



Bock Consulting

Job Analysis

Job Title	<u>Fire Alarm Technician</u>	Worker	_____
DOT Number	<u>822.361-022</u>	Claim Number	_____
Employer	<u>Port of Seattle</u>	Employer Phone #	<u>(206) 787-3000</u>
Employer Contact	<u>Keith Taylor</u>	Date of Analysis	<u>10/6/2016; 1/11/2019</u>

Job of Injury
 Transferable Skills Job
 New Job
 10 Hours Per Day
 4 Days Per Week

Job Description, Essential Functions, Tasks and Skills:



The Port of Seattle is a municipal corporation created on September 5, 1911 by the voters of King County. The Port of Seattle is divided into operating divisions, plus other departments that support the divisions and the broad mission of the Port: 1) Aviation Division, 2) Maritime Division, and 3) Economic Development Division.

The Aviation Division owns and operates Seattle-Tacoma International Airport. Sea-Tac Airport handles more than 50 million passengers a year, and offers state-of-the-art air cargo facilities. Mandated by federal regulations, the Aviation Division must provide aircraft rescue and firefighting (“ARFF”) services during air carrier operations.

The Port of Seattle Fire Department was established in 1955. The Port of Seattle Fire Department is a full-service fire department that responds to aircraft incidents and accidents within a 5-mile radius of the airport, and structural fires on and off airport property.

This job analysis is for a Fire Alarm Technician working for the Port of Seattle. The Fire Alarm Technician position is a non-Firefighter position within the Fire Department. The primary function of the Fire Alarm Technician is to inspect, test, repair, and maintain the fire and fire sprinkler monitoring and signaling systems used to ensure fire safety at Sea-Tac Airport.

Tasks Assigned to Fire Alarm Technician

The Fire Alarm Technician may:

- Perform weekly, monthly, and semi-annual and annual maintenance and inspections on all fire-related systems and equipment. Identify systems, or system components, to inspect and test.





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- Examine and inspect system installations. Test circuits, test the operation of signaling units, test the transmission of signals, and test the equipment receiving the signals.
- Troubleshoot system issues to identify components that need repair or replacement.
- Replace defective parts and/or wiring. Repair equipment as needed.
- Program 911 Dispatch alarm response information and equipment.
- Recommend new system components, or modification of existing systems or equipment.
- As authorized, upgrade existing systems to newer technologies in a comprehensive manner.
- Assist with installation of new equipment as needed. Pull wires and cables, and connect to devices for system maintenance and expansion.
- Update and modify documentation to reflect system changes and new installations.
- Generate reports and maintain documentation of tests, inspections, and repair activities.
- Present accurate and reliable information regarding system status, and provide system update recommendations as identified.
- Organize data and document work through the work order system.
- Maintain and inspect portable fire extinguishers as scheduled.
- Maintain spare components and parts inventory. Order new parts as necessary.
- Other tasks as assigned.



All work must be done in accordance with relevant codes.

Skills, Traits, Knowledge and Abilities Required

- Technical knowledge and skills necessary to test, maintain, and repair fire and sprinkler monitoring systems in an efficient and safe manner. Knowledge of fire alarm and sprinkler systems configurations.
- Ability to identify and troubleshoot issues quickly, identify the best method(s) to address the issue,



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and correctly complete the identified repair/task.

- Ability to utilize critical thinking and judgment in defining, analyzing, and resolving problems.
- Knowledge of the hazards and safety precautions associated electronic, electrical, and electro-mechanical devices.
- Fundamental knowledge of testing equipment, including multi-meters, digital analyzers, frequency meters, decibel meters, and communicating devices.
- Ability to read and interpret blue prints, schematics, drawings, and detailed electronics system technical specifications.
- Ability to work in a team environment and closely with others. Ability to complete tasks autonomously and work without immediate direct supervision.
- Ability to oversee and manage the work performed by outside vendors.
- Ability to learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology.
- Ability to read, comprehend and follow oral and written instructions. Able to communicate effectively both orally and in writing, with the co-workers, internal and external customers, and the public. Ability to interact with individuals from a variety of socioeconomic circumstances.
- Ability to prioritize duties and tasks.
- Ability to present a positive image of the Fire Department to various stakeholders, including other Port department, vendors, allied agencies, and the public.
- Ability to work effectively in a politically sensitive environment, and effectively contribute to the mission of the Fire Department.
- Fundamental knowledge of Windows-based computers and related software applications.

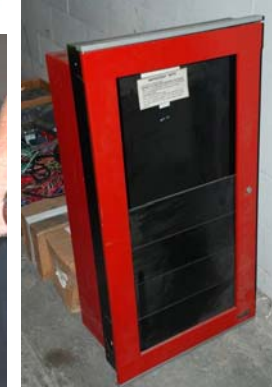




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Machinery, Tools, Equipment, Personal Protective Equipment

- Hand tools. Power tools. Flashlight. Soldering iron.
- Bolts, nuts, screws, and other hardware.
- Multi-meters. Digital analyzers.
- Frequency meters.
- Decibel meters.
- 2-way radio and mobile devices.
- Port vehicle/van.
- Shelving units.
- Plastic totes.
- General office equipment and supplies.
- Windows-based computers and related accessories, and applicable software applications.
- PPE may include hardhat on construction sites, safety vest, and ear and eye protection as needed.



Education / Training

Minimum Requirements:

- High School Diploma/GED.
- State Electrician license.
- Systems Technician License or college education in a related technical field.
- 3 years of experience working with computerized fire alarm and sprinkler systems.
- Proficient in use of Microsoft Office applications.
- Valid Driver's License and clean driving record.
- National Institute Certifying Engineering Technologies ("NICET") Level II and Level III certifications.



Preferred Qualifications: Programmable logic controller ("PLC") programming experience desired.



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COGNITIVE AND BEHAVIORAL ELEMENTS/DEMANDS

Frequency Definitions:	
Continuously = Occurs 66-100% of the time.	Occasionally = Occurs 1-33% of the time
Frequently = Occurs 33-66% of the time.	Rarely = May occur less than 1% of the time.
Never = Does not ever occur.	
Comprehension	
Articulating and comprehending information in conversations.	Continuously
Reading, comprehending, and using written materials.	Frequently
Understanding and solving problems involving math and using the results.	Occasionally
Using technology/instruments/tools & information systems.	Continuously
Working with two and three dimensional formats.	Occasionally
Remembering	
Remembering spoken instructions.	Continuously
Remembering written instructions.	Continuously
Remembering visual information.	Continuously
Recalling information incidental to task at hand.	Continuously
Memorizing facts or sequences.	Continuously
Remembering simple instructions.	Continuously
Remembering detailed instructions.	Continuously
Learning & Processing	
Effectively learning and mastering information from classroom training.	Occasionally
Effectively learning and mastering information from on-the-job training.	Continuously
Learning from past directions, observations, and/or mistakes.	Continuously
Using common sense in routine decision making.	Continuously
Recognizing and anticipating potential hazards and taking precautions.	Continuously
Thinking critically and making sound decisions.	Continuously
Integrating ideas and data for complex decisions.	Continuously
Determining and following precise sequences.	Continuously
Coordinating and compiling data and information.	Continuously
Analyzing, synthesizing data and information.	Continuously



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Tasking and Planning	
Performing repetitive or short-cycle work.	Occasionally
Working under specific instructions.	Continuously
Completing complex tasks.	Continuously
Directing, controlling, or planning for others as necessary for basic tasks.	Frequently
Directing, controlling, or planning for others as necessary for complex tasks.	Frequently
Multi-tasking.	Frequently
Planning, prioritizing, and structuring daily activities.	Continuously
Use Appropriate Behavior for Professional Work Environment	
Receiving criticism and accepting limits appropriately.	Continuously
Maintaining emotional control and organization under increased stress.	Continuously
Maintaining socially appropriate affect, temperament, and behavior.	Continuously
Monitoring own quality of performance and altering behaviors to correct mistakes or improve outcome.	Continuously
Working independently and/or unsupervised.	Continuously
Adapting to frequent interruptions, changes in priorities, or changes in work location.	Continuously
Responding effectively to emergency situations.	Occasionally

Frequency Designations: Required Beneficial Not Necessary	
Maintaining Attendance and An Assigned Work Schedule	
Maintaining predictable and reliable attendance each work shift.	Required
Being punctual.	Required
Taking rest periods at set times or only at times determined by breaks in job responsibilities.	Not Necessary
Adjusting to a flexible schedule of work days and or shifts.	Beneficial



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PHYSICAL DEMANDS

N/A: Not Applicable
S: Seldom (1-10% of the time)
O: Occasional (10-30% of the time)
F: Frequent (30%-70% of the time)
C: Constant (Over 70% of the time)
WNL: Within Normal Limits (talking, hearing, etc.)
STRENGTH: Sedentary Light Medium Heavy Very Heavy
 Frequency Comments

Sitting	O	While working on administrative tasks, working on computer in the shop of in the field, working at workbench, driving a vehicle, and participating in meetings or training.
Standing	F	Interchange with Walking. Working on maintenance, inspection, or installation projects.
Walking	F	Interchange with Standing. Working on maintenance, inspection, or installation projects. Walking may be on tile, concrete, asphalt, carpet, linoleum, uneven surfaces, or slippery surfaces.
Lifting (up to 10 pounds)	F	Paperwork, plans/drawings, tools, smaller system components, smaller spools of wire, laptop computer, radio, stepladders, fire extinguishers.
Lifting (10 to 20 pounds)	O	Bag of tools, system components, ladders, computer bag, fire extinguishers.
Lifting (20 to 50 pounds)	S	Toolbox, system components.
Lifting (50 to 90 pounds)	Rare	Limited. Periodically may lift very large panels.
Carrying (up to 10 pounds)	F	Paperwork, plans/drawings, tools, smaller system components, radio, stepladders.
Carrying (10 to 20 pounds)	O	Bag of tools, system components, ladders.
Carrying (20 to 50 pounds)	S	Short distances, up to a few feet. Toolbox, system components. Wheeled carts are available to mitigate carrying requirements.
Pushing/Pulling (Up to 10 pounds)	O	Opening/closing building and vehicle doors. Opening/closing panel covers. Using tools. Maneuvering wheeled cart. Pulling wires/cables. Driving vehicle/van.
Pushing/Pulling (10 to 20 pounds)	S	Using tools. Pulling wires/cables. Maneuvering loaded wheeled cart.
Climbing Stairs/Ladders	O	Will encounter stairs throughout Sea-Tac Airport facilities while testing or maintaining fire alarm or sprinkler monitoring equipment. Will climb ladders to gain access to equipment located on ceilings or on walls.
Working at Heights	S-O	Depending on work tasks and work areas. May be required to access system equipment or components on ceilings or walls.
Bending at Waist	F	Gathering items below waist level, entering/exiting vehicles, gathering tools and system equipment from vehicle, loading wheeled cart, accessing work areas or equipment located below waist level, and reaching for items on workbench, tables, or wheeled cart.
Bending Neck	C	All assigned tasks require neck movement.
Crouching/Kneeling	S	Accessing items below waist level.
Twisting at Waist	O	While inspecting and testing equipment, and accessing hard to reach equipment. Twisting can be mitigated by the worker moving feet while working.



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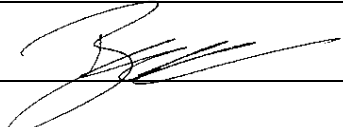
Reaching (Floor to Shoulder)	F	Picking up/gathering paperwork, plans/drawings, system components, wire and hardware, and fire extinguishers, programming and testing system equipment, using tools, laptop computer and ladders, pushing/pulling wheeled carts, pulling wire and cables, connecting wires and system components, opening/closing doors and panel covers, driving vehicle/van.
Reaching (Over the Shoulder)	O	Programming and testing system equipment, using tools and ladders, pulling wire and cables, connecting wires and system components.
Repetitive Motion	N/A	The variety of tasks and duties assigned to the Fire Alarm Technician generally limits repetitive motion.
Driving	S	Driving to work areas.
Foot Controls	S	Driving vehicles.
Handling/Grasping	C	60 % Pinch Grasp 40 % Whole Hand Grasp
Fine Finger Manipulation	C	Testing and maintaining equipment using computer and tools, connecting wires to components, operating buttons/switches on system components, radio, mobile devices, vehicles, using keys, and writing.
Keyboarding	O	While programing and testing system components, preparing and responding to emails, and completing reports and logs.
Writing	S	Writing notes.
Talking	F	Communicating with supervisors, co-workers, and vendors.
Hearing	C	Communicating with supervisors, co-workers, and vendors. Listening for alarms, radio traffic, and potential hazards.
Seeing	C	Must have vision sufficient (unaided or aided) to perform essential tasks. Color discrimination, peripheral vision, and depth perception are necessary.
Normal Job Site Hazards	C	Electrical current, moving machinery, moving vehicles, pinch hazards, sharp tools, sharp edges on some system components, working at heights, noise (including airplanes), and fumes.
Expected Environmental Conditions	C	Work is primarily completed indoors. Some environments are temperature controlled, and some are not. Technician may be exposed to temperature changes (hot or cold) if not in a temperature controlled environment. The Technician may be exposed to external weather conditions if working outside, and when walking to and from work areas. Environments may be wet, or have noise, dust, and fumes.

The above job analysis represents the requirements of a specific job based on personal observations, discussions with employer representatives, and/or workers. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective quantifiable data. For this reason, a "best estimate" may have been used when reporting physical demand frequencies.

Analysis was done on the job site? Yes No

Job Analysis Reviewed By: Keith Taylor

Completed by Vocational Provider Brice York, B.A., CDMS

Date January 11, 2019 Signature of Vocational Provider 



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FOR PHYSICIAN'S/EVALUATOR'S USE ONLY

- The injured worker can perform the physical activities described in the job analysis and can return to work on _____
- The injured worker can perform the physical activities described in the job analysis on a part-time basis for _____ hours per day. The worker can be expected to progress to regular duties in _____ weeks/months.
- The injured worker can perform the described job, but only with the modifications/ restrictions in the attached report and/or listed below. These modifications/restrictions are (check one):
 - Temporary for _____ weeks _____ months
 - Permanent
- The injured worker cannot perform the physical activities described in the job analysis based on the physical limitations in the attached report and/or listed below. These limitations are (check one):
 - Temporary for _____ weeks _____ months
 - Permanent

COMMENTS:

Date _____ Physician's/Evaluator's Signature _____

Physician's/Evaluator's Name Printed _____

PLEASE RETURN COMPLETED FORM VIA FACSIMILE TO:

Port of Seattle Employee Health & Safety Department at (206) 787-3406