



Electronic Equipment Technician 3

Category: Classified
Pay Grade: C26
Job Code: 17248

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

Performs advanced level work specializing in the installation, repair, modification, and maintenance of electronic instrumentation and control systems with knowledge of the functions including electronic, electrical, chemical, and mechanical equipment and related computerized telemetry systems and electronic hardware involved in water and/or wastewater plant or traffic and intelligent transportation control systems; utilizes knowledge in various trades such as electrical, plumbing, and other skills; locates and corrects malfunctions and makes improvements in operation, monitoring, maintenance, and/or repair of control systems, including County properties, facilities, equipment, and lines or devices in public utilities or transportation systems and electronic, electrical, and mechanical equipment used in production treatment and transmission of potable water, wastewater, and distribution of reclaimed water as they relate to utilities projects or traffic signals, fiber optic communications, vehicle detection systems, and Intelligent Transportation Systems (ITS).

ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)

- Manages or supervises all plant and equipment installation, repair, modification, calibration, and maintenance on electronic and electrical instrumentation, equipment, and controls;
- Develops, implements, and maintains section's Preventive Maintenance Program;
- Detects causes of electronic and electrical failures, interprets and ensures compliance with established codes, calculates data necessary for wiring instrument systems, and requisitions supplies and materials needed to complete tasks;
- Performs complex lead bench work in the repair, rebuild, modification, and programming of electric, electronic, and electro-mechanical equipment, down to the component level;
- Provides troubleshooting, testing, and repair of all traffic signal related equipment in the field or electronics shop and is on call by phone 24/7 to assist traffic signal technicians with troubleshooting field malfunctions;
- Troubleshoots, repairs, and programs new ITS equipment such as fiber and wireless IP based communications equipment, various vehicle detection systems, and dynamic message boards;
- Directs and supervises monitoring and forecasts all maintenance and repair activities for a designated utilities service area;
- Operates light to medium equipment within the plant operations divisions;
- May be responsible for electronic traffic control and equipment for the design, placement, and maintenance of traffic control safety devices utilized under extremely heavy traffic and during inclement weather;
- Utilizes complex work management systems for project tracking;
- May prepare cost estimates and cost/benefits analyses;
- Reviews and comments on traffic signal intersection design plans;
- Trains and supervises subordinate staff;
- Keeps records and communicates effectively, orally and in writing;
- Performs other related job duties as assigned.

QUALIFICATIONS

Education and Experience:

High school graduate and five (5) years of experience in electronics maintenance and repair, plus one (1) year of supervisory experience or training; 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 the principles, practices, and procedures of electronic and electrical repair work;
- Knowledge of preferred methods and techniques relevant to repair and maintenance of electronic and electrical equipment;
- Knowledge of methods, practices, techniques, materials, tools, and equipment pertinent to installation, maintenance, and repair of electronic and electro-mechanical traffic signal systems and controls;
- Knowledge of the principles, practices, methods, materials, equipment, and tools used in the construction of traffic signal control intersections and installation of traffic signals, control equipment, electrical lines, and interconnect systems;
- Knowledge of traffic control systems and ITS communications equipment and processes;
- Knowledge of potable water production and wastewater treatment processes;
- Knowledge in controlling the production and distribution of potable water or wastewater treatment processes;
- Knowledge of types of potable water and wastewater handling equipment (motors, valves, pumps, electronic sensors, etc.);
- Knowledge of complex installation, modification, fabrication, repair, and maintenance of electronic, electrical, or mechanical equipment used in water plant and/or wastewater plant operations.
- Skill in utilizing a wide variety of tools, equipment, and devices typical to electronic and electrical service tasks.
- Ability to lead, manage, and direct subordinates in potable water and/or wastewater treatment systems maintenance and repairs;
- Ability to interpret and communicate, both verbally and in writing, data from engineering plans, diagrams, and complex reports;
- Ability to create and write sometimes complex administrative reports as well as a wide variety of work orders;
- Ability to troubleshoot, maintain, and repair and replace complex electronics equipment and control systems associated with utilities water and wastewater treatment as well as directing others in same;
- Ability to perform and lead or direct others in performing a combination of skilled trades tasks such as electronic, electrical, mechanical, welding, plumbing, and other related tasks required to maintain, repair, and improve 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 factors, e.g., water quality, weather, etc.;
- Ability to apply computer applications and software;
- Ability to assign, supervise, guide, direct, and evaluate the work of assigned subordinate personnel;
- Ability to establish and maintain effective working relationships with managers, supervisors, employees, and others;
- Ability to use or repair small, medium, and heavy equipment or machinery.

PHYSICAL/MENTAL DEMANDS

The work is medium work which requires exerting up to 50 pounds of force occasionally, and/or up to 30 pounds of force frequently, and/or up to 10 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 where errors can lead to significant physical or mental consequences for self or others.