



Bock Consulting

Job Analysis

Job Title	Electrical Shop	Worker	
	General Foreman (AVM)		
DOT Number	829.131-014	Claim Number	
Employer	Port of Seattle	Employer Phone #	(206) 787-3000
Employer Contact	Darin Benofsky	Date of Analysis	5/2/07; 1/24/17; 12/11/18

- Job of Injury
 Transferable
 New Job
 40 Hours Per Week
 5 Days Per Week
 Skills Job

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 40 million passengers a year, and offers state-of-the-art air cargo facilities. The Aviation Division employs a maintenance staff which is responsible for all tasks associated with the maintenance and on-going operations at Sea-Tac Airport.

This job analysis was specifically developed for the Electrical Shop General Foreman position in Aviation Maintenance.

Essential Functions

The regional power supplier delivers electricity to two substations on the Sea-Tac Airport property, and the employees of the Aviation Maintenance Electrical Shop are then responsible for distribution of power and maintenance of the distribution systems for all of the standard and emergency electrical systems at Sea-Tac Airport.

The General Foreman is responsible for the day-to-day supervision and organization of the Foreman and Electricians who perform all electrical maintenance, repair, and modification tasks on the electrical systems managed by Aviation Maintenance. These systems encompass systems that range from low voltage systems to systems up to 15,000 volts.



The General Foreman's time is generally spent working on shop management tasks, conducting reviews,



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performing inspections, overseeing projects, and attending meetings. The General Foreman performs very limited hands-on trade-specific work on a day-to-day basis.

Time spent by the General Foreman can be categorized as follows:

Work Category	Estimated Time
Office/desk/administrative work (including meetings)	40-50%
Supervising work and personnel and providing assistance in and around shop	0-20%
Supervising work and personnel and providing assistance in the field	20-40%
Performing trade-specific work	0-10%
Total	100%

Tasks Assigned to the General Foreman

- Coordinates electrical system work between Maintenance Management and shop Foremen to ensure that all Electrical Systems work is well-planned and organized. Communicates with Manager(s) and Foremen regarding shift operations and potential issues, and ensures efficiency of general shop operations. Seeks overtime authorization as necessary to meet system needs.
- Ensures that trouble calls, PMs, CMs and projects are completed in a timely and efficient manner, ensuring that customer inquiries are responded to as quickly as possible. Ensures that adequate staffing and resources are available to accomplish the assigned tasks/projects.
- Takes on special projects as needed, including designing responses to critical challenges.
- Assists in gathering supplies and equipment needed for projects. Accumulates necessary items for shop staff to expedite transitions between projects.
- Conducts plan and construction reviews to identify any issues impacting the Electrical Systems, and to ensure adherence to Port, county, and state codes.
- Reviews completion rates for PMs and CMs with Foremen to ensure efficient operations, balancing shop priorities with customer demands. Ensures teamwork and continuity of work between shifts. Reviews operations and assignments with Foremen and implements changes as necessary. Takes the initiative to eliminate activities that do not add value to shop operations.





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- Maintains and encourages two-way dialogue and good working relationships with the Foremen and crewmembers. Identifies and facilitates resolution of team issues and conflicts.
- Works with other crafts and departments to develop team-oriented solutions on projects.
- Ensures that Foremen are coaching and fostering the development of the staff to meet the needs of the business. Develops training plans in conjunction with Foremen and Manager(s).
- Monitors required training (safety, regulatory, etc.) and other courses and programs with Foremen for personal development and to encourage shop efficiency.
- Participates in the preparation and monitoring of annual system budget. Provides sound and insightful recommendations to department and divisional management as requested.
- Presents electrical systems status in weekly, monthly and project meetings with internal and external customers.
- Ensures that Foremen have reviewed time cards for accuracy, and reviews leave requests as presented by Foremen and forwards to Manager(s).
- Responsible for the safety of crewmembers and shop operations. Actively participates in crew safety meetings and works with Manager(s) to ensure that safety equipment, training and work time are adequately budgeted and available.



Worker's Skills and Traits

- Position requires a wide range of leadership, business, customer relations, analytical, problem solving, and decision making capabilities.
- Must have a thorough functional technical knowledge of electrical systems and applicable codes. Must incorporate technical knowledge and expertise into business decisions affecting Electrical Systems.
- Must have the ability to communicate effectively with Manager(s), Foremen, crewmembers, customers, and potentially the public.
- Should relate well to people at all levels, inside and outside the Port, and build appropriate rapport with crewmembers, other crafts, management and customers.
- Should encourage open dialog between all stakeholders.
- Have the ability to prioritize assigned tasks and projects, and manage multiple tasks/projects simultaneously.
- Have the ability to lead, motivate, and develop employees.



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- Use diplomacy, professionalism, and tact at all times. Ability to diffuse high-tension situations comfortably and satisfactorily.

Machinery, Tools, Equipment, Personal Protective Equipment

- Windows-based computers, both desktop and laptop computers, computer accessories, and project management software (Maximo), plus various software applications, including Microsoft Office. Laptop computers are used to program/reprogram components in various electrical systems.
- Multi-line telephone.
- Two-way radio. Cellular phone(s).
- Hand tools.
- Testing equipment.
- Voice recorder. Digital camera.
- General office supplies, including binders, file folders, pens and pencils, boxes, staplers, and document organizers.
- General office equipment, such as desks, shelving units, chairs, file cabinets, photocopying machines, 3-hole punches, facsimile machines, and other equipment.
- Ladders. Manlifts.
- Forklift. Hand truck.
- Lockout/tagout devices.
- Port vehicles.



The General Foreman is required to wear approved safety boots/footwear at all times. When working outside the shop area, the General Foreman may be required to wear a safety vest. Eye and ear protection, respirators, and hard hats are required as necessary. Fall arrest harnesses are worn when working at heights, or may be worn when working over or near a sub-surface vault. Raingear is available as needed.



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Education / Training

Minimum qualifications include successful completion of a Washington State-approved apprenticeship program and Journeyman status with the International Brotherhood of Electrical Workers (“IBEW”). Electricians at the Port of Seattle, including the Electrical Shop General Foreman, are represented by the IBEW Local 46-Seattle.

Must possess a valid Washington State driver's license, and the ability to obtain a CDL license, if required for a Washington State Electricians Certificate and IBEW Foreman card. Must be able to work weekends, and respond to outages and emergencies and work overtime as required.

Preferred qualifications include ten (10) years working experience as a Journeyman Electrician/Wireman. Familiarity with airport electrical systems, and radio communication skills. Previous supervisory experience is beneficial, as is the ability to utilize the CM/PM tracking system (Maximo).

Knowledge of basic computer Windows-based computers, including Microsoft Office programs (Word, Excel, Outlook) is required.

Workers are fingerprinted for a criminal history background check, and must be able to pass a Transportation Security Background check. The worker must successfully complete Airport Operations Area (“AOA”) training, which allows the individual to drive on the airfield.

Per the Dictionary of Occupational Titles (DOT): 829.131-014 Electrician Supervisor, Maintenance

Specific Vocational Preparation (SVP): 8 (From four to ten years)



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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.	Frequently
Using technology/instruments/tools & information systems.	Continuously
Working with two and three dimensional formats.	Frequently
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.	Frequently
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.	Occasionally
Determining and following precise sequences.	Frequently
Coordinating and compiling data and information.	Occasionally
Analyzing, synthesizing data and information.	Occasionally
Tasking and Planning	
Performing repetitive or short-cycle work.	Continuously
Working under specific instructions.	Continuously
Completing complex tasks.	Occasionally
Directing, controlling, or planning for others as necessary for basic tasks.	Continuously
Directing, controlling, or planning for others as necessary for complex tasks.	Frequently
Multi-tasking.	Continuously
Planning, prioritizing, and structuring daily activities.	Continuously



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Use Appropriate Behavior for Professional Work Environment	
Receiving criticism and accepting limits appropriately.	Frequently
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)

STRENGTH: Sedentary Light

F: Frequent (30%-70% of the time)

C: Constant (Over 70% of the time)

WNL: Within Normal Limits (talking, hearing, etc.)

Medium Heavy Very Heavy

Frequency

Comments

Sitting	F	Working on computer, conducting reviews, talking on the phone, participating in meetings, processing paperwork, and driving a vehicle.
Standing	O	Conducting inspections, talking with supervisors, staff, and tenants, gathering items not reachable while seated (documents, files, or binders in primary work area, and supplies), and making photocopies/picking up print-outs.
Walking	O-F	Walking in immediate office area gathering documents and supplies, making copies, or walking in the shop (shop is approx. 240 feet long and 50 feet wide). From vehicle to inspect project sites. Walking between the Electrical Shop and the Airport Office Building (“AOB”). This may happen 2 to 4 times a day, and is an approx. 0.2 mile walk. When walking outside the shop, walking could be over a variety of surfaces, from tile, to concrete, to dirt and grass.
Lifting (up to 10 pounds)	F	Lifting documents or collections of documents (including small sets of plans/drawings, project files, work orders, binders/notebooks, and budget documents), telephone receiver, tools and supplies, two-way radio, cell phone, camera, laptop computer, office supplies, and one or two reams of copy/printer paper (5 lbs. each).
Lifting (10 to 40 pounds)	S	Lifting tools, supplies, ladders, and system components, larger sets of plans, more than 2 reams of copy paper, and boxes containing documents going to or coming from off-site storage (up to 35 lbs.).
Carrying (up to 10 pounds)	F	Carrying documents or collections of documents (including small sets of plans/drawings, project files, work orders, binders/notebooks, and budget documents), telephone receiver, tools and supplies, two-way radio, cell phone, camera, laptop computer, office supplies, and one or two reams of copy/printer paper (5 lbs. each).
Carrying (10 to 40 pounds)	S	Carrying tools, supplies, ladders, and system components, larger sets of plans, more than 2 reams of copy paper, and boxes containing documents going to or coming from off-site storage (up to 35 lbs.). Note: Wheeled carts and hand trucks are available to limit carrying heavier items.
Pushing/Pulling (Up to 20 pounds of force).	O	Opening and closing building and vehicle doors, opening and closing file cabinet drawers, gathering supplies, tools, and equipment from shop shelves or other locations, potentially when assisting with technical issues, or completing special projects, and pulling/pushing wheeled carts holding tools, supplies, equipment, or files.
Crouching/Kneeling	S	While inspecting completed work below waist level, and gathering supplies/items from storage shelves below waist level.
Climbing Stairs	S	Stairs may be encountered when visiting project sites, or participating in off-site meetings. Elevators and escalators are available for use when in the Sea-Tac Airport terminal or parking garage.



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Bending Neck	F	While out of the shop, getting into and out of vehicles, driving vehicles, completing special projects, and conducting inspections/site visits. While in the shop, gathering supplies, tools, and equipment, talking on the phone, typing on a computer, processing paperwork, talking to staff and other individuals, making copies, and sending faxes.
Twisting at Waist	S	While gathering supplies/items off storage shelves, gathering office supplies, talking with co-workers, supervisors, or the public. Twisting can be reduced by training the worker to move their feet instead of twisting.
Reaching (Floor to Shoulder)	F	While completing work/special projects, gathering supplies/ items off storage shelves, climbing ladders, gathering items at desk, getting into/out of vehicles, and reviewing project work.
Reaching (Over the Shoulder)	S	While reviewing project work, gathering supplies/items off storage shelves, climbing ladders, and gathering items seated at desk.
Keyboarding	F	Writing reports and progress memos, drafting and responding to electronic mails, entering data into and gathering data from the Port's computer systems, completing work logs.
Handling/Grasping	F	60 % Pinch Grasp 40 % Whole Hand Grasp
Fine Finger Manipulation	F	While writing, typing on a computer keyboard, using keys, processing paperwork, using telephone, or using 2-way radio.
Working at Heights/Balance	S	While gathering supplies/items off storage shelves. May be necessary when visiting projects (ladders/manlifts may be used).
Driving/Operating Foot Controls	S-O	Frequency depends on work needs. Generally while driving Port vehicles to project sites, inspections, or meetings.
Talking	F	While communicating with co-workers, supervisors, and the public (vehicle drivers and passengers).
Hearing	C	While communicating with co-workers, supervisors, and the public (vehicle drivers and passengers), listening for radio traffic, and hazards.
Seeing	C	Visual abilities would be considered important in this position.
Writing	O	Taking notes, noting action items, marking changes, and documenting project status/completion.
Normal Job Site Hazards	C	Worker may be exposed to moving traffic, fumes, slippery surfaces, and working at heights.
Expected Environmental Conditions	C	Exposure to conditions depends on work demands. 80% – Working in office or shop environment. Worker may be exposed to tools, moving mechanical parts, chemicals, fumes, and noise. 20% – Traveling to project sites to conduct site visits and inspections. While in the field, the worker may be exposed to varying weather conditions, moving vehicles, pedestrians, construction equipment, sharp tools, moving mechanical parts, chemicals, dust, mud, and noise.



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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: Dan Hytry; Erland Lau; Darin Benofsky

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

Date December 11, 2018 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