

Worker Name:

Claim Number:

Job Title: Firefighter/EMT



Job Analysis – Full Duty Firefighter/EMT or Paramedic

Funding and Support for this project has been provided by the State of Washington, Department of Labor and Industries, Safety & Health Investment Projects.

Vocational Firm:	Worker Name:
Address:	Claim Number:
	Job Title: Firefighter / Emergency Medical Services
	DOT Number: 373.364-010 / 079.374-010
Phone Number:	Job of Injury Assessment

Analyst: Barbara Berndt, M.Ed., CRC, CDMS, CCM, ABVE Steven Haskey, OTR/L	Source: Combination of on-site, interview with fire departments, National Fire Protection Association and Dictionary of Occupational Titles
Assigned VRC:	Contact Name and Title:
Date: September 2017	Contact Phone Number:

Note: This form's task analysis information cannot be modified or changed without the review and signature of a Vocational Rehabilitation Counselor.

Type of Analysis: On site, interview, and representative of this industry.

Essential Functions:

1. Controls and extinguishes fires, protects life and property, and maintains equipment as volunteer or employee of the Department. Structural Fire suppression and rescue is performed in full gear, including turnouts, boots, gloves, helmet and SCBA (Self-Contained Breathing Apparatus). Approximately 30% of job duties.
2. Emergency Medical Services responses require provision of first-aid treatment in accidents, catastrophe and any such call to home, building, event or place. Provide patient care, including on-scene interventions and transport. Administers first aid to injured persons and those in with trauma or medical issues. Performs CPR. Approximately 65% of job duties.
3. Performs assigned duties in maintaining apparatus (vehicle), living quarters, station building, equipment, or grounds when at station. Cleans/cooks. Approximately 5% of job duties.
4. Wildland Firefighting suppression in wildland gear, helmet, pants, shirt, gloves and self-contained breathing apparatus.

Job Qualifications and Skills:

1. Ability to put on full firefighting Personal Protective Equipment (PPE in excess of 50 lbs.) within a period not to exceed the Department's Standard Operating Procedures (SOP)/Standard Operating Guidelines (SOG).
2. Enter and crawl on hands and knees through zero-visibility buildings/rooms with a fully charged hose in hand wearing full firefighting PPE and Self-Contained Breathing Apparatus (SCBA). [Charged hose means water at full pressure.]
3. Drag charged 2-1/2 inch hose weighing 75 lbs., 25 feet unassisted.
4. Use heavy hand tools (axe, sledgehammer, etc.), repeatedly strike solid surfaces (such as doorjamb) to make forcible entry into buildings.
5. Wear firefighting PPE and using hydraulic tools weighing in excess of 30 pounds that are prone to multi-directional torque, cut roof posts on an automobile and extricate people weighing over 150 lbs.
6. Wear full firefighting PPE, pull 200 feet of uncharged 2 1/2 inch hose weighing 150 lbs. from shoulder height off a pumper, and drag to a hydrant.
7. In zero-visibility conditions and wearing full firefighting PPE plus SCBA, crawl on hands and knees over uneven surfaces carrying forcible entry tools (axe) for 50 feet while systematically searching for trapped person(s).
8. Operate emergency response apparatus (vehicle) during day and night with lights and sirens.
9. Ability to feel changes in temperature in zero-visibility conditions.
10. While on aerial ladder, maintain balance and a secure position while directing water through a charged hose line at fire.
11. Carry 150 foot hose bundle weighing 35 lbs. up 2 flights of sta (or more) while wearing full firefighting PPE and SCBA.
12. Remove a 24-foot extension ladder weighing approximately 60 lbs. from the truck unassisted, position the ladder, and raise the halyard (line or rope used to hoist).
13. Climb an aerial ladder to a height of 50-75 feet (5-7 stories) wearing full firefighting PPE including SCBA.
14. Provide emergency medical services, including patient assessment, CPR, and moving patients from infants to 200+ lbs.
15. Able to pass on-going skills evaluation.
16. Possess valid Washington State Driver's License and have approved emergency response driver training. Must have current First Aid, CPR, Washington State EMT-B, or Paramedic certification. Must have passed AHJ's requirements for active firefighter.

Other Skills: Ability to use reason and judgment in any emergency situation, to think clearly and react quickly, and to follow instructions exactly. Ability to deal compassionately with those who are ill, injured, or traumatized. Ability to use computer and/or write reports and

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documentation procedures.

Machines, Tools, Special Equipment, Personal Protective Equipment Used: Operate Fire Apparatus (engine, ladder, pumper) or Emergency Medical Aid Unit (vehicle), including radio, pager or communication devices. Use Fire Apparatus, fire pumps, hoses, axe, chain saw, pike poles, crowbars, shovels, ropes, picks, pulleys, fans, "Jaws of Life" extrication equipment, sledgehammer, other small engine equipment, tools, and ladders. Use emergency medical equipment, medical kits, stair chair, backboard, gurney, and stretcher. Wears full Firefighter protective clothing; turnout coats and pants, boots, helmet and gloves, and SCBA.

**NOTE: Full Firefighting PPE includes turnout coat, pants with internal harness and suspenders, boots, gloves, nomex head protection, and helmet. SCBA is self-contained breathing apparatus, which includes a backpack, tank of compressed air, and positive-pressure mask over the entire face. Full firefighting PPE and SCBA worn together generally weigh in excess of 50 lbs. (22.7 kilos).*

Physical Requirements

Frequency Scale	Strength	Work Pattern
N = Never	Sedentary	X Full-Time
S = Seldom (1% — 10%; up to 1 hour)	Light	Part-Time
O = Occasional (11% — 33%; 1 — 3 hours)	Medium	Seasonal
F = Frequent (34% — 66%; 3 — 6 hours)	Heavy	24 Hours Per Day
C = Constant (67% — 100%; Not Restricted)	X Very Heavy	Days Per Week

Note: The Physical Requirements noted in this Job Analysis are based on an 8-hour day / 40-hour work week. Work pattern (hours on/off duty) requirements vary per municipality and union contracts, and may require 12 or 24-hour shifts.

Frequency and duration of exertion and material handling (lift/carry/push/pull) factors vary according to daily emergency calls/responses and types of structures.

Job Demand		Frequency					Firefighting and EMS General Activity Description
	% Time	N	S	O	F	C	
Sitting				X	x		While driving Fire Engines/Ladders or Emergency Medical Services (EMS) Units. Report writing, studying, exam taking.
Standing					x		While training, inspecting, and responding to Fire/EMS calls.
Walking					x		While training, inspecting, and responding to Fire/EMS calls.

Note: Sitting occurs in truck seats of fire or emergency vehicles. Standing/walking occurs on concrete, blacktop, rooftops, uneven ground surfaces, slopes/slippery conditions, and interior floor surfaces of home, manufacturing or industrial sites. Uneven ground surfaces in wildland fires can include rocky terrain, holes, muddy conditions, unstable ground, sand, etc. Standing/walking at Motor Vehicle Accident (MVA) can occur at street, road or highway with inherent traffic conditions.

Job Demand	Frequency & Weight					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Lifting Floor — Waist		75-200+ lbs. *with team mate	50-100 lbs.	1-50 lbs.	lbs.	<ul style="list-style-type: none"> Loading of hose, generators (100 lbs.), extrication equipment (60 lbs.), ventilation fans (50 lbs.), and other equipment, tools, and supplies on apparatus (vehicle) weighting between 20 and up to 40 lbs. 	<ul style="list-style-type: none"> Lifting patient from floor and transferring to gurney at 18" height by sideward movements. Usually done in a team of two for heavy or 200+ lbs. Patient may be coherent, unconscious or in emotional distress. May be in crushed vehicle, bathtub, or wedged in tight space (fallen off bed) requiring twist/lift.

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Lifting Waist — Shoulder	100-200+ lbs.	51-100 lbs.	1-50 lbs.	lbs.	<ul style="list-style-type: none"> Occasional loading of hose, SCBAs, and equipment (50 lbs.) on apparatus. Forceful handling of ax, pick or tools. Loading and unloading ladders. Holding/directing fully charged hoses. 	<ul style="list-style-type: none"> May on occasion lift/extract patient out of car, van, bus or truck.
Lifting Shoulder — Overhead	50 lbs.	51-60 lbs.	lbs.	lbs.	<ul style="list-style-type: none"> Vehicle checks, climbing ladders & inspecting equipment. Lifting ladder from truck. Pike pole to punch ceiling with force. 	<ul style="list-style-type: none"> Some medical procedures may require over shoulder tasks, such as IV poles.
Carry Distance/ Surface	75-200+ lbs.	51-100 lbs.	1-50 lbs.	lbs.	<ul style="list-style-type: none"> Carrying fire equipment (single handed and double handed) and carrying of ladders, tools, fans, and other equipment. Carrying of 60+ lbs. equipment during training. 	<ul style="list-style-type: none"> Carrying patients of 200+ lbs. an average of 25' (Working in a team of two). May be unconscious, hysterical, or severely injured patients. Carrying of 30 lbs. of EMS gear to patients.
Pushing/ Pulling Distance/ Surface	60 lbs.	75-200+ lbs.	lbs.	lbs.	<ul style="list-style-type: none"> Dynamic force used to pull fully charged hose. Static (torque) force of tools. Use of Pike Pole (overhead), axe, or chainsaw to remove debris from fire scene, use Jaws of Life at MVA to create access to victims. Raking through debris that may be wet, heavy and must be dragged out of the way. Move/push/pull furniture and debris from scene to access; approximate average 25'. Occasional open/closing doors. Occasional opening/closing fire hydrant valves with torque. 	<ul style="list-style-type: none"> Moving of victims up to 200+ lbs. by careful push/move/pull/extract from emergency scenes an average of 25 feet.

NOTE: Emergency activity may require **short bursts of high exertion** in any lift/carry motion/activity cited above.

NOTE: The variability in Frequency depends upon type and number of responses while on call cited below.

Job Demand	Frequency					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Perform Work on Ladders		X	X			<ul style="list-style-type: none"> Wearing personal protective ensemble and SCBA, climbing ladders, maneuvering loads up of up to 100 lbs. (gear, hoses and equipment) and victims down of up to 200 lbs. Variability depends on number of calls and type of structure. 	
Climb Stairs			X	X		<ul style="list-style-type: none"> Climbing two or more flights of stairs while wearing fire protective ensemble weighing at least 50 lb. or more and carrying equipment/tools weighing an additional 20 to 40 lbs. for less than 1 hour per day. 	<ul style="list-style-type: none"> Carrying up to 200+ lbs. patients up and down stairs using a soft stretcher, back board, or stair chair with team/partner.

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Twisting at Neck				x		<ul style="list-style-type: none"> Operating fire apparatus or other vehicles in an emergency mode for up to 20 minutes. Search and Rescue while wearing personal protective ensemble and SCBA up to 30 minutes. Deploying hose lines from truck beds (while jumping from truck to ground). Short sustained bursts of exertion required. Driver of apparatus with lights on & observing all traffic conditions. 	<ul style="list-style-type: none"> Patient care and exams. Lifting up to 200+ lbs. patients from lower level to the gurney from awkward positions. Driver of apparatus with lights on in all traffic conditions to observe other drivers, traffic and intersections.
Twisting at Waist				x		<ul style="list-style-type: none"> Operating fire apparatus or other vehicles in an emergency mode up to 20 minutes. Search and Rescue wearing personal protective ensemble and SCBA up to 30 minutes. Deploying hose lines from truck beds (while jumping from truck to ground). 	<ul style="list-style-type: none"> Patient care and exams. Lifting up to 200 lbs. patients from lower level to the gurney from awkward positions, tight spaces and in any extraction positions (in bathtub, fall between bed/wall, or in MVA).
Job Demand	Frequency					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Stooping/ Bending				x		<ul style="list-style-type: none"> Rolling hose on fire scene or drilling. Digging and shoveling for wildland response. May require multi-dimensional torque in some terrain. Using chain saw or other small equipment/tools at lower levels. 	<ul style="list-style-type: none"> Maneuvering up to 200 lbs. patients up and down stairs using a soft stretcher, back board, or stair chair. Lifting up to 200 lbs. patients from lower level to the gurney from awkward positions. During CPR.
Squatting/ Kneeling			X	x		<ul style="list-style-type: none"> MVA involving patient treatment and/or victim extraction and CPR. Vehicle maintenance. Operating charged hose to extinguish fires Working in confined spaces. 	<ul style="list-style-type: none"> Patient Exams for up to 20 minutes During CPR for up to 45 minutes Extracting patient from confined space
Crawling			x			<ul style="list-style-type: none"> Fire search and rescue drills for up to 2 hour spans. Fire search and rescue in live fire conditions up to 30 minutes. Can occur in dim, dark, smoky or no-visibility conditions. 	
Balance				x	X	<ul style="list-style-type: none"> Walking on narrow footing through dark conditions wearing personal protective ensemble and SCBA On slopes, uneven surfaces, slippery, wet, icy conditions. Balance on ladders with hose. 	<ul style="list-style-type: none"> Moving patients Rendering aid

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Job Demand (Left/Right/Both)	Frequency					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Reach Waist to Shoulder (Both)			x	x		<ul style="list-style-type: none"> Operating pump equipment Loading and loading hose with 50 lbs. or more of point contact 	<ul style="list-style-type: none"> Grabbing/handling equipment in moving ambulance to setup IVs and oxygen therapy
Work Above Shoulder (Both)			x			<ul style="list-style-type: none"> Lifting ladders 60 lbs. to/from apparatus. Handling equipment and victims during ladder rescue operations or drills. 	
Keyboarding (Both)		x	X			<ul style="list-style-type: none"> Filling out reports 	<ul style="list-style-type: none"> Filling out reports
Wrist Flexion/ Extension (Both)				x		<ul style="list-style-type: none"> Handling gurneys, victims, ropes, ladders, tools, and equipment. Tools can require forceful exertion (axe, pick, shovel, etc.) 	<ul style="list-style-type: none"> Using emergency medical equipment such as AEDs, blood pressure cuffs, and oxygen. Requires efficient movement in all ranges of motion & strength.
Job Demand	Frequency					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Handle/Grasp (Both)			X	x		<ul style="list-style-type: none"> Handling tools, equipment, hoses, victims, ropes, and ladders. Raking debris in overhaul of fires. Maintenance, cleaning, and cooking station tasks. 	<ul style="list-style-type: none"> Using emergency medical equipment such as Automated External Defibrillators (AEDs), blood pressure cuffs, and oxygen delivery. Handling gurneys.
Forceful Grasp (Both)				x		<ul style="list-style-type: none"> Operating nozzles on charged hose lines. Forcible entry striking with tools. Jaws of Life. 	<ul style="list-style-type: none"> Patient care including bleeding control and IV therapy. Possible restraint of patient (when on drugs, alcohol).
Fine Finger Manipulation (Both)			x	x		<ul style="list-style-type: none"> Maintenance and cleaning of equipment and apparatus. 	<ul style="list-style-type: none"> While applying bandages, tourniquets & writing reports.
Hand Controls (Both)				x		<ul style="list-style-type: none"> Operating nozzles on charged hose lines. Operating valves on pumps (30 lbs. of pull required). Driving emergency fire response apparatus. 	<ul style="list-style-type: none"> Using emergency medical equipment such as AEDs, Blood Pressure Cuffs, and Oxygen Delivery. Operating gurneys. Driving ambulance or rescue apparatus.
Foot Controls (Both)				x		<ul style="list-style-type: none"> Driving emergency fire response apparatus. 	<ul style="list-style-type: none"> Driving ambulance or rescue apparatus
Repetitive Motion			x	x		<ul style="list-style-type: none"> Typically short bursts when using tools (axe, pike pole, sledgehammer) or rolling fire hose. Duration depends on call. 	<ul style="list-style-type: none"> Dominant hand for writing reports in field. Rendering CPR & 1st aid.
Vibratory Tasks — High (Both arms)		x				<ul style="list-style-type: none"> Operating power cutting and tools (chain saw, Jaws of Life). 	
Vibratory Task — Low (Both arms)			X	x		<ul style="list-style-type: none"> While riding in emergency apparatus, operating hose or pumps. 	<ul style="list-style-type: none"> While riding in emergency apparatus.

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	N	S	O	F	C		
Talking/Hearing					x	<ul style="list-style-type: none"> Ability to observe, listen & talk over radio/phone & in person in loud environments (over 100 dB). Ability to communicate or signal with superiors and co-workers; and with patients who speak English or another language. Hearing alarms, signals and tones. 	<ul style="list-style-type: none"> Ability to observe, listen & talk over radio/phone & in person. Ability to communicate with superiors, co-workers, and patients or families who speak English or another language. Hearing alarms, signals, and tones. Ability to calm patient, to obtain information needed, and communicate effectively. Communicate effectively with hospital/emergency room staff
Visual					x	<ul style="list-style-type: none"> Ability to observe changes in color, estimate distances, and read equipment gauges. Ability to know and communicate with signs and signals to team. Ability to work in dark environments (smoke/fumes). 	<ul style="list-style-type: none"> Ability to observe changes in color, estimate distances, and read equipment gauges. Ability to observe patient responses and changes in skin, eyes, breathing, etc.

Environmental Conditions	Frequency					Firefighter Activity Description	Emergency Medical Service Activity Description
	N	S	O	F	C		
Exposure to Weather				x		<ul style="list-style-type: none"> Exposure to rain, wind, sleet, snow, ice, and sun while responding to emergency calls. 	<ul style="list-style-type: none"> Exposure to rain, wind, sleet, snow, ice, and sun while responding to emergency calls.
Extreme Cold		x				<ul style="list-style-type: none"> Rescue in winter conditions and cold water rescues below 0 degrees for up to 4 hours. 	<ul style="list-style-type: none"> Rescue in winter conditions and cold water rescues below 0 degrees for up to 4 hours.
Extreme Hot				x		<ul style="list-style-type: none"> Turnout coats and pants may cause heat stress even in temperate conditions. All activities performed above are done in heat above 110° F. Live fires may increase heat to 140 - 572° F. Wildland firefighting may include 12 hour periods of sun and heat exposure. Chemical or petroleum fires may have high heat conditions. 	<ul style="list-style-type: none"> MVA on highways/asphalt in high temperature (summer) can cause heat stress in responders. EMS may respond to colleague collapse when fighting wildland fires and be in very hot conditions.
Wet and/or Humidity			x			<ul style="list-style-type: none"> Firefighters gear is wet during live fire events. Humidity and heat can cause exposure to steam. Water rescue operations. 	<ul style="list-style-type: none"> EMS response in rain, sleet, snow conditions occurs in MVA extraction or basic life support treatment until into EMS apparatus.
Proximity to Moving Mechanical Parts		x				<ul style="list-style-type: none"> Rescue situations may cause exposure to mechanical parts in manufacturing or industrial settings. May perform maintenance duties on equipment & vehicles. 	<ul style="list-style-type: none"> Rescue situations may cause exposure to mechanical parts in manufacturing or industrial settings.

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Exposure to Explosives		x				<ul style="list-style-type: none"> Rescue situations may involve exposure to explosives/explosions. Exposure to flammable situations occurs with vehicle accidents, gasoline/fuel truck, or drug/meth labs. 	<ul style="list-style-type: none"> Rescue situations may involve exposure to explosives.
Noise Intensity (see scale below)		4		4		<ul style="list-style-type: none"> Frequent Exposure up to 120 dB (with hearing protection) from response sirens. Seldom exposure to cutting equipment with up to 140 dB (with hearing protection). 	<ul style="list-style-type: none"> Frequent Exposure up to 120 dB from response sirens.
<p>1 = Very Quiet 2 = Quiet 3 = Moderate 4 = Loud • 5 = Very Loud</p>							
Atmospheric Conditions				X		<ul style="list-style-type: none"> Firefighting includes exposure to toxic smoke, fumes, odors and gases. 	<ul style="list-style-type: none"> Patient homes may have dust, odors, fumes or other obnoxious conditions (including urine, feces, etc.)
Exposed to Heights		x	X			<ul style="list-style-type: none"> Rescue situations may involve exposure to heights. Roof height, materials, slope and slant vary. 	<ul style="list-style-type: none"> Rescue situations may involve exposure to heights.
Exposure to Electricity		x				<ul style="list-style-type: none"> Rescue situations may involve exposure to electricity and electrical power lines. 	<ul style="list-style-type: none"> Rescue situations may involve exposure to electricity. EMS uses AEDs
Exposure to Toxic/Caustic Chemicals			x			<ul style="list-style-type: none"> Frequent response to live fire events that off gas Benzene, Phosgene, CO and other gases. Seldom Response to HAZMAT Events. May be exposed to gasoline, oil, or other petroleum products. These may cause slippery conditions when using foam or other fire suppression substances. 	<ul style="list-style-type: none"> May be exposed to drug or meth labs.
Exposure to Radiation		x				<ul style="list-style-type: none"> Radiation accidents may cause exposure to Radiation. 	
Other: Variable situations may occur:						<ul style="list-style-type: none"> May be exposed to glass and sharp objects. Firefighters respond in day or night conditions with good to poor visibility (mist/fog/smoke). May be exposed to patient's pets in homes. May be exposed in wildland fighting to snakes, animals or vermin. May be exposed to slippery conditions when foam or other retardant used. May be exposed to blood and/or blood borne pathogens. Can work in confined spaces. 	<ul style="list-style-type: none"> May be exposed to needles (of addicts). EMS responds in day or night conditions with good to poor visibility (mist/fog). May be exposed in homes to patient's pets. May be exposed to blood and/or blood borne pathogens. Can work in confined environments when extraction of patient required. Patients may be combative. Some patients may be above 200 lbs. or 300 lbs.

Analyst's Comments: Fire and Emergency rescue responders perform physical fitness workouts while on duty to keep in shape. This varies per fire department, but is an integral component of keeping in shape to respond to emergencies.

Possible Employer Modifications: Firefighters and EMS personnel must be able to perform all essential functions of their job description due to emergency and safety requirements. Other: Fire Departments have varying requirements for skills assessment of firefighters and EMS personnel when returning from an extended work absence. Light duty or other modified jobs may be possible, and require further discussion with the Fire Chief.

