

# Dubai Municipality Health and Safety Department

## Technical Guidelines for Safe Handling of Asbestos

DM-HSD-GU50-SHA2

 GOVERNMENT OF DUBAI	<b>Organization Unit:</b> Health & Safety Department			الوحدة التنظيمية:	 بلدية دبي DUBAI MUNICIPALITY
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## 1. Introduction

Asbestos is a versatile material used in the manufacture of asbestos products such as asbestos cement pipe, sheets, gaskets, packing, brake linings, lagging material, and in architectural uses such as walls and ceilings. Exposure to airborne dust occurs particularly during:

- Milling asbestos
- Manufacture of material or products containing asbestos
- Use or application of asbestos containing products
- Stripping, repair or maintenance of products containing asbestos.
- Demolition of plant or structures containing asbestos material.
- Transportation, storage and handling of asbestos or asbestos containing materials.
- Disposal of asbestos items. Exposure to asbestos dust by inhalation of airborne asbestos fibers may result in asbestosis, lung cancer and other lung disorders.

## 2. Purpose

This guideline aims to explain how to raise the level of safety practices followed in the field of asbestos:

- To prevent the risk of exposure to asbestos dust at work.
- To prevent harm to community health.
- To provide clear guidelines on asbestos disposal.

Dubai Municipality Occupational Health and Safety Regulations require all business owners/employers and persons dealing with Asbestos to take all necessary steps to eliminate risks to workers as well as the public pursuant to the provisions of the local order number 61/1991

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### 3. Guidelines

#### 3.1. General

- The employer is responsible for the control and prevention of exposure to airborne asbestos in the work area, in transporting asbestos waste, and disposal of asbestos wastes.
- Workers must be provided with and wear the personal protective equipment and clothing required for the job as required in Part 4.

#### 3.2. Asbestos Products

##### 3.2.1. Production Facilities

- Where asbestos fiber is supplied in paper or plastic bags, the bags should be opened and emptied automatically whenever practicable.
- The bags should be placed as close as possible to the hopper or feed chamber.
- Dropping and dragging of finished asbestos - cement products should be avoided
- All power-sawing, drilling, sanding or milling machines engaged in finishing operations, should be fitted with efficient dust extraction equipment.
- Dust and residuals should be removed from the workplace by vacuum cleaning.

##### 3.2.2. Packing, Storage and Transportation

- Asbestos fiber or waste should always be double bagged in minimum 200 plastic bags. Bags should be closed by either heat sealing or tape.
- All bags should be printed with an approved label identifying the contents as asbestos and carrying a health warning.
- Hooks or other sharp equipment should not be used to lift bags.
- All vehicles used for the transport of asbestos should be properly cleaned after they have been unloaded. v- A vacuum cleaner should be used for cleaning.
- Suitable adhesive tape should be available and used for the repair of damaged bags.
- All bags of asbestos material should be stacked on pallets.
- All damaged bags should be repaired immediately.

#### 3.3. Use of asbestos products

##### 3.3.1. Construction and Alteration Work.

- All material to be used on site containing asbestos should be labeled.

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- Materials containing asbestos in bonded form such as caulking compounds, and bituminous damp coursing should, when stand or abraded be subject to appropriate precaution.
- Buildings or structures containing substantial amounts of asbestos containing insulation material or sheeting liable to become airborne during operation should take all precautions.
- Abrasive or masonry discs should not be used for cutting asbestos material.
- Broken pieces or off-cuts of asbestos cement material should be collected and disposed of in a manner that does not generate dust.
- Loose residuals and dust collected from fabrication processes should be wetted and placed in sealed impermeable bags.

### 3.3.2. Insulation and Cladding.

- Asbestos should not be used for cladding, lagging and insulation unless there is no viable alternative. When asbestos cloth is used for insulation on site, dust suppression by thorough damping before cutting and stitching should be employed.
- If cutting or pipe wrapping/lagging with rope is done, the work area should be separated from other areas.
- Waste materials should not be allowed to accumulate. They should be placed in impermeable bags.

### 3.3.3. Encapsulation or Removal of Friable Thermal or Acoustic Insulation.

- Enclosure of the Work Area: Where dust is liable to escape from areas, all external openings from the work area should be adequately sealed to prevent the escape of asbestos dust.
- Wet stripping should be adopted to eliminate air-borne fibers.
- Dry stripping is associated with very high level of asbestos. It should be used only
  - Where wet methods cannot be used;
  - Where live electrical apparatus is present
  - Where hot metal is present and there should be dust extraction system in place.

### 3.3.4. Servicing of brakes and clutches in garages and workshops.

- Compressed air or dry brushing should not be used to remove accumulated dust from brake and clutch assemblies.
- Dust should be removed by a vacuum cleaner fitted with a high-efficiency filter.
- Where products are machined, dust extraction equipment should be fitted.
- Loose residuals and dust should be removed from the workplace.
- Brake dust must be double bagged before disposal into the general waste stream.

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### 3.4. Asbestos Waste.

#### 3.4.1. Demolition Work Waste

- During demolition work, fixed or removable structures containing asbestos material should be collected in plastic sheeting, which can be folded to form sealed containers.
- Where practicable, the waste material should be wetted to minimize asbestos dust emission.

#### 3.4.2. The Collection and Transport of Asbestos Waste

- All wastes containing asbestos should be collected in bags of translucent material such as polyethylene.
- The wastes so collected in bags should be sealed to prevent escape of dust during subsequent handling.
- Waste material from fixing or removing insulation:
  - Where fixing or stripping operations are being carried on, floor surfaces should be covered with plastic sheeting which can be folded to form sealed containers.
  - Where practicable, the use of automatic removal of cut off, and collection in disposable receptacle should be followed.
- Asbestos cement sheeting/ pipes, jointing etc. should be stored in such a manner as to ensure that it will not be abraded or crushed while awaiting disposal.
- Sacks or bags which have been contained loose asbestos fiber should be disposed of by grinding, melting or bagged.
- Wet waste: Asbestos sludge or slurry. Asbestos waste in the form of sludge or slurry should be transported in carriers without any spillage.
- Transport of Waste. Asbestos waste whether loose in bags or in sealed container should be transported to the disposal site in such a way that no dust is emitted into air during transport

#### 3.4.3. Asbestos Waste Disposal in Dubai.

- Asbestos cement sheets or dry solids are to be disposed of as landfill material at solid waste building materials disposal sites.
- The waste should wherever practicable, be deposited at the foot of the working face of the landfill or at the bottom of an excavation dug for it.
- No asbestos waste in the landfill site shall be left uncovered at the end of a working day.
- If wet waste is deposited, it should be covered in the same way as dry waste to prevent escape of asbestos dust on dry out.

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- Workers occupied in the collection, transport or disposal of asbestos waste should be provided with suitable protective clothing and respiratory equipment.
- Contaminated protective clothing shall be segregated and cleaned separately.

### 3.5. Personal Protective Equipment.

- All workers engaged in handling, use, transportation, disposal of asbestos fiber or any product containing asbestos in manufacturing, use, demolition, construction, disposal activities shall be provided with and use appropriate personal protective equipment.

#### 3.5.1.General

- All workers shall be provided with the following personal protective equipment:
  - Work coverall.
  - Safety shoes.
  - Goggles
  - Gloves.
  - Helmet and earplug earmuff are required depending upon the nature of the operation.

#### 3.5.2. Manufacturing Industry

- Work coverall, safety shoes, goggles, gloves, earmuff/ ear plug.
- Respiratory protection - Dust respirator/ dust mask suitable for asbestos fiber filtration.

#### 3.5.3. Removal of sheets/ dry solids containing asbestos

- Work coverall, safety shoes, goggles, gloves.
- Respiratory protection - dust respirator/ dust mask suitable for asbestos fiber filtration.

#### 3.5.4. Removal of Insulation

- Work coverall, safety shoes, goggles, gloves - rubber gloves to be used when in contact with wet insulation.
- Respiratory protection - Dust respirator/ Dust mask suitable for asbestos fiber filtration.

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#### 4. References

Local Order No. 61/1991

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