

## FIRESAFETY

# APPLICATION CRITERIA FOR TRAINING FACILITIES AND RESIDENTIAL TYPE BUILDINGS

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### 1. GENERAL

1.01	This section outlines application criteria for the 760-600 series firesafety practices for training facilities and residential type occupancy buildings.
1.02	This section is being updated to add requirements under suppression systems and detection systems for training facilities and residential buildings. Whenever this section is reissued, the reason(s) for reissue will be listed in this paragraph.
1.03	The recommendations in this section are based, in general, on the National Fire Protection Association (NFPA) standards, the Model Building and Fire Codes, insurance and property risk management considerations, technical advice of Bellcore and consensus opinion of Company subject matter experts.
1.04	Where local, state, federal or Occupational Safety and Health Act (OSHA) regulations require higher degrees of protection, the legislated criteria should be

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followed to the extent required. Where those provisions are in conflict with this section, a variance means should be found by seeking "equivalent protection" through alternative installation methods which will satisfy the intent of this section.

- 1.05 A training facility is a building or a group of buildings containing training rooms, classrooms, vocational shops, and offices used expressly for training and educational purposes.
- 1.06 A residential type occupancy is a building or a portion of a building in which sleeping accommodations are provided for individuals with or without dining facilities. This type occupancy includes buildings such as hotels, motels, and/or dormitories normally classified as residential occupancies by the Model Building Codes
- 1.07 Mixed occupancy as used in this document, applies to those buildings which house both type occupancies, training and residential.
- 1.08 This section is based on Company Firesafety Policy and applies to both new and existing facilities. However, there may be cases in existing buildings where it is impractical to retrofit the building to comply with certain sections. Therefore, sound engineering judgment should be exercised in these cases to ensure the intent of the sections are achieved.
- 1.09 Where facilities of this type are to be constructed, it is recommended that a Company Fire Protection Consultant perform a plan review of these facilities.
- 1.10 Where facilities of this type are to be leased, it is recommended that a Company Fire Protection Consultant perform a pre-lease firesafety survey prior to finalizing the lease.

### 2. FIRESAFETY PRACTICES

- 2.01 The basic firesafety philosophy to be incorporated into the design of training facilities and residential type buildings is to follow local code requirements except where the firesafety requirements are stated otherwise in the sections listed in Table A and discussed in the following paragraphs. The basic philosophy of these criteria is to provide a sound basis of fire protection for all training facilities and residential type of buildings.
- 2.02 The sections listed in Table A detail firesafety requirements for Site Selection,

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Finishes and Furnishings, Kitchen/Cafeteria, Standby Engines, Building Construction, Type of Construction, Egress/Access, HVAC Systems, Smoke Control, Portable Fire Extinguishers, Suppression Systems, Detection Systems and Engineering Provisions for the Firesafety Plan.

- 2.03 Interior Finishes and Furnishings: Interior finishes and furnishings shall be in accordance with the requirements for non-equipment areas.
- 2.04 Standby Engines: This section shall apply when standby engines are contemplated or are required by the local Building Code. Of particular importance is providing 1) concrete diking around day tanks, 2) fuel level and warning indication at the point of fill (normally outside the building) on day tanks and 3) automatic shut-off valves on the fuel supply lines as they enter the building and as they leave inside storage tanks.
- 2.05 **Type of Construction:** Minimum construction requirements shall be governed by the local Building Codes. However, in mixed occupancy buildings there shall be a minimum 2-hour fire resistive separation between residential and other type occupancies, both horizontally and vertically.
- 2.06 Smoke Control: Smoke control is not recommended for training facilities and residential type buildings. However, should other considerations warrant or mandate the inclusion of smoke control in the building design, then Section 760-640-110 should provide the concepts for the control and removal of smoke.
- 2.07 **Portable Fire Extinguishers:** Portable fire extinguishers shall be distributed in the residential areas in accordance with the requirements for general office space, Section 760-640-200. Halon 1211 portable fire extinguishers are generally considered not cost-effective or appropriate for application in residential type areas.
- 2.08 **Suppression Systems:** Suppression systems shall be used in training facilities and residential buildings.
  - (a) A sprinkler system shall be provided in all residential type buildings, in both corridors and sleeping quarters.
  - (b) A sprinkler system shall be provided in all training facilities that are newly constructed and wherever major remodeling takes place.

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- (c) Where sprinkler systems are provided, they shall comply with Section 760-640-300 and NFPA-13.
- (d) Application recommendations for standpipe and hose systems in training facilities and residential buildings are shown in Section 760-640-310, Table 1 and generally based upon a function of building height (number of stories) and area per floor.
- 2.09 Detection Systems: An early warning fire detection system (EWFDS) shall be installed in all residential and training buildings.
  - (a) Use space detectors within residential rooms and equip with a remote alarm indicator light, located in the corridor above the door to the residence room.
  - (b) Use space detectors in training buildings, however, if protected by a sprinkler system, return air detection may be used in the administrative/ office areas, toilet facilities, janitor closets, lounges, hallways, corridors, general purpose storage and other types of spaces not involving a concentration of combustibles.
  - (c) Areas in training facilities and residential buildings containing a concentration of combustibles, mechanical rooms, standby engine rooms and fuel storage areas shall have detection in the space.
  - (d) EWFDS shall be continuously monitored for alarms 24 hours a day by a control center. Monitoring indication shall included detection and trouble conditions and, where provided, sprinkler system supervisory signal operation.
- 2.10 Engineering Provisions for the Firesafety Plan: The engineering provisions for the administration of the Firesafety Plan are indicated in Section 760-660-100, Engineering Provisions for the Firesafety Plan. A Fire Command Station and Communications System is required in training facilities and residential buildings regardless of size and occupancy. Evacuation plans and signs are also required in these buildings.

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### TABLE B

# SUPPORT DOCUMENTATION FOR TRAINING FACILITIES AND RESIDENTIAL BUILDINGS

	CATEGORY	SECTION NO.	SECTION TITLE
1.	Site Selection	760-610-100	Considerations Related to Site Selection
2.	Finishes/Furnishings	760-610-200	Considerations for Interior Finishes and Furnishings
3.	Kitchen/Cafeteria	760-610-300	Considerations for Cafeteria(s)/Kitchen(s)
4.	Standby Engines	760-610-400	Considerations for Standby Engines
5.	Building Construction Practices	760-620-100	Fire Protection During Construction
6.	Type of Construction	760-630-200	Fire Resistance Ratings of Structural Elements
7.	Egress/Access	760-630-300	Egress/Access Requirements
8.	HVAC Systems	760-640-100	Considerations for Heating, Ventilating, and Air- Conditioning Systems
9.	Smoke Control	760-640-110	Considerations for Smoke Control Systems
10.	Portable Extinguisher	760-640-200	Distribution of Portable Extinguishers
11.	Suppression System	760-640-300 760-640-310 760-640-320 760-640-400	General Considerations for Suppression Systems Standpipe and hose Systems Considerations for Pumps for Fire Service Design Considerations for Halon Flooding Systems
12.	Detection System	760-650-100	Fire Detection Systems
13.	Engineering Provisions for the Firesafety Plan	760-660-100	Engineering Provisions for the Firesafety Plan

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