

Fire formal interpretations

7 February 2018

FI-131

NZS 4512:2010 *Fire Detection and Alarm Systems in Buildings* – Appendix A and clause 401.1

Question:

Signalling to a remote receiving centre by networked fire control units -

Where transmission of an alarm to summon Fire & Emergency NZ assistance is a declared functional requirement of the fire alarm system, Appendix A3 requires each control unit to be connected to a remote receiving centre and separately identifiable by the fire service alarm transport system.

Clause 401.1 sets conditions and limitations on the floor area and number of buildings on a site that can be covered by a single control unit (or sector, per the definition of 104).

- a) In cases where the clause 401.1 limitations on floor area or multiple buildings are not exceeded:
- 1) May multiple control units, each covering part of the sector, be optionally networked together?
 - 2) If signalling to a remote receiving centre is a declared functional requirement for such a system, must every additional networked control unit contained within the same sector be connected to and separately identifiable at the remote receiving centre?
 - 3) May all the zone indications for the networked system be combined in one indicating unit?

Interpretation issued by the Alarms and detection group:

a) In such cases, all zones and control units are contained within a single sector.

- 1) Yes, this is permitted provided all alarm conditions can be viewed and controlled from a single location.
- 2) No, a single remote connection per sector is acceptable.
- 3) Yes, in fact all zone indications must appear on every indicating unit.

b) In cases where the clause 401.1 limitations on floor area or multiple buildings are exceeded:

- 1) May multiple control units, each with coverage below the limits for a single sector, be networked together?
- 2) If signalling to a remote receiving centre is a declared functional requirement for such a building or site, must every control unit (or sector) on the networked system be connected to and separately identifiable at the remote receiving centre?
- 3) May all the zone indications for the multi-sector networked system be combined in one indicating unit?

c) Where a sector indicating unit is required per Appendix A4.1, is it required to be connected to and separately identifiable by the remote receiving centre?

b) In such cases, zones and control units are distributed across multiple sectors.

- 1) Yes, this is permitted provided all alarm conditions from each sector grouping can be viewed and controlled from a single location within that sector.
- 2) No, but at least one remote connection is required per sector so that each sector can be separately identified at the remote receiving centre.
- 3) Yes, provided the locations and statuses of all control units and zones are clear and unambiguous.

c). No.

NOTE: Appendix A3.2 pre-dates the advent of distributed/networked systems. Its intent is to require separate remote identification for each sector, not necessarily every control unit in a network.