

# Public Comment Invited for Automatic Fire Sprinkler Standard NZS 4541

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The Automatic Fire Sprinkler Systems Standard (NZS4541: 2003) covers the design, installation and maintenance of fire-control sprinkler systems.

In October, Standards New Zealand together with the Department of Building and Housing will be calling for public comment on the Standard, which has undergone a substantial review. The Department will be consulting on citing the new Standard in its Compliance Document for the Fire Safety Clauses of the New Zealand Building Code.

Chris Mak, who is representing the New Zealand Fire Equipment Manufacturers Association, and is the Chair of the expert committee working on the review, says the updated Standard will ensure protection provided by sprinklers is world-class.

The Standard has been through six amendments since it was first published in 1987. “It was time to completely review the Standard and the changes the committee has made are significant and wide-ranging. We want to encourage as much public feedback in October as possible,” said Mr Mak.

“The real driving force behind this review is that recent research into large warehouse fire protection has all been carried out in the United States. The committee has been working to ensure our Standard is up to date with the American research.”

Mr Mak said the benefits of the revised Standard include increased overall safety, improvements in the flexibility of protection systems, and reduced installation costs.

The Standard will also now encompass a review of the protection requirements for buildings constructed of Expanded Polystyrene (EPS) paneling.

Another important issue that has been highlighted is the apparent lack of full-scale test data for the use of anti-freeze-based systems for most High Piled Storage applications in coolstores.

Most such risks are mitigated against in New Zealand with large anti-freeze systems. The committee has questioned whether such protection is sound, without substantiating collaborative test reports. The committee's concerns are based on the combustibility of common anti-freeze agents, which may adversely impact on sprinkler system performance.

The Committee intends to propose the restriction of anti-freeze-based fire protection systems in High Piled Storage applications to those systems that have been tested for this purpose. Currently, the Committee understands that only one such system is commercially available, which does not cover all risks typically mitigated against in such facilities within New Zealand.

In practice, this will mean that alternative methods of providing freeze protection may need to be considered, which could include a listed anti-freeze-based system, dry pipe systems, preaction systems and dry pendent sprinklers among other options.

The revised Standard is expected to be published late 2006.

For more information, contact [Michelle Wessing](#), Project Manager for P4541 Automatic Fire Sprinkler Systems who can raise concerns or questions with the committee.