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Technical

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Purpose: This document clarifies the water supply requirements for building standpipe system zones serving

floors higher than 300 feet above the lowest level of Fire Department vehicle access. This document

shall not override requirements of the New York City Building Code.

Related Code/Zoning

BC Q105 7.9.4.2 BC Q105 7.9.4.2.1

Section(s):

Subject(s): Standpipe system; Standpipe zones; Water supplies; Auxiliary water supply; Automatic fire pump;

Gravity tank; Fire Department vehicle access; Fire Department connection

I. Effective Date

Effective Immediately

II. Applicability

This document and the code interpretation contained herein shall apply only to buildings with standpipe systems governed by the 2014 New York City Construction Codes and to alterations to the water supplies of existing systems as per 2014 BC, sections 901.9.1 and 901.9.1.1.

III. Background

The 2014 New York City Building Code (BC) requires that standpipe systems' installation accord with section 905 and the 2007 edition of NFPA 14, Standard for the Installation of Standpipe and Hose Systems, as modified in Appendix Q. These requirements include the number and types of permissible water supplies. This bulletin clarifies those water supplies.

IV. Specifics

- (A) BC Section 905.3 specifies where standpipe systems are required.
- (B) Section 7.9.1.1 of BC Q105 limits the maximum height of a standpipe system zone to 300 feet.
- (C) Section 7.9.4.2 of BC Q105 requires that standpipe zones serving occupied floors located higher than 300 feet above the lowest level of NYC Fire Department vehicle access be equipped with both a primary and auxiliary water supply. The primary water supply must be provided by gravity tanks, and supplemented by pumps as necessary.
- (D) Section 7.9.4.2.1 of BC Q105 specifically applies to standpipe zones serving occupied floors more than 300 feet above the lowest level of fire department vehicle access, but not more than 500 feet

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- above grade plane. Such section requires a special service fire pump to boost water supply pressure to that required in section 7.8.1 of BC Q105.
- (E) Section 7.9.4.3 of BC Q105 specifically applies to standpipe systems serving floors located at 500 feet or more above the lowest level of fire department vehicle access. Such section explicitly requires the auxiliary water supply to be a gravity tank and equipped with a special service fire pump.
- (F) Section 9.1.5 of BC Q105 lists the (4) water supplies permitted to serve standpipe systems. These include:
 - a. A public waterworks system with adequate pressure and flow rate
 - b. Automatic fire pumps connected to approved water sources in accordance with NFPA 20
 - i. As defined in BC 902, an automatic fire pump supplies no more than the lower 300 feet of a standpipe system. Therefore, an automatic fire pump can only serve as the primary water supply in the firs, or low zone, of a standpipe system.
 - c. Pressure tanks installed in accordance with NFPA 22
 - i. As per BC Q105 7.9.4.1, pressure tanks are not a permissible water supply for standpipe system zones with occupied floors less than 300 feet above NYC Fire Department access.
 - d. Gravity tanks installed in accordance with NFPA 22
- (G) In addition to the water supplies listed in section 9.1.5 of BC Q105, the NYC Fire Department connection(s) will be accepted as an auxiliary water supply, provided:
 - a. No portion of the standpipe system may serve floors located at 500 or more feet above the lowest level of Fire Department vehicle access.
 - b. The NYC Fire Department connection must be sufficiently rated for the supply pressure required for compliance with section 7.8.1 of BC Q105.
 - c. In accordance with BC Q105 section 7.2, under no circumstance shall any point of the standpipe system be subjected to pressure in excess of 350 psi, except for piping to high zone two-way Fire Department connections.
 - d. The applicant must indicate both the standpipe system's design as being reliant upon the NYC Fire Department connection; and its compliance with all applicable requirements.

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