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Fire Protection Engineer

Class Code:
35K3

Bargaining Unit: Firefighting

CITY OF SANTA ROSA
Established Date: Jul 26, 1994
Revision Date: Mar 16, 2018

SALARY RANGE

\$48.04 - \$58.35 Hourly
\$8,327.50 - \$10,114.25 Monthly

DEFINITION:

The fundamental reason for the existence of this classification is to perform moderate to complex review of plans and specifications for building, fire protection equipment, and industrial and hazardous material processes to ensure compliance with federal, state, and municipal fire protection codes and ordinances, and to serve in an advisory capacity to Fire Department personnel on a variety of fire protection requirements and procedures.

DISTINGUISHING CHARACTERISTICS:

The Fire Protection Engineer is a single position professional classification in the Fire Prevention Bureau of the Fire Department with responsibility for performing complex plan review and fire protection engineering activities. It is distinguished from other engineering classifications in its specialized emphasis on fire protection engineering. It is distinguished from technical fire safety job classifications in its requirement for possession of advanced knowledge of fire protection engineering principles and practices.

SUPERVISION RECEIVED AND EXERCISED:

General direction is provided by the Fire Marshal or Assistant Fire Marshal. This classification has no direct supervisory responsibilities, but may provide technical supervision to other fire prevention classifications.

EXAMPLES OF DUTIES:

Essential Duties: The following duties are considered essential for this job classification:

- Conduct comprehensive and technical review and evaluation of site, construction (commercial, industrial and residential), hazardous materials, fire main, fire hydrant, fire sprinkler, standpipe, fire alarm and detection, smoke control and all other fire protection system plans to ensure conformation to applicable regulations, standards and codes
- Evaluate briefs submitted by design professionals and engineers for code equivalency or alternate materials, design and methods
- Perform advanced calculations and use of formulas to determine adherence of fire protection and civil plans to code requirements

- Identify defects and inadequacies in construction documents and require corrections be made to meet federal, state, and municipal codes
- Prepare memoranda, letters, and reports and make recommendations on solutions resulting from plan reviews
- Evaluate, approve and issue permits for the design and installation of fire protection systems
- Explain disapprovals and recommended modifications to permit applicants
- Provide technical assistance, guidance and technical interpretation of building and fire codes to architects, engineers, developers, contractors, building owners, and fire department personnel
- Act as representative to committees, technical associations, and professional organizations
- Assist in the training of fire department personnel in fire science, fire protection components, and fire inspections
- Provide presentations and training at events regarding updates to codes and regulations
- Educate the public on fire safety techniques through presentations, demonstrations, and informal reference
- Assist in the pre-incident planning process
- Act as a technical reference for building systems and department capabilities
- Confer and coordinate fire protection processes with other agencies and City departments
- Develop, prepare, and maintain a variety of records, staff reports, ordinances, and resolutions for Fire Department and City Council action
- Prepare Standard Operating Procedures for use by Fire Department personnel
- Perform related duties as assigned

QUALIFICATIONS:

Knowledge of: Principles, methods, and practices of modern fire prevention, fire protection engineering, and fire suppression activities as applied to local standards, codes and ordinances; modern methods, techniques and building materials used in the design and construction of a wide variety of buildings and fire protection systems; practices applied to the review of plan and specifications and application of local, state, and federal codes and regulations pertaining to fire and life-safety and building construction; mechanical, chemical, and related characteristics for a wide variety of flammable and explosive materials and hazardous substances and their proper use and storage requirements; principles and practices of basic fire science, fire technology, and fire behavior; mathematical calculations; and Uniform Fire Code, Uniform Building Code, and other applicable codes and State laws.

Ability to: Participate in a dynamic fire prevention program; represent the Fire Department to contractors, engineers, architects and developers and in public meetings; make comprehensive studies and prepare reports and recommendations; communicate effectively orally and in writing; read and interpret construction plans and specifications; detect deviations from plans, regulations, and standard safety procedures; properly interpret and make decisions in accordance with laws, regulations and policies; perform journey-level fire prevention review for a variety of buildings and structures; enforce codes, ordinances, and regulations pertaining to fire prevention and hazardous materials with impartiality, efficiency, firmness and tact; work cooperatively with others; plan, coordinate, and prioritize assigned work.

Experience and Education: Any combination equivalent to experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be: Experience – Three (3) years of full time experience in fire protection engineering, fire prevention and plan review; Education - Equivalent to a Bachelor's degree from an accredited college or university, with major work in fire protection, mechanical, industrial or civil engineering, or a closely related field; OR successful completion of the Engineer in Training (EIR) certification.

LICENSE OR CERTIFICATE:

This classification requires the use of a personal or City vehicle while conducting City business. In order to drive, individuals must be physically capable of operating the vehicle safely and must possess a valid California Class C motor vehicle operator's license.

Desirable Qualifications:

A certificate of registration or qualifications sufficient for registration as a professional engineer in Fire Protection Engineering in the State of California. The certificate of registration may be from another state having reciprocity with California, but registration with the State of California must be obtained within six (6) months of appointment.

WORKING CONDITIONS:

The work of this classification is performed primarily indoors in an office environment. Incumbents in this classification are expected to communicate orally either face to face, in a group setting, or using a telephone; instruct in a classroom setting and be able to learn through oral instruction; comprehend and make inferences from written material and produce written documents with clearly organized thoughts using proper sentence construction, punctuation, spelling and grammar; prepare reports and correspondence and enter data into a terminal, personal computer or keyboard device; and make repetitive arm/hand movements. When reviewing plans the Fire Protection Engineer interprets graphic instructions and blueprints. When participating in fire prevention activities, the incumbent discriminates among colors and shades of color during acceptance testing of fire alarm and fire protection systems; moves objects such as plans, books and tools weighing less than 20 pounds over long distances; stands for extended periods of time and is able to rest at will; lifts and uses arms above shoulder level to remove books and supplies from overhead shelves.