GARLAND FIRE MARSHAL'S OFFICE 1500 Hwy. 66 Garland, Texas 75040 972-781-7148

FIRE SPRINKLERS

Chapter 9 is amended as follows:

- **903.1.1 Alternative protection.** Alternative automatic fire-extinguishing systems shall be permitted in addition to rather than in liue of automatic sprinkler protection.
- **903.1.2 Residential systems.** Neither 13R nor 13D systems shall be recognized for trade-offs except as specifically allowed by the IFC or its amendments.
- **903.2** Where required. Automatic sprinklers shall not be installed shall not be installed in elevator machine rooms, elevator machine spaces and elevator hoistways. Storage shall not be allowed in elevator machine rooms and appropriate signage shall be provided.

Any building, regardless of occupancy class, shall be equipped with an automatic sprinkler system when the enclosed fire area exceeds 5000 square feet. Additional requirement exist by occupancy as described below:

903.2.1.1 Group A-1.

- 1. the fire area has an occupant load of 300 or more.
- 2. The fire area is locate on a floor other than the level of exit discharge.
- 3. The fire area contains a multi-theater complex

903.2.1.2 Group A-2

- 1. The fire area has an occupant load of 100 or more.
- 2. The fire is located on a floor other than the level of exit discharge.

903.2.1.3 Group A-3.

- 1. The fire area has an occupant load of 300 or more.
- 2. The fire is located on a floor other than the level of exit discharge.

903.2.1.4 Group A-4.

- 1. The fire area has an occupant load of 300 or more.
- 2. The fire is located on a floor other than the level of exit discharge.
- 903.2.1.5 Group A-5. An automatic sprinkler system shall be provided in the following areas:
 - 1. concession stands
 - 2. retail areas
 - 3. press boxes
 - 4. other accessory areas in excess of 1000 square feet.

903.2.2 Group B ambulatory health care facilities.

- 1. Four or more care recipients are incapable of self-preservation.
- 2. One or more care recipients incapable of self-preservation located at other than the level of exit discharge.

903.2.3 Group E.

- 1. Where a Group E fire area is located below the lowest level of exit discharge.
- 2. Where a Group E fire area is located more than two stories above grade plane.

903.2.4 Group F-1.

Where a Group F-1 fire area is located more than two stories above grade plane.

- **903.2.4.1 Woodworking operations.** An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that conain woodworking operation in excess of 2500 square feet.
- **903.2.5 Group H.** An automatic sprinkler system shall be installed in all Group H occupancies.
- **903.2..5.3 Pyroxylin plastics.** An automatic sprinkler system shall be provided in buildings or portions thereof where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds.
- **903.2.6 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area. 13R or 13D systems shall be allowed in I-1 facilities.

903.2.7 Group M.

- 1. A Group M fire are is located more than two stroies above grade plane.
- 2. A Group M occupancy in new construction used for the diplay and sale of upholstered furniture.
- 3. An automatic sprinkler system shall be provided in all Group M occupancies where storage of merchandise is in high-piled or rack storage arrays.
- **903.2.8 Group R.** An automatic sprinkler system shall be installed throughout all buildings with a Group R fire area except stand alone single family residences less than 5000 square feet.
- **903.2.8.1 Mixed use occupancies.** Where buildings are of mixed residential and commercial use, residential portions of the building shall be protected with residential or quick-response sprinklers. Other portions of such buildings, including attic spaces shall be protected in accordance with NFPA 13. NFPA 13R systems shall not be allowed in mixed-use occupancies. Fire walls and fire separation shall not define separate buildings.

903.2.9 Group S-1.

- 1. A Group S-1 fire area is located more than two stories above the grade plane.
- 2. A Group S-1 fire area used for the storage of commercial trucks or buses exceeds 2500 square feet.

903.2.9.1 Repair Garages.

- 1. Buildings having two or more stories above grade plane with a fire area containing a repair garage exceeding 3500 square feet.
- 2. Buildings with repair garages servicing vehicles parked in basements.
- 3. A Group S-1 fire area used for the repair of commercial trucks or buses exceeding 2500 square feet.
- **903.2.9.2 Bulk storage of tires.** Building and structures where the area for the storage of tires exceeds 1000 square feet shall be equipped throughout with an approved automatic fire sprinkler system.
- **903.2.9.3 Self-service storage facility.** An automatic sprinkler system shall be installed throughout all self-service storage facilities except one story facilities with no interior corridors and a one-hour fire barrier separation wall installed between every storage compartment.
- **903.2.10 Group S-2 enclosed parking garages.** An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages where the enclosed parking garage is located beneath another occupancy group except for Group R-3 occupancies where the R-3 fire area is less than 5000 square feet.

903.2.11 Specific building areas and hazards.

- 1. Stories without openings
- 2. Openings on one side only
- 3. Basements
- 4. Rubbish and linen chutes
- 5. Buildings 35 feet or more in height, except open parking structures
- 6. Ducts conveying hazardous exhausts
- 7. Commercial cooking operations where used to comply with Section 904.
- 8. Any building with a clear height exceeding twelve feet.
- **903.2.11.9 Buildings over 5000 square feet.** An automatic sprinkler system shall be installed throughout all buildings with a fire area of 500 square feet or greater, and in existing buildings that are enlarged to be 5000 square feet or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exceptions:

- 1. Open parking garages
- 2. When of non-combustible construction, the area of awning extension of free standing canopies not used for display, storage or parking of vehicles shall not require sprinkler protection unless otherwise required by this code.
- 3. Except for H and I occupancies, an addition of less than 1000 square feet may be separated from the existing building without causing either the addition or the existing building to be sprinklered. The separation shall be a two hour barrier for Types II and V construction and a three hour barrier for other types of construction.
- **903.2.11.5.1 Audible Alarm.** Upon activation of an automatic fire-extinguishing system, an audible alarm shall be provided to notify the occupants that the system has activated.

- **903.3.1.1.1 Exempt locations.** When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system.
 - 1. Any room where the application of water or flame and water, constitutes a serious life or fire hazard.
 - 2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
 - 3. Generator and transformer rooms, under the direct control of a public utility, seperated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than two hours.
- **903.3.1.1.2 Fire sprinkler riser room.** When located on the ground level at an exterior wall, the fire sprinkler riser room shall be provided with an exterior fire department access door that is not less than three feet in widght and six feet-eight inches in height regardless of any interior doors that are provided. A key box shall be provided at this door.

Exception: When it is necessary to locate the fire sprinkler riser room on other levels or not at an exterior wall, the corridor leading to the fire sprinkler riser room access from the exterior of the building shall be provided with a minimum one hour fire resistance.

903.3.5 Water supplies. Every fire protection system shall be designed with a 10 psi safety factor.

13R and 13D systems

Small room rule. When fire sprinkler systems are required, the omission of fire sprinkler protection for bathrooms under 56 square feet shall not be allowed.

Garages. When fire sprinkler systems are required, garages with living space above shall have fire sprinkler protection.

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, and water-flow switeches on all sprinkler systems shall be electrically supervised by a listed dire alarm control unit. In addition, sprinkler water-flow detectors shall be provided for each floor tap ot the sprinkler system and shall cause an alarm upon detection of water flow for mor than 45 seconds. All control valves except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal a the central station upon tampering.