



Gloucester County Job Description

POSITION: Utility Instrumentation & Mechanic Foreman
DEPARTMENT: Public Utilities
JOB CODE: A230
FLSA: Non-Exempt

GENERAL STATEMENT OF JOB: Under general supervision, performs administrative, supervisory, and complex skilled and technical work in the installation, maintenance, calibration, repair and replacement of instrumentation and control systems and equipment in the Gloucester County water treatment and wastewater collection systems, and coordinates the procurement of parts. Work involves the use of hand and power tools. Employee must exercise initiative and independent judgment in completion of assigned tasks. Employee must also exercise tact, courtesy and firmness when communicating with contractors, vendors, customers, and the general public. May be designated responsible for specific water and/or wastewater facilities. Reports to Utility Supervisor.

ESSENTIAL JOB FUNCTIONS:

1. Supervises and, depending on assignment, participates in the installation, maintenance, repair, and replacement of assets at various Utility facilities. This includes piping, motors, dosing pumps, centrifugal pumps, vacuum pumps, air compressors and other appurtenances.
2. Inspects, designs, calibrates, troubleshoots, diagnoses, repairs and conducts preventative maintenance on electrical, electronic, hydraulic, and pneumatic instrumentation and control devices, systems and equipment to include programmable logic controls, variable frequency drives, various level, flow, pressure and temperature devices, solid state reduced voltage controllers, pneumatic and digital instrumentations, alarm telemetry systems, data loggers, motor control circuits, generator control and transfer switches.
3. Provides cost estimates, evaluates resource needs, and managed the effective deployment of resources. Coordinates with contractors and vendors. Coordinates the procurement of parts for inventory and project needs.
4. Designs, fabricates, installs, and repairs new instrumentation systems; reads and interprets blueprints, diagrams, and schematics to include Programmable Logic Controllers (PLC), ladder logic and proportional-integral (PI) controls. Evaluates new instruments for future application.
5. Coordinates internal projects and ensures adherences to safety regulations. This includes, but is not limited to, Lock Out/Tag out, Confined Space Entry, Hazardous Communications and Workplace Injury Policies. Maintains awareness of safety requirements for relevant industrial environments and on-site chemical Safety Data Sheets.
6. Operates hand tools, power tools and industry-specialized tools. Maintains records and files related to installation, maintenance, repairs, and replacement of equipment. Functions as a working supervisor.
7. Manages preventive maintenance of equipment. Ensures County safety standards are met; coordinates training of reporting personnel.
8. Prepares a variety of technical reports and develops schematic drawings as needed; maintains inventory of spare parts and initiates procurement of replacement supplies and equipment as necessary; makes cost and material estimates; collects data for preventative maintenance system; maintains equipment and calibration history logs, monitors and completes work orders and service requests; responds to citizen inquiries and complaints.
9. Maintains records and files related to installation, maintenance, repairs, and replacement of equipment. Performs County Building Safety Assessments and submits report. Maintains a clean and organized inventory; maintains a clean and safe work environment.

10. Responds to after-hours calls on nights, weekends, and holidays as needed.

11. Performs other duties as assigned.

EMPLOYEE UTILIZATION IN ADVERSE WEATHER AND EMERGENCY CONDITIONS

All Gloucester County employees are subject to being assigned to specific positions and tasks during a "Declared Emergency" as support personnel, by the County Administrator, the Emergency Management Director, or the Emergency Operations Plan (EOP). Once assigned, this would be the same as a regular work assignment and all policies and procedures for duty assignments apply. (Please see Gloucester County Administrative Policy 101.1 - Employee Utilization in Adverse Weather and Emergency Conditions.

EDUCATION AND EXPERIENCE:

Possession of a high school diploma/GED.

Five (5) to seven (7) years of experience in mechanical and maintenance work to include repair, preventative maintenance and troubleshooting of pumps, motors, control valves and control systems; and two (2) years of supervisory experience. Experience in water and/or wastewater systems preferred.

NECESSARY SPECIAL QUALIFICATIONS:

Possession of a valid driver's license; possess and maintain a driving record that meets established Gloucester County Driving Standards.

Must pass a post-offer, pre-employment physical. Position subject to subsequent physical examinations to ensure incumbent meets physical job requirements.

Possession of OSHA 10 Hour Card (General Industry or Construction) or obtain within six (6) months of employment in the position.

Possession of a Commercial Driver's License (CDL), preferred.

JOB LOCATION AND CONDITIONS:

Duties are performed at assigned County locations indoors and outdoors in all types of weather conditions.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Broad knowledge of the plumbing, electrical, and mechanical trades as applicable to water production and storage and wastewater collection systems. Knowledge of electrical wiring systems, controls, machinery electronic and pneumatic instrumentations and procedures, methods, and techniques to install, repair and maintain related electrical systems. Knowledge of the National Electrical Codes.

Broad knowledge of the standard practices, tools, materials, and equipment used in the repair and maintenance of a variety of mechanical pumps, motors, and valves.

Thorough knowledge of proper procedures for operating, inspecting, and maintaining tools and related equipment as needed to construct and maintain properties and equipment. Knowledge of laws and regulations governing the operation of equipment and materials.

Basic knowledge of personal computers and commonly used Microsoft Office software products to include Outlook, Word, and Excel and the internet.

Broad knowledge and understanding of sequence of operations of control systems and ability to diagnose malfunctions.

Broad knowledge of occupational hazards, safety precautions, and safety regulations related to equipment operation, hazardous materials, traffic patterns and conditions, and other work-related precautions.

General knowledge of the principles of supervision.

Ability to read and understand piping drawings and electrical (ladder) drawings.

Ability to lift and maneuver parts, tools, and 5-gallon buckets.

Ability to follow oral and written directions.

Ability to prepare and maintain records.

Ability to communicate effectively and efficiently in Standard English in order to instruct others.

Ability to establish and maintain effective working relationships as necessitated by work assignments.

Ability to comprehend electrical and mechanical terminology.

Ability to perform physical labor for extended periods of time, possibly under arduous conditions.

Ability to operate a pick-up truck.

Skilled in the use of precision measuring devices and a variety of hand tools.

Skilled in the operation of generators, torches, and voltage and amp meters.

Skilled in maintaining a safe work environment.

C = Continuous – over 6 hours a day F = Frequent – between 3 and 6 hours a day	O = Occasional – less than 3 hours a day I = Intermittent–several times a week/month	P = Periodic – several times a year N/A = Not applicable to position
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PHYSICAL REQUIREMENTS:

LIFT/CARRY	C	F	O	I	P	N/A
1 to 10 lbs.	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 to 20 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 to 50 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
51 to 75 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	<input type="checkbox"/>
76 to 100 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

PUSH/PULL	C	F	O	I	P	N/A
1 to 10 lbs.	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 to 20 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 to 50 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
51 to 75 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
76 to 100 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

MOVEMENT	C	F	O	I	P	N/A
Carrying	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bend/Stoop/Twist	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kneel/Crawl	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reach Above Shoulders	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reach Below Shoulders	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grasp/Squeeze	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climb Stairs/Ladder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
Uneven Walking Surface	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Even Walking Surface	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ENDURANCE	C	F	O	I	P	N/A
Stationary Position (stand or sit)	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Move, Traverse (walk)	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate, Activate, Use, Prepare, Inspect, Place, Detect, Position (use of hands/fingers)	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EQUIPMENT USAGE & OPERATION	C	F	O	I	P	N/A
Standard Office Equip.	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motor Vehicle	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle requiring CDL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Other (backhoe, trenching machine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	<input type="checkbox"/>

WORK WITH/NEAR	C	F	O	I	P	N/A
Machinery	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Tools	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemicals	<input type="checkbox"/>	<input type="checkbox"/>		X	<input type="checkbox"/>	<input type="checkbox"/>
Fumes	<input type="checkbox"/>	<input type="checkbox"/>		C	<input type="checkbox"/>	<input type="checkbox"/>
Heights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X

ENVIRONMENT	C	F	O	I	P	N/A
Indoors	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoors	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme Heat	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>		<input type="checkbox"/>
Extreme Cold	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>		<input type="checkbox"/>
Dusty	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excessive Noise	<input type="checkbox"/>	<input type="checkbox"/>		X	<input type="checkbox"/>	<input type="checkbox"/>
Other (wet conditions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

VISION REQUIREMENTS (Check all that apply)	
Depth Perception	<input checked="" type="checkbox"/>
Color Vision	<input checked="" type="checkbox"/>
Peripheral Vision	<input checked="" type="checkbox"/>
Uncorrected/Corrected vision 20/40 or better in one or both eyes; 100 degrees, or better, horizontal vision in one or both eyes	<input checked="" type="checkbox"/>