



COMMUNITY RISK REDUCTION BUREAU MANUAL
FIRE EXTINGUISHING SYSTEMS
429.5 RESIDENTIAL SPRINKLER SYSTEMS
EFFECTIVE: APRIL 1, 2016
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SCOPE

Residential sprinkler systems.

PURPOSE

This policy has been established to outline the requirements for residential sprinkler systems installation. The policy applies to NFPA 13D and NFPA 13R systems.

REQUIREMENTS

All automatic fire sprinkler systems installed in residential occupancies shall be designed and installed in accordance with the following provisions:

1. Plan check and inspection fees shall be paid at the time of plan submittal.
2. Plans must be approved and a copy of the approved plans must be at the job site before any work commences.
3. Systems shall be designed in accordance with NFPA 13D or NFPA 13R except where superseded by this standard, or in unusual situations by the Fire Prevention Bureau.
4. Homes with more than 5,000 sq. ft. of sprinklered area shall be designed in accordance with NFPA 13R and these standards.
5. All attached garages shall be fully sprinklered.
6. All bathrooms shall be sprinklered.
7. Pilot heads shall be installed in attic areas above each access and above any HVAC or water heating equipment.

8. Underfloor areas, areas beneath stair cases, and crawl spaces intended or accessible for storage or habitation shall be sprinklered.
9. Plans shall show an elevation cross section of the building showing every situation other than smooth, flat ceilings.
10. Hydraulic calculations shall show a 5 gpm demand at the point of domestic connection. Where more than one dwelling is served by the domestic connection, 5 gpm shall be added for each dwelling unit. Where irrigation systems are designed to flow more than 5 gpm, the maximum designed flow shall be added.
11. A 10% safety margin, in pressure, shall be provided in the design at the point of connection of the public main.
12. Plans for systems requiring a pump shall include all information regarding the pump and associated plumbing.
13. In systems that require the use of a pump that will not be used for the domestic supply, special electrical wiring provisions will be required which shall be approved by the Community Risk Reduction Bureau at the planning stage.
14. Valves that are capable of shutting off the water supply to sprinkler system shall also shut off the domestic supply to the dwelling.
15. The alarm bell shall be mounted so as to be audible in the Master Bedroom above ambient noise levels with all doors and windows closed. The bell shall have a sign stating "CALL FIRE DEPARTMENT" or similar wording.
16. Inspectors test valve shall be provided at the most remote area of the system, or, when any story of the home is below the level of the riser drain, located so as to provide an auxiliary drain to prevent trapped water.
17. A spare head box shall be provided along with the appropriate spare heads, any special devices needed and instructions for homeowner testing and maintenance of the system.
18. The sprinkler contractor shall have a representative present at the rough-in/hydro inspection.

CROSS REFERENCES

California Fire Code 903.2.8