

FIRE ENGINEER

DEPARTMENT : **WATERLOO FIRE RESCUE**
SALARY :
FLSA : **NON-EXEMPT**
CIVIL SERVICE : **INCLUDED**
BARGAINING UNIT : **INTERNATIONAL ASSO FIRE FIGHTERS, LOCAL #66**

GENERAL DESCRIPTION

Technical position under the general direction of the company officer responsible for performing a variety of duties in the Fire Rescue Department including but not limited to the following: drives assigned pieces of fire fighting apparatus to and from fires and operates pumps and other mechanical equipment; assists with community injury prevention programs; cleans and services assigned apparatus; attends training courses related to fire fighting and fire prevention; performs general maintenance work in the upkeep of fire department property; assists in fire station drill sessions when assigned; performs assigned fire inspections of buildings, fire escapes and other related structures for compliance with fire prevention ordinances; other duties as assigned.

ESSENTIAL FUNCTIONS

The essential functions are derived from the performance objectives stated in Medical Protocol for Fire Fighters, Municipal Fire and Police Retirement System of Iowa and NFPA 1001, Standard on Fire Fighter Professional Qualifications:

A Fire Engineer candidate shall maintain a sufficient physical and mental fitness level to perform the following functions with safety and competency:

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| <ol style="list-style-type: none">1. Safely drive fire fighting/other emergency vehicles.2. Visually assess the emergency or fire scene and/or condition of patient(s) and request additional assistance when necessary.3. Properly use and monitor fire fighting equipment and tools.4. Perform rescue, clean up and salvage activities.5. Verbally communicate with others in person, by telephone or via two-way radio.6. Understand and follow orders.7. Provide emergency medical services as required by department. | <ol style="list-style-type: none">8. Properly maintain and utilize required personal and/or chemical protective equipment including SCBA and encapsulated suit.9. Utilize Incident Command System.10. Assist in on-site control including traffic control, providing assistance to bystanders, and calming distraught persons.11. Prepare accurate reports.12. Function as a member of the team and as an individual.13. Free/lift/move patient(s) in a safe manner and prepare patient(s) for transport.

Using universal precautions, correctly perform emergency medical services, and properly utilize medical equipment and supplies.

Transport patient(s) and belongings to a medical facility, monitor patient(s), and provide needed care in route, and report patient(s) condition and treatment provided to medical staff. Remain available to assist medical staff when requested14. Able to maintain Haz-Mat certification at |
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least at operations level.

Be prepared and respond to releases and potential releases of hazardous materials for the purpose of controlling the release including assessing the emergency scene and identifying the area and extent of exposure and implementing an emergency response plan.

Use field survey instruments and equipment, performing classification, identification, and verification of hazardous materials including visually identifying hazardous materials by color-coding system. Use chemical reference materials including books, charts or computers.

Perform, assist or oversee hazardous materials control operations and assist with mitigation of Haz-Mat incidents including implementing appropriate decontamination procedures.

15. Inspect residential and commercial buildings for fire hazards and report violations for follow up.
16. Attend and participate in ongoing training drills and utilize training materials to learn, know and be able to demonstrate proficiency in:
 - a. drills and evolutions.
 - b. safe use of all equipment, tools and supplies.
 - c. role of the fire fighter at fires, response to emergency medical calls and hazardous exposure situations.
 - d. knowledge of components of fire and its behavior.
 - e. fire department rules and regulations.
 - f. location of streets, direct routes, water mains and hydrants in response area.
17. Report and prepare for duty on time presenting a neat and clean appearance and dressed in uniform. Remain on duty for twenty-four (24) hour periods, interacting with coworkers in confined area.

18. Inspect, service, inventory, maintain and perform scheduled operational tests on all equipment and tools.
19. Communicate clearly and professionally with coworkers, supervisors and members of the public.
20. Prepare trucks and equipment for next emergency response.
21. It is not feasible to rate the frequency of physical demands for emergency situations due to the varied nature of tasks and environmental conditions that a Fire Engineer may encounter. The majority of critical functions are not performed consistently in the course of a typical shift. Critical tasks are usually performed under emergency situations lasting from a few minutes to several hours and requiring intense physical and mental exertion. The responsibility to protect the public and to prevent or reduce the possibility of injury to fire personnel requires that each of the physical demands would be rated as frequent or constant. These include the following:
 - a. Standing and walking.
 - b. Bending.
 - c. Stooping and squatting.
 - d. Crawling and kneeling.
 - e. Climbing stairs and ladders.
 - f. Reaching above, at and below shoulder level.
 - g. Pushing/pulling up to one hundred (100) pounds.
 - h. Lifting and carrying up to one hundred (100) pounds.
 - i. Twisting torso, hands, neck, waist.
 - j. Hand and wrist motions such as simple and firm grasping, and radial and ulnar deviation.
 - k. Visual effort twenty (20) inches or less up to twenty (20) feet or more in reduced visibility.
 - l. Color vision, peripheral vision, and depth perception.
 - m. Hearing and speaking in loud and confused situations.

These physical demands would be rated as occasional:

- a. Pushing/pulling over one hundred (100) pounds.
 - b. Lifting over one hundred (100) pounds.
 - c. Carrying over one hundred (100) pounds.
22. Mental and emotional demands include the ability to:
- a. Perform tasks with intense concentration for extended periods of time.
 - b. Remain calm.
 - c. Present self in non-threatening and courteous manner to the public in emergency situations.
 - d. Work as a member of the team while functioning as an individual.
 - e. Understand and follow orders.
23. Must be able to tolerate environmental conditions including the following:
- a. Extreme fluctuations in temperature. Must perform physically demanding tasks in extreme heat (over 400 degrees Fahrenheit) with humidity up to 100% while wearing personal protective equipment that impairs the body's cooling system.
 - b. Must perform duties in sub zero weather and contend with wind chill factors.
 - c. Must often work in wet, muddy or icy areas.
 - d. Must frequently work on slippery or uneven surfaces such as rooftops, ladders, and icy ground surfaces.
 - e. Must perform work on or about moving machinery or equipment or in the vicinity of vehicles in motion (i.e. emergency vehicles, power tools, cutting torches, etc.).
 - f. Face exposure to infectious agents such as Hepatitis B, HIV or TB.
 - g. Face exposure to hazardous substances such as asbestos, hydrogen cyanide, hydrochloric acid, other acids, carbon monoxide, organic solvents, gasoline, etc., either through inhalation or skin contact.
 - h. Exposure to noise levels over ninety (90) decibels (i.e. when riding in emergency vehicles).
 - i. Functioning under poor/no visibility.
 - j. Exposure to sharp objects.
 - k. Exposure to vibration when riding in emergency vehicles or operating power tools.
 - l. Required to perform work in confined spaces or cramped body positions (i.e. attics, cars, under houses, closets, etc.).
 - m. Must perform work, balance self and equipment or people from heights while working on ladders.
 - n. Exposed to possibility of burn injuries from heat, fire, chemicals and electricity.
 - o. Exposure to smoke and dust.
 - p. Exposure to oil and grease, especially during maintenance and repair of fire fighting equipment.
 - q. Exposure to uninsulated or unshielded electrical equipment.
 - r. Exposure to radiation hazards.
 - s. Exposure to a variety of stressors:
 - critical decision making in life threatening situations.
 - performance of complex tasks during life threatening situations.
 - dealing with critically injured/ill people and their families/friends.
 - tight time frames.
 - tasks requiring long periods of intense concentration.
 - unpleasant or traumatic situations (i.e. critically injured people, death, mass casualty incidents, injury to self or coworkers, etc.).
 - work twenty-four (24) hour shifts during which sleep may be interrupted or prevented.
 - working in unknown situations.
 - must be constantly prepared to respond to emergency situations without warning.

- t. Required to wear personal protective equipment weighing 50-70 pounds, depending upon situation.
 - u. Exposure to all weather elements (i.e. sun, heat, rain, sleet, snow, ice, etc.).
 - v. Exposure to noxious odors.
24. Clean and maintain equipment.
 25. Regular attendance on the job and at the work site is required.

MARGINAL FUNCTIONS

These functions are part of the job, but may be reasonably accommodated:

1. Investigate complaints of fire hazards, dangers, or violations and accurately document violation/findings.
2. Provide education programs to the public and conduct fire station tours.
3. Know the cause of fire and its behavior.
4. Maintain neat, clean and safe working/living environment including:
 - a. maintaining exterior of fire station.
 - b. change linens and make own bed.
 - c. perform kitchen chores.
 - d. store equipment and supplies.
5. Read and study fire department training materials and literature other than during training and drill periods to maintain proficiency.

ACCEPTABLE EXPERIENCE & TRAINING & REQUIRED KNOWLEDGE & ABILITIES

1. High school graduate/GED and presently employed with Waterloo Fire Rescue with minimum three years of service as a fire fighter with Waterloo Fire Rescue by the deadline date for application.
2. Maintain EMS State Certification as required by department.
3. Maintain Fire Fighter I certification.

4. Maintain Haz-Mat Certification at least at operations level.
5. Possess and maintain a Class D Iowa Driver's License and good driving record based on City of Waterloo driver performance criteria. Disciplinary action or continuing employment status may be reviewed for the following: four or more moving violations within the previous three years, three or more moving violations within the previous one year or loss of license or conviction for OWI, reckless driving or other major moving violation within the previous five years; two or more at-fault accidents within a three-year period while driving on City business; a combination of three or more at-fault or not-at-fault accidents within a three-year period.
6. Ability to learn the operations and maintenance of fire apparatus and equipment used by the department within a reasonable period of time.
7. Knowledge of the locations of City streets, principal buildings and fire hydrants.
8. Working knowledge of modern fire fighting, EMS, rescue and hazardous materials principles, practices and methods.
9. Knowledge of the State and City laws and ordinances regarding fire prevention.
10. Ability to communicate clearly and concisely, orally and in writing.
11. Ability to accept lines of authority and promote effective working relationships with supervisors, coworkers, public officials and members of the public.
12. Ability to react quickly and calmly in emergencies.
13. Ability to maintain records and prepare reports.

14. Ability to work with people from a broad variety of social, economic, racial, ethnic and educational backgrounds.
15. Willing to comply with the City of Waterloo Residency Policy for critical employees (must live within 10, 20 or 30-mile radius of Waterloo City Hall depending on original employment date).
16. Required to submit to Civil Service examination procedures that include a written examination, driving, pump operations, aerial operations and a streets identification test.

WORK SCHEDULE

Will be assigned to work twenty-four (24) hour shift schedule or as assigned by Fire Chief. May be required to report when off duty for operations where additional staff is needed to effectively control a fire or rescue operation or to fill in for an unscheduled absence.

FIRE ENGINEER DESCRIPTION 15 May 2015