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WHAT IS ASBESTOS

• Asbestos is a naturally occurring mineral which has been in use for over 2,000 years

• It was named by the Greeks, and the meaning of the word is “inextinguishable”

• The Romans weaved asbestos to make clothes
THERE ARE THREE COMMON TYPES OF ASBESTOS:

• Chrysotile (‘white asbestos’)
• Amosite (‘brown asbestos’)
• Crocidolite (‘blue asbestos’)

• Brown and blue are regarded to be most dangerous, although they must ALL be treated as potentially hazardous
• Each type has different shaped fibres
USEFUL PROPERTIES OF ASBESTOS

• Fireproofing
• Insulation
• Weather resistance
TYPICAL APPLICATIONS

• Gaskets
• Fire blankets
• Ropes
• Asbestos Insulation board (AIB)
• Lagging and paper wrap around pipes
• Down pipes & tanks
• Floor tiles
• Textured coatings (‘Artex’)
• Resin composite
ASBESTOS LEGISLATION

• The Control of Asbestos Regulations 2012, is the primary legislation governing the management of asbestos containing materials

• You can read more about asbestos regulations and guidance on the HSE asbestos portal

• Click here to open the HSE asbestos portal in a separate tab.
WHY WORRY ABOUT ASBESTOS

• Asbestos is a problem when it is disturbed or in poor condition

• The greatest risk to maintenance operatives is the accidental disturbance of asbestos containing materials
Why worry about asbestos

• It can be hazardous when breathed in
• When an unplanned disturbance occurs microscopic fibres are released into the air
• These fibres lodge in the lungs and they cannot be expelled
Why worry about asbestos

- Any fibres lodged in lung tissue can lead to:
  - asbestosis
  - lung cancer
  - mesothelioma
ASBESTOSIS

• Usually results from heavy and regular exposure
• It is incurable
• Restricts the lung function
• Increased risk of lung cancer
LUNG CANCER

• Smoking multiplies the risk
• A smoker is 15 times more likely to suffer from lung cancer
• A smoker exposed to asbestos is 75 times more likely to suffer with lung cancer
MESOTHELIOMA

• Caused by all kinds of particle exposure but particularly blue asbestos
• Is a form of cancer
• Exposure level required to cause illness is assumed to be low
• Is incurable and painful
• Can develop anytime between 20-40 years from the exposure
• Deaths from it in the UK are estimated to have peaked at 2500 persons every year between the years 2011 and 2015
MESOTHELIOMA SYMPTOMS

- Chest pain and pain in the lower back
- Difficulty breathing
- Coughing
- Weight loss
- Fever
- Muscle weakness and sensory loss
- Swelling of the face and arms
- Hoarseness
- Coughing up blood
WHY IS THE EXPOSURE TO ASBESTOS STILL A PROBLEM IN BUILDINGS?

• From the 1950s until the 1980s asbestos was used extensively in the UK
• This use continued until 1999
• Thousands of tonnes of asbestos still in buildings
• You are likely to find it in any building constructed before the year 2000
WHERE ARE WE LIKELY TO FIND ASBESTOS?

• Click here to view where asbestos is typically found
EXAMPLES OF ASBESTOS IN BUILDINGS

- The panels (painted black) beneath the glazing are chrysotile (‘white’) asbestos
Examples of asbestos in buildings

- Both ceilings are asbestos
- Note the new panel (unpainted) which is not asbestos
- Ensure you check the asbestos register and verify the product type
EXAMPLES OF ASBESTOS IN BUILDINGS

NOTE THE DAMAGE TO ASBESTOS CEILING
Examples of asbestos in buildings

ASBESTOS CEMENT
Examples of asbestos in buildings

ASBESTOS CEMENT (FLUE INFILL)
EXAMPLES OF ASBESTOS IN BUILDINGS

ASBESTOS INSULATING BOARD
Examples of asbestos in buildings

- Sprayed asbestos
Examples of asbestos in buildings

ASBESTOS TEXTILES
Examples of asbestos in buildings

ASBESTOS LAGGING TO PIPES
EXAMPLES OF ASBESTOS IN BUILDINGS

STAIR NOSING
Examples of asbestos in buildings

**ASBESTOS ROPE**
DISCOVERING SUSPECT MATERIALS

- If it is not in the asbestos register, and you think it may be asbestos - assume it is!
- Ceiling tiles were removed at this location because they were asbestos, this revealed asbestos shown in photo
SUSPECT MATERIAL AWARENESS

• Be careful, some asbestos containing materials are not obvious
• We will now see some examples of materials that at first glance appear safe, but they actually contain asbestos
TYPICAL EXAMPLES OF SUSPECT MATERIALS

**AMOSITE**

**NOT ASBESTOS**

Without careful examination and testing in a laboratory how will you know?
TYPICAL EXAMPLES OF SUSPECT MATERIALS

CHRYSOTILE

NOT ASBESTOS
Typical examples of suspect materials

**CHRYSOTILE**

**NOT ASBESTOS**
Typical examples of suspect materials

Does this artex contain asbestos?

The answer could be in the asbestos register.
The next section is a summary of procedures for the management of asbestos...
ASBESTOS MANAGEMENT PLAN & REGISTER

- The Asbestos Management Plan is a detailed plan for setting out the arrangements and procedures for managing asbestos.

- The Asbestos Register is a register detailing all known asbestos and is available on the university website.
  - Click here for the asbestos register

- Always review the whole buildings asbestos profile in the register to ensure you understand the make-up of the building and associated asbestos risks.
ASBESTOS LABELLING

- The university does not necessarily label asbestos containing material.
- **Never rely on any material being labelled.**
- Check the asbestos register.
- Know what type of material you are working on.
- If in doubt ask us – we will have it tested to establish what it is.
ASBESTOS CHECK PROCEDURE BEFORE STARTING WORK

• When you receive work requests, you must consider whether the work involved might disturb any of the adjoining building materials, which could contain asbestos.

• If work involves disturbance of building materials then you must check the asbestos register before starting any work.
Who is allowed to work with / on asbestos materials

• It is the University policy that maintenance operatives are NOT permitted to work with asbestos.

• Only contractors licensed by Health and Safety Executive are to undertake work with asbestos, under controlled conditions.

• Any person working on / with asbestos materials must be suitably trained to work safely.
• DO NOT ASSUME that asbestos is not present.

• Check the online register and if still in doubt please Ask Us.
SUBSTITUTION OF ASBESTOS MATERIALS

- When you have replaced a section only of AIB with a non-asbestos equivalent, could this item be useful in obtaining future access? i.e. a single tile in an asbestos ceiling?

- See example – this section of ceiling was replaced to enable safe access to the fitting.

- A penny washer may have been used at screw points to identify the material as being non-asbestos. This would be a local arrangement that you need to confirm with EFM staff.
SUBSTITUTE MATERIAL SELECTION

• Look carefully to identify what purpose the original material served
  • Is it a fire break?
• Any asbestos material that is removed must be replaced with a non-asbestos material that has equivalent properties.
• The non-asbestos substitute MUST be able to do the same thing
  • For example – provide a fire break of one hour fire resistance.
Key points

• Plan your work and check Asbestos Register BEFORE starting.

• **All** work on ACM to only be undertaken by Licensed contractors

• ACM not necessarily labelled - check Register.

• **Know limits of Management surveys which form the bulk of data available in the register.**

• Ask for a Demolition & Refurbishment Surveys where necessary.

• If any suspicious materials are discovered, do not disturb them, report and seek clarification.
The university would rather test it to make sure you are safe!

Click the link below for the asbestos register:

https://www.brighton.ac.uk/about-us/working-with-us/supplier-information/index.aspx#asbestos
Asbestos Incident
Emergency Procedure

**Discovery of materials that could contain asbestos**

**STOP work immediately**
- Keep everyone else out of the area
- Report the problem to Asbestos Manager / Officer or Emergency Helpdesk.
- Put up warning signs and do not allow for works which may disturb the produc(s)
- Estates & Facilities to arrange sampling for analyses.

**Does it contain asbestos?**
- **YES**
  - EFM to implement controls and remediate.
- **NO**
  - Works can continue

**Damaged materials that could contain asbestos**

**STOP work immediately**
- Report the problem to Asbestos Manager / Officer or Emergency Helpdesk.
- Is there dust or debris on clothing?
  - A little dust and minor debris
    - Wipe down face, arms & clothes with damp cloth / rag
  - A lot, contaminated clothes, hair and footwear
    - Remove outer clothing and leave area
    - Move away from source
    - Wipe down face, arms & remaining clothing with damp cloth / rag
  - Without causing alarm, cordon off area
  - Await instruction from a competent person

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**Emergency Contact Number**
Asbestos Manager: 01273 64 1449 or 079709 06467
Asbestos Officer 01273 64 3133 or 078661 37955