



## TECHNICAL POLICY

### 13 – 51 Anti-freeze Systems

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**Anti-freeze loops are to meet all of the requirements of NFPA 13 and the following:**

1. A reduced pressure zone backflow preventer shall be installed at the point of connection to the sprinkler system. The backflow preventer style, brand, model etc. shall meet the approval of the Minneapolis Water Department. The backflow preventer shall be installed by a licensed plumber. **A separate plumbing permit is required.**
2. Only glycerin C. P. grade, glycerin U. S. P. grade or propylene glycol shall be used as the anti-freeze component. The water/anti-freeze solution shall be capable of withstanding -40° F temperature.
3. All details of the anti-freeze system shall be shown on the sprinkler drawings. Manufacturer's data on the friction loss characteristics of the backflow device shall be included with the calculations.
4. All shutoff valves shall be locked in the open position and any valve that controls 20 or more sprinklers shall be monitored by a tamper switch.