 171 through 177.

I. Standard Operating Procedure

- A. 24-hour security to prevent unauthorized entry into the workspace
- B. Visitors, workers, and Security Logs will be completed daily. Anyone entering containment will provide proper documentation, medical, training and respirator fit, before entering any abatement area.
- C. Proper protective clothing and approved respirator protection prior to entering the workspace from the outside is required
- D. Safe work practices in the work place to include:
 - 1. Inter-room communications (e.g. two-way radios)
 - 2. Prohibition of eating, drinking, and/or smoking in the work area, or in any way breaking the respiratory protection seal to the face
- E. Proper procedures for entrance into and exit from the work area through the decontamination facilities.
- F. Proper methods for removal and encapsulation in ways that minimize fiber release.
- G. Packing, labeling, loading, transporting, and disposal of asbestos contaminated material in such a way that exposure and contamination are minimized
- H. Evacuation procedures for medical and/or safety emergencies to minimize exposure potential and fire emergency planning. These areas will be covered during weekly safety

meetings before a project begins and during the abatement process as necessary. Logs will be kept of those in attendance's and subjects covered.

I. Safety procedures to prevent accidents in the work area. Specific, as well as extenuating factors that may produce injury in the work area include, but are not limited to:

1. Electrical shock hazards
2. Slippery work surfaces
3. Elevated work places
4. Entanglement and trip hazards from hoses and equipment

J. Engineering systems that minimized airborne fiber exposure in the work area (e.g. High Efficiency Particulate Air (HEPA) filtered air cleaning and local exhaust systems)

II. Notifications, Permits, Warning Signs, Labels and Posters

A. The owner in coordination with the Consultant and Southern Global Safety Services, Inc shall provide the written notification to the following regulatory authority which maintain enforcement jurisdiction (delegated by the EPA) on the project at the earliest date as determined jointly by the Owner's and the Consultant's representatives. A copy of all notifications will be provided prior to the commencement of work. No work will be performed without proper filing and approval by the enforcement authority.

The notification shall contain at minimum

1. Name and address of the operating company Southern Global Safety Services, Inc
2. Name, address, description, and use of the building and the amount of friable asbestos material present (sq ft or linear ft.)
3. Starting and completion dates of abatement program and cleanup.
4. Procedures employed to comply with applicable regulations.
5. The name and address of the waste disposal Site

B. Unless otherwise instructed, Southern Global Safety Services, Inc will secure all permits required for the abatement work, including the disposal of material containing asbestos in an approved landfill. Provide the name, address, and telephone number of the approved waste disposal site and signed receipts to the Owner for all waste containing asbestos delivered to the waste site. Final payment will not be approved until all permits are secured and submitted to the Owner.

C. The Contractor shall erect warning signs around the work area in highly visible locations to prevent potential entry from the outside. The warning signs shall be a bright color so that they will be easily noticed and shall conform to OSHA requirements.

D. Label all plastic bags and drums utilized to transport contaminated waste material to the landfill as required for regulatory compliance.

E. Southern Global Safety Services, Inc will provide any other warnings, signs, labels, barriers and posted instructions that are necessary to warn, inform and protect people from the hazards of exposure to asbestos.

F. Southern Global Safety Services, Inc. will also maintain in a prominent and convenient location on site, for the workers, a copy of the most current, applicable Environmental Protection Agency (“EPA”) and Occupational Safety and Health Administration (“OSHA”) regulations, Mine Safety and Health Administration (“MSHA”) and National Institute of Occupational Safety and Health (“NIOSH”) recommendations for asbestos abatement operations.

III. Emergency Precautions

A. Southern Global Safety Services, Inc. will maintain a minimum of 3 multi-purpose ABC rated fire extinguishers and a first-aid kit at the work site. Southern Global Safety Services, Inc. will also establish emergency procedures and exits with the Owner’s representative for evacuation in case of fire. All personnel will be trained regarding the location and the use of emergency equipment.

B. Southern Global Safety Services, Inc. will identify a local medical emergency facility in coordination with the Owner’s representative. The emergency medical facility personnel (emergency room staff) shall be notified prior to commencement of abatement operations on the possibility of handling contaminated and/or injured workmen, and shall be advised on safe decontamination procedures.

C. Southern Global Safety Services, Inc. will be prepared to administer first aid to injured personnel after decontamination. Seriously injured personnel shall be treated immediately or evacuated without delay for decontamination. When an injury occurs, all work shall stop, and implement fiber reduction techniques (e.g., wet methods, air cleaning, etc) until the injured person has been removed from the work area.

IV. Respiratory Protection

A. Prior to commencement of work Southern Global Safety Services, Inc. employees will be instructed and shall become knowledgeable about asbestos hazards and the proper use of respirators as outlined in Southern Global Safety Services, Inc Respiratory Protection Program

B. Southern Global Safety Services, Inc will provide all workers, forman, superintendents, authorized visitors and inspectors with individual issued and marked, applicable respiratory equipment approved by NIOSH. When respirators with disposable filters are employed, sufficient replacement filters, as necessary, will be provided.

C. When type “C” respirators are employed, the Air Supply System shall provide Grade “D” breathing air in accordance with OSHA 29 CFR 1910 134 and ANSI Z86. 1-1973 Compressed Gas Association Commodity Specification for Air (G 7.1,1973).

D. The Compressed Air System for Type “C” respirators shall be high pressure, with a

compressor capacity to satisfy the respirator manufacturer's recommendations. The receiver shall have sufficient capacity to allow a 5-minute escape time for the respirator wearers in the event of compressor failure or malfunction. If an oil lubricated compressor is used, it shall have a high-temperature/compressor failure alarm or a carbon monoxide alarm, or both. If only a high-temperature/compressor failure alarm is used, the air from the compressor shall be frequently tested for carbon monoxide to insure the air meets the specifications contained in paragraph 1.11 c. Suitable in-line air purifying sorbet beds and filters shall be used to assure Grade 'D' breathing air.

E. Minimum respiratory protection required is as follows:

1. Use half face, dual cartridge respirators with Type H filters (HEPA filtered for dusts, fumes, mists, radionuclides, and radon daughters) for the following:
 - a. Pre-construction isolation of work area floors, walls and opening with plastic sheeting.
 - b. Loading of drums/bags of asbestos onto trucks or into containers for transportation and unloading bags at landfill.
 - c. During final clean-up of work space, after final air monitoring has verified clearance as described in section of Final Inspection and Testing.
2. Use Type "C" or High Efficiency Powered Air Purifying Respirators for the following:
 - a. Asbestos removal operations, including removal of asbestos contaminated materials such as ceiling tiles and grid, HVAC duct work, cleaning of lights, etc.
 - b. Asbestos encapsulation operations.
 - c. Gross Clean-up operations.
 - d. Loading of gross contaminants into bags.
 - e. If Type "C" respirators are used, provide a minimum of two spare hoses to be available at any time to the Consultant, authorized visitors and inspectors to connect their assigned Type "C" respirator without having wait for substitution with the worker from the work area to obtain a hose connection.

V. Protective Clothing

A. Provide to all workers, foremen, superintendents, authorized visitors, and inspectors sufficient disposable protective clothing consisting of full body coveralls, head covers, gloves and 18-inch high boot type covers or reusable footwear or boots attached to coveralls.

B. Provide eye protection and hard hats as required by the job conditions and safety regulations.

C. Reusable footwear, hard hats, and eye protection devices shall be left in the "Contaminated Equipment Room" until they can be cleaned at the end of the asbestos abatement work.

D. All disposable protective clothing shall be discarded and disposed of as asbestos waste, every time the wearer exits from the work area, through the decontamination facility, to the outside.

VII Decontamination Facilities

A. For each abatement area, provide decontamination facilities located in an area agreed upon with the Owner. Where possible the decontamination facilities are to be located outside of occupied areas. The decontamination facilities shall include provisions for a decontamination enclosure system for loading asbestos into trucks for transport to the landfill where space allows.

B. The decontamination enclosure system for workers and visitors shall consist of, as a minimum, three rooms as follows:

1. Clean room at the entrance; followed by
2. Shower room; followed by
3. The equipment room leading to the work area

C. The decontamination enclosure system for loading of asbestos into the trucks or into a specialized container shall consist of an airlock from the work area leading into the drum wash and wipe room, and another airlock leading to the clean drum storage room, and an airlock leading to the open loading platform and trucks/container

D. An airlock is a system permitting ingress and egress without permitting air movement. It consists of two curtained doorways approximately eight feet apart, as space allows. Each curtained doorway shall be constructed by placing three 6 mil plastic sheets over a framed doorway, securing each door at the top of the doorway. The first and third sheet shall be secured on one side of the doorway and the middle sheet shall be secured on the other side of the doorway.

E. Provide provision for storage of worker's street clothes in the clean room. Provide in the same room, uncontaminated protective disposable clothing, towels, and equipment. This room shall be used by workers and visitors to change from street clothes to protective clothing and equipment prior to entering into the contaminated area, and to dress into street clothing after they have showered and dried off in the shower room as they exit from the contaminated area. An entry Exit Log will be maintained on all individual entering and exiting the Regulated Area.

F. Provide in the shower room showering facilities so arranged as to allow complete showering of workers and visitors as they exit from the contaminated area. Make provisions to prevent any contaminated run-off from the shower room. This should include filtration of the

contaminated run-off through at least one five (5) micrometer filter before entering the sanitary drainage system. The shower facilities shall be of adequate size to allow decontamination and through washing of all the workers and visitors within the 15 minutes escape time, allowed under air compressor failure.

G. Since the Equipment Room is a contaminated area, provide this room with storage for contaminated clothing and equipment. In this room workers dispose of their protective clothing, except their respirator as they prepare to enter the shower room.

H. The Drum Wash and Wipe Room shall be equipped with the capability to wash and wipe the outside of the bag or drum prior to loading onto trucks for transportation to the landfill. Also, make provisions to prevent any contaminated run-off from the Drum Wash and Wipe Room is to be located outside occupied areas.

I. The Storage Room is relatively clean since most of the contamination on drum or bag has been washed and wiped thoroughly in the wash room. Where possible, contaminated waste is not to pass through occupied areas. If a specialized container is utilized or if waste does not have to pass through occupied areas, waste may be double bagged in this room.

J. Provide adequate exhaust air ventilation in the entire Decontamination System so that air will flow from the outside into the work space.

K. A daily checklist will be maintained of the work area at the end of each shift to insure the integrity of the Containment area as well as the safety of personnel entering the work area. These checklists will be kept in the Project Data Log.

VII. Personnel Protection And Decontamination

A. Provide all personnel throughout the abatement project with the specified protective clothing and equipment. Ensure that all personnel entering and exiting the workspace comply with the following procedures:

1. Entering from outside: Change from street clothes into protective clothing and wear clean protective gear. Go through shower room into the contaminated equipment room, pick up equipment and tools and enter the work area.
2. Exiting from work area: Dispose of all protective clothing into labeled plastic bags for waste disposal. DO NOT TAKE OFF RESPIRATOR, but while still wearing the respirator, enter the shower and wash thoroughly. Remove respirator, wash and wipe thoroughly to decontaminate the respirator.
3. Post written procedures in the work place and instruct all personnel on the procedures for the evacuation of injured workers and the handling of potential fires.
4. Written instruction and training for all personnel in the proper care of their personally issued respiratory equipment, including daily maintenance, sanitary procedures,

etc will be provided.

5. Decontaminate all tools and equipment by wet methods.
6. All employees must egress the regulated area through the shower.
7. The employee will leave all contaminated clothing, equipment and items in the equipment room and enter the shower with the respirator in place.
8. Thoroughly shower, and exit to the clean room, clean and place respirator in a sealed container.

VIII. Engineering Controls

A. HEPA Exhaust: Provide a supply air to, and exhaust air from, the work area to maintain a negative pressure of 1.2-0.05” of water. The ventilation exhaust system shall operate throughout the asbestos removal process. All negative pressure exhaust asbestos removal process. All negative pressure exhaust ventilation systems shall be equipped with HEPA filters with an efficiency at a minimum of 99.97: for 0.3 micron particles. A sufficient number of exhaust ventilation units will be utilized so as to provide a complete air change in the work environment every 15 minutes.

B. Pressure Differential: A pressure-measuring device such as a water gauge or equivalent will be used to document the pressure differential. This device must be capable of recording the pressure differentials on a permanent record (i.e. strap chart, disc, etc.) and shall be properly maintained at all times. In addition, all supervisors shall sign and date the record at the end of each shift.

C. Asbestos Filtration Device (AFD): Asbestos filtration devices shall utilize high efficiency particulate air (HEPA) filtration systems as previously described.

D. Scaffolding and Ladders: Scaffolding, as required to accomplish the specified work, shall meet applicable safety regulations (29 CFR 1926.451) Ladders, as required to accomplish the specified work, shall meet applicable safety regulations (29 CFR 1926450).

E. Transportation Equipment, as required, shall be suitable for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or the environment.

F. Vacuum Equipment: All vacuum equipment used in the work area shall utilize HEPA filtration systems

G. Water Sprayer: The water sprayer shall be airless or other low pressure sprayer for amended water application

H. Other Tools and Equipment: Global Incorporated will determine and provide other

suitable tools for the stripping, removal, encapsulation, and disposal activities including but not limited to hand-held scrapers, wire brushes, sponges, rounded edge shovels, brooms, carts, and ground fault interrupters for electrical equipment

IX Asbestos Removal

A. All asbestos, to be removed, will be thoroughly wetted with water containing a wetting agent (amended water). The wetting agent will be of 50% polyoxyethylene ester and 50% polyoxyethylene ether, or equivalent, mixed one ounce to five gallons of water. Apply a low pressure fine spray of the amended water to minimize fiber release.

B. Material containing asbestos shall be thoroughly removed to the substrate and cleaned until no visible debris is remaining. Provisions will be made to prevent the material from dropping to the floor when working at heights that could cause additional gross fiber release

C. Glovebag procedures will be performed according to EPA and manufacturer's guidelines. EPA containment bag standards are outlined in document "Guidance for Controlling Friable Asbestos-Containing Material in Buildings" (EPA 560/5-83-002, March, 1983)

D. Immediately following removal, the wetted asbestos shall be packed into labeled six (6) mil plastic bags to prevent drying of the material, then thoroughly clean the exterior of the sealed plastic bags, attach a generator label, prior to bagging in a second labeled six (6) mil bag for transportation to the landfill. Procedures other than double bagging and or combination bags and drums will not be used without approval.

E. Disposal will be in a landfill meeting Texas Department of Health and Environmental Protection Agency requirements and permitted by either the state, county or municipal agency regulating landfill sites for asbestos

F. In cases where the use of water creates an immediate danger to life or health, or unacceptable damage to property. Extreme care must be exercised to remove the asbestos to minimize release of fibers. This type of work will only be performed the direct written permission consent of the Texas Department of Health and Environmental Protection Agency.

G. Global Incorporated will provide copies of all laboratory reports representing the results of the air monitoring and inspection. Air sampling results will be posted daily outside the enclosed work area, preferably outside the shower area

H. After thorough cleaning of the work space, and if a high degree of cleanliness has been achieved, the Consultant shall be notified that the work space is ready for final inspection and testing. The Consultant will visually inspect for asbestos dust or contamination. If the visual inspection does not reveal any dust or other signs of contamination, the final air testing shall be performed pursuant to TDH Requirements. An Independent Testing Laboratory will conduct the final clearance monitoring.

I. After the specified decontamination levels have been confirmed through the final testing

specified, the plastic isolation barriers will be removed, exposed. Exposed surfaces thoroughly wet cleaned and or HEPA vacuumed and the tape, plastic sheeting, material from the equipment room and shower room shall be bagged and disposed of as asbestos waste. A final inspection will be conducted by the Supervisor to ensure that no dust or debris remain on the surfaces as the result of dismantling operations.

X. Encapsulation

Encapsulation will be performed following inspection and acceptance of abated areas.

- A. During encapsulation, all HEPA and AFD devices are to be turned on.
- B. Encapsulation agents will be of the bridging or penetrating sealant types.
- C. Must have MSDS sheets on site, as well as proper training of personnel in compliance with 20 CFR 1910.1200 (HAZ-COM).
- D. Preparation and application will be done in accordance to the manufacturer's specifications using airless spraying equipment. Because application by the spraying method could cause release of residual fibers, application will be done at with low pressure.

XI. Cleaning and Final Decontamination

- A. After the abatement of asbestos has been completed and before removal of isolation barriers, the entire area shall be cleaned by wet cleaning methods and! or HEPA vacuuming After 24 hours a second cleaning shall take place utilizing the same methods if necessary All reusable contaminated equipment shall be thoroughly decontaminated utilizing wet cleaning methods.
- B. All used plastic, tape, cleaning material, and clothing shall be treated as asbestos waste material. All equipment used during the abatement work shall be thoroughly decontaminated by wet cleaning method prior to removal from the work area.

XII. Monitoring, Testing and Inspection

- A. Personal exposure monitoring will be performed by trained Air Monitoring Technicians following the Texas Department of Health, Occupational Safety and Health Administrations standards, National Institute of Occupational Safety and Health and the Environmental Protection Agency's guidelines. The continuous monitoring and checking will include collecting air samples in the work space, personal air samples by the breathing zone and air samples in the adjacent areas surrounding the work area and outside the containment area. This procedure will be in compliance with the Air Sampling Strategy Plan.
- B. Remove all heating, ventilation, and air conditioning system filters and dispose of as asbestos waste. Replace all filters at the end of the decontamination stage of the abatement. Check to make sure that automatic sprinkler systems are not shut unless necessary and then only during working period If automatic sprinkler systems are shut down, reopen during non-working periods

XIII. Restoration and Repairs

Upon completion of asbestos abatement work, Southern Global Safety Services Inc. will restore the work and staging areas to their previous conditions. For surfaces where asbestos material has been removed, the surface that remains is to be considered the previous condition.

XIV. Disposal Activities

A. Southern Global Safety Services, Inc. will determine current federal, state and local asbestos waste handling, transportation and disposal regulations for work site and for each waste disposal landfill Disposal. Landfills will comply fully with all Environmental Protection Agency, Department of Transportation and state agencies having jurisdiction over landfills, and local authorities having jurisdiction.

B. Southern Global Safety Services, Inc. will document the actual disposal of asbestos waste at the designated landfill by completing a disposal certificate and forwarding the original to the Owner or his representative.

C. Southern Global Safety Services, Inc. will only dispose of asbestos waste from the project in a landfill approved by the Environmental Protection Agency, state agency having jurisdiction over landfills, county and municipal authorities regulating the authorized disposal facility for asbestos.

END OF PROGRAM