



EL SEGUNDO FIRE DEPARTMENT Fire Prevention Division

Regulation S-2-a Fire Sprinkler Systems

I. INTRODUCTION

- A. **Purpose:** The purpose of this regulation is to establish a consistent regulatory standard for fire sprinkler systems.
- B. **Scope:** This regulation applies to every building and other structure hereafter constructed and to existing structures. This Regulation clarifies some procedures in regard to fire sprinklers, defines the Fire Department's requirements for fire sprinkler system installations that may be more restrictive or not found in existing codes.
- C. **Authority:** El Segundo Municipal Code Sections 13-10-1 and 13-10-2, California Fire Code, Chapter 1, Division II, Sections 102.9 and 104.1

II. RESPONSIBILITY

- A. Individuals, Companies and Corporations that install, modify or upgrade fire sprinkler systems shall be responsible for compliance with this regulation.
- B. The Fire Prevention Division of the El Segundo Fire Department shall approve all fire fire sprinkler system installations or modifications.

II. POLICY

Fire sprinkler systems are required by the model codes for protection of buildings with special occupancies and buildings over a specific floor area and height. Building owners and developers also have fire sprinkler systems installed voluntarily or to meet their insurance company's requirements. The fire sprinkler systems must be installed, inspected, tested and maintained in accordance with adopted standards.

III. REQUIREMENTS

- A. It is the responsibility of building owners or operators to have all fire sprinkler system work performed under an approved permit and to have required acceptance testing witnessed by the Fire Department.
1. Every new fire sprinkler system or a revision or addition to an existing fire sprinkler system must be submitted for plan check through the Building Safety Dept. to this department. Plan submittals shall be made in accordance with Procedure 12-1 and approved prior to installation.
- B It is the responsibility of the affected fire sprinkler contractor to comply with this Regulation, applicable NFPA Standards, and to have the fire sprinkler system work permitted and acceptance test witnessed by the Fire Department
- C. It is the responsibility of the Fire Prevention Division to review and approve fire sprinkler system plans, witness acceptance testing and approve all fire sprinkler system work.
- D. All new fire sprinkler systems shall be completed and approved prior to occupancy of the building. Revisions to and additions to existing fire sprinkler systems shall be completed and approved prior to the approval of the modification or addition to the building necessitating the change in the system. Any exception to this requirement must be approved in writing by the Chief prior to installation.
- C. Fire sprinkler system shall comply with the following minimum standards, in addition to adopted NFPA Standards:
1. A floor control valve must be installed on each building floor for buildings 3 stories or more in height.
 2. The fire department connection shall be located on the address side of the building, unless approved by the Fire Department prior to plan submittal
 3. A public fire hydrant shall be located within 80 feet of all fire department connections for all systems permitted after May 1, 2012. The fire hydrant shall be located in accordance with Regulation H-2-a, Fire Hydrant Installations.
 4. The number of fire department connection inlets shall be determined by the worst case fire sprinkler system demand serviced by the fire department connection. The maximum flow rates per outlet are:
 - a. 0 to 500 GPM – Two 2 ½ inch connections
 - b. 501 to 1,000 GPM – Four 2 ½ inch connections

- c. Over 1,001 GPM – Six 2 ½ inch connections
5. Each fire department connection shall be identified and the inlet fittings secured in accordance with Regulation S-2-c, Fire Department Connections.
 6. Lettering and numbers on the system calculation plate shall be either stamped or be engraved. The lettering and numbers shall be readable. Ink lettering and numbers is not allowed.
 7. The fire department shall perform inspections of the fire sprinkler system at the following stages:
 - a.. Inspection of all welded pipe prior to installation.
 - b. Rough inspection of all new and/or relocated sprinkler heads and piping.
 - 1) If the sprinkler system work consists of relocating 10 sprinkler heads or less, Fire Department rough and final inspections are not required.
 - b. Hydrostatic testing of new sprinkler systems or on existing sprinkler systems of new pipe on where over 20 sprinkler heads and pipe (cross main and branch lines) have been installed shall be witnessed by the Fire Department. The hydrostatic test shall be performed in accordance with the applicable adopted sprinkler system standard.
 - c. All new pre-action, deluge and dry pipe sprinkler systems shall receive a 24 hour pneumatic test at 40 PSI air. The Fire Department shall witness the start and end of the test.
 - d. All new pre-action, dry pipe and deluge sprinkler systems shall have a trip test performed in accordance with the manufacturer's instructions. The trip test shall include manual and if applicable, remote control operation. The Fire Department shall witness trip testing for all new or modified systems.
 - e. Final system acceptance shall be performed by the Fire Department

8. All new sprinkler systems shall have a completed Contractor's Material and Test Certificate for each fire sprinkler system at the final inspection.
9. Installation of the system calculation plate shall be performed at the final inspection.

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Approved By: James Carver, Fire Marshal