



JOB DESCRIPTION

JOB TITLE: Instrumentation and Controls Technician I, II, III

DEPARTMENT: Utilities

REPORTS TO: Field Services Superintendent

FLSA: Non-Exempt

GRADE: T1 – T3

DATE: 09/13/2021

SUMMARY OF JOB PURPOSE:

Responsible for performing a variety of technical duties relating to the electrical, mechanical, instrumentation, and control functions of the County's utilities systems.

All classifications (Instrumentation and Controls Technician I, II, III) must be able to perform the essential functions below. The differences between classifications are the level of mastery of the essential functions, the degree of supervision required when performing these functions, and the amount of lead direction provided to others.

Technician I: Entry-level class. The Technician works under close supervision, performing the essential functions at an adequate level.

Technician II: Journey-level class. The Technician works under general supervision, independently performing the essential functions at an advanced level.

Technician III: Expert-level class. The Technician works with minimal supervision and has mastered the knowledge and skills needed to perform the essential functions.

ESSENTIAL FUNCTIONS:

This class specification lists the major duties and requirements of the job and is not all-inclusive. Incumbent(s) may be expected to perform job-related duties other than those contained in this document and may be required to have specific job-related knowledge and skills.

- Installs, programs, inspects, troubleshoots, and adjusts electrical and mechanical equipment, instrumentation, and related information systems.
- Performs tests and maintenance on mechanical, electrical, and instrumentation equipment; interprets readings and outputs of equipment; ensures proper functioning of equipment and related information systems.
- Reviews operator's manuals and other established guidelines; ensures equipment and information systems are operated in accordance with established guidelines
- Performs basic programming for utilities information systems; programs with ladder logic and relay logic; operates PLCs, RTUs and associated inputs/outputs; operates VFDs; performs telecommunications networking.
- Ensures proper operation of SCADA system; identifies and troubleshoots issues pertaining to SCADA system.
- Initiates work orders pertaining to utilities equipment and information systems; ensures work orders are accurate and complete; performs record-keeping functions.
- Serves as a liaison to manufacturers, contractors, County personnel and other internal or external parties with respect to utilities equipment, instruments and related systems.

This job description indicates, in general, the nature and levels of work, knowledge, skills, abilities and other essential functions (as covered under the Americans with Disabilities Act) expected of the incumbent. It is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities required of the incumbent. Incumbent may be asked to perform other duties as required.



INSTRUMENTATION AND CONTROLS TECHNICIAN I, II, III

ESSENTIAL FUNCTIONS (continued):

- Ensures compliance with National Electrical Code and other applicable laws, codes, or regulations.
- Checks job sites for potential hazards; understands and adheres to all applicable safety rules, regulations, practices, or procedures.
- Organizes work assignments and sets priorities.
- Performs and/or assists with work on water and wastewater systems and related equipment as necessary.
- Responds to emergency callouts, and must reside within a 30 minute response time to Dayton Valley Road.
- Contributes to the efficiency and effectiveness of the unit's service to its customers by offering suggestions and directing or participating as an active member of a team.
- Represents the County with dignity, integrity, and a spirit of cooperation in all relationships with staff and the public.

QUALIFICATIONS:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and Experience:

Series Classification	Minimum Education	Minimum Experience
Technician I	High School diploma / GED	None
Technician II	High School diploma/GED + formal trade course work	2 years as Tech I
Technician III	High School diploma/GED + formal trade course work	2 years as Tech II

OR an equivalent combination of education, training, and experience.

Required Knowledge and Skills

Knowledge of:

- Concepts, materials and terminology related to utilities systems.
- Federal, state and local requirements pertaining to public utilities systems.
- Equipment used to operate, maintain, and repair utilities systems, particularly electrical and mechanical equipment, instrumentation, and related information systems.
- Best practices for operating information systems (including SCADA), networks and peripherals relating to public utilities.
- Industrial electronic control systems.
- Safe work methods and safety regulations pertaining to the work.
- Record keeping practices, both electronic and hard copy.

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INSTRUMENTATION AND CONTROLS TECHNICIAN I, II, III

Knowledge of (continued):

- Basic programming and design for public utilities information systems, and basic trade mathematics.
- The National Electric Code.

Skill in:

- Maintaining effective communication and working relationships with internal and external stakeholders.
- Identifying and resolving operational, technical and procedural problems.
- Preparing clear written and verbal reports.
- Planning and determining priorities.
- Contributing to the accomplishment of work group goals, objectives and activities.
- Safely and effectively using and maintaining tools and equipment related to the work.
- Maintaining accurate records.
- Designing, laying out and preparing sketches for information and control systems.
- Estimating materials, parts and equipment to complete assignments.
- Reading and interpreting manuals, specifications, drawings and blueprints.
- Reading and interpreting meters, gauges, charts, and a variety of instruments.
- Reading and interpreting design, PID, control, and electrical drawings.

REQUIRED CERTIFICATES, LICENSES, AND REGISTRATIONS:

Series Classification	Minimum Requirements
Technician I	Valid Nevada Driver's License Within 15 days of employment: <ul style="list-style-type: none">• OSHA 10 certificate Within 6 months of employment: <ul style="list-style-type: none">• Nevada Class B driver's license
Technician II	Valid Nevada Driver's License Within 15 days of employment or promotion: <ul style="list-style-type: none">• OSHA 10 certificate Within 6 months of employment or promotion: <ul style="list-style-type: none">• Nevada Class B driver's license
Technician III	Valid Nevada Driver's License Within 15 days of employment or promotion: <ul style="list-style-type: none">• OSHA 30 certificate Within 6 months of employment or promotion: <ul style="list-style-type: none">• Nevada Class B driver's license



INSTRUMENTATION AND CONTROLS TECHNICIAN I, II, III

PHYSICAL DEMANDS & WORKING ENVIRONMENT:

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Mobility to work in a typical treatment plant, pump station or related maintenance setting, including operating typical trade equipment, hand and power tools and standard office equipment, and to drive a motor vehicle to various work sites; stamina to stand, walk and climb and to work in confined or awkward spaces for an extended period of time; strength to lift and maneuver materials and equipment weighing up to 50 pounds; vision to read printed materials and computer screen; and hearing and speech to communicate in person or over a radio or telephone.

Work is subject to exposure to extreme weather conditions, sewage, hazardous chemicals, electrical currents, gases, dust, noxious odors and heights exceeding 10 feet.