

# AON SPRINKLER CERTIFICATION



## Aon New Zealand

Aon Sprinkler Certification  
Aon Building, 1<sup>st</sup> Floor,  
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<b>Aon Sprinkler Certification Technical Note</b>		
<b>Note Number:</b> <b>16-21</b>	<b>Issue: 1</b>	<b>Date: 16 March 2016</b>
<b>Subject</b>	<b>Sprinkler System Water Supply Installations</b>	
Notice: Aon Sprinkler Certification Technical Notes provide guidance notes which may be used in certification of sprinkler installations by Aon New Zealand. If sprinkler installations are being certified by any other Sprinkler System Certifier, these Technical Notes may not apply.		

Aon is concerned that on a number of projects, that the sprinkler system water supplies are not being installed under the supervision of the Fire Protection Contractor.

Aon's concerns are with respect to areas of non-compliance with the Standard as against who actually installs it.

Concerns with town's mains connections include:

- Failure to monitor isolation valves installed as part of the back flow prevention facility.
  - Locking valves or installation of valves in locked cages does not meet the minimum requirements of NZS4541.
  - Approved monitored valves or monitor switches must be used.
  - A suitable conduit (and draw wire) between the backflow prevention device and the sprinkler valves should be provided.
- Use of unlisted strainers upstream of the back flow prevention device.
  - NZS4541 requires that strainers be specifically listed for fire services use.
- Additional services fed from the fire main not meeting the Sprinkler Standard's requirements
  - Automatic irrigation systems
  - Domestic or industrial connections greater than 40mm nominal bore without an approved pressure sustaining valve installation.
  - Multiple hydrants without adequate spurring or isolation facilities
  - Extraneous isolation valves

Concerns with tank supplies include:

- Failure to meet seismic design standards
  - Inappropriate Importance Level assigned to the tank design

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- Design to Serviceability Limit State as against Ultimate Limit State design
- Inability to provide adequate confirmation of design of foundations and tank
- Inability to ensure that necessary fire volume is dedicated to fire systems.
- Inadequate volume
- Failure to install anti-vortex plate meeting NZ's Sprinkler Standard
  - Note – Australia's Standard requirements do not meet NZ's requirements.

As remedying these omissions may be very costly, we would suggest that a copy of this note could be included with any tenders being submitted where the fire contractor is likely to have the provisions for the water supply provided before they are engaged.

We do note that at times, the water supply being installed by non-fire trades are specified by civil consultants who do not appear to have detailed knowledge of the fire standard requirements. If these consultants are not aware of the requirements for sprinkler system water supplies, they should seek advice from either a specialised Fire Protection Consultant or an Approved Sprinkler Contractor.

We further note that at times, we are asked to provide a "dispensation" from these clauses. The requirements of the Sprinkler Standard are normative and we do not have the ability to unilaterally waive them.

A handwritten signature in black ink, appearing to read 'Chris Mak'. The signature is stylized and cursive.

**Chris Mak**  
Technical Services Manger