

JOB DESCRIPTION

TITLE: PLANT/ELECTRONICS MECHANIC

DEPT: SITE OPERATIONS, FT. RICHARDSON, AK
(Water Treatment, Water Distribution, Wastewater Collection, Electrical Distribution and Natural Gas Distribution)

REPORTS TO: WORKING FOREMAN

WAGE: PER PUBLISHED SCALE

POSITION OBJECTIVES:

Operates, maintains, tests, calibrates and repairs computerized alarm and data collection system within the utility system. The system consists of multiple data collection and transmitter points. The position also maintains electronic controls within the various utility plant locations including maintaining the controls and monitoring equipment at the water treatment plant, wastewater collection facilities, water distribution, electric distribution and natural gas distribution locations. Included is process data and control panels that provide analog, digital and totalizer functions using pressure and vacuum sensors and switches, temperature sensors and thermostats, humidistat, flow meters, capacitance meters, wattmeter, amplifiers, interface modules providing input for equipment control and affiliated control devices throughout the utility system. Control output systems consist of motorized valves, air dampers, variable speed motors, relays, pneumatic actuators, etc. The operator is also responsible for programming, network control, system building, volume control, access control and data-base maintenance including files, logs, schedules and archive maintenance in order to insure proper operation and to identify any malfunction in the systems being maintained. Troubleshoots equipment failures including software failures to insure minimum disruption of the system and initiate correction actions.

MAIN ACTIVITIES:

1. Installs, modifies, repairs, maintains, troubleshoots and calibrates electronic and direct digital controls at utility locations.
2. Works in conjunction with utility operators to identify controls problems and perform calibration or repairs.
3. Demonstrates ability to isolate causes of controls problems and provide solutions including replacement or repair of circuit boards.
4. Maintain SCADA components throughout utility system.
5. Maintain alarms installed on various components of the utility system.
6. Troubleshoot equipment failures to identify and correct complex problems associated with the operation of the system.
7. Respond to emergency conditions such as power failures, communication line failures, hardware failures, and software failures to ensure minimal disruption to the system and make emergency corrections as required.

8. Interpret a variety of technical electronic data and make independent judgments in determining the work sequence, use of trade tools, and testing/measurement instruments.
9. Participate in strategies to develop more comprehensive monitoring systems to reduce reliance on manual operations or outdated technology.

SKILLS AND QUALIFICATIONS:

1. Demonstrate an aptitude for electronic, pneumatic or solid state controls and the test equipment necessary to maintain the systems.
2. Knowledge of general operation of the water treatment plant, wastewater collection, water distribution, electric distribution and natural gas controls systems.
3. Working knowledge of test and diagnostic equipment used to maintain the electronics and other associated control equipment.
4. Ability to work out of doors or in confined areas for extended periods of time under unfavorable conditions and without constant supervision.
5. Ability to understand and execute written and oral instructions and relay instructions to follow-on shifts or other workers when the information involves accuracy of electronic controls.
6. Sufficient physical strength, ability, dexterity, vision and hearing to perform all the work of the position.
7. Ability to communicate effectively with supervisor, other operators and plant personnel.
8. Must demonstrate initiate and be able to work with little supervision.
9. Must be able to identify potential safety hazards involving electronics and take immediate action to correct the hazard or report the situation to supervisory personnel on site.
10. Must exhibit the dexterity to work in awkward positions. The ability to lift, pull, push or work on uneven surfaces is required.
11. Ability to extend arms overhead while performing duties or perform duties while standing, stooping, twisting, bending kneeling or from a prone position for up to one hour may be required.
12. Must be willing to maintain plant and equipment in a clean, serviceable condition.
13. Must be willing to work shift work when required.

WORKING ENVIRONMENT:

Work is normally done indoors with occasional tasks performed outside in temperatures ranging to -20 F. Much of the work may also be in high humidity at the water treatment plant or water and wastewater related facilities. Possibility for cuts, scrapes, bruises, burns, electrical shocks and exposure to explosive or hazardous atmosphere does exist. Occasional work required from ladders, scaffolding or platforms. Adequate safety gear is issued to the employee including: hard hats, gloves, goggles and hearing protection. Workers working in high noise areas are required to wear hearing protection throughout the period within the noise hazard area. Often the operator will be required to work alone or independently with little direct supervision so must be capable of making sound decisions about maintaining control systems. The position requires a minimum of 40

hours per week. The plants are operational 24 hours per day 7 days per week therefore the electronics mechanic may be required to work outside the core hours to repair control systems.

CONDITIONS OF EMPLOYMENT:

1. Incumbent must be able to maintain a level of physical fitness to perform the duties of Electronics Mechanic.
2. The incumbent is subject to pre-hire and random drug testing in accordance with the published policy for Doyon Utilities.
3. Must be eligible to work on a military installation in Alaska.
4. Must have a valid driver's license issued by the State of Alaska.
5. Willingness to report for duty during emergencies or to repair control systems under short notice to ensure adequate support for the utility operations.
6. Completion of an approved confined space entry class.

EDUCATION AND TRAINING:

High School Diploma or Equivalent

EMPLOYMENT CLASSIFICATION:

Non-Exempt/ Full Time Permanent