Remediation Interpretation Bulletin – 5.5 (Hydrants)

Scope
This interpretation clarifies the application of standards referenced in the Alliance Standard for Fire Safety and Structural Integrity (v 1.1) by the Alliance for Bangladesh Worker Safety, its staff, and designated Qualified Assessment Firms and their employees.

Purpose
This interpretation addresses the installation and use of pillar hydrants and other hose outlets designed to facilitate firefighting access to buildings where portions of the floor area are inaccessible to the fire service due to large floor areas and limited access for fire service vehicles. These types of hose connections may also be useful for on-site industrial fire brigades deploying handheld hose lines to attack or control fires prior to fire service arrival.

Alliance Requirements
All new installations and design requirements outlined in BNBC Part 4 Chapter 4 for water supplies shall be replaced by the requirements of NFPA 20 (fire pumps), NFPA 22 (water tanks), and NFPA 24 (underground water mains). Existing water supplies shall be evaluated for reliability and support the hydraulic demands and duration of any new or existing systems supplied. (Section 5.5.1)

Background
Pillar hydrants and hydrants generally are used to supply water for firefighting purposes to handheld hose lines or hose lines supplying mobile fire tenders from which hose lines are deployed for fire control and suppression.

The Alliance Standard does not require hydrant systems to support manual firefighting based on building area or grade-level fire service access. However, standpipes or rising mains and hose outlets are required based on building height when buildings have occupied floors located more than 10m (33 ft) above grade (section 5.4.2).

Some factories have elected to install hydrants or hose outlets to facilitate firefighting access to large floor area buildings either by the fire service or on-site firefighting forces employed by the factory. This has caused some confusion regarding the hydrant location requirements of NFPA 24.

Some confusion also exists regarding the difference between pillar hydrants and fire service inlets or fire department connections.

Discussion
NFPA 24 Chapter 7 specifies requirements for fire hydrants supplied by private fire service mains. These requirements require the installation of hydrants in locations at least 12 m (40 ft) from the exterior wall of buildings. When such placements are impractical, NFPA 24, 7.2.4 permits installation closer to a building subject to the approval of the authority having jurisdiction. Such conditions are typical of existing factories located in densely populated urban areas.
Instructions
1. Confirm the location of hydrants is constrained by available land area or site conditions.
2. Determine whether placement of hydrants less than 12 m (40 ft) from building exposes hose lines or personnel to excessive radiant heat or dangers from falling glass or other sharp objects.
3. Require protection in the form of shielding when exposures present an unacceptable risk of injury to personnel or would otherwise compromise water supply integrity by severing hose lines.

Changes
1. Corrected reference to “Quality Assurance Firms” in Scope to read “Qualified Assessment Firms.”

Authority

Mark Chubb
Chief Safety Officer

Issued: 13-Apr-2015