

TECHNICAL BULLETIN

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Source Document: 19NYCRR 1221 - Building Code of New York State (BCNYS)

Topic: Fire Stations (or Ambulance Corps or Rescue Squads)

This document provides clarification on the requirements of the Building Code of New York State (BCNYS) pertaining to fire stations.

How are fire stations classified?

Under the BCNYS, a fire station is generally classified as a mixed use building. Because of the various types of activities that are conducted within a fire station, a single ‘blanket’ use group is generally not appropriate.

Fire stations almost always will utilize two type of use groups, a group S-1 for the parking of vehicles and a group B for the operational and administrative areas of the building. In a fire station that does not have large assembly spaces (greater than 50 persons) or sleeping areas and is not open for public use, these two use groups should be sufficient to cover all areas including offices, dispatch rooms, apparatus bays, incidental storage, and ready (day) rooms. In a situation where the area outside the apparatus bay takes up less than 10% of the floor area, the building could all be constructed without a fire barrier pursuant to section 302.2 since the Group B could be considered accessory. The converse could also be true of a headquarters building that has a large office component to it and a single apparatus bay.

If a building has an assembly space, it shall be considered a group A occupancy. Assembly spaces are multi-purpose rooms, meeting rooms, conference rooms, and bar areas. The only time an assembly space does not have to be considered a group A would be when the space is calculated to have an occupant load of less than 50 people and is accessory to the fire station (BCNYS 303.1). Therefore, any assembly space that is available for the public to use (hall rental, civic groups, boy scouts, etc.) is considered a group A occupancy, regardless of its size. Generally, assembly occupancies in a fire station are considered use group A-3.

Sleeping quarters in a fire station meets the definition of a Group R-2 occupancy. This would include areas such as dorm rooms or offices that contain sleeping facilities since these areas are used for sleeping purposes even though the occupants can be transient in nature. As with all occupancies, if the group R portion of the fire station takes up less than 10% of the floor area, it can be considered accessory to the fire station and can be constructed without a fire separation. However, items such as means of egress components and plumbing fixtures still need to be applied as if it was a group R occupancy.
In regard to the apparatus bays, this area is considered an enclosed garage and requires an exhaust system. The exhaust system shall meet the performance requirements of the *Mechanical Code of New York State* Section 502.13. An exhaust system that connects directly to the vehicle exhaust systems may be permitted under this section upon verification by a registered design professional.

**Do fire stations need to be sprinklered?**

There is no specific requirement within the code that requires a fire station to always be equipped with an automatic sprinkler system. However, many of the components that are found within a fire station do require such a system.

- **Group A occupancies**- Any group A occupancies with an occupant load greater than 100 people or is on a level other than the level of exit discharge, or a group A-2 or A-3 that is larger than 5,000 or 12,000 square feet, respectively, shall have an automatic sprinkler system pursuant to section 903.2.1. When an automatic sprinkler system is required for a group A occupancy, the automatic sprinkler system shall cover the entire floor of the building where the group A occupancy is as well as the entire floor areas between the group A and the level of exit discharge. The only type of construction that can limit the amount of floor area that is covered by an automatic sprinkler system in this case is a fire wall pursuant to section 705, which creates separate fire areas.

- **Apparatus bays**- Parking areas for fire apparatus fall under the requirements for commercial truck parking and require an automatic sprinkler system if this area exceeds 5,000 square feet (BCNYS 903.2.9.1). When required, the sprinkler system needs to be installed throughout the building. The only type of construction that can limit the amount of the building that is covered by an automatic sprinkler system in this case is a fire wall.

- **Sleeping areas**- If a fire station is designed with a Group R sleeping area, the building is required to be protected by an automatic sprinkler system pursuant to section 903.2.7. The only type of construction that can limit the amount of the building that is covered by an automatic sprinkler system in this case is a fire wall. Furthermore, when an automatic sprinkler system is required for a fire station solely based on the sleeping conditions, an NFPA 13R automatic sprinkler system is not appropriate since this type of system is for Group R buildings only.

*Ronald E. Piester, AIA, Director*
*Division of Code Enforcement and Administration*