



WASTEWATER MAINTENANCE SPECIALIST - ELECTRICAL

Department: Planning and Public Works
Job Class #: 953700
Pay Range: Maintenance/Trades 39

FLSA: Non-Exempt
Represented: No

Classification descriptions are intended to present a descriptive list of the range of duties performed by employees in this class and are not intended to reflect all duties performed within the job.

GENERAL FUNCTION: This is highly skilled maintenance electrical work in the Pierce County Planning and Public Works Department. An employee in this class is responsible for the installation, maintenance and repair of a wide variety of complex electrical systems and associated equipment at various locations of the treatment plant and outlying operational sites.

SERIES CONCEPT: The Wastewater Maintenance Specialist – Electrical is a maintenance position in the Wastewater Treatment Plant and Collection System Operations. This position is distinguished from the Wastewater Maintenance Technician by the journeyman status and is considered a highly skilled maintenance position.

ESSENTIAL FUNCTIONS:

- Perform preventative maintenance on electrical systems consisting of motor control centers, control consoles, power distribution substation panels and other associated plant equipment.
- Repair and perform maintenance on motor controllers consisting of electro-mechanical, variable frequency, magnetic drives, eddy current drives and related equipment. Troubleshoot and repair PLC/DCS/SCADA control systems.
- Install, adjust, reconstruct and inspect all components of electrical systems, controls, lighting, wiring, motors and electrical power distribution systems to 15kV, and power generator to 1.25MW.
- Research, design and order parts for new projects or modifications of existing electrical systems or equipment. Provide pre-bid and construction review of engineering drawings, specifications, and submittals for all capital improvement projects with outside firms.
- Inspect electrical installations for compliance with prevailing codes.
- Lead, train, provide direction and instruct other employees as required.
- Research, develop, and design plan schematics, wiring diagrams, and interpret service manuals.
- Assist in the preparation of annual power budget for all plant associated sites. Work closely with Tacoma Power customer service, dispatch, and engineering to provide cost- effective and reliable electrical power source.

OTHER JOB FUNCTIONS:

- Perform other job functions as assigned.

SUPERVISION RECEIVED AND EXERCISED: Work is performed under the general supervision of the Wastewater Maintenance Supervisor or designee who reviews the work through on-site inspection, participating in work and by overall evaluation of results obtained. The Wastewater Maintenance Specialist – Electrical leads, trains, orientates and provides direction and assistance to other employees assigned to work at the plant or on the collection system.

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WORK ENVIRONMENT: The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of the position. Work is performed around a variety of inside and outside environmental conditions, in tight and confined spaces, above and under ground, is subject to loud noises and noxious fumes, and working around high voltage plant and collections equipment and machinery.

PHYSICAL REQUIREMENTS: The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions. A position in this class is generally exposed to prolonged periods of standing, bending, climbing, loud industrial noises, fumes, and gases, above and under ground, climbing and descending ladders to a height of 30 feet, enter and exit confined spaces with openings of 24 inches in diameter, use of hands for operating a variety of hand/power tools, equipment, and machinery requiring finger and hand dexterity, observing equipment and machinery in order to ensure proper working conditions, working in the field or in a plant working environment in all types of weather conditions and using proper safety equipment and devices.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

- Electrical codes and regulations governing the safe and proper use and installation of electrical control systems, switches and related equipment and components.
- Safety precautions and occupational hazards associated with handling and installing equipment in high and low voltage environments.

Ability to:

- Use and interpret precision electrical measurement instruments and make adjustments or repairs resulting from these observations.
- Design and develop working schematic diagrams, wiring diagrams; and interpret service manuals.
- Diagnose malfunctioning electrical equipment and provide immediate corrective repair action.
- Troubleshoot and repair complex PLC, DCS, and SCADA control systems.
- Use a wide range of power tools, hand tools and equipment unique to the electrical class.
- Lead and train other employees.
- Effectively inform, educate, train, motivate and direct a wide variety of individuals or groups.
- Establish and maintain effective working relationships with County officials, employees and the general public.
- Maintain regular, predictable and punctual attendance during regularly scheduled work hours at assigned worksite.
- Work a flexible schedule, which may include evenings, weekends, holidays and overtime.
- Understand and follow written and verbal instructions.
- Communicate effectively verbally and in writing to audiences of various social, cultural, ethnic, educational and economic backgrounds.
- Effectively coordinate, perform and complete multiple duties and assignments concurrently and in a timely manner.
- Meet the travel requirements of the position, if any.
- Physically perform the essential job functions of the classification.

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MINIMUM REQUIREMENTS TO APPLY: A high school diploma or GED and have served a four-year apprenticeship in the electrical field.

SPECIAL REQUIREMENTS AND/OR QUALIFICATIONS: Formal schooling from a vocational technical school with a certificate as an electrician and coursework in electronic controls and instrumentation is desirable. A current ELO1 license as a journeyman electrician issued by the State of Washington is required. Physical assessment by a County-approved examination may be required prior to employment.