

FIRE ENGINEER AND FIRE ENGINEER – PARAMEDIC ASSIGNMENT

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Responsible for the technical work in the operation and maintenance of a variety of fire apparatus and firefighting equipment, participate in firefighting activities, fire prevention inspections, and training; to perform mechanical maintenance on vehicles, equipment, and apparatus. Maintain a working knowledge of water systems as well as fluid and field hydraulics.

Under general supervision, to perform advanced life support when on paramedic assignment, emergency medical services and to engage in technical aspects of fire fighting, rescue and all other emergency services and prevention activities in protecting life, property and the environment; to drive, operate and maintain all fire department apparatus and equipment; to conduct, assist and participate in training programs, to participate in inspections and related fire prevention activities, public education, and to do related work as required.

DISTINGUISHING CHARACTERISTICS

This classification encompasses the full range of fire engineer duties.

Fire Engineer – Paramedic Assignment is distinguished from other classifications within fire suppression services in that incumbents are assigned primary responsibility for rendering Basic Life Support and Advanced Life Support level medical care in addition to performing Fire Engineer duties.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from a Fire Captain.

Exercises technical supervision over other professional firefighters with respect to the operation and maintenance of vehicles, equipment, and apparatus.

ESSENTIAL FUNCTION STATEMENTS

Essential responsibilities and duties may include, but are not limited to, the following:

Essential Functions – FIRE ENGINEER

Drives fire-pumping apparatus to alarms and operate fire pumps.

Drives fire trucks to alarms and operates aerial devices.

Operates and oversee the use of numerous types of vehicles, equipment, tools, and apparatus.

Inspects vehicles, equipment, and apparatus; perform maintenance and minor repair work; identify the need for major repairs.

Assists with training personnel in the operation and maintenance of vehicles, equipment, and apparatus.

Responds to emergency calls to protect life and property; fight fires, render medical assistance, and perform rescue operations.

Serves as Fire Captain or Firefighter as necessary.

Essential Functions (FIRE ENGINEER) Cont.:

Participates in fire inspections and other fire prevention activities.

Participates in drills and other training activities.

Serves as Fire Captain, if qualified, in his absence.

Participates in station maintenance and repair work.

Maintains and updates department maps, run cards, and equipment records.

Prepares reports with respect to work operations.

Operates radio equipment.

Performs basic life support to assist victims at emergency site. Includes performing CPR and first aid, assisting paramedics as needed.

FIRE ENGINEER – PARAMEDIC ASSIGNMENT:

Responds to emergency calls and provide immediate Basic Life Support and Advanced Life Support care to sick and injured patients.

Responsibilities at medical emergencies include: open and maintain airways, administer positive pressure ventilation, cardiac resuscitation and defibrillation, control bleeding, treatment for shock, immobilize fractures and spinal stabilization, assist in childbirth and treat obstetric patients, manage mentally disturbed patients, treat burn victims, treat alcohol/drug overdose and poison patients.

Provides medical treatment and care as specified in the contra Costa County Pre-Hospital Care Manual.

Administers medication as prescribed by the Contra Costa County Field Treatment Guidelines.

Completes staff assignments as assigned.

Adheres to and follows all Contra Costa Emergency Medical Services policies and procedures, and field treatment guidelines.

Serves as Staff Officer as required.

Marginal Functions:

Performs related duties and responsibilities as necessary and/or assigned.

QUALIFICATIONS

Knowledge of:

FIRE ENGINEER:

Principles, practices, and procedures of modern firefighting and protection of lives and property.

Principles of mechanics, hydraulics, and mathematics as related to Fire Engineer duties.

QUALIFICATIONS; Knowledge of (FIRE ENGINEER) Cont.:

First aid, C.P.R., and other basic medical assistance techniques.

Purposes and uses of a variety of vehicles, equipment, tools, and apparatus used in firefighting, rescue, and medical assistance operations.

FIRE ENGINEER – PARAMEDIC ASSIGNMENT

Medical treatment and care as specified in the Contra Costa County Pre-Hospital Care Manual.

Administration of medication as prescribed by the Contra Costa County Field Treatment Guidelines.

Contra Costa Emergency Medical Services policies and procedures, and field treatment guidelines.

Ability to:

Learn advanced firefighting methods and techniques.

Learn advanced first aid.

Demonstrate physical endurance, agility, strength, and stamina in the performance of hazardous tasks under emergency conditions.

Demonstrate a high degree of mechanical aptitude.

Effectively and safely drive and operate the full range of fire apparatus and equipment used by the department.

Perform field calculations of hydraulics for the proper and effective operations of equipment at emergency scenes.

Think and act quickly and effectively in emergencies.

Understand and follow oral and written directions promptly and accurately.

Establish and maintain effective working relationships with those contacted in the course of work.

Communicate clearly and concisely, both orally and in writing.

Maintain physical and mental capacities appropriate to the performance of assigned duties and responsibilities.

Demonstrate added service value annually.

Experience and Training Guidelines

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

Experience:

FIRE ENGINEER:

Two years of municipal fire suppression and prevention.

FIRE ENGINEER – PARAMEDIC ASSIGNMENT:

Experience as a Paramedic in an active progressive paramedic program.

Training:

FIRE ENGINEER:

Training cont.:

Equivalent to completion of the twelfth grade supplemented by college level courses in fire science, fire administration or a related field.

FIRE ENGINEER – PARAMEDIC ASSIGNMENT:

Graduation from a paramedic training program that meets the requirements for licensing in the State of California.

Certification in Advanced Cardiac Life Support.

Licenses/Certificates/ Other requirements:

FIRE ENGINEER:

Possession of, or ability to obtain, an appropriate, valid California driver’s license.

Possession of, or ability to obtain, an appropriate, valid Firefighter’s I and II certificates.

Special qualifications and/or successful completion of specific California State Fire Board accredited courses may be required.

FIRE ENGINEER – PARAMEDIC ASSIGNMENT:

Maintain Paramedic License/Accreditation meeting All State of California and Contra Costa County requirements.

Maintain Advanced Cardiac Life Support (American Heart Association) Certification.

Maintain Pediatric Advanced Life Support (American Heart Association) Certification.

Maintain Basic Trauma Life Support or Prehospital Trauma Life Support (National Association of Emergency Medical Technicians) Certification.

Current/Continuous Paramedic License with the State of California.

Current/Continuous Accreditation with Contra Costa County Emergency Medical Services.

Maintain all licenses/certificates required to perform as a paramedic.

PHYSICAL DEMANDS

Sitting:	Occasionally to Frequently	Lifting:	
Standing:	Occasionally	up to 10 lbs:	Occasionally
Walking:	Frequently	11 to 25 lbs:	Occasionally
Bending:	Occasionally	26 to 50 lbs:	Occasionally
Crouching:	Occasionally	51 to 75 lbs:	Occasionally
Stooping:	Occasionally	76 to 100 lbs:	Occasionally
Kneeling:	Occasionally	100 + lbs:	Occasionally
Crawling:	Occasionally		

PHYSICAL DEMANDS: (continued)

Climbing:	Occasionally	Carrying:	
Balancing:	Occasionally	up to 10 lbs:	Frequently
Running:	Occasionally	11 to 25 lbs:	Occasionally
Twisting:	Occasionally	26 to 50 lbs:	Occasionally
Turning:	Occasionally	51 to 75 lbs:	Occasionally
Jumping:	Occasionally	76 to 100 lbs:	Occasionally
		100 + lbs:	Occasionally
Pushing/Pulling:			
up to 10 lbs:	Frequently		
11 to 25 lbs:	Occasionally		
26 to 50 lbs:	Occasionally		
51 to 75 lbs:	Occasionally		
76 to 100 lbs:	Occasionally		
100 + lbs:	Occasionally		
Grasping – firm:	Occasionally to Frequently		
Finger dexterity:	Occasionally		
Reaching forward:	Occasionally		
Reaching overhead:	Occasionally		
Pinch grasp:	Occasionally		
Grasp – light:	Frequently		
Coordination	-	Eye-hand:	Frequently
		Eye-hand-foot:	Occasionally to Frequently
		Driving:	Occasionally to Frequently
Talking	-	Face-to-face:	Frequently
		Verbal contact:	Frequently
		Public:	Occasionally
Vision	-	Acuity far:	Required
		Acuity, near:	Required
		Depth perception:	Required
		Field of vision:	Required
		Accommodation:	Required
		Color vision:	Required
Hearing	-	Conversation:	Frequently
		Telephone:	Occasionally to Frequently
		Earplugs:	Occasionally

MENTAL REQUIREMENTS

Abstract variables, Interpret instructions, Problems-standard, Detailed-uninvolved instructions, one or two step instructions, Reading-simple, Reading-complex, Writing-simple, Writing-complex, Math skills-simple, Math skills-complex, Spatial, Form, Coordination, Analyzing, Comparing, Mentoring, Negotiating, Instructing, Supervising, Diverting, Persuading, Speaking-signaling, Serving, Taking instructions-helping, Setting up, Precision Working, Operating-controlling, Driving-operation, Manipulation, Tending, Handling, Comprehend/follow instructions, Perform simple-repetitive tasks, Maintain work pace, Relate to other people, Influence other people, Perform varied-complex tasks, Generalizations/evaluations, Responsibility for direction.

WORK ENVIRONMENT

Exposure to: Indoors, Outdoors, Extreme heat or cold, Unprotected Heights, Moving machinery, Change in temperature/humidity, dust/fumes/smoke/gases/etc., toxic/caustic chemicals, Radiation/electrical energy, solvents/grease/oil, Slippery/uneven surfaces, Using computer/computer monitor screen, Explosives, vibration, flames/burning items, Works around others, Works alone, Works with others, required – safety glasses, hard hat, protective clothing.

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