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City of Klamath Falls
Job Description

SYSTEM CONTROLS SPECIALIST/ ELECTRICIAN

DEPARTMENT/DIVISION: Public Works/ Maintenance

GRADE: 8

GROUP: AFSCME

FLSA STATUS: Non-Exempt

EFFECTIVE DATE: July 1, 2011

SUMMARY

Performs a wide variety of highly skilled technical and journey-level duties to install, assemble, maintain, troubleshoot, repair and modify/design computerized systems, electronics, pneumatics, hydraulics and instrumentation related to the operation and maintenance of the City's utility systems, including sewage collection and treatment, drinking water supply, geothermal heat, and street lighting.

EXAMPLES OF DUTIES

Duties may include but are not limited to the following:

Design, program, build, maintain and troubleshoot all PLC controlled telemetry, hardware and fiber optic networked SCADA system.

Design, build and troubleshoot non-PLC, relay based control systems.

Generate and maintain full mechanical drawings pertaining to all systems.

Maintaining an adequate level of continuously upgraded training necessary for the performance of all duties.

Create, process and file work orders that pertain to the Maintenance Division using current computer software.

Install, modify and maintain traffic signals. Troubleshoot Ethernet communications, controllers, detection cameras, detection loops, etc.

Performs preventive maintenance and repairs to motor control centers, including associated equipment and control devices.

Performs preventive maintenance and repairs to variable frequency and direct current drives, including adjustment of speed profiles, troubleshooting, repair and replacement of component levels.

Troubleshoots/repairs, programs and modifies programmable logic controllers (PLCs); modifies control circuits and related control devices and equipment.

Performs preventive maintenance and repairs to un-interruptible power supply equipment, including the servicing and replacement of batteries.

Installs, modifies and upgrades new and existing electrical systems, fixtures and other related electrical equipment in compliance with national code.

Performs preventive maintenance and repairs to the methane gas systems, which includes the PLCs, gas compressors and gas drying system, and control and operation of waste gas burners or flares.

Performs preventive maintenance and repairs to computer controls for chlorine systems.

Requires thorough knowledge of, and ability to use, basic motors and controls, including variable frequency drives and part wind (soft) starting and stopping controls.

Writes purchase requests for replacement of defective parts, and to maintain a spare parts inventory.

Coordinates activities and works cooperatively with others.

PRE-EMPLOYMENT

Job offers for this position are contingent on the individual passing a pre-employment drug screen.

QUALIFICATION REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

Education and/or Experience

AA or equivalent. Minimum 5 years journey-level experience in a closely related position. Requires knowledge of National Electric Code as it applies to industry codes and guidelines in the design, installation and maintenance of plant electrical equipment and instrumentation.

Requires thorough knowledge of the principles of the different functions of electrical equipment; distribution and generation; troubleshooting and diagnosis; test equipment and preventive maintenance; simple and complex programmable logic controllers.

Requires thorough knowledge of, and ability to use, basic motors and controls, including variable frequency drives and part wind (soft) starting and stopping controls.

Requires thorough and up-to-date knowledge of applicable safety practices, and electrical, mechanical and environmental hazards; safe use of basic and power tools, trade tools such as conduit benders and pipe threaders, and electrical and electronic test equipment.

Ability to interpret or modify new drawings.

Ability to use a variety of computer software programs, preferably basic knowledge of PLC & HMI software, Windows, Excel and Word.

Language Skills:

Ability to read, analyze, and interpret applicable scientific, technical, and regulatory information.

Ability to effectively present information clearly and concisely in writing and verbally to management and other staff.

Mathematical Skills:

Ability to work with basic mathematics functions including algebra and trigonometry.

Reasoning Ability:

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

Certificates, Licenses, Registrations:

Must possess and maintain an Oregon State Limited Journeyman Manufacturing Plant Electrical License or Oregon Journeyman Electrical License. Must possess and maintain a valid Oregon State Driver's License. Must obtain Confined Space and Flagging Certifications within six (6) months of hire.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

While performing the duties of the job, the employee is frequently required to stand; walk; use hands to finger, handle, or feel objects, tools, or controls; reach with hands and arms,

and talk or hear. The employee frequently is required to sit; climb or balance; and stoop, kneel, crouch, or crawl.

The employee must frequently lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee regularly works near moving mechanical parts and in outside weather conditions and is regularly exposed to fumes or airborne particles, risk of electrical shock, and vibration.

The employee frequently works in high, precarious places and is frequently exposed to wet and/or humid conditions, toxic or caustic chemicals, extreme cold, and extreme heat. Occasionally works with hazardous materials.

Shift changes occur as business needs dictate; ability to work on a shift basis, and respond to emergency call-out is essential.

The City of Klamath Falls is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City of Klamath Falls will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

