

4.10 PENETRATIONS IN FIRE-RATED STRUCTURES

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BCA 1996: CP8 (Part C3)

PURPOSE

Maintain the integrity of a service penetration in a building element that has a fire-resistant level.

REQUIREMENTS

Where pipes or services penetrate fire-rated elements:-

- a) The opening must be neatly formed, cut or drilled; and
- b) Minimum clearances must be maintained from:-
 - a. other services; and
 - b. combustible material; and
- c) The gap between the pipe or service and the floor, wall or ceiling must be fire stopped to a standard and with a material that will maintain the fire-resistance level of that element.

Where an item or service such as an electrical switch, outlet or socket is accommodated in an opening or recess in a wall, floor or ceiling:-

- a) The opening or recess must not:-
 - a. be within 300 mm horizontally and 600 mm vertically of any opening on the other side of that wall, or
 - b. extend beyond half the thickness of the wall.
- b) The gap behind or between the service and the wall, floor or ceiling must be fire-stopped.

MAINTENANCE CHECKS

It is recommended that the relevant building surveyor should require an annual inspection of this facility. The owner may delegate this function to another person or body where necessary or appropriate.

Because of the role of these penetrations, it is essential that they be maintained in a condition that will not allow the passage of fire from one compartment to another.

To ensure this security, visual checks should be carried out after maintenance work that may have interfered with their integrity. Any suspect area should be investigated further.

Any problems identified by these checks and inspections must be rectified as soon as is practicable, by either:-

- a) Referral back to the contractor who carried out the maintenance work; or
- b) By having your own maintenance staff or contractor carry out the necessary repairs.

MAINTENANCE RECORDS

The following information must be recorded:-

- a) The dates the three-monthly, after maintenance and yearly inspections were carried out; and
- b) The name of the person conducting the inspections; and
- c) Any problems identified in the inspection; and
- d) Actions taken to rectify problems identified; and
- e) Date rectification occurred; and
- f) Signature of the person conducting the inspection.

A log sheet to record this information is provided in Appendix C of this manual.