



07 August 2007

FI 065

**Question:**

**Interpretation:**

**Std: NZS 4541**

**Issued by the Fixed Fire Protection Group**

Is it the intent of clause 1202.4 (e) to include the testing of the density of anti-freeze in anti-freeze filled drops, as were permitted to be installed in NZS4541 prior to the 2003 edition?

Yes, it is the intent of clause 1202.4 (e) to include the testing of the density of anti-freeze in anti-freeze filled drops annually.

If "NO", what maintenance provisions shall there be for these?

The committee note that in actual practice, it would be more practical to replace than to test the antifreeze agent. A 70%/30% glycerine solution is the correct anti-freeze agent for this purpose. Solutions of propylene or ethylene glycol are not suitable for use in antifreeze drops.

Given the annual cost of this maintenance work, consideration may also be given to replacing anti-freeze filled drops with dry barrel sprinklers. Manufacturer's listing criteria, and other related information, should be complied with, including distance between the top of the ceiling and the connection to the wet pipe sprinkler pipework.

It is noted that future editions of NZS4541 may mandate the testing or replacement of dry barrel sprinklers on a 10 yearly basis.

[Reviewed in 2008 and deemed applicable to NZS 4541:2007](#)