

CONSTRUCTION DEPARTMENT SAFETY PROCEDURE  
UNION CARBIDE TECHNICAL CENTER  
SOUTH CHARLESTON, WEST VIRGINIA

SECTION VIII  
PROCEDURE  
PAGE 1 of 10  
ISSUE DATE  
SUPERSEDES

*Manager*  
*as discussing*  
*this they will*  
*contact me when ready*  
*for implementation*

SUBJECT: ASBESTOS INSULATION -- REMOVAL AND DISPOSAL

PURPOSE: Establish the minimum requirements for the removal, clean-up and disposal of asbestos containing insulation and materials.

DEFINITION: Asbestos Insulation: For the purpose of this procedure shall be defined as any insulation material that contains asbestos.

INTRODUCTION: Exposure to asbestos fibers may increase the risk of developing certain diseases over a period of years. The four (4) diseases associated with the inhalation of asbestos fibers are: asbestosis, a non-malignant scarring lung condition; cancer of the lungs, and to a lesser degree, cancer of the digestive track; mesothelioma, a rare cancer of the lining of the chest or abdominal cavities.

POLICY: No employee shall, at any time, be exposed to airborne concentrations of asbestos fibers in excess of ten fibers, longer than five (5) micrometers per cubic centimeters of air. This is the ceiling concentration prescribed in accordance with OSHA Standard 1910.1001. Also, no employees shall be exposed to airborne concentrations of asbestos fibers that exceed two fibers longer than five (5) micrometers per cubic centimeter of air based on a eight (8) hour time-weighted average.



PROCEDURE:

Pre-Job Planning

*the job plan  
for small working  
budget type (stripping &  
use time period).*

1. Prior to accepting any insulation removal project the responsible Construction or Craft Superintendent shall require that the owner of the piping or equipment from which the insulation is to be removed, provide in writing, the following information:
  1. Location of piping or equipment.
  2. Amount of insulation to be removed.
  3. The type of insulation to be removed and if it contains asbestos.
2. The Craft Supervisor responsible for the job shall notify a representative of the Technical Center Industrial Hygiene Department that asbestos insulation is going to be removed. The supervisor shall provide them with the following information:
  1. Location of the job.
  2. Date and time job will begin.
  3. Amount of insulation involved.
  4. Estimated time that will be required.
  5. The total number of employees that will be involved.

The Industrial Hygiene Representatives that may be contacted are:

|                   |    |           |
|-------------------|----|-----------|
| G. F. Hurley      | -- | Ext. 5129 |
| W. F. Blythe, Jr. | -- | Ext. 4752 |
| G. W. Bott        | -- | Ext. 4752 |

3. All employees that are to be assigned to a asbestos insulation removal project shall be notified and informed that the insulation contains asbestos and that this procedure will be enforced.

General Requirements

1. Asbestos insulation must be wetted, prior to removal and kept wet until disposal is accomplished.
  - A. If for any reason asbestos insulation cannot be wetted then all employees assigned to that project shall be required to wear a full facepiece air-supplied respirator.
2. All employees assigned to asbestos removal projects shall wear approved respiratory protective equipment. The disposable-type respirator must be worn for this type of work. The two (2) types available in the site Toolrooms and Safety Supply at Institute are:
  1. Norton 7170 Disposable Dust Respirator
  2. 3 M 8710 Disposable Dust Respirator
  3. ← (Scott Full Facepiece Supplied-Air Respirator, to be worn anytime the insulation is not wetted for removal.)

All employees assigned to this type of job and required to wear respiratory protective equipment must be trained in the proper use, care, and limitations of this equipment in accordance with the Technical Center Respiratory Protection Program. Also, any employee wearing respiratory equipment must meet the grooming guidelines specified in Procedure VIII -- 8 "Wearing Apparel and Grooming".

3. The entire work area shall be considered a restricted area and shall be roped off with yellow barricade tape sufficiently to protect all employees working in the general area from asbestos exposure.

4. Warning signs shall be posted on all sides of the area to warn all employees of the asbestos hazard. These signs and the barricade tape shall remain in place until the job is completed.

The warning signs shall read:

ASBESTOS  
DUST HAZARD  
AVOID BREATHING DUST  
WEAR ASSIGNED PROTECTIVE EQUIPMENT  
DO NOT REMAIN IN THE AREA UNLESS YOUR WORK REQUIRES IT  
BREATHING ASBESTOS DUST MAY BE HAZARDOUS TO YOUR HEALTH

These signs and the yellow barricade tape are available in the site Toolroom and Construction Safety Supply.

5. Asbestos insulation must not be dropped or thrown to the ground. It must be lowered to the ground by using a suitable container.

6. All asbestos insulation removed and related waste materials shall be placed in impermeable, labeled plastic bags. The caution label on the bag shall read:

CAUTION  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
BREATHING ASBESTOS DUST MAY CAUSE SERIOUS  
BODILY HARM

These bags are available in the site Toolrooms and Construction Safety Supply.

- A. If for any reason these bags are not available, asbestos containing waste materials may be placed in any impermeable plastic bag as long as a caution tag is attached which states the same warning found on the bag.
7. No employee shall be allowed to leave the restricted (barricaded) area while wearing contaminated clothing.
8. All contaminated clothing shall be placed in the proper disposal bags and disposed of in accordance with the disposal requirements on page 7.
9. Contaminated Clothing shall be disposed at the end of each day or upon completion of the job if the job takes less than one day.
10. Any re-usable equipment, such as, supplied air respirators which requires cleaning after each use shall be placed in the proper bags and identified as contaminated before taken to the Toolroom or Safety Supply for cleaning.

#### Specific Requirements

##### Special Clothing:

Disposable type coveralls shall be worn by all employees involved with the removal, clean-up or disposal of asbestos insulation.

This coverall shall have elastic in the neck opening, arm sleeves and pant legs. This is the only type of clothing acceptable for this type of work. These coveralls are available in site Toolrooms and Construction Safety Supply.

2. Disposable head covering shall be worn anytime that asbestos insulation is not wetted for removal, clean-up and disposal.
3. Rubber or neoprene overshoes or boots shall be worn by all employees anytime asbestos insulation is handled. These boots must be washed and cleaned with water before they are worn or removed from the job site or restricted area. These shoes are not disposable and may be reused.
4. Gloves shall be worn by all employees when they are working with asbestos insulation. Neoprene or similar light weight gloves will be provided for this purpose. They may be washed with water and reused but must not be removed from the job site until they are washed with water. If any employee wishes to wear cloth gloves this may be allowed, but these gloves must be disposed at the end of each day or upon the completion of the job if it is less than one day. Cloth gloves will not be furnished for employees to handle asbestos.
5. Respiratory equipment shall be worn by employees when they remove their protective clothing at the job site.

Disposal:

1. All asbestos insulation and asbestos containing waste materials shall be disposed of in accordance with applicable plant location policies and procedures.

Monitoring:

1. The Technical Center Industrial Hygiene Department shall monitor all projects involving the removal, clean-up and disposal of asbestos insulation as determined necessary based on the information provided to them by the Craft Supervisor.
2. Monitoring will be performed at such frequency to represent with reasonable accuracy the levels of asbestos exposure to all employees.
3. Monitoring reports prepared by Industrial Hygiene will be issued to the Manager of Construction, Construction Manager, Craft Manager, responsible Craft and Construction Superintendents, the Craft Supervisors, and the Safety Department.
4. An employee involved with the removal, clean-up and disposal of asbestos insulation shall be given a reasonable opportunity to review his/her monitoring records when such a request is made through the craft supervisor.
5. Monitoring reports shall be filed by the Safety Department and Industrial Hygiene Department.

Environmental Protection Agency (EPA)

1. The Environmental Protection Agency Regulations 4 CFR61 requires that this agency be notified when asbestos insulation is to be removed when:
  1. More than 260 linear feet of pipe is to be stripped or:
  2. When 160 square feet of insulation is to be stripped.
2. When practicable EPA notification shall be at least 20 days prior to the planned removal or demolition is to take place. Therefore, upon learning of a job following under 1 and 2 the responsible craft supervisor or craft superintendent shall notify Technical Center Industrial Hygienist, G. F. Hurley or W. Blythe, Jr., at extension 5129 and provide him with all necessary information. Mr. Hurley or his representative, will then contact the responsible UCC EPA officer and provide him with all necessary information.

Training

1. All Construction Department employees shall be trained in the hazard of asbestos and the requirements of this procedure.

Supervisor(s) Report

1. The craft supervisor responsible for the job shall complete a Supervisor's Report (copy attached) for each job requiring the removal of asbestos insulation.

2. Upon completion of the report the supervisor shall (1) send the original report to the Safety Department where it will remain on file and (2) make one (1) copy to be kept on file by the supervisor.

ATTACHMENT A

ASBESTOS INSULATION REMOVAL AND DISPOSAL

SUPERVISOR'S REPORT

1. LOCATION OF JOB: \_\_\_\_\_
2. DATE(S) JOB PERFORMED: \_\_\_\_\_ to \_\_\_\_\_
3. DESCRIPTION OF JOB: \_\_\_\_\_

4. AMOUNT OF ASBESTOS INSULATION INVOLVED: \_\_\_\_\_

5. EMPLOYEES INVOLVED:

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

6. TYPE OF RESPIRATORY EQUIPMENT USED: A  
B

7. CHECK IF INSULATION NOT WETTED DOWN: ☐ and why \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

DATE: \_\_\_\_\_

\* and amount of days  
on dates that this employee