Passive fire protection features and compliance schedule requirements

Fire separations and smoke separations are prescribed as specified systems in the Building Regulations 2005.

This information was confirmed as current in February 2016. It originally appeared in Codewords newsletters prior to January 2014.

A fire separation is defined in the Building Code as any building element which separates firecells, or firecells and safe paths, and provides a specific fire resistance rating.

This means that walls, ceilings, floors, hinged doors, roller shutters, glazing elements and dampers in ductwork are all examples of building elements that could be part of a fire separation (SS 15 Other fire safety systems or features in the Compliance Schedule Handbook).

When fire separations exist on the building’s means of escape and that ‘means’ also contains one of the primary fire safety systems (eg sprinklers, warning systems and emergency lighting) these need to become part of the compliance schedule. The compliance schedule must state:

- the specified system
- a description of the specified system
- performance standard
- inspection, maintenance and reporting procedures.

The following are examples of the information that may be provided.

Fire separations

Examples: fire door, safe path or fire rated floor.

Inspection procedures might involve checking the condition of fire doors, ensuring there are no holes or gaps, and checking closers are intact and working and that smoke seals are not damaged.

If passive fire protection systems are not checked on a regular basis the following common problems could occur:

- doors secured in the open position
- self closers do not close the door onto the latch
- damaged or missing smoke seals
- damage to light timber framed walls
- incomplete fire separation above false ceilings or below false floors
- penetrations that are not appropriately sealed.

All of these faults can be avoided if a proper maintenance and inspection routine is implemented and retro fitting of building or business systems is carefully managed.

This is why passive fire protection systems are just as important as active ones when it comes to inspection and maintenance procedures, as they assist in the functioning of active systems.
<table>
<thead>
<tr>
<th>Content</th>
<th>Performance Standard</th>
<th>Inspection, maintenance and reporting procedures</th>
<th>Systems that relate to means of escape (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire resisting walls</td>
<td>Maintain a FRR of 30/30/30</td>
<td>Monthly check that the performance standard is being maintained and no damage or installation of systems has occurred that would jeopardise the fire resisting properties.</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire resisting floor/ceilings</td>
<td>Maintain a FRR of 30/30/30</td>
<td>Monthly check that the performance standard is being maintained and no damage or installation of systems has occurred that would jeopardise the fire resisting properties.</td>
<td>Yes</td>
</tr>
<tr>
<td>Exposed columns and beams</td>
<td>Maintain a FRR of -/60/-</td>
<td>Ensure means of fire protecting the element is undamaged (for example, board product or intumescent coating).</td>
<td>No</td>
</tr>
<tr>
<td>Doorsets</td>
<td>Is self-closing and maintains a FRR of -/30/30, complies with AS/NZS 1905</td>
<td>Daily check by the occupier that doors are not secured in the open position and close onto a latch. Monthly check that door is undamaged and self-closing function operates as designed. Check frame mounted or leaf mounted seals for damage.</td>
<td>Yes</td>
</tr>
<tr>
<td>Roller Shutters</td>
<td>Closes on activation of smoke detection and/or heat detection. Maintains a FRR of -/60/-</td>
<td>Monthly inspection. Quarterly routine maintenance of operating mechanism and running gear. Runners clear of debris. Fusible link in good order. Shutter closes when link is released. No damage that will affect fire resisting properties.</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire resisting glazing</td>
<td>Maintains a FRR of -/30/-</td>
<td>Quarterly inspection. Intact and undamaged.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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