



# The new Alarm Standards...

## What do the changes mean for Compliance?

ABC Conference - September 2022

David Prosser



**Be careful what you wish for...**





# **NZS 4512:2021 – *Fire Detection and Alarm Systems in Buildings***

# **NZS 4514:2021 – *Interconnected smoke alarms for houses***

- Both released in May 2021



**What's my interest?**



## The Good News!

- MBIE intends to cite both Standards as the Acceptable Solutions
- Effective from 3<sup>rd</sup> November 2022
- 12-month transition window

NZS 4514:2021

NEW ZEALAND STANDARD

## **Interconnected smoke alarms for houses**

Superseding NZS 4514:2009

# Domestic Smoke Alarms

- Will replace F7/AS1
- Installation requirements more particular
- Interconnection will become the norm
- Wireless will be common

**Fire detection and  
alarm systems  
in buildings**



## Easy wins

- Duct smoke detectors
- Wireless detection systems
- ASD enhancements
- Search zone areas
- Detector and Call Point locations/spacing
- Linear heat detectors (LHD)

NZS 4512:2021

NEW ZEALAND STANDARD

## Fire detection and alarm systems in buildings

Superseding NZS 4512:2010

NZS 4512:2021

## Challenges...

- Seismic resistance
- Labelling
- 003 key access
- Service accessibility
- Weather protection



**Fire detection and  
alarm systems  
in buildings**

## Challenges (cont'd)

- Power supplies
- Type 5 alerting
- Earth fault monitoring
- Alerting circuit fault tolerance



## 4-year lead-time items

Mandatory from May 2025  
(to give manufacturers time)

- Earth fault monitoring
- 003 key
- PSU to carry full system load
- Defect history log
- Normal/abnormal indication
- Evacuation switch priority
- Type 5 local alert signal/message

**Fire detection and  
alarm systems  
in buildings**



## Key Challenges for Compliance...

- Visual Alerting Devices (VADs)
- Integrated Systems
- Documentation
- Inspections and Inspection Bodies
- Product Certification

## New Zealand (according to Google)



**<10,000** people are profoundly deaf  
but

**>700,000** people have hearing loss ( ~ one in seven)



## NZS 4121:2001

- *Design for Access and Mobility – Buildings and Associated Facilities*

**“ ...is to be taken as an Acceptable Solution for [the] requirements of persons with disabilities.”**

Building Act 2004, s119



## NZS 4121:2001

- *Design for Access and Mobility – Buildings and Associated Facilities*



## Fire detection and alarm systems in buildings

Superseding NZS 4512:2010

NZS 4512:2021



## Visual Alerting Devices (VADs)

- Widely used in USA & Europe
- Technology has improved
- NZS 4512 provisions now adequate



**Fire detection and  
alarm systems  
in buildings**



## Integrated Systems

- Increasingly common
- Integrated building “life safety system”
- Commissioning and routine testing shortcomings





Code of Practice  
for the Integration of  
Building Fire Safety Systems  
with other Services

Cop-04 Version 1.0 – Issued: 01/09/22

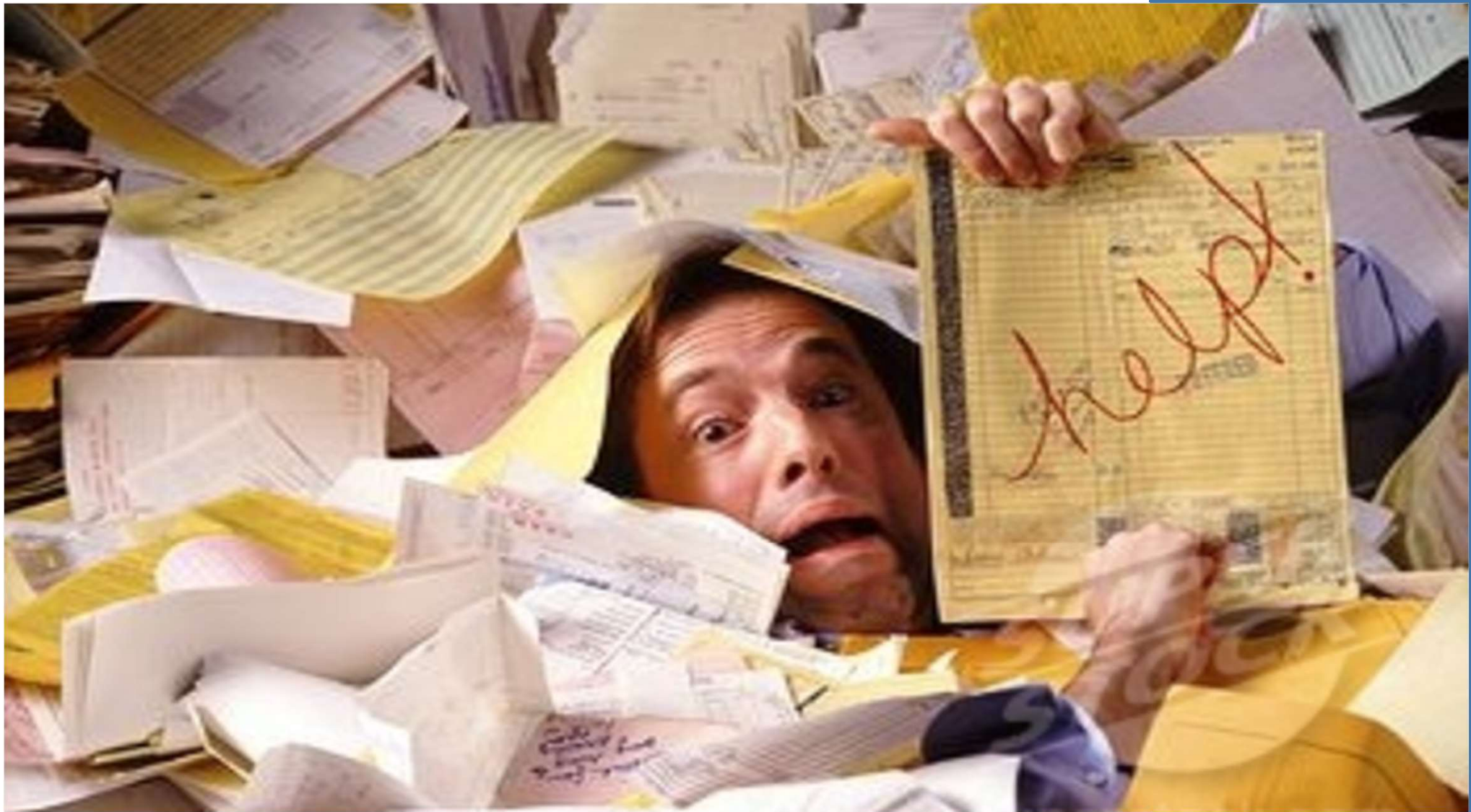


Fire Protection Association New Zealand  
[www.fpanz.org](http://www.fpanz.org)

# FPANZ Code of Practice

- *Code of Practice for the Integration of Building Fire Safety Systems with other Services*

[www.fpanz.org](http://www.fpanz.org)



NZS 4512:2021

NEW ZEALAND STANDARD

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Superseding NZS 4512:2010

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## Documentation

~~11 lines (clause 505)~~

3-and-a-half pages  
(new Section 8)

**Fire detection and  
alarm systems  
in buildings**

## Inspections and Inspection Bodies

~~6 lines (clause 506)~~

almost 4 pages  
(new section 5.5)

## APPENDIX M – INSTALLER’S DECLARATION OF COMPLETION FOR FIRE ALARM SYSTEM

(Normative)

Declaration of Completion Number: \_\_\_\_\_ Dated: \_\_\_\_\_

This declaration is to be completed and signed by the installer.

This document should not be relied on by a BCA or TA as the sole evidence of compliance of the fire alarm system.

### Designer/Installer details:

Company name(s) \_\_\_\_\_

Contact details of installer (address, phone, email) \_\_\_\_\_

Name of designer \_\_\_\_\_

Qualifications of designer \_\_\_\_\_

### Site details:

Building \_\_\_\_\_

Address \_\_\_\_\_

Legal description \_\_\_\_\_

Name of owner \_\_\_\_\_

Contact details of owner (address, phone, email) \_\_\_\_\_

Building consent details Number: \_\_\_\_\_ Date: \_\_\_\_\_

### Fire Report details:

Issued by \_\_\_\_\_

Ref/version \_\_\_\_\_

Issue date \_\_\_\_\_

### Fire Specification details:

Ref/version \_\_\_\_\_

Issued by \_\_\_\_\_

Issue date \_\_\_\_\_

### System details:

System description/type \_\_\_\_\_

Number of zones \_\_\_\_\_

Control unit location \_\_\_\_\_

Declared functional requirements (circle): a b c d e f g h

Additional details: \_\_\_\_\_

Control unit manufacturer \_\_\_\_\_

Equipment manufacturer(s) \_\_\_\_\_

Equipment listing numbers \_\_\_\_\_

Details of remote connection \_\_\_\_\_

Details of ancillary services \_\_\_\_\_

# Appendix M – *Installer’s Declaration of completion*

- Shift of emphasis
- Commissioning is the Installer’s responsibility
- Any final inspection failures will remain part of the system’s permanent record



**Register of Fire Alarm Equipment**  
ISSUE 5 | REVISION 7



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## Certification & Listing

- Manufacturers stepping up
- Will take time
- Annual revalidations
  
- 4-year lead in for some

