

Journey Electrician / Instrumentation Technician

DEPT: Public Works	FLSA: Non-Exempt
DIV: Water	EEOC: Technicians
DATE: June 2023	



POSITION SUMMARY

Performs a variety of lead worker and full performance level skilled duties related to the installation, preventive maintenance, and upgrades to electrical distribution, wiring, lighting, conduit and electronic control systems, monitoring, troubleshooting, and repairing of various mechanical and electrical equipment. Installation and maintenance of programmable logic controllers, remote telemetry units & other instrumentation equipment.

SUPERVISION RECEIVED

Works under general supervision of the Water Operations Manager.

SUPERVISION EXERCISED

None.

ESSENTIAL FUNCTIONS

Monitors, inspects and tests electrical systems or continuity of circuits in electrical wiring, equipment, or fixtures, using testing devices, such as ohmmeters, voltmeters, to ensure compatibility and safety of system, isolate problems, replace faulty sections of wiring, lay conduit and perform other tasks as necessary; inspect electrical systems, equipment, or components to identify hazards, defects, or the need for adjustment or repair, and to ensure compliance with codes.

Responsible to install, maintain, operate and repair the electrical systems in City buildings; provides basic, on-going maintenance. Monitors and maintains computer software systems to sustain efficiency.

Assemble, install, test, or maintain electrical or electronic wiring, equipment, appliances, apparatus, or fixtures, using hand tools or power tools; connect wires to circuit breakers, transformers, or other components.

Troubleshoot, maintain, repair, and install, variable frequency drives & soft start equipment.

Assists in plan review to ensure proper electrical & instrumentation equipment is being provided & installed.

Troubleshoot, maintain, repair, and install standby generator systems throughout various water & sewer facilities.

Responds to emergency calls twenty-four hours a day, assists in determining necessary personnel & materials needed to resolve problems.

Prepare sketches or follow blueprints to determine the location of wiring or equipment and ensure conformance to building and safety codes. Determine mechanical systems integrity.

Understands NEC 2012. Arc Flash knowledge (NFPA 70E); compliance, calculations, and implementation of standard.

Perform physically demanding tasks, such as digging trenches to lay conduit or moving or lifting heavy objects, work from ladders, scaffolds, attics, or roofs to install, maintain, or repair electrical wiring, equipment, or fixtures.

Other duties as assigned.

MINIMUM QUALIFICATIONS

1. Education and Experience:
 - A. Graduation from high school;

AND

- B. Five (5) years of progressively responsible experience relating to electric, heating, air conditioning, maintenance and repair.

OR

- C. An equivalent combination of education and experience.

2. Knowledge, Skills, and Abilities:

Working knowledge of large facility HVAC, refrigerated and evaporative air conditioning systems, operations and repairs; basic carpentry, advanced electrical and plumbing skills; common hand tools and power tools for maintenance, carpentry, plumbing and electrical work.

Skill in the operation of various types of light equipment such as forklift, front end loader, tractor, backhoe, etc., basic mechanics, advanced electrical, HVAC and plumbing operations, basic carpentry and masonry; mathematics.

Ability to interpret wiring diagrams, blueprints, and electrical schematics; troubleshoot and repair problems in electrical wiring and HVAC; run tests, isolate problems, replace faulty wiring, lay conduit and perform other tasks as necessary; to work with numbers and measurements; work in small places; lift heavy equipment; identify wires by color; good vision with/without corrective lens; good hand-eye coordination and motion control; lift 50 pounds; communicate verbally and in writing; develop effective working relationships with supervisor, subordinates, and the public.

3. Special Qualifications:

- Utah Licensed Journeyman Electrician
- Possess a valid Utah State Commercial Driver License (CDL)
- Pre-employment drug/alcohol test and background check

4. Work Environment:

Incumbent of the position generally performs in a physically demanding environment. Tasks require a variety of physical activities, generally involving some muscular strain, such as walking, standing, stooping, sitting, reaching, lifting, etc. Work from ladders, scaffolds, or roofs to install, maintain, or repair electrical wiring, equipment, or fixtures. Occasionally works in outside weather conditions and may be exposed to wet and/or humid conditions; works near moving mechanical parts, vibration and risk of electrical shock, works in high, precarious places, exposed to fumes or airborne particles, toxic or caustic chemicals and may work with chemicals such as paint, lacquer, paint thinner, and roof foam, occasionally works within enclosed spaces; talking, hearing and seeing essential to the performance of the job. Common eye, hand, finger dexterity exists. Mental application utilizes memory for details, verbal instructions, emotional stability, discriminating thinking and creative problem solving. Frequent local travel is required in the normal course of job performance.

Disclaimer: The above statements describe the general nature, level, and type of work performed by the incumbent(s) assigned to this classification. They are not intended to be an exhaustive list of all responsibilities, demands, and skills required of personnel so classified. Job descriptions are not intended to and do not imply or create any employment, compensation, or contract rights to any person or persons. Management reserves the right to add, delete, or modify any and/or all provisions of this description at any time as needed without notice. This job description supersedes earlier versions.

I _____ have reviewed the above job description. Date: _____

(Employee)