



Electrical/Mechanical Technician 2

Category: Classified
Pay Grade: C22
Job Code: 17234

To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.

JOB SUMMARY

Responsible for performing a variety of tasks at the full performance level plus designated lead worker assignments; completes the installation, modification, fabrication, repair, and maintenance of Utilities Division electrical and/or heavy mechanical equipment and systems; utilizes knowledge in electrical, plumbing, welding, or other trades to locate and correct system malfunctions and ensure improvements, as well as to maintain County properties, facilities, equipment, and lines or devices in public utilities systems and electrical and mechanical equipment used in production treatment and transmission of potable water and wastewater and distribution of reclaimed water.

ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)

- Acts in a lead worker capacity for utilities mechanics in the installation, maintenance, modification, and repair of a variety of heavy mechanical machinery, equipment, and systems used in water or wastewater treatment plants, buildings, and related facilities;
- Checks equipment efficiency and performs preventive maintenance service on electrical and mechanical components of a variety of machinery, pumps, and supportive equipment;
- Disconnects and reconnects electric motors as necessary for repair or replacement, makes repairs to switch gear equipment, and performs other related electrical tasks;
- May install electric wiring, conduit, and circuitry;
- Detects causes of electrical failures, analyzes, interprets, and ensures compliance with established codes, calculates data necessary for wiring instrument systems, and requisitions supplies and materials needed to complete task;
- Trains new subordinate technical personnel;
- Performs fabrication and welding to affect required repairs and enhancements;
- Repairs and adjusts mechanical systems for vehicular equipment and hydraulic pump systems and performs structural repairs on large cranes, pressure trucks, and backhoes;
- Installs and reroutes pipes at water and wastewater treatment facilities, pumping stations, and water distribution stations;
- Installs, maintains, and repairs chlorination systems equipment, chemical feed pumps, and metering equipment;
- Inspects physical plants, equipment, buildings, and related facilities to determine operating conditions and needed repairs and modifications and performs preventive maintenance work;
- Maintains records of services and maintenance;
- Performs other related job duties as assigned.

QUALIFICATIONS

Education and Experience:

High school graduate and completion of a two-year technical or vocational program in mechanical skilled or electrical trades or directly related field and one (1) year of journeyman experience in the maintenance and repair of heavy mechanical equipment and machinery; or three (3) years of directly related experience as described above; or an equivalent combination of education, training, and/or experience.

Special Qualifications (May be required depending on area of assignment):

- Florida Driver's License or Florida Commercial Driver's License and endorsement, if any.
- Assignment to work a variety of work schedules including compulsory work periods in special, emergency, and/or disaster situations.
- Employee to acquire and maintain certification in designated areas according to area of assignment.
- Other knowledge, skills, abilities, and credentials required for a specific position.

Knowledge, Skills and Abilities:

- Knowledge of electrical, plumbing, welding, and possibly other trades' principles and practices;
- Knowledge of potable water production and wastewater treatment processes;
- Knowledge of installation, operation, modification, fabrication, repair, and maintenance of electrical and heavy mechanical equipment used in water plant or wastewater plant operations;
- Knowledge of types of potable water and wastewater handling equipment (motors, valves, pumps, electronic sensors, etc.);
- Knowledge in controlling the production and distribution of potable water or collection of wastewater;
- Skill in using standard building trades tools and devices;
- Ability to lead, coordinate, and guide the work of assigned teams;
- Ability to read and interpret engineering plans and diagrams, as well as write a wide variety of work orders and administratively related reports;
- Ability to troubleshoot electrical and mechanical equipment malfunctions to repair or adjust equipment to maintain desired operations;
- Ability to perform a combination of skilled trades tasks such as electrical, plumbing, mechanical, welding, and other knowledge required to maintain, repair, replace, and improve potable water and wastewater operations;
- Ability to adjust and regulate a variety of automatic or manually controlled auxiliary equipment to ensure safe operations;
- Ability to anticipate and adjust systems due to changing factor, water quality, weather, and other factors;
- Ability to handle traffic control in congested areas;
- Ability to understand and follow oral and written instructions;
- Ability to use computers in daily activities;
- Ability to use or repair small, medium, and heavy equipment and machinery.

PHYSICAL/MENTAL DEMANDS

The work is heavy work which requires exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly to move objects. Additionally, the following physical abilities are required:

- **Balancing:** Maintaining body equilibrium to prevent falling while walking, standing or crouching on narrow, slippery, or erratically moving surfaces. The amount of balancing exceeds that needed for ordinary locomotion and maintenance of body equilibrium.
- **Climbing:** Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs and/or hands and arms. Body agility is emphasized.
- **Crawling:** Moving about on hands and knees or hands and feet.
- **Crouching:** Bending the body downward and forward by bending leg and spine.

- Feeling: Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- Fingering: Picking, pinching, typing, or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- Grasping: Applying pressure to an object with the fingers and palm.
- Handling: Picking, holding, or otherwise working, primarily with the whole hand.
- Kneeling: Bending legs at knee to come to a rest on knee or knees.
- Lifting: Raising objects from a lower to a higher position or moving objects horizontally from position to position. Occurs to a considerable degree and requires substantial use of upper extremities and back muscles.
- Pulling: Using upper extremities to exert force in order to draw, haul or tug objects in a sustained motion.
- Pushing: Using upper extremities to press against something with steady force in order to thrust forward, downward or outward.
- Reaching: Extending hand(s) and arm(s) in any direction.
- Visual ability: Sufficient to effectively operate office equipment including copier, computer, etc.; and to read and write reports, correspondence, instructions, etc.
- Hearing ability: Sufficient to hold a conversation with other individuals both in person and over a telephone; and to hear recording on transcription device.
- Speaking ability: Sufficient to communicate effectively with other individuals in person and over a telephone.
- Mental Acuity: Ability to make rational decisions through sound logic and deductive processes.
- Talking: Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- Repetitive Motion: Substantial movements (motions) of the wrist, hands, and/or fingers.
- Standing: Particularly for sustained periods of time.
- Stooping: Bending body downward and forward by bending spine at the waist. Occurs to a considerable degree and requires full motion of the lower extremities and back muscles.
- Walking: Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.

WORKING CONDITIONS

Work is performed in an environment with heavy equipment and machinery that could result in bodily harm to co-workers or others.