



## Job Description – Fire Engineer

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### **Position Summary:**

Under general supervision performs specialized work in operating and maintaining a variety of automotive firefighting equipment, including pumpers, ladder trucks, and specialty fire apparatus, in response to fire alarms and other emergency scenes. Participates in firefighting activities, fire prevention activities, training, physical fitness programs; and provides emergency medical care to ill and injured persons. Work includes routine operator maintenance and care of fire equipment and apparatus. Work is performed under the supervision of a fire captain who reviews work through meetings, the observation of work in progress, and evaluation of overall results achieved. Occasionally, Fire Engineers are required to relieve an officer of higher rank. When so assigned, Fire Engineers are responsible for the management of company programs and the supervision of assigned fire companies and equipment at the scene until relieved by an officer of higher rank. Fire Engineers are required to work 24-hour shifts; however, incumbents may be assigned to work a 40-hour work week.

### **Essential Functions:**

*The following duties ARE NOT intended to serve as a comprehensive list of all duties performed by all employees in this classification. Shown are duties intended to provide a representative summary of the major duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Operate and drive fire pumping and aerial ladder apparatus to alarms; regulate water pressure through hose lines.
- Check motorized apparatus for proper operation and general condition. Responsible for proper care and maintenance and minor repair work of equipment and apparatus to which assigned.
- Identify need for major repairs; maintain records of maintenance and overhaul.
- Respond and participate in firefighting activities.
- Respond to and render assistance in emergency situations.
- Climb ladders and work at heights of 10+ feet in rescuing people trapped on building roofs and upper floors.
- Move objects weighing up to 165 pounds or more, including but not limited to: five-inch fire hoses, EMS equipment, smoke ejectors, trauma boxes, persons on backboards, and salvage equipment, for distances of more than 20 feet.
- Perform duties requiring frequent pulling of 40 pounds or more, such as removing hose from apparatus, pulling ceilings, starting power equipment, and opening doors on the apparatus.
- Work at fire scenes and other emergencies, which may involve strenuous physical exertion, often under adverse climatic conditions.
- Use appropriate Personal Protection Equipment (PPE) while performing firefighter tasks in environments that may be immediately dangerous to life (IDLH) atmospheres.
- Participate in physical fitness activities to maintain physical conditioning.
- Perform routine operator maintenance and care of equipment and apparatus.
- Clean and inspect equipment and apparatus; notify appropriate department head or supervisor of any defects which need to be corrected.
- Work with cleaning fluids and agents, chemicals, pesticides, insecticides, paints, or similar solutions, using routine and non-routine protective equipment.

- Participate in training activities and instruction sessions learning job related material including firefighting and emergency medical services.
- Enter data into a computer, or other electronic device, recording/documenting business related information.
- Acquire and retain a thorough knowledge of the SFMD, including streets, buildings, water supply, unusual hazards, and related items.
- Perform various public information / education duties as required.
- Demonstrate continuous effort to improve operations, decrease turnaround times, streamline work processes, and work cooperatively and jointly to provide seamless customer service.

### **Knowledge, Skills, and Abilities:**

#### **Knowledge of:**

- Principles, practices and procedures of modern firefighting.
- Purpose, operation and maintenance of firefighting vehicles, equipment and apparatus.
- Hydraulics and their application to the operation of fire apparatus.
- Principles of mechanics and mathematics as related to Fire Engineer duties.
- Fire prevention principles and practices.
- Departmental policies, rules and instructions for firefighting and rescue activities.
- Extrication and the use of extrication tools.
- Geographical layout of the automatic response areas, street names and numbers and location of hydrants.
- Emergency Medical Technician basic life support procedures and paramedic support procedures.
- Principles and practices of safe motor vehicle operation and maintenance.
- Traffic laws, ordinances and rules involved in motor vehicle operation.
- Microsoft Office products and other relevant technologies.

#### **Ability to:**

- Perform field calculations of hydraulics for the operation of equipment at emergency scenes.
- Apply firefighting techniques and procedures; operate firefighting and rescue equipment.
- Think and act quickly and effectively in emergencies.
- Deal effectively with people under stressful situations.
- Select and use appropriate equipment and apparatus for emergency situations.
- Understand and follow oral and written directions promptly and accurately.
- Provide superior customer service for both internal and external customers.
- Listen and communicate effectively with a diverse group of people.
- Proficiently perform computerized word processing, comprehension, summarizing and writing/editing.
- Establish and maintain effective working relationships with co-workers, supervisors and the general public.
- Complete Occupational Safety and Health Administration/Hazardous Material Response Team (OSHA/HazMat) safety training as required.
- Perform other duties as assigned.

### **Required Training and Experience:**

- High school diploma or GED equivalent.
- Three (3) consecutive years of full-time employment as a firefighter with the SFMD and successful completion of prior to the Engineer Testing Process:
  - FSC 117 Fire Apparatus and Equipment
  - FSC 118 Fire Hydraulics
  - SFMD Driver Operator Program

### **Licensing, Credentials and Other Requirements:**

- Possession of a valid and appropriate Arizona driver's license.
- Possession of an Emergency Medical Technician or Paramedic Certification
- Some positions require the use of personal or SFMD vehicles on SFMD business. Individuals must be physically capable of operating the vehicles and possess and maintain an acceptable driving record. Use of a personal vehicle for SFMD business will be prohibited if the employee does not have personal insurance coverage.

### **Work Environment / Physical Demands:**

*The physical demands and work environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this position or that an employee encounters while performing the essential functions of this position. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

- Some work is performed in a fire station environment but responds to emergencies and is subject to potential personal danger.
- Perform cleaning, repair and maintenance of firefighting equipment, apparatus, and facilities.
- Engage in moderate to strenuous physical activity and under emotional stress during emergency situations.
- Participate in physical fitness programs and comply with Fire Department fit-for-duty policy requirements.
- Exposure to dirt, dust, pollen, odors, wetness, humidity, rain, fumes, temperature and noise extremes, hazardous materials, fire, unsafe structures, heights, confined spaces, machinery, vibrations, electric currents, traffic hazards, bright/dim lights, toxic agents, explosives, firearms, water hazards, violence, disease, and pathogenic substances.
- Perform duties requiring frequent pulling of 50 pounds or more, such as removing hose from apparatus, pulling ceilings, starting power equipment and opening doors on the apparatus.
- At times, requires sustained performance of physically demanding work, typically involving climbing and balancing, stooping, kneeling, crouching and crawling and may involve the lifting, carrying, pushing and/or pulling of moderately heavy objects and materials (up to 90 pounds).
- At times, perform rescue duties requiring searching, finding and rescue-dragging or carrying victims that can weigh over 200 pounds to safety.
- Bend or stoop repeatedly or continually over time to perform emergency medical services or perform duties on the fire ground.
- Operate a variety of medical equipment including suction units, pulse oximeters, laryngoscopes, cardiac monitors, defibrillators, oxygen administration equipment and glucose monitors.
- Operate all types of portable fire extinguishers, power tools, hand tools and related equipment such as smoke ejectors, forcible entry tools, pike poles and axes.
- Operate a variety of standard office equipment including a computer terminal, telephone, calculator, copy and fax machines requiring continuous and repetitive arm and hand motions.
- Use appropriate Personal Protection Equipment (PPE), including a self-contained breathing apparatus (SCBA), which requires the ability to tolerate increased respiratory workloads, while performing tasks in environments that may be immediately dangerous to life. This includes working in extremely hot or cold environments and withstanding exposure to toxic fumes and other hazards for prolonged time periods.
- Lift arms above shoulder level to cut vent holes with an ax or to force entry into automobiles using specialized tools.
- Operate a motor vehicle, emergency response vehicle and radio, including possible use during emergency response with lights and sirens.
- Travel to/from various locations.

### **EQUAL EMPLOYMENT OPPORTUNITY:**

*SFMD is committed to creating a diverse environment and is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, gender, gender identity or expression, sexual orientation, national origin, genetics, disability, age, or veteran status (ARS 41-1463). Additionally, this position description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the position change.*

When advised, reasonable accommodations will be made in order for an "otherwise qualified applicant" with a disability to participate in any phase of the recruitment process. Please contact Human Resources to request an accommodation. Persons with a disability may request a reasonable accommodation by contacting the HR Manager at (480) 982-4440 X132. Requests should be made 24 hours in advance or as early as possible to allow time to arrange the accommodation.