FILE NAME: Asbestos Cement Pipe and Sheet (ACPS)

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Presentation Notes

"Control of Asbestos Cement and Asbestos Insulation Board"

by

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for the Conference
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Asbestos Cement (AC)

What is it?

Grey, hard and brittle material
Generally contains 10 - 15% asbestos fibre
New AC contains only chrysotile (white)
Older AC may contain more hazardous crocidolite (blue) or amosite (brown)

Where might it be found?

Very common building material which is reflected in its many uses

- Corrugated Sheets (roofing and cladding)
- Roof accessories e.g. ridge caps, fillers etc.
- Flat sheeting for partitioning, cladding and door facings
- Rainwater gutter's, pipes and trough's
- Roof tiles and slates
- Flue pipes, decking tiles, cisterns and sumps

How can I identify AC?

- Old plans records relating to building
- In unsealed/unpainted state assume all grey cement coloured material AC unless known otherwise
- Sealed/painted material can only be identified by analysis

What legislation applies to work with AC?

Primary legislation - Control of Asbestos at work Regs. 1987
ACOP - The Control of Asbestos at Work

Key regulations:

Regulation 4 - Identification of asbestos
Regulation 5 and 5A - Assessment of exposure and Plans of work
Regulation 8 - Prevention/reduction of exposure to asbestos
Regulation 12 - Prevent/reduce spread of asbestos

How can exposure be prevented/reduced during work with AC?

Do:

- Keep material wet
- Use hand tools
- Wear a disposable overall/overshoes
- Wear a disposable orinasal mask that protects against asbestos dust
- Keep the work area clean and tidy

Typical dust levels generated during work with AC

Activity	Typical Exposure (f/ml)
Machine sawing without exhaust ventilation	
- abrasive cutting disc	15 - 25
- Circular saw	10 - 20
- Jig saw	2 - 10
Hand sawing	below 1
Machine drilling	below 1
Removal of AC sheeting	below 0.5
Stacking of Ac sheeting	below 0.5
Remote demolition of AC structures - dry*	below 0.1
Remote demolition of AC structures - wet*	below 0.01

Cleaning AC	Roofing	Vertical Cladding
Dry brushing (wire)	3	5 - 8
Wet brushing (wire)	1 - 3	1 - 2
Water jetting	0 - 0.5	1 - 2
Controlled water jetting	less than 0.01	less than 0.01

***Caution: subsequent clearance after remote demolition may give rise to concentrations greater than 1**

Note:

(1) Bad handling practises may result in much higher dust concentrations.

Major work -defined as work involving:-

(a) the duration of the job is greater than 1 hour or the area of material involved is greater than 2 m^2 of AIB, and in either of these cases the work includes:

(1) braking, cutting, machining, surface abrasion; or

(2) any work on a suspended ceiling; or

(b) an action level or control limit as laid down in the control of asbestos at work regulations is likely to be exceeded during the job.

Key regulations:

As for AC but in addition

Regulation 7 - Information Instruction and Training
Regulation 9 - Use of Control Measures
Regulation 10 - Maintenance of Control Measures
Regulation 13 - Cleanliness of Premises and Plant
Regulation 14 - Designated Areas

How can exposure be prevented/reduced during work with A I B?

(1) **Minor Work**

In addition to the good practices for working with A C:

- For all jobs which disturb A I B wear a suitable respirator matched to the job. (Note: the disposable filtering facepiece respirator is unlikely to give sufficient protection and that manufacturer's quoted protection factors may not be achieved in practise). The workforce will need to be trained in the use of the RPE.
- Mark the working area with warning signs
- Remove movable equipment and fittings from area
- If dust foreseen create an enclosure of work area, cover other equipment in area with plastic sheeting
- Spray front of A I B with dust suppressant if surface not painted/sealed.
- Remove fixings carefully, remove panel to create a small hole. Spray back of A I B with dust suppressant (use reverse angle spray head). Allow adequate soak time.
- Beware abrasion on panel edges

Typical fibre levels for work with A I B and Tiles (normally amosite and crocidolite)

Activity	Typical Exposure (f/ml)
Removal of insulating board and tiles:	
Careful removal of whole boards	up to 5
Breaking and ripping out	5-20
Unscrewing and careful removal using exhaust ventilation	below 2
Removal of a single tile with shadow vacuuming	0.05
Unscrewing and removal of ceiling tiles, controlled wetting with good access	below 0.05
Unscrewing and removal of ceiling tiles, controlled wetting with limited access*	below 0.05
Sanding or surforming	6-20
Machine cutting without exhaust ventilation	
Circular saw	greater than 20
Jig saw	5-20
Jig saw with exhaust ventilation	1-5
Drilling	
Overhead	5-10
Vertical Columns	2-5
Hand sawing	5-10
Scribing and Breaking	1-5
Rough handling of insulation and removal of pieces	greater than 15

*(Caution: disturbing original dusts during controlled wetting may give rise to fibre concentrations greater than 1)

Note: Bad handling practises may result in much higher concentrations