

**JOB DESCRIPTION**

**JOB TITLE:** Controls and Emissions Technician

**DEPARTMENT:** Pump Plants

**REPORTS TO:** Pumping Systems Supervisor

**LOCATION:** District Office, Tehachapi, CA

**JOB DESCRIPTION:** Under supervision installs, maintains, calibrates and repairs water system telemetry, operates SCADA systems and related networks, communication systems, instrumentation systems, programmable logic controllers, automatic control systems and internal combustion engine control systems. Maintains emissions database, tests engines for stack emissions, interfaces with regulatory agencies and District emissions consultant.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

- Installs power supply wiring and conduit for newly installed machines and equipment, such as IC engines and programmable controllers;
- Connects power supply wires to IC engines and equipment, and connects cables and wires between IC engines and equipment;
- Operates control consoles and programmable controllers to program automated machinery to operate and to test for malfunctions and verify repairs;
- Operates and maintains system telemetry and SCADA systems;
- Replaces faulty electrical components, such as relays, switches, motors, position sensing devices and programmable logic controller components;
- Diagnoses and repairs or replaces faulty electronic components, such as printed circuit boards and PLC I/O parts;
- Diagnoses malfunctioning apparatus, such as transformers, engine sensors, and other electronic components and replaces damaged or broken wires and cables;
- Reads and interprets diagnostic test results using a variety of test instruments;
- Tests malfunctioning machinery and discusses malfunction with other staff and vendors, to diagnose malfunction;
- Tests and collects results on all permitted engines using District emissions monitoring and test equipment
- Maintains district emissions database
- Inspects engines and operating equipment and ensures ongoing compliance with regulatory requirements and goals of the District
- Produces written reports and makes oral presentations detailing engine performance, controls and emissions data
- Responds quickly to critical situations;
- Carries out work assignments, as instructed in response to both scheduled and non-scheduled shutdowns;
- Responds to call-out situations on weekends, holidays and during after-hours emergencies as a “key responder”.
- Other duties as may be assigned

**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. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**EDUCATION AND/OR EXPERIENCE:** Bachelor’s Degree in Electronics, Computer Science, Information Technology, Engineering or other closely related field (preferred) or one to two years of increasingly responsible assignments in control systems development and maintenance. 1-year experience in SCADA troubleshooting and

programming, including some relevant electrical system work. Experience with a water agency is preferred. Any combination of education and experience that would provide the necessary knowledge and abilities is qualifying.

**ABILITIES/SKILLS:** Ability to read and interpret documents, such as safety rules, operating and maintenance instructions, and procedure manuals. Ability to write routine reports and correspondence. Ability to speak effectively. Ability to perform advanced mathematical calculations. Ability to use computers, equipment and programs to collect and collate data and develop and prepare reports. Ability to apply common sense understanding to carry out detailed, written or oral instructions. Ability to deal with problems involving a few concrete variables in standardized situations. Ability to troubleshoot and program SCADA network hardware, software and connectivity issues, troubleshoot and maintain radio networks and other telecommunication systems, test diagnose and repair a variety of electrical and instrumentation devices, motor control systems, emission diagnostic equipment, work on and within electrical systems in a safe manner, establish and maintain cooperative working relationships

**CERTIFICATES, LICENSES, REGISTRATIONS:** Valid California Class “C” driver’s license with a satisfactory driving record. Additional certificates, licenses, registrations or training may be required on an ongoing basis to fulfill essential duties. District will provide resources to obtain any additional requirements. Possession of a California Water Environment Association (CWEA) Electrical/Instrumentation Technologist Grade 1 certificate is desirable.

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

While performing the duties of this job, the employee is regularly required to speak and hear. The employee frequently is required to use hands to finger, handle or feel objects, tools or controls and reach with hands and arms. The employee is occasionally required to stand, walk, stoop, kneel, crouch or crawl and taste or smell.

The employee must frequently lift and/or move up to 50 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision depth perception and the ability to adjust focus.

**WORK ENVIRONMENT:** The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee regularly works near moving mechanical parts. The employee frequently works in outside weather conditions and is frequently exposed to vibration. The employee is occasionally exposed to wet and/or humid conditions and fumes or airborne particles.

The noise level in the work environment is usually very loud.