Was the system installed after September 30, 2012?

- **NO**
  - Determine the type of antifreeze from installation records, information from the owner, chemical tests, or other reliable sources of information.²
  - **GLYCERIN** (only type permitted with listed CPVC pipe).

- **YES**
  - **PROPOLENE GLYCOL**

Tests⁴ indicate specific gravity:

(Tests at most remote portion and at interface with wet pipe system. More points required for systems over 150 gallons. See section 5.3.4.4)

- ≤38% - No action is required as long as concentration is what is necessary to prevent freezing.
- >38% to 50%
  - Deterministic Risk Analysis⁵ is required.
  - >50% - NOT PERMITTED. Replace with acceptable solution or use alternative methods.
- ≤30% - No action is required as long as concentration is what is necessary to prevent freezing.
- >30% to 40%
  - Deterministic Risk Analysis⁵ is required.³
  - >40% - NOT PERMITTED. Replace with acceptable solution or use alternative methods.

Remember, existing systems must be tested each year before the onset of freezing weather.

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¹ These systems are assumed to meet the requirements of NFPA 13, 2013 edition.
² If type cannot be determined, or is found to be a type no longer permitted, the system shall be drained completely and replaced with an acceptable solution.
³ See NFPA 25-2014 section 5.3.4.2.2 for information on concentrations above 30% in certain ESFR systems.
⁴ Test for specific gravity using a hydrometer with a suitable scale or a refractometer having a scale calibrated for the antifreeze solution.
⁵ Must be prepared by a qualified person approved by the AHJ. See annex A.5.3.4.2.1(3) for more information.