

7.2 SMOKE AND HEAT-DETECTION SYSTEM

BCA: Clause 4 of
Specification E2.2a
Reference: AS 1670

PURPOSE

A smoke-detection and alarm system is installed to sense and provide warning of a fire in its initial development stage. Proper operation of this system will afford the building occupants the maximum amount of time to seek safe refuge.

REQUIREMENTS OF THE EQUIPMENT

A smoke-detection system must automatically:—

- a) Sense the presence of a fire and advise its location; and
- b) Advise the fire brigade if required; and

If installed:—

- a) Switch the air handling system into the smoke ventilating mode; and
- b) Activate the closure of smoke and fire-isolating doors; and
- c) Activate necessary fire pumps.

In kitchens and other areas where the use of the area is likely to result in smoke detectors causing spurious signals, heat detectors may be installed in lieu of smoke alarms or an alarm acknowledgement facility may be installed. If the kitchen or other area is sprinklered then heat alarms need not be installed.

In addition to these automatically activated functions, the alarm system may have a manual means of activation.

METHOD OF OPERATION

Detectors of differing types are installed throughout the building to comply with AS 1670. The Standard designates the location and the suitable detector type to be installed.

A signal from a detector is relayed to the control and indicating equipment in the system, which activates the various responses listed above.

MAINTENANCE CHECKS

It is recommended that the relevant building surveyor should require the facilities to be inspected monthly. It should be noted that this is the lowest level of maintenance routines required by AS 1851-2005 Section 6. More rigorous routines are also required and are outlined below. The owner may delegate this function to another person or body where necessary or appropriate.

The intervals of inspection and service are detailed in AS 1851-2005 Section 6:—

- Monthly
- Six-monthly
- Yearly
- Five-yearly

MAINTENANCE RECORDS

It is recommended that log sheets to record the completion of the maintenance are developed from the tables as specified in AS 1851-2005 Section 6.