



## APPENDIX C

# ASBESTOS AWARENESS TRAINING SUMMARY

**Purpose:** The goal of the asbestos awareness program is to inform Western Kentucky University employees about the potential hazards associated with the presence of asbestos containing material (ACM) in properties owned or maintained by the University. The major objectives of the program are to provide the participants with the ability to identify the presence and location of ACM at their facility; recognize potentially hazardous situations involving ACM; avoid and minimize disturbance of ACM through proper methods and work practices; contact appropriate personnel and follow established procedures when asbestos related concerns or emergencies arise. The training is a modified version of the Asbestos Hazard Emergency Response Act (AHERA) based on the requirements set forth in 40 CFR 763.92(a), OSHA 29 CFR 1926.1101, 401 KAR 58:005, 401 KAR 58:025, and University specific guidelines. The major topics it will cover include:

### AWARENESS TRAINING:

- What asbestos is?
- What it can do to you?
- Where asbestos can be found?
- How it does what it can do?
- How to adequately protect yourself?
- What the laws are about asbestos?



### Asbestos is:

- Mineral:
  - Mined in Canada, USA, and Africa
  - Asbestos is a crystal mineral structure
- Types:
  - Chrysotile (95%) - serpentine
  - Amosite (4.5%) - amphibole
  - Crocidolite (<1%)
  - Friable - easily crumbled with your hand
  - Non-friable - hard and not readily released into the atmosphere
- Uses:
  - Heat insulation (including gaskets)
  - Fire retardant
  - Acoustical insulation
  - Brake shoes
  - Binding material (vinyl tile, cementitious board)

- Where it may be found:
  - Sprayed on beams or ceiling (concrete or steel decks)
  - Found on the following types of heat equipment:
    - Pipes
    - Boilers
    - Tanks
    - Mechanical equipment
- Appearance:
  - Fibrous - not the white powder
  - "Aircell" - corrugated asbestos and cellulose
  - "Mag" - white hard insulation, usually pre-formed on steam lines
  - "Blue mud" - gray hard material usually used on joints and fittings
  - "Transite" - cementitious board or panel

**Diseases are:**

- How Asbestos Causes Disease:
  - Actual fibers in air:
    - Fibers are very small
    - Can remain suspended
    - Crystal structure lets it get smaller and smaller
  - Breathe into lungs
  - Lungs cannot get rid of asbestos because fibers do not deteriorate
- Smoking and Asbestos:
  - Smoking increases risk very much
- Asbestosis:
  - Debilitating lung disease
  - Usually requires long term exposure to high levels of asbestos
- Cancer:
  - Mesothelioma
  - Lung cancer
  - Certain level of susceptibility
- ***Exposure is Necessary Before Risk is High!!***
  - Asbestos is like an insulated electrical wire
  - Exposure must be to the "bare" substance to have a potential for disease
  - Term of exposure increases risk
  - Type of asbestos is a factor

 **Warning!**

**Do not sand, dry sweep, dry scrape, drill, saw, bead-blast, mechanically chip, or pulverize asbestos containing building materials.**

**Laws Governing Asbestos is:**

- OSHA (1926.1101 Regulation):

- Employee Protection during asbestos abatement or in asbestos atmosphere
- Several aspects of protection:
  - Exposure standard - 0.1 f/cc
  - Respiratory protection:
    - ✓ Not required by OSHA until fiber concentration equals the standard
    - ✓ Levels of protection based upon exposure potential
- Medical surveillance of workers exposed to action level at least 30 days annually
- Personal exposure air monitoring during removal activity
- EPA - Air Pollution Control District:
  - Has jurisdiction during abatement
  - Regulatory limit:
    - Proper disposal
    - Proper notification
    - No visible emissions
  - Typically inspect project during abatement:
    - Routinely make final inspections after completion
- Division of Waste Management:
  - Control disposal of asbestos waste
  - Asbestos is not classified as a "hazardous" waste:
    - Defined as "special" waste
- Requires certain special handling techniques:
  - Must be wetted
  - Must be sealed in plastic labeled bag
  - Pre-labeled disposable bag must be in an air tight, rigid container
- Landfill must be approved to accept asbestos waste:
  - Waste goes to a special part of the landfill

**Locations of Asbestos Containing Materials in WKU Buildings:**

- Areas that have ACBM or presumed ACBM
- Areas that have readily inaccessible ACBM

**Recognition of Damage, Deterioration, and Delamination of ACBM:**

- What to look for:
  - Deterioration
  - Physical damage
  - Water damage
  - Activity or vibration
  - Exposure potential
  - Access to material
- What to do and what not to do if you find it
- Minor release episode
- Major release episode
- Who is, and how to contact the WKU Asbestos Program Coordinator

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