

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

CLASSIFICATION STATEMENT

TITLE: Electrical/Instrumentation Technician

DIVISION: Maintenance

SALARY RANGE: Range 42

DEFINITION:

Perform a variety of troubleshooting skills, preventive maintenance tasks and corrective repairs to Agency equipment and control systems within the wastewater treatment system.

CLASS CHARACTERISTICS:

Reports directly to the Support Services Manager

SUPERVISION EXERCISED: None

EXAMPLES OF ESSENTIAL DUTIES AND RESPONSIBILITIES: *The following are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.*

- Work independently or with others to inspect, replace, test, service, troubleshoot, and complete preventive maintenance tasks on Agency equipment.
- Use test equipment and meters to check, test, troubleshoot and calibrate plant electrical controls, instrumentation, motor starters, switchgear, alarm systems, supervisory equipment operation.
- Assist in budget preparation with recommendations, tools, equipment, contract services, warehoused spare parts and future plant capital expenditures for equipment and required repairs.
- Exercise sound judgment to repair and/or maintain various electrical controls, switchgear, alarm systems and related electrical and co-generation equipment.
- Maintain electrical parts and equipment inventory.
- Writes purchase requests, compare pricing, order and expedite needed parts.
- Work from blueprints, sketches, manufacturer's instructions, and written or verbal instructions.
- Maintain accurate records, test descriptions and written reports.
- Work efficiently and effectively with all other departments to achieve the most economical and satisfactory resolution to operational concerns.
- Comply with Agency safety rules and regulations.
- Perform all other related duties as assigned and/or directed.
- Disassemble, inspect, determine damage, case of damage and required parts and recommend methods of repair of plant electrical/instrumentation equipment.
- Store and properly care for all Agency tools and test equipment.
- Read and interpret plant instrumentation and electrical drawings, ladder diagrams, equipment troubleshooting guides and parts lists; instruct and direct assigned personnel in the safe and

proper methods of equipment troubleshooting.

MINIMUM TRAINING AND EXPERIENCE REQUIRED TO PERFORM ESSENTIAL FUNCTIONS:

- Thorough knowledge and proficiency at reading and understanding instrumentation loop drawings.
- Must be able to understand and perform Programmable Logic Controllers (PLC) programming changes. Also, able to troubleshoot integrated Control Systems
- Must be able to program and troubleshoot various types of VFD 's with the assistance of an equipment manual. Must be familiar with PC and MMI systems.
- Must be able to maintain, troubleshoot, repair and install various types of field instruments (i.e., flow, pressure, temperature, level, etc.)
- Thorough knowledge of the safe and proper operation of various hand and power tools, electrical test equipment, meters and gauges. Advanced methods of troubleshooting, diagnosing and techniques of repairing electrical equipment, instrumentation and power generation and distribution equipment, safe shop practices.
- Thorough knowledge of the following is required to perform the essential job functions: Accurately read and interpret drawings, schematics, blueprints, maintenance manuals, technical bulletins, ladder diagrams, troubleshooting guides and preventive maintenance instructions for electrical equipment, controls, and devices
- Must be able to generate accurate and effective maintenance records, status reports, data and maintenance logs as well as efficiently respond to oral directions and requests; develop and maintain a productive working relationship with other Agency employees and effectively deal with the public when required. Ability to prepare concise verbal and written reports.

OTHER SPECIAL REQUIREMENTS:

- High school diploma or equivalent.
- Electrical/Instrumentation Technologist Certification II
- Must possess a valid California, Class C driver's license in good standing.

PHYSICAL AND MENTAL ABILITIES REQUIRED TO PERFORM ESSENTIAL FUNCTIONS:

Language Ability and Interpersonal Communication:

- Ability to analyze and categorize data and information to determine the relationship of data with reference to established criteria/standards. Ability to compare, count, differentiate, measure, assemble, copy, and record and transcribe data and information. Ability to classify, compute and tabulate data.
- Ability to explain, demonstrate and clarify to others within well-established policies, procedures and standards. Ability to follow specific instructions and respond to simple requests from others.
- Ability to communicate effectively orally and in writing with Agency personnel.

Mathematical Ability:

- Ability to calculate percentages, fractions, decimals and ratios.

Judgment and Situational Reasoning Ability:

- Ability to use functional reasoning and apply rational judgment in performing diversified work activities.
- Ability to exercise the judgment, decisiveness and creativity required in situations involving the evaluation of information against measurable criteria.

Physical Requirements:

- Must be able to pass Agency's pre-employment physical examination.
- Ability to coordinate eyes, hands, feet and limbs in performing movements requiring skill and training, such as assembling equipment.
- Ability to exert effort in strenuous physically demanding work, typically involving some combination of climbing and balancing, stooping, kneeling, crouching, crawling, lifting, carrying, pushing and pulling. Ability to lift and move 65 pounds or more.
- Ability to recognize and identify degrees of similarities or differences between characteristics of shapes, colors, sounds, odors and textures associated with job-related objects, materials and tasks.
- Ability to withstand exposure to inclement weather conditions, working in wet and/or odorous areas, working in tanks and/or confined spaces.
- Ability to be subject to 24-hour recall, variable working hours, overtime, weekends and holidays. May be required to perform stand-by duties and respond to plant emergencies

Environmental Adaptability:

Some tasks may risk exposure to temperature variations, sewage, toxic agents/chemicals, noise, machinery, vibrations, electrical currents, wetness and dust.

SOCWA is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the Agency will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the employer.