STC SAFETY TRAINING CENTER
safetytrainingcenter.org

ASBESTOS ABATEMENT WORKER REFRESHER COURSE SCHEDULE

2023

STC Safety Training Center

ASBESTOS WORKER
REFRESHER COURSE SCHEDULE

8:00-9:00	Course Overview and Objectives
9:00-10:15	Worker Refresher Discussion Questions Hand-Out: Course Participants to Complete
10:15-10:30	Break
10:30-11:15	Worker Refresher Discussion Questions (Continued) Hand-Out: Course Participants to Complete
11:15-12:00	Discussion Questionnaire Review
12:00-1:00	Lunch
1:00-2:30	Discussion Questionnaire Review (Continued)
2:30-2:45	Break
2:45-3:00	Discipline Specific Review, Questions, and Answers
3:00-4:00	Worker 25 Question Course Certification Examination

STC Safety Training Center

REFRESHER ASBESTOS WORKER
REVIEW QUESTIONS

BACKGROUND INFORMATION ON ASBESTOS

1. Asbestos is a _____ . It is distinguished from other _____ by the fact that its crystals form long, thin fibers.
2. _____ is the most commonly used asbestos in buildings in the US, and is the only type found in the _____ group..
3. Which of the following types of Asbestos are from the Amphibole group?

   - ❑ Anthophyllite
   - ❑ Amosite
   - ❑ Tremolite
   - ❑ Crocidolite
   - ❑ Actinolite

4. The EPA says Asbestos Containing Materials are materials containing _____asbestos. OSHA considers even a _____ amount as Asbestos containing Material.
5. ACM that can easily be pulverized, crumbled or reduced to powder under hand pressure is called _____.
6. _____ is the type of asbestos that is difficult to wet.
7. Asbestos was used in over _____ different products.

8. During asbestos building inspections, ACM is place into three (3) categories.

   _____ is ACM sprayed or troweled on surfaces (walls, ceilings, structural members) for acoustical, decorative, or fireproofing purposes. This includes plaster and fireproofing insulation.

9. _____ is used to inhibit heat transfer or prevent condensation on pipes, boilers, tanks, ducts, and various other components of hot and cold water systems and heating, ventilation, and air conditioning (HVAC) systems. This includes pipe lagging; pipe wrap; block, batt, and blanket insulation; cements and “muds;” and a variety of other products such as gaskets and ropes.

10. _____ is other, largely non-friable products and materials such as floor tile, ceiling tile, roofing felt, concrete pipe, outdoor siding, and fabrics.

11. _____ (PLM) is the type of “Bulk Sample” analysis used to determine the type and percent of asbestos in materials.

12. In the past, the individuals working with asbestos was during mining, manufacturing and installation. Today individuals working with asbestos are typically involved in

    _____ & _____.

HEALTH EFFECTS OF ASBESTOS EXPOSURE

1. _____ is caused from increased exposure to asbestos and results in scarring of the lower respiratory tract.
2. Scarring that occurs in the upper respiratory tract from asbestos exposure and increased exposure to other carcinogens *(like cigarettes)* increases the exposed person's chance of contracting _____ by _____ to _____ times that of a non-exposed person that is also a non-smoker.
3. _____ is a cancer of the chest cavity lining, and can also occur in the abdominal cavity. Studies indicate that Crocidolite asbestos exposure is more closely linked to this disease than the other types of asbestos.
4. The USEPA concludes there is _____ of asbestos exposure.
5. The typical "latency" period for contracting asbestos related diseases is approximately _____ to _____ years.

PROTECTING THE WORKER: RESPIRATORS & PROTECTIVE CLOTHING

1. According to OSHA's 29 CFR 1926.1101, persons performing Class I removal operations, and no negative exposure assessment was performed, the type of respirator that is required for this activity is _____.

2. List the 3 Items that need to be identified before using an APR?

   1._____

   2._____

   3._____

3. High Efficiency Particulate Air filters (HEPA) are capable of filtering _____ of all particles greater than_____microns in diameter. Respirator Cartridge filters are the same but are labeled_____.

4. Quantitative or qualitative fit testing identifies a mask's_____-_____. Which multiplied by the PEL will give you the mask's _____.

5. According to OSHA's 29 CFR 1910.134, before an employee can be fit tested on a tight fitting respirator, they *shall* be involved in a _____ program.

6. A *"User Seal Check"* shall be performed _____ a person puts on a tight fitting respirator.

7. The abatement workers will remove their _____ in the equipment room and their _____ in the shower of the personal decontamination unit.

ESTABLISHING A TYPE "C" SUPPLIED AIR SYSTEM

1. OSHA has designated atmospheres with less than _____ oxygen, as oxygen deficient.

2. Type “C” supplied air respirator systems shall have a continuous and sufficient supply of Grade _____ air.

3. Maximum hose length on a Type “C” supplied air respirator system shall not exceed _____ feet.

4. When anyone is on air the supply must be monitored by a _____.

ESTABLISHING A MEDICAL SURVEILLANCE PROGRAM

1. All individuals listed in the employer’s medical surveillance program must have a physician’s statement based on an examination or survey initially and _____.

2. According to OSHA’s asbestos in construction standard, employees must be involves in a medical surveillance program if they are assigned to an area above the _____ _____ , or the _____.

3. Medical records must be kept by the employer _____ years plus the employee’s term of employment.

4. Check what is required by OSHA as part of a medical surveillance program.

- ❑ General Physical
- ❑ Pulmonary Function Test
- ❑ Blood Test
- ❑ Urinalysis
- ❑ Chest X-Ray
- ❑ Biopsy
- ❑ OSHA Questionnaire
- ❑ Physician’s Opinion

PRE-WORK ACTIVITIES AND CONSIDERATIONS

1. Prior to set-up of the work area, the Worker should _____existing damage for documentation.

2. An _____ should be hired to establish temporary electrical power to the work area.

3. For tape adherence and to minimize water damage due to holes created in the floor poly, a good _____ should be performed in the work area.

4. Bulk sample reports should indicate the _____, and _____ of asbestos in the materials to be removed.

5. A work area that is 100' x 80' x 9' = _____ ft^3 . _____ negative air machines rated at 1500 cfm will be needed to change the air 4 times per hour.

6. List the 4 response actions for Asbestos under AHERA.

1. _____.2. _____.

3. _____.4. _____.

GLOVE-BAG TECHNIQUES FOR REMOVAL OF PIPE INSULATION

1. Gove-bags shall be made with at least _____ mil poly.

2. According to OSHA, glove-bag procedures shall not be performed on pipes where the metal temperature exceeds _____ ^{o} F.

3. All glove-bags shall be sealed air tight and _____ for leaks prior to ACM removal.

4. Glove-bag Techniques use a _____ decon involving a HEPA Vacuum, but you must provide the means for an _____ decon shower.

PREPARING THE WORK AREA & ESTABLISHING THE DECONTAMINATION UNIT

1. The outer layer of plastic sheeting sealing all openings to the work area is known as _____ barriers.

2. State of the art techniques for setting up the work area recommends _____ layers of 6 mil poly for floor barriers and _____ layers of 4 mil poly for wall barriers.

3. Floor poly should extend up on the wall and all seams should overlap approximately _____ inches.

4. The 3 primary chambers of a decontamination unit are: _

   1._____

   2._____

   3._____

5. Respirators are removed in the _____ of the decon unit.

6. Place the following in order for typical set-up of the work area:

   _____ Conduct Walkthrough Survey of the Work Area

   _____ Cover and Seal Stationary Items with Polyethylene

   _____ Secure the Work Area

   _____ Locate and Lock Out the Electrical System

   _____ Clean/Remove Non-Stationary Items from the Work Area

   _____ Shut Down/Modify the HVAC

   _____ Establish a Waste Load-Out Area

   _____ Establish a Decontamination Unit

   _____ Post Warning Signs

   _____ Apply Critical Barriers

7. List in order of use the 4 OSHA Controls.

1._____. 2._____.

3._____. 4._____.

CONFINING AND MINIMIZING AIRBORNE FIBERS

1. OSHA class I work areas require contractors to use manometric measurements that prove pressure differential at _____ inches of a water column, inside vs. outside the work area.
2. Amended water is a mixture of water and a _____.
3. Negative air units consist of a _____ stage filtration system.
4. OSHA class I work requires the air to be completely changed _____ times per hour.
5. The use of a negative pressure enclosure system for asbestos abatement is considered an _____ control.

SAFETY & HEALTH CONSIDERATIONS OTHER THAN ASBESTOS

1. Temporary electrical panels must be equipped with _____ to prevent electrical shock to the abatement crew.
2. Straight or extension ladders being used to access elevated surfaces must have a lean ratio at approximately _____ to _____ and extend at least _____ feet above the point of access.
3. Scaffold erection, alteration and disassembling must performed under the direction of a scaffolding _____-_____.

4. Free standing mobile scaffold's working height cannot exceed _____ times the minimum base dimension, unless secured by guys and/or ties.

5. Name the Fire Extinguisher Classification:

   Class A – _____ Class C – _____

   Class B – _____ Class D – _____

6. In case of fire, inclement weather, or other emergencies, contractors are required to have an _____.

7. Of all heat related medical issues, _____ is the most severe.

CLEANING UP THE WORK AREA

1. The discussion on final cleanup applies to the phase of the project in which all of the _____ asbestos-containing material has been removed from the substrate and the substrate has been cleaned and wet wiped.

2. A waiting period is typically done on school projects to allow surfaces to dry and fiber dust to _____.

3. If visible dust and/or debris is identified during the final visual inspection, the area must be _____ and _____ prior to final clearance air sampling.

WASTE DISPOSAL REQUIREMENT

1. Minimum requirements for asbestos waste being deposited in an EPA approved landfill are that the material must be _____ wet and in containers that are _____.
2. Containers of asbestos waste must have at least 3 pieces information on them:

   _____

   _____

   _____

SAMPLING & ANALYTICAL METHODOLOGY

1. Asbestos bulk sample analysis is known as _____

   _____.
2. Anyone taking bulk samples in a school, industrial facility, public or commercial building must be _____.
3. OSHA's 8 hour TWA permissible exposure limit to asbestos is _____ fiber/cc.
4. OSHA's excursion limit (30 minute peak exposure) is _____ fiber/cc.
5. AHERA's final clearance level under PCM analysis is _____ fiber/cc.
6. The use of a leaf blower prior to collecting final clearance air samples is known as _____ sampling.

7. The type of final clearance analysis required for school projects involving the removal, encapsulation and/or enclosure of greater than _____ sq. ft. and/or _____ _____ linear ft. is known as _____ .

8. _____ of each job task on an abatement site should be monitored with personal air pumps.

POST REMOVAL LOCKDOWN PROCEDURES AND ASBESTOS SUBSTITUTES

1. It is assumed that a small amount of microscopic asbestos fibers will remain in the work area even after a visual inspection. School projects and some Project Designers will require a spray-applied _____ encapsulant to be used.

2. All materials chosen for lockdown, replacement, and re-insulation should be checked for _____.

REGULATORY UPDATE

Write down any new information you've learned for the following regulatory agencies:

OSHA:

_____

_____

_____

_____

_____

EPA:

_____

_____

_____

_____

_____

NOTES:

NOTES:

NOTES: