

FIRE DEPARTMENT  
SANTA CLARA COUNTY

**SENIOR FIRE PROTECTION ENGINEER**

DEFINITION

Under the direction of the Deputy Chief of Fire Prevention or his/her designee, the Senior Fire Protection Engineer is responsible for performing, directing, and supervising the activities of assigned staff with regards to reviewing construction documents, with a major emphasis on the examination of complex and technical construction and fire protection documents and interfacing with architects, engineers and other agency building departments.

The incumbent may work out of class in a higher classification within the division providing that s/he meets the qualifications of the higher classification.

This classification is a Fair Labor Standards Act non-exempt, represented position in the Classified Service.

DISTINGUISHING CHARACTERISTICS

This is the supervisory level in the Fire Protection Engineer series. The Senior Fire Protection Engineer reviews and approves highly complex and technical building construction plans, and is responsible for direct supervision of Fire Protection Engineers and Deputy Fire Marshals. The incumbent in this position is responsible for building construction status reports to agencies served. Incumbents in this class are distinguished from those in the next higher classification of Assistant Fire Marshal in that the latter performs administrative duties as determined by the Deputy Chief of Fire Prevention in connection with Department functions and programs.

EXAMPLES OF DUTIES

Depending upon assignment, duties may include, but are not limited to the following:

- Supervise, plan, evaluate, motivate, direct and participate in the work assignments and activities of Fire Protection Engineers, Associate Fire Protection Engineers, Deputy Fire Marshals and other personnel assigned to the Fire Prevention Division. Address personnel matters and apply progressive discipline as appropriate.
- Review construction documents on complex buildings and subdivision development for adherence to fire and life safety laws and codes.
- Review and evaluate the complex detection and alarm systems, smoke control systems, and other fire protection components for code compliance.
- Conduct orientation and ongoing training of Fire Protection Engineers, Associate Fire Protection Engineers, and Deputy Fire Marshals in all phases of fire/life safety plans examination to develop and maintain the capabilities and required standards of their positions.

EXAMPLES OF DUTIES (continued)

- Check subordinate's work for completeness and accuracy; ensure that all possible sources of information have been utilized, and determine whether conclusions agree with findings. Respond to and resolve questions, problems and irregularities encountered by subordinate staff.
- Assign work and monitor work in progress for completeness, accuracy, and timeliness and direct changes as necessary. Adjust workloads of assigned staff members to appropriately prioritize plan reviews and inspections.
- Consult with architects, engineers, developers, and agency building and planning staff to ensure proposed plans comply with adopted fire/life safety codes. Consult with contractors and builders to ensure compliance with approved plans and specifications.
- Analyze complex fire protection issues and write comprehensive technical reports and make recommendations.
- Review alternate materials and methods requests and make recommendations for approval or disapproval to the Deputy Chief of Fire Prevention.
- Conduct fire safety inspections of weekend fairs and festivals, public fireworks displays, and/or special effects.
- May be assigned duties in other Department programs at the discretion of the Fire Chief.
- Perform other related duties as assigned.

EMPLOYMENT STANDARDS

Education and Experience: A bachelor's degree in fire protection, civil, mechanical, industrial engineering or a closely related field from an accredited college or university plus five (5) years of full time experience in fire protection engineering.

Registration or qualifications sufficient for registration with the state of California as a Licensed Fire Protection Engineer is highly desirable.

As a condition of employment, an incumbent who has not completed and successfully passed the following California State Fire Marshal coursework indicated below will be required to do so within one year of employment:

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|---------------------|--|
| • Fire Inspector 1A | Duties and Administration              |
| • Fire Inspector 1B | Fire and Life Safety                   |
| • Fire Inspector 1C | Field Inspection                       |
| • Fire Inspector 1D | Field Inspection – California Specific |

Or

Education and Experience: (continued)

- Fire Prevention 1A                      Fire Inspection Practices
- Fire Prevention 1B                      Code Enforcement
- Fire Prevention 1C                      Flammable Liquids and Gas

Fire Plans Examiner Certification with the International Code Council will also be required within one year of appointment.

Knowledge Of:

- Principles and practices of modern fire protection engineering concepts, including building construction features, smoke control systems, structural fire protection, fire hazard control, and fire extinguishing, detection and alarm systems.
- Current knowledge of fire protection and fire inspection standards, codes, ordinances, rules, and regulations.
- Safety standards in structures where hazardous solids, liquids, or gases are to be manufactured, used, or stored.
- Standards of building design, materials of construction, and the principles of combustion as they relate to fire life safety design.
- Principles of supervision and training to effectively organize and direct personnel assigned to review of construction documents and perform construction inspections.
- Written communication principles to prepare clear and concise reports and correspondence.
- Department rules, regulations, policies and procedures.

Ability To:

- Effectively communicate, lead, supervise, plan, evaluate, coordinate, train, and direct the activities of Fire Protection Engineers, Deputy Fire Marshals, and other assigned personnel.
- Accurately review and interpret complex construction documents for compliance with appropriate codes, regulations, standards and ordinances pertaining to fire and life safety issues within the authority of the fire department.
- Effectively and professionally communicate appropriate fire prevention requirements to architects, engineers, developers, and agency planning and building departments.
- Conduct and evaluate complex engineering computations; analyze and evaluate statistical data.

Ability To: (continued)

- Analyze alternate materials and methods requests and makes sound recommendations for approval or disapproval to the Deputy Chief of Fire Prevention.
- Properly interpret the California Fire and Building Codes and the adopted National Fire Protection Association Standards.
- Prepare clear and concise reports and speak and write effectively.
- Assist in the training of various Department personnel with regards to fire science, fire protection components and fire inspections.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Maintain a calm and professional demeanor in confrontational or difficult situations.
- May perform specialized types of field inspections as directed by the Deputy Chief of Fire Prevention.

Working Conditions/Physical Demands: Work is performed both in an office setting and in the field. There may be exposure to noise, dust, flammable, and combustible materials. Work involves physical exertion, including standing, stooping, lifting, reaching, crawling and climbing. Manual dexterity; clear, understandable speech; and visual and hearing acuity are also required.

Employment Condition: Must be flexible in work assignments. Assignment location, program assignments, assignment to a specialized function may occur and / or be subject to change based on the needs of the division.

Required License: Possession of a valid state of California driver's license.

Pre-Employment Requirements: The candidate must pass a background check, Live Scan fingerprint, psychological evaluation, and medical examination.