

TULLIS RUSSELL PAPERMAKERS

As part of the Tullis Russell Group the papermaking division operate from a 250-acre site situated nearby Glenrothes, Fife. The employee owned company has been making paper at these premises since 1804. Approximately 650 staff is employed in the production of a range of plain & coated papers for the UK and overseas markets.

Due to the long established nature of the site the principal buildings demonstrate the construction/fabrication methods that have prevailed within from the 1830's to date. Today the operation consists of 2 mill buildings each with a footprint in excess of 50,000m², power station, paper coating, warehousing, office accommodation, water treatment plant and numerous associated buildings.

Historically asbestos was used extensively both internally and externally around the mill. The versatility, durability and low cost of asbestos products resulted in it's presence in a variety of forms; insulation/ lagging, sheeting, cement roofing, ceiling tiles, etc. The mill also continues to discover innovative ways previous generations utilised asbestos, e.g. within the bonding of brickwork in areas subject to heat. The company's initial awareness of the asbestos hazards started approx. 1965, which coincided with some of the early legislation. In these years there was a limited understanding of the extent of the problem and control measures were inadequate by today's standards, however it provided a starting point

The Development of Control Measures

- 1965-70 Ceased use of asbestos/asbestos containing materials for construction purposes. The product remained unavoidable for some process uses, e.g. brake linings
- 1970-80 Staff made aware of dangers although few formal controls existed
- 1980-85 Given quantities of asbestos present on site, policy became for staff /contractors to assume materials were asbestos until it had been confirmed otherwise. This action resulted in full time presence of specialist asbestos testing /removal contractors.
- 1980-86 Formal asbestos survey of Power Station, development of register and prioritised removal programme. Ad-hoc surveys completed in other areas of mill.
- 1990-92 Formal asbestos survey of remaining buildings along with development of registers and removal programme.
- 1990-93 As the asbestos was mapped the frequency of asbestos testing was reduced. Removal, repair became business as usual with costs integrated into the annual planned maintenance budget with a further allowance provided within capital projects where necessary.
- 1998 Company Policy introduced
- 2000 Initially the quantities of asbestos made labelling unrealistic, however as the levels of asbestos is reducing hazard labelling is being introduced on a by building basis.

Ongoing Issues

- Despite a programme that has seen the steady removal of asbestos over a 25-year period the cost of complete removal still remains economically impractical. It is anticipated that older buildings will become redundant with demolition deferred due to prohibitive asbestos removal costs.

- In many situations maintaining asbestos in a safe condition appears a more acceptable solution. If this decision is made then the ongoing upkeep must to be considered. Approximately 30% of the asbestos budget is used on repeat encapsulation. In the mill environment heat and vibration can destroy the integrity of asbestos encapsulation within a 1-2 year period. In other less demanding areas the integrity of the encapsulation the can be retained over several years.
- Exposed asbestos can be identified and labelled, however there is an ever-present danger of disturbing concealed asbestos, particularly where contractors who are less aware of the hazards are involved. In addition to making employees and contractors aware of the potential hazard it is essential that the staff who manage these activities have an understanding of the hazard and a detailed knowledge of the company procedures to be followed in the event of a possible discovery.

Removal v's Encapsulation

Control Measure

Criteria

Complete removal

- Asbestos in particularly poor condition.
- Major renovation of area or modification/renewal of equipment.
- Levels of heat/vibration that can damage asbestos encapsulation creating a safety hazard and incurring frequent repeat encapsulation costs.



Photo: heat damage to recent asbestos encapsulation

Limited removal

- Used where a particular section within a wider area is problematic. Typically where asbestos is likely to be damaged by access or maintenance requirements.



Photo: access is required to maintain the valve, therefore asbestos lagging has been removed from working area.

Cladding

- Aluminium cladding is commonly fitted over encapsulated asbestos to provide additional protection in areas where there is a likelihood of impact damage. These areas tend to be the populated working areas. The disadvantage of this option is that it is difficult to monitor the condition of the asbestos within the cladding.



Photo: Aluminium cladding above and to the side of a pedestrian access route where there is a higher likelihood of impact damage.

Encapsulation

- Where there is less likelihood of impact, heat or vibration damage and no routine access/maintenance requirements a plaster/fabric material is used to encapsulate the asbestos.

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