

FIRE DEPARTMENT
SANTA CLARA COUNTY

FIRE PROTECTION ENGINEER

DEFINITION

The classification of Fire Protection Engineer performs moderate to complex review of plans and specifications for buildings, fire protection equipment, and industrial processes; and serves in an advisory capacity to Department staff on a variety of fire protection requirements and procedures.

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

DISTINGUISHING CHARACTERISTICS

The distinguishing characteristics between the Fire Protection Engineer and the Associate Fire Protection Engineer is that the Fire Protection Engineer is a journey-level classification, and may provide work direction to the Associate Fire Protection Engineer as a lead.

The classifications of Fire Protection Engineer and Associate Fire Protection Engineer are alternately staffed positions.

EXAMPLES OF DUTIES

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

- Review residential, commercial, and industrial plans and specifications for compliance with state and local fire prevention codes and ordinances.
- Review and evaluate site construction and all other system plans to ensure compliance with applicable regulations, standards, and codes.
- Review and evaluate sprinkler systems, fire main installations, detection and alarm systems, smoke control systems, and other fire protection components for code compliance.
- Review site development plans to ensure adequate water supply and fire hydrant availability; place hydrants and water main locations for new developments and annexations.
- Review proposals and recommend modifications, review technical literature and propose new fire protection procedures.
- Provide technical assistance and guidance to architects, engineers, developers, contractors, building owners, and various fire department personnel by providing technical interpretations of building and fire codes as they apply to a jurisdiction.
- Conduct engineering computations such as fire flow, hydraulic design, building areas, and occupant loads.

EXAMPLES OF DUTIES (continued)

- Assist in the training of various Department personnel with regards to fire science, fire protection components, and fire inspections.
- Write comprehensive technical reports, analyze complex fire protection issues, and make recommendations.
- Issue written correspondence outlining code interpretations and deficiencies found in plan review.
- Conduct fire safety inspections of weekend fairs or festivals, public fireworks displays and/or special events.
- May perform specialized types of field inspections as directed by the Deputy Chief of Fire Prevention.
- May be assigned duties in other Department programs at the discretion of the Fire Chief.
- Perform other duties as assigned.

EMPLOYMENT STANDARDS

Education and Experience: A bachelor's degree in fire protection, civil or mechanical engineering or a closely related field from an accredited college or university, plus three (3) years of full time experience in fire protection engineering.

Or

Successful completion of the Engineer-in-Training (EIT) certification plus three (3) 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.

Knowledge Of:

- Principles and practices of modern fire protection engineering concepts.
- Fire protection and fire inspection standards, codes, ordinances, rules, and regulations.
- Structural fire protection, fire hazard control, and fire extinguishing detection/ alarm systems.
- Safety standards in structures where hazardous solids, liquids, or gases are to be manufactured, used, or stored.
- National Fire Protection Association Standards.
- Standards of building design, construction, and materials.

Ability To:

- Comprehend and evaluate building plans and specifications including fire suppression, alarm, and detection systems.
- Conduct and evaluate engineering computations.
- Analyze and evaluate statistical data.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Maintain a calm and professional demeanor in a confrontational or difficult situation.

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 Live Scan fingerprint, background check, psychological evaluation, and medical examination.