

SNOHOMISH COUNTY JOB DESCRIPTION

ELECTRICIAN – AIRPORT

Spec No. 7018

BASIC FUNCTION

Performs journey level electrical work in new construction and design, installation, maintenance, and repair of electrical/electronic airport and airfield systems and equipment; and performs other Airport Maintenance Technician duties and land side electrical as required.

STATEMENT OF ESSENTIAL JOB DUTIES

1. Inspects, installs, maintains and repairs airport runway and taxiway electrical distribution systems and fixtures including insulators, cutouts, transformers, switches, conduits, circuit breakers and regulators; and frequently works with series loop circuits and high voltages up to of 4160 volts and above.
2. Performs continuous and cyclic inspections, maintenance, and calibration of sensitive electrical and electronic equipment that supports aviation and personal safety of aircraft in the airfield approach and landing environment.
3. Participates in the design and planning of electrical projects to include plan development, permit application, design and installation of all Airport electrical and electronic systems; and may be required to design and implement systems without more than a need statement.
4. Participates in the design, installation, and maintenance of airport security systems, fiber optic systems, electronic surveillance cameras and systems, electronic noise abatement systems, and any other electronic security system as required.
5. Continually reviews Airfield and Landside electrical devices, electronic systems, and future requirements in an effort to design, redesign, evaluate technical adequacy, and accept the liability associated with devices that support aircraft flight safety operations in the Airport environment.
6. Inspects, installs, maintains and repairs interior electrical distribution circuits in a variety of structures including all integral parts such as wiring, switch boxes, light fixtures, outlets and distribution panels.
7. Inspects, installs, maintains and repairs electrical appliances including hot water heaters, garbage disposals, laundry machines, dish washers and ovens.
8. Inspects, installs, maintains and repairs a variety of control systems for a variety of motors, pumps, and switches including electric doors and boiler controls, magnetic switches and sump pumps.
9. Interprets National Electrical Code, blueprints, sketches and other instructions.

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STATEMENT OF ESSENTIAL JOB DUTIES (Continued)

10. Applies for Electrical Code Permits, draws or sketches work to be performed, accomplishes electrical fabrication, ensures successful electrical code inspections, and creates a rough sketch upon completion of assigned electrical projects.
11. Inspects Airport mechanical, electrical, and airfield equipment and facilities at regular and periodic intervals to ensure proper preventive maintenance standards and Federal Aviation Administration (FAA) Regulations (FAR) are met.
12. Read electrical, vehicle equipment, and utility meters, as required, in support of Airport Business Office.
13. Advises Airport Maintenance Manager, Supervisor and Lead Technician in all electrical matters.
14. May act as lead worker over temporary help and/or other maintenance technicians under the direct or indirect supervision of the Airport Maintenance Supervisor or representative.
15. May perform a variety of semi-skilled and skilled building and ground maintenance tasks including routine building, electrical and plumbing repairs, routine mechanical maintenance and service work, multi-day project supervision and the operation of a variety of construction and maintenance equipment such as backhoes, dump trucks, snow plows, and similar equipment.
16. Performs additional and related duties as assigned.

MINIMUM QUALIFICATIONS

Technical training in electrical systems; AND four (4) years of experience as a journey level electrician. Must pass job related tests.

PREFERRED QUALIFICATIONS

Two (2) year experience in an airport/airside environment preferred.

SPECIAL REQUIREMENTS

A valid Washington State Department of Labor Journey Level Electrician (EL-01) License is required.

A valid State of Washington Driver's License. May require a State of Washington Commercial Driver's License within six (6) months of employment.

Possession of, or ability to obtain, a valid First Aid Card and CPR Certification within ninety (90) days of employment is required.

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MINIMUM QUALIFICATIONS (Continued)

Candidates for employment may be required to pass a pre-employment physical examination prior to being hired.

Must pass a fingerprint-based Criminal History Record Check (CHRC) as required by TSA.

KNOWLEDGE AND ABILITIES

Knowledge of:

- the tools, materials, methods, and techniques associated with the electrical trades
- relevant electrical codes
- programmable logics controllers
- applying safety practices for electrical (low, medium and high) voltages, mechanical and environmental hazards such as hazardous chemicals, gasses and confined spaces
- safety procedures for construction, road/airfield maintenance and other heavy industrial areas
- visual color discrimination, must be able to match or detect differences among colors including shades of colors
- ways to reduce energy consumption and conservation
- hazards of working with electricity and high voltage electrical systems
- safety rules and regulations
- basic first aid methods and procedures; diagnostic electrical procedures

Ability to:

- perform all phases of electrical work including troubleshooting defects in electrical systems and equipment, and perform needed repairs
- use a wide variety of hand and power tools skillfully and safely under a variety of work conditions
- work at various heights
- read, interpret and apply relevant codes
- communicate clearly and precisely in aviation terms over multiple radio sets and hand held communication devices with other airport employees and air traffic controllers
- exercise proper situational awareness in demanding conditions such as working in close proximity to landing, departing and taxiing aircraft
- understand operations and precautions during day time airfield operations verses night time operations
- install, pull, solder, splice and terminate wire in gauges up to 500kc mil
- read, interpret and work from a variety of blueprints, drawings, sketches and work orders
- understand and follow oral and written instructions
- Handle multiple competing priorities
- read, understand and follow safety rules and regulations

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KNOWLEDGE AND ABILITIES (Continued)

- establish and maintain effective work relationships
- deal courteously and tactfully with the general public

PHYSICAL EFFORT

The work involves a variety of manual labor tasks requiring some strenuous physical effort such as lifting objects weighing in excess of fifty (50) pounds.

SUPERVISION

Employees report to a Facility Maintenance Supervisor or other supervisor as assigned. Work is performed under limited supervision and the employee generally carries out assigned tasks independently. The work may be spot checked for technical adequacy and conformance with work orders, plans and specifications.

WORKING CONDITIONS

The work is performed both indoors and outdoors in all types of weather. The work may involve working at considerable and various heights above 50 feet, in confined spaces such as crawl spaces, or from ladders, a hydraulic boom truck, rigging, barricades, safety harness or scaffolding. Employees are exposed to a variety of hazards such as working near traffic, around heavy equipment or high voltage power lines, runway hazards, and are exposed to dust, fumes, and grease. Employees are required to work evenings, weekends and holidays as necessary. The airport is open 24 hours a day, 7 days a week. This position is a primary on-call responder in a variety of emergency maintenance and repair operations.

Snohomish County is an Equal Employment Opportunity (EEO) employer.
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: January 1981

Previous Spec No. 811855

Revised: November 1983, September 1995, July 2000, June 2012, October 2017

Revised and Retitled: January 1999 as Maintenance Electrician

EEO Category: 7 - Skilled Craft Workers

Pay Grade: 240 - Classified Pay Plan

Workers Comp: 1501 Hazardous