



30 July 2012

FI-104

**Question:**

NZS 4512:2010 *Fire detection and alarm systems in buildings* – clause 405.1.3

**Interpretation:**

Issued by the Alarms and Detection Group

Clause 405.1.3 states:

*'To reduce unwanted alarm activations, smoke detectors may be replaced with heat detectors (or sprinklers)... up to a maximum of 30% of the area of the firecell'.*

Are the following areas of a building to be considered, and count towards the maximum 30% of detector substitution?

- 1) Roof or ceiling spaces with difficult access to clean detectors.
- 2) Under loading dock canopies.
- 3) Under external building appendages.
- 4) Sports club changing/shower rooms.
- 5) Areas that are covered by sprinkler heads in a Type 7 sprinkler system.

- 1) Enclosed ceiling or roof spaces do not count towards the firecell area for the purposes of this clause.
- 2) Spaces external to the building do not count towards the firecell area for the purposes of this clause.
- 3) Spaces external to the building do not count towards the firecell area for the purposes of this clause.
- 4) Yes.
- 5) Sprinkler heads are an alternative to heat detectors, but otherwise do not influence the requirements for smoke detector coverage under this clause.

Smoke detectors are not required in the locations described by (a) to (g) of this clause. Discretionary substitution under (h) must not take the total area substituted beyond 30%.

NOTE –

The 30% applies to the complete firecell, not each detection zone.