



15 August 2006

*Question:*

*Std: NZS 4512*

405.2

Interpretation:

Issued by the Alarms and Detection Group

*FI 058*

Does 405.2 permit smoke detectors within a room to be located within containers that are recessed into the ceiling and fitted with grilles, so that the grille is flush with the ceiling?

Only if the grille meets the requirements of 405.2.2(g) for a perforated false ceiling and the recessed container's dimensions are such that detector mounting inside the recess would be permitted per 405.2.1(m) and figure 2 (i.e. container greater than 900mm x 900mm if more than 100mm deep).

405.2.1(n) usually requires detectors to be mounted with their sensing element some distance below the roof or ceiling underface (dimension 'Y' of Figure 1). Furthermore, in the presence of certain arrangements of beams or joists, 405.2.1(m) requires detectors to be mounted on the bottoms of the beams or joists. Except as described above, detectors mounted behind a grille and/or recessed above the level of the ceiling underface will not comply with these requirements, and are likely to respond more slowly to a fire.