

NFPA 22

5.1.1.1

5.1.1.1 Steel tanks shall be designed in accordance with AWWA D100, *Welded Steel Tank for Water Storage, 1996*, or AWWA D103, *Factory-Coated Bolted Steel Tanks for Water Storage, 1997*.

14.4.1

14.4.1 A permanent pipe ~~connected~~ connection to a an approved water supply shall be provided to fill the tank. Where the tank serves as a break tank between the city supply and fire pump(s), the fill shall be through automatic fill valves that are tied to water level sensors, and a bypass line of equal size with a normally closed control valve shall be provided.

14.4.2

14.4.2 The means to fill the tank shall be sized to fill the tank in a maximum time of 8 hours. Where the tank serves as a break tank between the city supply and building fire pump(s), the means to fill the tank shall be automatic and shall provide supply flow equal to 150% of the fire pump rated flow.

14.5.5

14.5.5 Discharge The overflow pipe shall discharge water to a drain with flow capacity equal to or greater than the fill line supply flow, or to an approved exterior location subject to approval by the authority having jurisdiction.

14.8.1

14.8.1 Provisions shall be made for the installation of sensors in accordance with *NFPA 72* for two critical water temperatures and two critical water levels.

14.8.1.1 Where the water storage tank acts as a break tank between the city supply and fire pump(s), water level sensors shall be provided. A minimum of three sensor levels shall be provided. Two sensor levels shall activate the turn-on/turn-off of the fill valve. The third sensor level shall indicate a low level alarm. The sensor that opens the fill control valve shall be set 5 inches (127 mm) below normal (full) level, or at 90% of the normal (full) volume, whichever leaves the greater volume in the tank. The sensor that closes the fill control valve shall be set at normal (full) level. The sensor that signals a low alarm shall be set 12 inches (300 mm) below normal (full) level, or at 70% of the normal (full) volume, whichever leaves the greater volume in the tank. The low level alarm shall be transmitted to a constantly attended location to initiate response to the fill control bypass valve