

<b>Asbestos Abatement</b>	S.O.P. 8A		Page 1 of 25
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Approved By:			
STANDARD OPERATING PROCEDURE			

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## **I. SCOPE AND PURPOSE**

- A. To outline the training program for all the Company's abatement employees.
- B. To review the initial and periodic medical surveillance used to screen and monitor all Company abatement employees.
- C. To define the acceptable practices for respirator selection, use, and maintenance for all Company abatement employees.
- D. To define a standardized qualitative fit-testing procedure, which has been adapted from OSHA Regulation 29 CFR 1926.1101, Appendix C, and must be performed on each employee required to wear a half-mask negative pressure respirator.
- E. To list the forms that are completed and maintained for all Company abatement employees. All records in any employee file will be maintained at the corporate headquarter for the employees duration of employment plus thirty-years.
- F. To briefly outline several aspects of the Company's asbestos work procedures.
- G. To define and describe the Company's interpretation of the acceptable use of glove bags for asbestos removal.
- H. To outline the procedures, equipment, and goals for air monitoring conducted on all Company asbestos abatement projects. The laboratory generates a report conveying its findings during analysis. A copy of this report will be supplied to the customer to be kept in permanent records for the respective abatement project. It is company policy to retain an independent third party Industrial Hygiene monitoring firm as directed by our Comprehensive General Liability Insurance Carrier. This section details the Company's Air Monitoring Procedures, and describes procedures used for sample documentation, shipment, and analysis.
- I. To provide copies of forms used as documentation for all asbestos abatement projects.
- J. To outline the long term archival of paperwork generated from all asbestos abatement projects.
- K. To provide an area in the Asbestos Abatement Procedures that attaches any applicable job-site specific procedures.
- L. A checklist that discusses a job-site visit from the two regulatory agencies that deals with asbestos regulations, OSHA and EPA.

## **II. RELATED PROCEDURES AND REOURCES**

- A. Environmental Policy Statement
- B. S.O.P. 2C, Project Hazard Control
- C. S.O.P. 3A, Electrical Safety
- D. S.O.P. 3B, Lockout/Tagout
- E. S.O.P. 3D, Housekeeping
- F. S.O.P. 3G, Personal Protective Equipment
- G. S.O.P. 3H, Permit-Required Confined Space
- H. S.O.P. 3J, Signs, Tags, Barricades, and Labels
- I. S.O.P. 3M, Manual Materials Handling

- J. S.O.P. 3N, Hand and Power Tools
- K. S.O.P. 3O, Fall Hazard Management
- L. S.O.P. 4A, Aerial Work Platforms
- M. S.O.P. 5E, Nuisance Noise and Hearing Conservation
- N. S.O.P. 5F, Respiratory Protection
- O. S.O.P. 5G, Hazard Communication
- P. S.O.P. 5H, Temperature Extremes
- Q. S.O.P. 6A, Scaffold Erection, Modification, Use, and Dismantling
- R. S.O.P. 8B, Potential Asbestos Exposure & Release Management
- S. Asbestos and Lead Awareness Field Training Module
- T. Respiratory Protection Field Training Module
- U. Personal Protection Equipment Field Training Module
- V. 29 CFR, Subpart Z, Toxic and Hazardous Substances, 1926.1101, Asbestos

### III. WORK DEFINITIONS

- A. **Asbestos** - includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos and any of these materials that has been chemically treated and/or altered.
- B. **ACM (Asbestos Containing Material)** – means:
  1. Any thermal system insulation or surfacing material found through testing to contain more than one percent (1%) asbestos.
  2. Any materials used or waste generated through the removal process that has been contaminated with asbestos.
- C. **Authorized Person** - means any person authorized by the employer and required by work duties to be present in regulated areas.
- D. **Class I Asbestos Work** - means activities involving the removal of Thermal System Insulation and surfacing ACM and PACM.
- E. **Class II Asbestos Work** - means activities involving the removal of ACM, which is not thermal system insulation, or surfacing materials This includes, but is not limited to, the removal of asbestos containing wall board, floor tile, and sheeting, roofing and siding shingles, and construction mastic.
- F. **Class III Asbestos Work** - means the repair and maintenance operations, where “ACM” including thermal system insulation and surfacing materials, is likely to be disturbed
- G. **Class IV Asbestos Work** - means maintenance and custodial activities during which employees contact ACM and PACM and activities to clean-up waste and debris containing ACM and PACM and activities to clean up dust, waste an debris resulting from Class I, II, and III activities.
- H. **Clean Room** - means an uncontaminated room having facilities for storage of employee’s street clothing and uncontaminated materials and equipment.
- I. **“Competent person”** means one who is capable of identifying existing asbestos hazards in the work place and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to

eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is someone who is specially trained in a training course that meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent. The duties of the competent person include at least the following:

1. Establishing a negative pressure enclosure.
2. Ensuring the enclosure's integrity.
3. Controlling entry to and exit from the enclosure.
4. Supervising any employee exposure monitoring required by the standard.
5. Ensuring that all employees working within such an enclosure wear the proper personal protective equipment.
6. Ensuring that all employees are trained in the use of appropriate methods of exposure control.
7. Ensuring that all employees are trained in the use of hygiene facilities and decontamination procedures specified in the standard.
8. Ensuring that engineering controls in use are in proper operating condition and are functioning properly.

- J. **Decontamination Area** - means an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area and clean room, which is used for the decontamination of workers, materials and equipment that are contaminated with asbestos.
- K. **Employee Exposure** - means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- L. **Fiber** - means a particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.
- M. **Glovebag** - means an impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.
- N. **High-efficiency particulate air (HEPA) filter** - means a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.
- O. **PACM (Presumed Asbestos Containing Material)** - means thermal system insulation and surfacing material found in buildings constructed no later than 1980.
- P. **Regulated area** - is established to demarcate an area where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such work is accumulated. OSHA approved danger signs will demarcate a regulated area. Only authorized personnel wearing proper protective equipment will be allowed access to this area.
- Q. **Removal** - means all operations where ACM and/or PACM are taken out or stripped from structures or substrates and includes demolition operations.

#### **IV. WORKER TRAINING**

- A. Workers are trained prior to or at the time of assignment and at least annually thereafter. The training program includes as a minimum the requirements specified in 29 CFR 1926.1101. The EPA and state regulatory agencies require a 4-day (32-hour) worker-training course that includes the following topics:
1. Methods of recognizing asbestos.
  2. Health effects associated with asbestos exposure.
  3. The relationship between smoking and asbestos in producing lung cancer.
  4. Operations that could result in exposure to asbestos and the importance of necessary protective measures including the following, as applicable:
    - a. Engineering controls
    - b. Work practices
    - c. Respirators
    - d. Housekeeping procedures
    - e. Hygiene facilities
    - f. Protective clothing
    - g. Decontamination procedures
    - h. Emergency procedures
    - i. Waste disposal procedures
  5. The purpose, proper use, fitting instructions, and limitations of respirators, as required by 29 CFR 1910.134.
  6. The appropriate work practices for performing asbestos abatement.
  7. Medical surveillance program requirements.
  8. The content of OSHA standard 1926.1101 and its appendices.

#### **V. SUPERVISOR TRAINING**

- A. EPA and state regulatory agencies require a 5-day (40-hour) supervisors training course that includes all topics covered in the worker course, plus the theory and principles behind the following:
1. Air sampling practices and procedures
  2. Negative air enclosures
  3. Equipment maintenance
  4. Asbestos abatement documentation
- B. All training, listed above, will be administered by an EPA/State approved training entity.
- C. All annual update/refresher courses shall be administered by same, as required.

#### **VI. MEDICAL SURVEILLANCE**

- A. 29 CFR 1926.1101(m) requires all employers to institute a medical surveillance program for all employees who, for a combined total of 30 or more days per year, are engaged in Class I, II and III asbestos work, or are exposed at or above the

permissible exposure limit or excursion limit and for employees who are required to wear negative pressure respirators.

- B. The examination consists of the following:
1. A medical and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems.
  2. Completion of Appendix Attachment Form 8A.1a, Initial Medical Questionnaire, for New Hires and Form 8A.1b, Periodic Medical Questionnaire for current employees, annually thereafter.
  3. Pulmonary functions tests including a Forced Vital Capacity (FVC) and a Forced Expiratory Volume at one second (FEV1).
  4. A chest X-ray, if the physician deems it necessary, with a B-reader interpretation.
  5. Any other examination or test the physician deems necessary.
- C. The Company requires all of its employees who are or are going to be assigned in the Asbestos Removal program, to undergo a physical examination before starting work and at least annually thereafter. The Company will utilize a medical facility that has been briefed as to the OSHA requirements. However, if circumstances require the Company to utilize a different medical facility, the examining physicians will be sent a letter to inform them of the OSHA requirements. The physician returns a written opinion as to whether or not the employee is capable of performing the duties described in the letter. Any person receiving an unfavorable recommendation will not be allowed to work with asbestos.

## **VII. RESPIRATORY PROTECTION PROGRAM**

- A. This written protection plan for employees is required by OSHA as per Federal Register 29 CFR 1926.1101 and in the respiratory protection regulations 29 CFR 1910.134. The written program, S.O.P. 5F, shall be approved by ownership and periodically revised, as necessary, by the Safety Director.
- B. The responsibility for implementation and adherence to this program falls on the company. However, job supervisors and foremen have the direct responsibility for enforcement of the procedures at the job-site.
- C. Employees violating this program will be disciplined. Documentation of such actions concerning this policy will be maintained in project and individual employee files i.e., written reprimands, suspension and/or dismissal of individuals not complying with the program.

## **VIII. RESPIRATOR SELECTION AND USE**

- A. An improperly fitted respirator or one that has a defective part offers little protection to its user. Before beginning asbestos removal work, employees should be instructed about the atmosphere in which they will be working, the need for respiratory protection and approved procedures for fitting, adjusting, maintenance, cleaning and storage of respirators. It is important that these procedures be followed by **all** employees.

- B. The company's selection of respirators as listed elsewhere in this section, has been chosen from respirators approved by the Mine Safety and Health Administration (MSHA) and/or the National Institute for Occupational Safety and Health (NIOSH) for use in atmospheres containing asbestos fibers.

## **IX. PROTECTIVE FACTORS**

- A. Respirators offer varying degrees of protection against asbestos fibers. The key to understanding the difference between types of respirators i.e., air purifying, powered-air purifying, air supplied, etc., is the amount of protection afforded the wearer. To compare these, one must understand the concept of protection factor (PF).
- B. A protection factor is a number obtained when the concentration of a contaminant outside the mask is divided by the concentration found inside the mask. This simple formula is illustrated below.
- C. The protection factor depends greatly on the fit of the mask to the wearer's face. Accordingly, the protection offered by any one respirator will be different for each individual person. Further, the protection constantly changes depending upon the worker's activity and even shaving habits. When a worker laughs or coughs inside a respirator, the protection factor will decrease since the mask will not "fit" as well during the laughing or coughing. Similarly, a worker who forgot to shave one morning will not receive as much protection that day since the mask will not fit as well to the face. The importance of properly fitting the mask should now be obvious.
- D. It is virtually impossible to measure the concentration inside the mask (where the worker is breathing) for each worker, all the time, during all the various activities he or she may be conducting. Accordingly, protection factors, based on extensive research, have been developed for different categories of respirators. Using these protection factors, it is easy to determine what type of respirator is appropriate to maintain the concentration of asbestos inside the mask below a certain level. If the assumption is made that 0.1 fibers per cubic centimeter (f/cc) is the current permissible exposure level listed in the Federal Register 1926.1101, then workers should never be exposed above this level inside the respirator.
- E. Appendix Attachment Form 5F.1c is a list of Respirator Protection Factors used in general industry, based on the wearer successfully passing a qualitative fit test.

## **X. MEDICAL SURVILLANCE**

- A. The Company can allow only those individuals to work who are medically able to wear the respiratory protective equipment. Prior to issuance of a respirator, an employee will receive several medical and physical tests. These tests will include, but are not limited to:
1. A Pulmonary Function Exam (FVC and FEV).
  2. An anterior/posterior chest x-ray with a B-reader interpretation

3. A medical history to elicit any symptomatology of respiratory distress.
- B. These exams will screen factors, which might inhibit the ability of an employee to wear respiratory equipment.

**XI. RESPIRATOR ASSIGNMENT AND MAINTENANCE**

- A. The Company field supervisors will implement a system of record keeping to document and record respiratory protection equipment assignment, as well as periodic cleaning and maintenance of equipment on a per job basis.
- B. Assigned respirators shall be regularly cleaned and disinfected as described by the listed procedures and the supervisor's control.
- C. Record keeping forms are available from the Safety department.

**XII. FACIAL HAIR**

- A. Recent studies have proven that any facial hair inside the respirator, other than neatly trimmed mustaches (that do not extend beyond the edges of the mouth), eye lashes and eye brows, significantly reduce the protection factor of the respirator.
- B. In response to these tests, OSHA now forbids such facial hair. No employees, that are required to wear a respirator, or visitors into our regulated areas will be allowed to have any facial hair (other than the aforementioned cases) that interferes with the seal of the respirator, or that is within the respirator.
- C. Employees and/or visitors who have more than one-days growth of facial hair will be required to shave prior to wearing respirators and entering a regulated area.
1. Supervisors shall have available disposable razors for such use.
  2. Employees who consistently report to work at projects requiring respiratory protection with more than one-days growth of facial hair will be subject to disciplinary measures up to and including termination.

**XIII. RESPIRATOR CARE**

- A. Before leaving the job site, each user must shower with the respirator on, to remove any asbestos containing material, which may have settled on the equipment.
- B. Respiratory equipment shall be washed using a brush with detergent and warm water. Detergents containing a bactericide are to be used. If this is not available, disinfectants may be made by:
1. Using two (2) tablespoons of chlorine bleach to one (1) gallon of water, or
  2. Adding one (1) tablespoon tincture of iodine to one gallon of water.
  3. A two-minute immersion of the respirator into either solution is sufficient for disinfections.
- C. The respiratory equipment should be thoroughly rinsed in warm clean water to

remove all traces of detergent, cleaners and sanitizer.

- D. Respiratory equipment will be allowed to air dry on a clean surface or hung from a horizontal wire.
- E. When not in use, respiratory equipment should be sealed in plastic bags and stored so as not to distort the respirator valves or face-piece.
- F. Qualified personnel, designated by management, are the only authorized personnel to do repair or replacement of component parts. A respirator becomes invalid if parts are substituted from a different brand or type of respirator. Inspection for defects in the respiratory equipment must be done before and after each use and during the cleaning process. Areas to be inspected for defects and overall inspection should be as follows:
  - 1. ***Air Purifying Respirators (quarter-mask, half-mask)***
    - a. **Rubber face-mask** - check for the following:
      - i. *Excessive dirt* - clean all dirt from face-piece.
      - ii. *Cracks, tears, or holes* - obtain new face-piece.
      - iii. *Distortion* - allow face-piece to “sit” free from any constraints and see if distortion disappears. If so, obtain new face-piece.
      - iv. *Cracked, scratched or loose fitting lenses* - replace parts or obtain new face-piece.
    - b. **Head-straps** - check for the following:
      - i. *Breaks or tears* - replace head-strap.
      - ii. *Loss of elasticity* - replace head-strap.
      - iii. *Broken or malfunctioning buckles or attachments* - obtain new buckles.
      - iv. *Face-piece slips* - replace head-strap.
    - c. **Inhalation Valves/Exhalation Valves** - check for the following:
      - i. *Detergent residue, dust particles, or dirt on valve or valve seat* - remove residue with soap and water.
      - ii. *Cracks, tears, or distortion in valve material or valve seat* - obtain new respirator.
      - iii. *Missing or defective valve cover* - obtain valve cover from manufacturer.
    - d. **Filter Element(s)** - check for the following:
      - i. *Proper filter for the hazard* – if not replace with correct filter.
      - ii. *Missing or worn gaskets* - replace gaskets.
      - iii. *An approval designation number or code.*
      - iv. *Worn threads, both filter threads and face-piece threads* - replace either filter or face-piece as required.
      - v. *Cracks or dents in filter housing* - replace filter.
      - vi. *Missing or loose hose clamps* - obtain new clamps.
  - 2. ***TYPE “C” - Supply Air Respirators***
    - a. **Check face-mask, head-straps, valves, and breathing tube as for the**

**air purifying respirators.**

- b. **Hood, helmet, blouse, or full suit, if applicable**, check for the following:
  - i. *Headgear suspension* - adjust per individual.
  - ii. *Cracks or breaks in face-shield* - replace face shield.
  - iii. *Protective screen to see that it is intact and fits correctly over the face-shield, abrasive blasting hoods and blouses* - obtain new screen.
- c. **Air supplying system** - check for the following:
  - i. *Breathing air quality*
  - ii. *Breaks or kinks in air supply hoses and end fitting attachments* - replace hose and/or fittings.
  - iii. *Tightness of connections.*
  - iv. *Proper setting of regulators and valves* - see Manufacturer's Recommendations.
  - v. *Correct operation of air purifying elements and carbon monoxide or high-temperature alarms.*

**XIV. EMPLOYEE RESPIRATOR TRAINING PROGRAM**

- A. Each employee required to wear a respirator will receive sufficient respiratory training. The training sessions, initial and periodic re-training, will be conducted by qualified supervisors/foremen to ensure that the employees understand the limitations, use and maintenance of the respiratory equipment. Acknowledgement that each employee has received and understands this training will be documented and retained in the company and employee records.

**XVI. WORK CONDITION SURVEILLANCE**

- A. Personnel air sampling will be conducted during each company asbestos abatement project. This will be performed by a qualified subcontractor (hygienist service) or by a qualified employee trained in the proper use of the equipment and in the documentation of the monitoring techniques. These records will show that proper respiratory protection was chosen for the hazard encountered as indicated by employee exposure levels for the airborne asbestos in the work area.
- B. All employees will receive instructions regarding emergency procedures. These will include:
  - 1. Leaving the work area immediately should the employee experience difficulty in breathing or dizziness.
  - 2. No employee wearing a respirator should be allowed to work alone.

**XVI. RESPIRATOR PROGRAM EVALUATION AND RECORD KEEPING**

- A. The company respiratory program will be reviewed and evaluated by the Safety Director on an annual basis to check compliance and record keeping for the following:

1. Respirator selection and proper training for the user.
2. Purchase of approved equipment.
3. Medical screening of employees and documented medical reports.
4. Fit testing and procedure training with employee acknowledgment.
5. Issuance of the equipment and associated maintenance, storage, repair, and inspection of the same.
6. Surveillance of the work areas under the asbestos abatement program with documented airborne concentrations of asbestos fibers for each day worked.
7. Record keeping on any problems encountered during abatement projects with regard to respiratory equipment.

## **XVII. RESPIRATORY FIT TESTING**

- A. One of the most important elements of an effective respirator program is fit testing. In fact, the OSHA respirator standard, 29 CFR 1910.134 requires that the fit of respirators be determined when the respirators are issued and that the employees check the fit each time they put the respirator on. These are valid requirements since the weakest point of protection for a respirator is leakage around the face seal/fit.
- B. OSHA requires that fit testing be performed on all employees required to wear negative pressure respirators. There are two major categories of fit testing, **qualitative** (pass/fail basis) and **quantitative** (scientific measure basis).
- C. During any type of fit testing, the respirator straps must be properly located and as comfortable as possible. Over tightening the straps will sometimes, reduce face-piece leakage, but the wearer may be unable to tolerate the respirator during the work period. The face-piece should not press into the face and shut off blood circulation or cause major discomfort. At the time of respirator issuance, a visual inspection of the fit should always be made by a second person. That person should check to see that there are not visible openings/leaks, i.e., around the nose and that the respirator appears properly adjusted and comfortable.
- D. Qualitative (pass/fail) tests are fast, require no complicated expensive equipment, and are easily performed. However, they depend on the wearer's response, and thus are not entirely reliable.
- E. Therefore, OSHA allows qualitative fit testing only for half-mask respirators. Fit testing for any negative pressure respirator other than half-mask must be quantitative. Whether fit testing is qualitative or quantitative, it must be performed upon issuance of the respirator and repeated every six months.
- F. **Negative Pressure Test** - For this test, the user closes off the inlet of the cartridges or filters by covering with the palms so it does not allow air to pass, inhales gently so the face-piece collapses slightly; and holds his/her breath for about 10 seconds.
- G. If the face-piece remains slightly collapsed and no inward leakage is detected, the respirator probably fits tight enough. This test of course, can only be used on

respirators with tight fitting face-pieces. It also has potential drawbacks, such as the hand pressure modifying the face-piece seal and causing false results.

- H. **Positive Pressure Test** - This test is very similar in principle to the negative pressure test in that you close off/cover the exhalation valve and exhaling gently into the face-piece to conduct it. The respirator fit is considered okay if slight positive pressure can be built up inside the face-piece without any evidence of outward leakage around the face-piece. For some respirators, this test requires that the wearer remove the exhalation valve cover. This removal often disturbs the respirator fit if not done before the respirator is put on. The test is easy for respirators whose valve cover has a single small port that can be closed by the palm or a finger.

**NOTE:** Positive pressure tests are tests for tightness, not fit tests, and should be done each time the respirator is donned.

## **XVIII. FIT TEST PROCEDURES**

- A. This procedure must, be performed prior to assignment of the employee to an area where the negative pressure respirator is required.
1. The procedure must be repeated at least every six months, and more often if the employee has one of the following:
    - a. Weight change of 20 pounds or more.
    - b. Significant facial scarring in the face-piece seal area.
    - c. Significant dental changes.
    - d. Reconstructive or cosmetic surgery, or
    - e. Any other condition that may interfere with face-piece sealing.
  2. Respirator qualitative fit test procedures can be found in S.O.P. 5F, Respiratory Protection, sections VII - IX.
  3. Follow the exercises in section (VII)(K)(2) of S.O.P. 5F with the exception of (VII)(K)(2)(f), where the fit tester shall have the employee “jog in place” instead of “bending over”.
  4. Half-face respirators successfully tested by the protocol may be used in contaminated atmospheres up to ten times the PEL of asbestos.
- B. There are more scientific methods of determining the fit of a respirator. Those methods are called quantitative fit tests. In fact, these quantitative fit tests are the methods used to determine a respirator’s scientific and published degree of protection (protection factor). Quantitative fit tests will be performed on all employees when practical.
1. Quantitative fit testing requires a test substance, which can be generated into the air, specialized equipment to measure the airborne concentration of the substances and a trained tester. A sodium chloride solution (salt/water), or mineral oil is usually the substances of choice. The test subject wearing a respirator is placed into a chamber, which contains the test substance in the air. The airborne concentration of the substance is

measured outside the respirator and inside the respirator while the wearer performs several work related activities. The specific degree of protection (protection factor) can be determined for that wearer/respirator combination by performing calculations with the measured concentrations.

2. Quantitative fit test usually show that workers receive much better protection than the standard protection factors published and quoted for respirators.
- C. Regardless of the type of fit test, its advantages and disadvantages, it is necessary to include such a test in an effective respirator program. It is the key to detecting and correcting contaminant leakage around the face-piece to the face seal. This leakage can be critical when the contaminant is proven human carcinogen, such as asbestos.

## **XIX. EMPLOYEE FILE CONTENTS**

- A. Training Certificate
- B. Physicians Written Opinion
- C. Pulmonary Function Test results
- D. Fit Test results
- E. State Certification or Affidavit, if applicable

## **XX. WORK IDENTIFICATION**

- A. The typical scenario involves a client employee, or contracted representative having bulk-sampled materials for asbestos content before the Company becomes involved in the project. However, it is not uncommon for materials that have not been identified to be the target of removal. **It is Company policy that no material that may contain asbestos be disturbed unless either microscopic identification is made, or unless that material is assumed to be asbestos and handled accordingly.** In cases where the composition of the material is in question, supervision will assist the client in all ways possible to determine asbestos content (via Bulk-sampling and microscopic examination).
- B. In accordance with 29 CFR 1926.1101 all suspect materials must be sampled, unless a material is presumed to contain asbestos. Sampling must be performed to demonstrate that no asbestos is present. All sampling to be performed by an accredited inspector or CIH.

## **XXI. PROTECTIVE CLOTHING**

- A. All asbestos workers will be provided with and required to wear full-length disposable coveralls, disposable head-coverings and foot-coverings or boots. As much as possible, wrists, ankles, and other openings of the protective clothing shall be taped to prevent the intrusion of asbestos fibers. NIOSH approved respirators are provided and required to be worn. As a minimum, half-face dual

cartridge (HEPA) respirators must be worn. In addition, Safety glasses or goggles and hard hats are required during all phases of asbestos removal work.

- B. Employees shall be informed to inspect their disposable suits throughout the workday. In the event a rip or tear occurs, repair or a replacement should be made immediately. It is the Company's responsibility to ensure suits are provided and worn properly.
- C. Suit Out Procedures:
  - 1. Before entering any regulated area workers will be in proper protective clothing and equipment. All employees will enter the decontamination unit from the clean side. In the clean room all street clothing and jewelry will be removed. Employees will don protective clothing including: boxer shorts, whole body coveralls (with hood and booties) gloves and safety-toe rubber boots. At this time all openings in the suit, around wrists, ankles, etc. will be taped closed. If the decontamination unit is not contiguous with the work area (e.g., remote decon) a second suit will be worn (double suiting). Before entering the work area they will don their respirators and pull the hood of the suit over their head, including respirator straps. Personal air monitors will be secured on the workers at this time.
  - 2. When full protective clothing and equipment are in place; workers may enter the regulated area.

## **XXII. CONTROL METHOD DETERMINATION**

- A. During all asbestos removal projects, it is Company policy to use the following approved control methods:
  - 1. Negative Pressure Enclosures (NPE) whenever feasible, and/or
  - 2. Negative Pressure Glove bag, and/or
  - 3. Glove bag Techniques, and/or
  - 4. Alternative Control Method with approval from the Client, and written certification as described below.
- B. When determining the appropriate control method for the job, the site competent person will consult with the client's Industrial Hygiene and/or Safety official, because of their familiarity with plant process.
- C. Alternative Control Methods
  - 1. In situations that will not allow the use of an approved control method, the site competent person will consult with the client's Industrial Hygiene and/or Safety official. The client's Industrial Hygiene and/or Safety Department must approve any modifications necessary to control other safety and health hazards prior to implementation.
  - 2. For jobs involving quantities of ACM greater than 25 lf or 10 sq ft, a CIH or Professional Engineer qualified, as a Project Designer must make certification in writing to OSHA. The project designer must certify that the planned control method is adequate to reduce direct and indirect employee exposure to below the PEL's under worst-case conditions of use, and that

the planned control method will prevent asbestos contamination outside the regulated area, as measured by clearance sampling. The clients Project Designer or a third party Project Designer will make this certification.

3. For jobs involving quantities of ACM, the competent person can make less than 25 lf or 10 sq ft, written certification and clearance monitoring may be omitted.

D. Enclosure Specifications

1. Floors and walls of the containment will be covered with 6 mil polyethylene sheets securely attached with “Duct Tape” or equivalent waterproof tape or by other means. Flooring will require one layer of reinforced poly or 2 layers of 6 mil clear poly. When sealing gratings, cover with plywood and seal as a floor with polyethylene.
2. All entrances and exits from the containment area will be double barriers of plastic sheeting.
3. Owner must submit procedures and provisions for water run-off and collection with appropriate filtration prior to discharge to sewer, for approval.
4. It will be the supervisor’s responsibility to maintain the integrity of the sealed asbestos work area throughout the duration of the removal and decontamination work.
5. A designated Fire Extinguisher shall be available at the containment area as approved by the owner. Procedures will be developed for evacuation of injured workers and approved by owner prior to start of work.
6. Before removal begins and at the beginning of each shift the enclosure will be smoke tested for leaks. Leaks will be sealed before beginning work.
7. Negative pressure should be maintained throughout the use of the enclosure, maintaining at least four (4) air changes per hour, and 0.2 column inches of water pressure differential, relative to outside pressure. A manometer should be used to evidence this negative pressure. Pressure readings should be documented on regular intervals throughout the job, on Appendix Attachment Form 8A.1b, Monometer Daily Log.
8. All entrances to the containment area will be posted with OSHA 20”x 14” caution signs in both English and Spanish describing the nature of the asbestos hazard.

**XXIII. CONTROLLED ACCESS OF ASBESTOS WORK AREA**

- A. With the exception of the Company, our employees, or the Owner’s designated representatives, no one may enter a regulated asbestos work area without written permission from the Owner. No one is permitted in the regulated asbestos work area without proper protective clothing and respiratory protection, which is supplied by the Company. All personnel must follow these procedures.
- B. Personnel rosters shall be kept of all individuals entering the controlled asbestos

work area through the use of Appendix Attachment form 8A.1c, Regulated Work Area Entry/Exit Log.

#### **XXIV. METHODS OF ASBESTOS REMOVAL**

- A. Once removal has begun in a regulated area, it shall be continued until completion.
- B. Removal will be done using wet removal techniques. Asbestos-containing materials must be sprayed and saturated with amended water, i.e., water with surfactant solution, to enhance penetration. An airless sprayer will be used to apply amended water. Wet asbestos materials, as necessary, to prevent emission of airborne fibers in excess of Permissible Exposure Limits (PEL) and to assure that the asbestos materials remain wet during removal, bagging, loading, transport and disposal.
- C. After insulation is removed, e.g., pipe lagging, an encapsulate must be applied to the exposed ends of any remaining insulation that is not going to be removed.
- D. All debris must be cleaned up periodically to prevent drying out of asbestos materials, and packed in labeled 6 Mil bags before the next section is started. Depending on size of removal area, one employee, shall be given responsibility of cleaning, vacuuming and bagging debris as soon as it is generated. Bags must be washed off and double bagged before leaving the containment area or before being placed in drums or approved containers, when used, for transportation to the disposal site. Workers removing bagged or drummed waste from containment area shall wear the full protective clothing.

#### **XXV. PERSONNEL DECONTAMINATION**

- A. All Company employees involved in asbestos abatement are required to completely decontaminate after each work period, i.e., before breaks, lunch, and quitting time. OSHA mandated decontamination facilities may be centrally located. Employees leaving asbestos regulated areas will proceed as follows:
  - 1. One of the following scenarios will apply
    - a. Employees will wear two disposable coveralls while working, or
    - b. Employees will wear one disposable coverall while working and use the second coverall while traveling to the decontamination facility.
  - 2. Before leaving the regulated area, employee's will HEPA vacuum or otherwise remove as much visible gross contamination as possible.
  - 3. Before leaving the restricted area, employees will
    - a. Remove and bag outer suit if double suited, or
    - b. Don second suit if single suited.
  - 3. Workers will enter a decontamination unit through the equipment room where they will remove all clothing except for their respirator. From here, they will enter the shower room of the decontamination unit. Once inside

the shower, they will completely rinse themselves, including the respirator, prior to removing it. From here they will enter the clean room, change, and then dry and clean the respirator. All clothing, towels, etc. will be disposable and treated as asbestos waste.

## **XXVI. EQUIPMENT DECONTAMINATION**

- A. During gross and final cleaning of the work area all equipment, tools, etc. used inside the regulated work area will be thoroughly cleaned of all visible debris and dust. The interior and exterior of all items will be HEPA vacuumed and wet wiped to remove all asbestos containing materials.
- B. Pre-filters will be removed from HEPA filtered equipment and disposed of as asbestos waste. HEPA filters will remain in place, unless recommended hourly usage has expired, inside the machine. All openings on equipment will be sealed with polyethylene and duct taped before being removed from the work area. The openings will remain sealed until the equipment is inside another regulated area.
- C. Equipment and tools will be included in the visual inspection. The regulated area will not be considered acceptable for re-entry until all equipment is thoroughly cleaned and inspected.

## **XXVII. ASBESTOS WASTE DISPOSAL**

- A. All ACM removed and collected will be containerized in two six-mil labeled bags and sealed with duct tape. Tops of bags will be goose-necked and re-taped for added leakage protection.
- B. If necessary, double-bagged and sealed waste will be loaded from abatement areas into pickup trucks that have been lined with six-mil polyethylene. Polyethylene lining will be sized large enough to provide excess polyethylene to cover bags during transportation.
- C. Bags will then be loaded into specified dumpsters for ultimate transportation and disposal to an approved landfill.

## **XXVIII. EMERGENCY PROCEDURES**

- A. Injuries
  - 1. In the event of an serious injury occurring within a regulated area, immediate top-priority attention will be given to the injured individual/s.
  - 2. Asbestos regulated areas, enclosures, decontamination units, and etc. will be altered or dismantled to whatever extent necessary to provide prompt, safe first aid attention for injured individual/s.
  - 4. Altered or dismantled abatement structures will be re-constructed and necessary decontamination of people and equipment will be conducted as soon as the situation has stabilized and the injured person/s have been tended to or evacuated.

4. All plant emergency personnel should be briefed on the appropriate procedures to be used when responding to an emergency within a regulated area. Persons required to enter the asbestos regulated area should remain in the area no longer than necessary.
5. After leaving the area, clothing should be removed and bagged for disposal or laundering. All persons, if possible, shall shower completely with special attention given to cleaning their hair and exposed skin areas.

## **XXIX. GLOVE BAG REMOVAL OF PIPE INSULATION**

- A. OSHA 29 CFR 1926.1101 recognizes glove bag removal as an acceptable control method for removing Asbestos Containing Materials (ACM) associated with piping. The following limitations should be noted and adhered to:
  1. At least two (2) persons shall perform Glove bag removals.
  2. Glove bags shall be made of 6-mil poly and seamless at the bottom.
  3. Glove bags shall be smoke tested for leaks and any leaks sealed prior to use.
  4. Glove bags may be used only once and not moved.
  5. Glove bags will not be used on surfaces whose temperature exceeds 150° F.
- B. Materials and Equipment
  1. **Glove Bag** - Appropriate “Standard” glove bag.
  2. **HEPA Vacuum** - Particulate Air filtration vacuum unit. Wiring must include a three-wire system or ground fault circuit interrupter for safety of operation.
  3. **Respirator** - Dual cartridge asbestos-rated respirator, using NIOSH rated filters for asbestos.
  4. **Disposable Clothing** - Disposable coveralls; hoods and booties.
  5. **Asbestos Disposal Bags** - Six mil thickness with asbestos warning printed or pasted on bag.
  6. **Water Pump Sprayer** - Three to five gallon capacity.
  7. **Surfactant** - A wetting agent added to water, which increases it’s penetrating ability.
  8. **Duct Tape** - Preferably 3” width.
  9. **Spray Glue** - Used to seal poly in the construction of negative pressure enclosures. Also can be used on exposed remaining asbestos insulation if wettable cloth or end caps are unavailable.
  10. **Barrier Tape** - Red or white with warning.
  11. **Warning Signs** - Normally, white with red and black lettering with the appropriate OSHA wording.
  12. **Razor Knife** - Disposable or reusable.
  13. **Hook Knife** - Disposable or reusable.
  14. **Damp Rag** - Used to wipe metal pipe clean of asbestos particles.
  15. **Wire Snips** - Used to cut wire or metal bands that hold insulation to pipe.
  16. **Designated Shower Area** - Either portable or existing in building, in case of accidental contamination.

17. **Smoke Test Kit** - Smoke tube with bulb or equal for testing glove bags for leaks

**XXX. REMOVAL PROCEDURES**

- A. If necessary, obtain approval from any necessary State or Federal agencies prior to start of the removal process. In the state of Texas, if notification to the Department of Health is required on a project, there is a 10 day waiting period before actual removal may begin.
- B. Isolate the area in which removal will take place by placing barrier tape at least 20 feet from all open entrances to affected room. Lock from external entry all but one entrance whenever possible. Determine emergency exit provisions, however, ideally inside panic bar fitted doors. Otherwise, key available. A wider area may be blocked off with barrier tape at discretion of owner.
- C. Place asbestos warning signs at all open entrances to work area conspicuously and so they can be easily read. They must conform to legal size and wording.
- D. Put on fitted respirators and disposable coveralls, hoods and booties.
- E. Glove bags will not be performed on surfaces with temperatures in excess of 150° F. Double-check pipe, valve, etc to ensure it is not too hot to work on. It is preferable that all services be shut down for worker safety.
- F. Check HEPA vacuum to prevent circuit overload from hampering work in progress. If circuit blows, do not proceed until line with sufficient power is secured.
- G. Determine area of pipe, etc. that glove bag will enclose. Wrap minimum of 3” width section with duct tape for both ends of glove bag that will attach to pipe. This will allow a solid, sealed surface to attach the glove bag to and allow removal of bag with minimum disturbance to remaining insulation. **THIS TAPE WILL BE LEFT IN PLACE WHEN THE JOB IS FINISHED**
- H. Cut sides of bag to fit around pipe or valve to be serviced.
- I. Put all tools in tool pouch, e.g., razor knife, bone saw, damp rag, wire snips, as required.
- J. Attach glove bag. Use double sided tape to hold top two flaps together, smoothly and without wrinkles or air pockets. Staple entire length, ensuring good seal across top. Leave enough slack at top of bag to work fully around pipe without stretching bag or seals.
- K. Seal edges of glove bag around pipe to make an **AIRTIGHT SEAL!** Use duct tape, or a reusable or disposable strap (included with some glove bag brands).
- L. Re-enforce bottom seal of bag by applying at least one continuous strip of duct-tape.
- M. Make small slice in bag to allow tip of sprayer nozzle to be inserted to spray amended water. Also, this opening will be used to insert end of the HEPA vacuum attachment. Each time hole is used, reseal immediately with duct tape flap.
  - 1. A quality control test that will be done at this time is the “smoke” test. Inject smoke into the bag through the small hole just made and seal with duct tape flap. Gently squeeze bag, if smoke escapes, reseal where appropriate.

- N. Thoroughly wet work area inside bag with amended water. Do not fill the bag up with excess water, which could cause the bag to fall or tear.
- O. Place arms in armholes and gloves. Carefully remove asbestos from work site, wetting the material as required during removal. One worker shall accomplish removal while second worker simultaneously wets material.
- P. Use damp rag (in tool pouch) to wipe exposed pipe or metal clean of all visible foreign material.
- Q. Thoroughly wet-clean all reusable tools with water pump and place in tool pouch for later recovery. Wash down sides of bag so all-visible debris collects at bottom of the bag.
- R. Place HEPA vacuum attachment at opening in bag, suck air out of bag for several seconds. Tape over hole in bag. **DO NOT SUCK WATER INTO VAC!**
- S. Squeeze bag tightly together below tool pouch if tools are to be recovered, and tape or tie off the “neck” with duct tape or plastic tie.
- T. Clean all visible debris off tools, grasp them in one gloved hand, pull inside out, twist and seal with duct tape, cut and place sealed glove with tools into water bucket for recovery and further cleaning. Cut glove bag across top, pull off duct tape at sides, and place in yellow or clear asbestos disposal bag.
- U. Use wettable tape/cloth, end caps, spray glue, or combination of all three to ensure that all damaged surfaces of the insulation are sealed. If remaining insulation is non-asbestos, duct tape may be used instead.
- V. Wet-wipe all exposed pipe, valves, etc. surfaces one final time before proceeding with pipe or valve repair, or insulation replacement.
- W. If completed with project, thoroughly HEPA vacuum work site surfaces.
- X. All disposable items used on project should now be put in a separate disposal bag (wipe rags, gloves used in tool removal, water used to clean tools, etc). If no shower is required, disposable clothing may also be discarded.

## **XXXI      AIR MONITORING PROCEDURES**

- A. Responsibilities
  1. The Occupational Safety and Health Administration (OSHA) has established as its Permissible Exposure Level (PEL) of asbestos 0.1 fibers per cubic centimeter of air (0.1 f/cc). Air monitoring is required by OSHA in accordance with 29 CFR 1926.1101, so as to continually insure that worker exposure to asbestos does not exceed the PEL.
  2. The Company conducts daily monitoring on each of its asbestos work areas to insure that the work practices and engineering control methods are proper and adequate to comply with the Standard requirements and to protect our workers from the harmful effects of asbestos.
- B. Definitions
  1. **Air Monitoring** - The process of collecting samples of air and analyzing them to determine the amount of asbestos present. The goal of air monitoring is to determine the average number of asbestos fibers present

- per cubic centimeter of air.
2. **Personal Samples** - Air samples collected from the breathing zone of a person and used to determine actual worker exposure.
  3. **Area Samples** - Air samples collected outside the asbestos work area to document that areas beyond the work area are not contaminated by asbestos. An area sample should be collected at each perimeter barricade (i.e. North, South, East, West).
  4. **Baseline Samples** - Air samples collected before actual removal begins. These samples can be collected during mobilization and setup. Used to determine background levels of fibers.
  5. **Clearance Samples** - Air samples collected after removal is complete. These samples should be lower than baseline samples for clearance.
  6. **Air Monitoring Cassette** - Air is drawn through the cassette and fibers are trapped on a filter within the cassette. Fibers on a cassette are alternately counted at a laboratory.
- C. The Equipment Used For Air Monitoring
1. **Fibrous Aerosol Monitors (FAM)** - Manufactured by GCA Corporation of Bedford, Mass
  2. **Low-volume Pump** - Battery-powered, portable personal pumps with a calibrated flow of at least 2.0 liters per minute and a self containing power pack capable of sustaining this calibrated flow for at least two (2) hours. This pump unit will also be equipped with an automatic flow control unit, which will maintain a 2.0 liter per minute flow even as filter resistance increases due to trapped debris.
  3. **High-volume Pump** - Portable, battery-powered pumps.
  4. **Portable Flow Calibrator**
  5. **Air-monitoring cassette**
- D. Type of Air Sampling
1. **Personal samples** - The cassette is pinned, clamped, or taped to the forward part of the worker's shoulder. The pump's airflow is calibrated at between 0.5 liter per minute and 2.5 liters per minute. The sample duration can be for any length of time. Sampling will represent full-shift exposure for workers in each asbestos work area.
  2. **Area Samples** - Either high-volume or low-volume pumps may be used. The pump will remain stationary for the duration of the sample. Sample duration can be for any length; longer durations are preferable however. Sampling volume can be up to 10 liters per minute. Area samples outside the regulated area should be collected at each perimeter barricade.
  2. **Instantaneous Fibrous Aerosol Samples (FAM)** - Collected with a FAM machine to provide immediate information about the fiber content of the surrounding air. FAM readings will be used as an approximate reference guide to air conditions.
- E. Sampling and Analytical Procedure
1. Cassettes for personal samples must be 25-mm in diameter with an open-faced 50-mm extension cowl made of electrostatic conductive material. Area and dust sample cassettes can be of any size, shape, or composition.

All cassettes must contain a mixed cellulose ester filter membrane designed as suitable for asbestos.

2. Pumps are to be calibrated before and after each sample to accurately calculate the total volume of air sampled.
  3. Personal samples are to be collected on twenty-five percent (25%) of the workers in each work area and will be collected at all times that removal is being conducted.
  4. Four (4) area samples will be collected outside the asbestos work area whenever Class I removal is being conducted (i.e. North, South, East, West).
  5. All sample cassettes are to be capped and labeled to identify the sample number, date of collection, duration, and person or area sampled.
- F. Record Keeping
1. Air monitoring and analysis records will be completed and submitted by a third party IH firm contracted by the Company. These records will be maintained on all air monitoring and analysis. Sampling data sheets will be used to document the following information:
    - a. Job Number
    - b. Sample Number
    - c. Date collected
    - d. Sampling device (pump type)
    - e. Collection Medium (cassette type)
    - f. Name and Social Security Number, if personal
    - g. Area in which the sample was collected
    - h. Sampling flow rate
    - i. Sample duration
    - j. Total volume of air sampled (Flow x Duration in minutes)
    - k. Total shift length (work day length)
  2. A record of the laboratory analysis showing the results of the samples will be attached to the sample data sheet and posted in the worker break room or in the clean-room for worker review. All air monitoring results will be kept in the Main office for thirty (30) years.
- G. Samples and a copy of the data sheet(s) are packaged with sufficient non-electrostatic packing to keep the samples from being jarred.
- H. The package is sent to a qualified laboratory for analysis. The laboratory analyzes the samples and returns a report of the results.

## **XXXII. DOCUMENTATION FORMS AND USAGE**

- A. **Exposure Assessment Information Form, 8A.1c:** First form to be filled out for each job at each location where asbestos is being removed.
- B. **Control Method Determination Form, 8A.1d:** To be filled out for each job at each location where asbestos is being removed. This form must be attached to the Exposure Assessment Information form 8A.1c and kept as a permanent record.
- C. **Notification Working in Close Proximity, 8A.1e:** To be filled out whenever other contractors or in-house personnel are working in close proximity to an

asbestos removal project. Copies should be given to a contractor representative or in-house representative. The original should be retained and kept as a permanent record for that particular job.

- D. **Regulated Area Sign In Sheet, 8A.1f:** This form will be posted in the decontamination trailer for each removal job. Workers should sign in each time a they enter the regulated area.
- E. **Asbestos Project Daily Inspection Form, 8A.1g:** This form should be completed on a daily basis for all asbestos projects.
- F. **Monometer Daily Log, 8A.1h:** This form should be used when a containment is being used as a means of isolation control. The log verifies proper negative pressure readings within the containment. Pressure readings should be documented on regular intervals throughout the job.
- G. **Asbestos Removal Daily Job Log, 8A.1i:** To be filled out daily, for each removal job, from the first day through the last. This form should show the daily progress of the job, as well as any problems that might occur (i.e., extreme working conditions, safety hazards, other sources of contamination, documentation of negative pressure differential and smoke testing, etc.).
- H. **Asbestos Project - Final Inspection Form, 8A.1j:** This form is to be used as a guide for the final inspection of a regulated work area. This form is to be kept as part of the permanent records.
- I. **Air Sample Results Sheets:** This is a form that will be provided by the Third Party Industrial Hygienist as notification of the results from area and personnel monitoring. It is to be posted on the jobsite bulletin board daily. These results shall be kept as part of the permanent job records.
- J. **Visitor Liability and Indemnification Form, 8A.1k:** This form is to completely filled out prior to anyone, other than BIST personnel, entering a regulated work area. **NO ONE** is to be allowed to enter a BIST controlled regulated work area without completing this form.
- J. **Air Sample Sheets:** This form is to be completed by the Third Party Industrial Hygienist, if on the job site. It is to be filled out for each air sample taken. This form should be shipped with the samples to the lab, and should be kept along with the results, as a permanent record.
- I. **Calibration Sheets:** To be filled out by the Third Party Industrial Hygienist, if on the job site, each time a pump is calibrated. Pumps should be calibrated before and after each sample is taken.
- J. **Sample Transmittal Sheet:** To be filled out by the Third Party Industrial Hygienist, if on the job site and sent with each set of samples.
- K. **Safety Meeting Sign-in Form, 2B.1b:** Each worker should sign and write their social security number on this sheet after attending a pre-job safety meeting.
- L. **Supervisor's Job Log Book:** To be filled out daily for all removal jobs occurring that day. This notebook will contain more general information than the Asbestos Removal Daily Job Log.

### **XXXIII. RECORD KEEPING**

- A. All asbestos abatement related records are updated and maintained for a period of at least thirty years.
- B. Employee records (fit tests, physicals, exposure, training) are maintained for the duration of employment, plus thirty years.

### **XXXIV. OSHA JOBE SITE VISITATION**

- A. Site visits from OSHA could be the result of one of the following:
  - 1. A Fatality.
  - 2. Follow-Up on complaints filed that may not have been addressed.
  - 3. As Part of a Voluntary Protection Program (VPP).
- B. OSHA Checklist (Asbestos Related):

**NOTE: It is Company policy that either an Owner or the Safety Director are to be present prior to allowing any OSHA representative on the jobsite and/or begin any of the inspection or interviewing process.**

- 1. **Asbestos Training Certificates:** Training certificates will be checked to verify current EPA approved training.
- 2. **Air Monitoring Results:** Recent Air Monitoring results for the site will be reviewed, results may be requested for a specific date.
- 3. **Work Procedures:** A copy of standard work procedures used on the site and Company Asbestos Work Procedures will be reviewed.
- 4. **Employee Interviews:** Both Supervisors and Workers may be interviewed to verify appropriate work practices and procedures. Questions may be pointed toward a specific incident and how it was handled.
- 5. **Job Walk Through:** Any ongoing work will be viewed and samples may be collected-both bulk samples and air samples.
- 6. **Hazard Communications:** The written Hazard Communication Program and rosters of the latest training conducted. MSDS's and indexed list of products/chemicals used on the site.
- 7. **Respiratory Protection Program:** The written Respiratory Protection Program may be reviewed.
- 8. **Closing Conference:** The OSHA representative will hold a closing conference to discuss findings and any necessary action.

### **XXXV. EPA OR. STATE AGENCY JOB SITE VISITATION**

- A. Site visits from EPA or state agencies could be the result of one of the following:
  - 1. Complaints
  - 2. Recent Violations on Other Projects
  - 3. High Priority/Profile Project
  - 4. Ongoing/Recurring Inspection of a Customers Facility
- B. EPA or State Agency Checklist (Asbestos Related)
  - 1. An EPA job site visit or State Environmental regulatory agency generally

enforces the NESHAPS regulation. These agencies will investigate the following:

- a. **Waste Disposal:**
  - i. Waste containers/bags will be checked for visible moisture.
  - ii. Waste containers/bags will be checked for leaks or holes.
  - iii. Waste containers/bags will be checked for proper labels.
- b. **Training Accreditation:** Current EPA approved training certificates, and/or State accreditation certificates.
- c. **Notification:** made to the State Agency or EPA.
- d. **Manifest:** for the waste generated.
- e. **Job Walk Through:** Any ongoing work will be viewed to look for visible emissions from the work area-dust or water.
- f. **Product Information:** The representative may ask about HEPA filtered equipment, encapsulant or surfactant used on the job and request product information.