

# Module 5

## Safe Work Practices

## Before starting work you should:

- Plan the sequence of particular activities, taking into consideration the recommended safety measures
- Prepare all necessary working tools, personal protection equipment as well as materials for storing and packing dangerous asbestos waste

## Asbestos work area preparation includes:

- Removal of all items and devices that asbestos dust can deposit on
- Covering items that cannot be disassembled and surfaces that are difficult to clean with plastic wrap
- Padding walls and floors with thick plastic wrap
- Sealing windows, doors, ventilation ducts within the work area
- the use of a curtain that thoroughly covers facade of the building during elevation works,
- marking off and building work areas with units to maintain negative pressure, and intercepting dust emissions by HEPA filters

## Securing asbestos work areas (examples)



## Asbestos work area preparation

In the case of removal of friable (soft) materials or dismantling works in closed rooms, a set of tight rooms should be applied where workers can be cleaned from asbestos dust (decontamination chambers)

# Working practices

During removal of asbestos containing materials, safe working practices and safety measures should be adhered to in order to protect the environment and population around the works.

The safe mode of work should be developed in such a way so that emissions of asbestos fibres are minimised and risk avoided.

## Technical measures that reduce emissions:

- Dampening asbestos containing products with water before their disassembling and keeping them wet over the whole period of work (except for works in the environment with high temperatures and nearby electric current)
- Dismantling whole products and avoiding mechanical destruction
- Immediately placing the removed materials in plastic bags or wrapping them tight with a thick plastic wrap that is durable enough not to be torn (it is forbidden to use paper bags)

## Working practices after work

After finishing work, the work area should be cleaned taking into consideration the recommendations of minimising exposure to asbestos. This means that workers should carefully clean the area of work and surrounding area, inner roads as well as machines and devices by using vacuum equipment equipped with HEPA filters.

## Working practices after work

Hand sweeping dry surfaces, as well as cleaning the rooms and working tools with compressed air is unacceptable. This way of cleaning results in emissions of asbestos dust into the environment.

# Technical measures that reduce emissions (examples)



## Working practices

Dangerous waste that contains asbestos include:

- Filters of the units that maintain negative pressure in the area of work
- Used filters for anti-dust masks
- Disposable protective clothing contaminated with asbestos
- Disassembled plastic wraps

Workers should handle these items the same way as they would any other asbestos containing waste. Therefore, they should be immediately packed into tight bags or dustproof containers, warning signs should be placed on them and they must be taken to the appropriate waste management facility.

## Equipment and tools for asbestos dismantling

Machines, equipment and methods of work used during works associated with exposure to asbestos dust should eliminate or reduce creation of such dust. It is advisable to use hand tools (e.g. scrapers, screwdrivers, chisels) or low-speed mechanical tools (eg. screwdrivers, drills, cutters) equipped with vacuuming additions.

## Equipment and tools for asbestos dismantling

Machines and other devices used during works associated with securing or removing asbestos containing materials should be equipped with local exhausts systems equipped with high efficiency filters.

An employer is obliged to ensure regular inspections, adjustments, maintenance and repair of such installations, machines and systems.

# Personal Protective Equipment (PPE)

If, despite undertaken actions, the reduction of asbestos dust concentration to the admissible value is impossible, protective breathing equipment should be used before commencement of work. The use of such equipment cannot be permanent and should be reduced to a minimum.

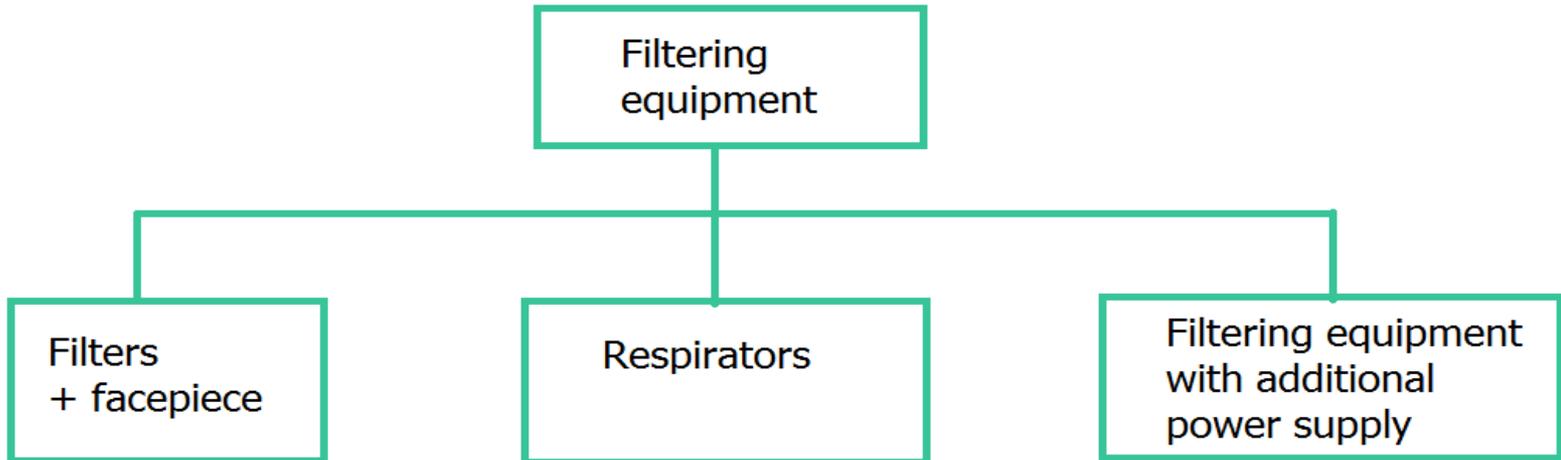
During works that require using such protective measures, an employer should ensure breaks from work for rest. These breaks should be adjusted to suit the physical and climatic conditions.

# Personal Protective Equipment (PPE)

Measures of respiratory system protection may be used only as a complementary or emergency solution; they cannot replace technical means of limiting exposure of workers to asbestos dust.

# Personal Protective Equipment (PPE)

- Respiratory system protective devices



# Personal Protective Equipment (PPE)

- Filters

Filters, when independent, do not protect the respiratory system. Only after assembling a relevant part of the facepiece do they fulfill their task. In the case of work with asbestos, protection class P3 is intended (high particle retention capacity, a high degree of protection)



# Personal Protective Equipment (PPE)

- Respirator assembled with a filter



# Personal Protective Equipment (PPE)

- Filtering respirators

Filtering respirator is generally a disposable piece of equipment



# Personal Protective Equipment (PPE)

- Equipment with assisted air flow  
The equipment can be also used without ventilation



# Personal Protective Equipment (PPE)

- Equipment with assisted air flow  
It provides protection only when the blower is switched on



# Personal Protective Equipment (PPE)

- **Protective overalls**

- 1 Hood tightly fitting to the face
- 2 Seams made on the outside of the overalls or closed
- 3 Gusset connecting legs and elasticated waist ensuring ideal fit of the overalls to the body
- 4 Sealing the overalls in critical areas
- 5 Tear resistance and antistaticness

Working footwear and clothing as well as personal protective measures used in the conditions of exposure cannot be used outside the work area



# Personal Protective Equipment (PPE)

- **Protective footwear**

If there is no possibility to use full overalls (with covered feet) it is best to use easily washable rubber footwear secured with tape, since in other types of working shoes the dust remains e.g. on tongues, shoelaces, in the hole punches and is difficult to remove.

# Personal Protective Equipment (PPE)

- **Protective gloves**

Working gloves, just as working footwear, should be tightly connected by the use of tape with the overalls. It is best if they are easily washable rubber gloves, however, the use of ordinary, material working gloves is permitted.

# Personal Protective Equipment (PPE)

It is unacceptable to take off a respiratory system and protective equipment within an area contaminated with asbestos dust. All changes and adjustments concerning filtering elements should be carried out after leaving this area.

# ORGANISATIONAL AND HYGIENE MEASURES

# Organisational & Hygiene measures

The employer must also ensure the following measures to reduce workers' asbestos exposure:

- **Ensure that the number of workers who are exposed to asbestos at any one time is as low as is reasonably practicable**
- It would be also recommended that each company has a number of permanent workers who always carry out works with asbestos exposure. These workers must have specific training on asbestos management.
- A list of workers involved in asbestos works, must be kept with their names and identification number
- **Provide written instructions on how to proceed in works with ACM**
- **Implementation of workers breaks and role rotations** to reduce the exposure time

- **Clean up the work place thoroughly**

Good housekeeping procedures, including end-of-workday procedures, to keep the work area clean by clearing up at regular intervals, using methods which do not spread asbestos dust

- **Appropriately restrict access to the work area**

Work areas must not be accessible to workers other than those who by reason of their work or duties are required to enter them.

These authorized people must be suitably trained and competent workers (who have been given the necessary information, instruction and training.)

- **Work area must be clearly demarcated and indicated by warning signs**

The information on warning labels and signs must be understandable to the workers.

# Organisational & Hygiene measures

- **Avoiding eating and drinking at the workplace, preventing food and beverages in the workplace and prohibition of smoking**

Workers exposed to ACM should not eat, drink or smoke in the asbestos work area or the washing and changing facilities. They should not take food, drink or cigarettes into such areas.

- Sufficient notices should be put up in prominent places in and around asbestos work area on the prohibition of eating, drinking and smoking.



- Where eating and drinking is required during working hours, a designated area should be agreed for such purposes. The area should be situated away from the asbestos work area and entry to the eating and drinking area while wearing contaminated personal protective equipment or carrying equipment contaminated with asbestos is prohibited.
- Before eating in this designated area, worker's face, mouth and hands must be washed with soap

*The **employer** must ensure that the conditions are right to follow the necessary hygienic measures:*

- Employees will be provided with appropriate and adequate washing and toilet facilities, including showers in the case of dusty operations
- Regularly and effectively clean and maintain all the facilities and equipment used in the treatment of asbestos
- Working, protective clothing and personal clothing will be stored separately;
- Protective equipment will be checked and cleaned after each use; equipment with defects should be repaired or replaced.

*It is essential that **employees** are aware of and comply with the following requirements:*

- Wash boots
- Remove working clothes, roll disposable overalls inside out to trap any remaining dust;
- Wipe the exterior of your respirator with a damp towel
- Rinse and wash (if possible, take a shower), only then remove respiratory personal protective equipment
- Do not take work clothes home - they should be disposed of or washed at a specialist laundry as asbestos contaminated clothes.

To control the degree of asbestos exposure during disposal and transport of asbestos containing materials, the employer is responsible for monitoring the concentration of asbestos fibres in the air before, during and after works.

Measurements of the concentration of asbestos fibers must be conducted in accordance with the relevant regulations concerning work environment and control measures in the workplace.

The results of these monitoring should be entered in the register of harmful factors.

Air monitoring includes:

- background asbestos air monitoring (testing the air for respirable fibres prior to work)
- asbestos exposure air monitoring (estimate the person's exposure)
- control air monitoring (during work)
- clearance air monitoring (following work or removal of asbestos containing materials).

1. What is the first thing you do before commencing work with asbestos containing materials?

- a) Plaid walls and floors with plastic wrap
- b) Plan the sequence of activities
- c) Seal windows and doors
- d) Remove all items and devices that asbestos dust can deposit on

2. Who is responsible for the inspections, maintenance and repair of equipment used for asbestos dismantling?

- a) The person dismantling the asbestos
- b) The person that owns the site where asbestos is being dismantled
- c) Employer of the person dismantling the asbestos
- d) The Health and Safety Executive

3. Working, protective clothing and personal clothing should be stored separately.

True

False

4. An employee can choose to ignore asbestos safe working practices if Personal Protective Equipment (PPE) is available.

True

False

5. Anyone can enter the work area if the appropriate PPE is worn?

True

False

## **PPE Activity**

Click on the items of PPE to protect the asbestos worker. Avoid clicking any items that are not considered PPE.

### **Respirator**

It is important that the respirator is fitted with a P3 class filter and securely covers the nose and mouth. Alternatively, an assisted airflow mask can be used.

### **Protective overalls**

Suitable protective overalls must be worn. These cannot be taken outside of the work area.

### **Protective footwear**

Easily washable rubber footwear is required, as it is difficult to clean regular working shoes.

### **Protective gloves**

Ordinary working gloves are permitted, however easily washable rubber gloves are recommended.

### **Tape**

Tape must be used to secure any gaps between the protective overalls, gloves and shoes.

### **Socks**

These will make your feet comfortable, but they are not considered PPE.

### **Trendy shirt**

Fashion is not a concern when working with asbestos!

### **Watch**

It is not permitted to wear any extra accessories that could collect asbestos fibres.

Well done! You have identified all of the PPE and the asbestos worker is now safe.