



CITY OF AVALON

MARCH 2015
FLSA: NON-EXEMPT

FIRE ENGINEER

DEFINITION

Under general supervision, operates and maintains firefighting apparatus and equipment; responds to fires, medical emergencies, hazardous materials incidents, rescues, and other emergency and non-emergency situations; participates in all other suppression, prevention, inspection, education, and related activities to protect life and property; performs fire station maintenance; provides information and assistance to the public; and performs other duties as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Fire Captain. May exercise technical and functional supervision over and provide training to reserve firefighters and volunteers.

CLASS CHARACTERISTICS

This is the advanced journey-level class in the fire service series. Incumbents work under general supervision and exercise a high level of discretion and independent judgment in performing the full range of fire suppression, basic medical emergency, hazardous materials, and other emergency response activities and functions. Successful performance of the work requires extensive knowledge of and ability to drive and operate a truck, engine, and all other vehicles, equipment, and apparatus and the performance of heavy physical work at potential risk to health and safety. This class is distinguished from the Fire Captain in that the latter is the full supervisory-level class in the series responsible for organizing, assigning, supervising and reviewing the work of assigned staff involved in fire service operations.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Ensures proper condition, operates, and maintains appearance of all fire apparatus and related fire services and medical equipment to ensure operational readiness and safety of fire personnel, including operating hydraulic pumps, performing daily inspections, maintenance, training, and inventory.
- Responds to fire alarms, emergency medical calls at the basic life support level, emergency rescues, hazardous materials incidents, public service calls, or other incidents, which require the mitigation of circumstances that may threaten life or property, such as fire suppression, emergency medical care, and rescue of victims.
- Serves within a command structure, requiring adherence to officers' orders in life threatening situations.
- Drives fire apparatus to emergency scene and positions and prepares equipment for use as directed by command officer, and drives fire engines to emergencies and training.



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- Operates and oversees the use of a variety of fire apparatus, vehicles, and equipment, including operating fire pumps, calculating and monitoring hydraulic conditions, directing engine hook-up, setting controls to ensure proper water flow levels, operating aerial ladder truck, and extending and retracting ladder; lays, connects, charges, and uses supply lines and various water appliances to control and extinguish fires; places water curtains and performs ventilating and access maneuvers; uses foam and chemical extinguishers as required by the nature of the fire.
- Searches and rescues victims from buildings, motor vehicles, water craft, water hazards, and other locations.
- Applies medical treatment and life support techniques within the scope of an Emergency Medical Technician (EMT); provides assistance to qualified paramedics, as directed; assists in the emergency transportation of patients.
- Contains, isolates, and minimizes hazardous materials spills.
- Works closely with other emergency medical staff, police, and public safety and fire personnel from the County of Los Angeles; responds to mutual aid situations as required.
- Performs daily checks of equipment to ensure all equipment is in good working order, including inspecting all aerial apparatuses, tools, and other related equipment to ensure their efficient operation and readiness for any emergency response situation; keeps complete and accurate inspection records and apparatus usage log as required; inspects all EMT equipment.
- Performs fire safety inspections on a variety of businesses and multi-family residences, and participates in a variety of public awareness activities to promote good public relations and fire safety awareness, including providing tours of fire facilities and giving presentations as requested.
- May assist in investigations of fire cause and origin when assigned as a Fire Investigator, including investigating the cause and origin of suspicious fires, collecting evidence samples for lab processing, photographing and sketching fire scenes, interviewing witnesses and suspects, and documenting all activities in investigative reports as required.
- Performs any or all of the duties of a Firefighter as necessary.
- Makes verbal and written analyses of activities involved in any emergency fire situation.
- Participates in all necessary training activities as assigned and in accordance with readiness and preparation for firefighting activities, including City-wide emergency management, training in fire suppression, fire pump operation, emergency medical training, hazardous materials, vehicle extrication, technical rescues, equipment use and maintenance, and other related functions.
- Performs physical fitness training to maintain physical abilities necessary for firefighting.
- Provides instruction to other fire personnel on topics related to fire apparatus maintenance, use, and other related topics.
- Maintains station and personal living areas in a clean and orderly manner; maintains surrounding grounds to ensure a safe and pleasant environment for fire personnel and the general public.
- Performs collateral duties related to one or more departmental programs, such as fire hydrants, emergency management services, mapping, hose testing, monthly reports, legal compliance, etc.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Practices and techniques of driving varied vehicles and operating a wide range of fire equipment and apparatus, including related fireground hydraulics.
- Principles and practices of fire suppression, containment, rescue, clean-up, and salvage.



- Principles and practices of providing emergency medical care at the EMT level.
- Practices and techniques of hazardous materials response, containment and clean-up.
- Geography of the City, including locations of streets, hydrants, sprinkler and standpipe hookups, and alarm panels.
- Techniques of first aid and CPR.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- The operation and maintenance of a variety of fire services vehicles, equipment, and facilities.
- Safety practices and equipment related to the work.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.

Ability to:

- Use the tools, equipment, and technology associated with firefighting and medical response.
- Operate vehicles, equipment and fire apparatus safely and in conformance with department procedures and traffic laws.
- Perform fire suppression and associated rescue and salvage work in a safe and effective manner.
- Apply the mechanics of fire fighting and emergency medical care at an EMT level.
- Deal with hazardous materials incidents in conformance with department procedures.
- Wear standard fire protective gear and safety equipment.
- Make sound, independent decisions in emergency situations and identify potential issues.
- Establish and maintain a variety of manual and computerized record-keeping and project management systems.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines in politically sensitive situations.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to the completion of high school. Additional college-level coursework in fire technology or a related field is desirable and at least two (2) years of related experience with a paid, paid-on call and/or volunteer fire department.

Licenses and Certifications:

- Possession of State of California Emergency Medical Technician I (EMT-1) Certificate.
- Possess and maintain a valid CPR certificate



- State of California Firefighter II (FF2) Certificate within twelve (12) months of employment is desirable.
- California Class A, B, or C Driver's License with firefighter endorsement.
- Ability to obtain a valid Hazardous Materials First Responder Operations Certificate within twelve (12) months of employment.
- Ability to obtain California P.C. 832 certificate within one year of appointment.
- Possession of Cal Fire Fire Apparatus Engineer Certificate.
- Ability to obtain Cal Fire FFI and FFII Certifications within one year of appointment.
- Additional certification and training may be required based on areas of assignment.

PHYSICAL DEMANDS

Must possess mobility, physical strength, and stamina to respond to emergency situations and use all emergency apparatus and equipment; perform heavy physical work, to work in confined spaces, around machines, and to climb and descend ladders; vision to discern colors and assess emergency situations, including medical incidents, and to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone or radio. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned apparatus and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials, equipment, objects, and individuals necessary to perform job functions. Ability to withstand fatigue and exhaustion while physically working for periods of long time in emergency conditions.

ENVIRONMENTAL ELEMENTS

Employees work in the field and are exposed to loud noise levels, extreme temperatures, inclement weather conditions, road hazards, substantial heights, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset public and private representatives in interpreting and enforcing departmental policies and procedures.

WORKING CONDITIONS

Employees are required to work 24-hour shifts, as scheduled by the department. Employees may also be called back to work in emergencies.