

**EL DORADO IRRIGATION DISTRICT**  
**Class Specification**

**CLASS TITLE: Process Control Technician**

**DEFINITION**

Under general supervision performs skilled duties related to the programming, troubleshooting and maintenance of hardware and software associated with the District's Supervisory Control and Data Acquisition (SCADA) systems for District facilities including water and wastewater treatment plants, water distribution systems, recycled water systems, and hydroelectric power plant; provides technical advise to Operations staff on issues related to SCADA; and prepares various reports and records related to system compliance and control.

**DISTINGUISHING CHARACTERISTICS**

This is the journey level class. Employees within this class perform the full range of duties as assigned including the programming and maintenance of hardware and software related to SCADA systems. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit.

**SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from the designated Division Manger; may receive technical and functional supervision from the Senior Process Control Technician.

**EXAMPLES OF ESSENTIAL DUTIES:** *the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.*

Performs software development including SCADA screens and graphics; programs PLCs (Programmable Logic Controllers) and HMIs (Human Machine Interface) based on the needs of plant supervisors, plant operators and regulatory agencies.

Develops and modifies SCADA screens; makes changes to software to improve functions; troubleshoots programming and software issues.

Uses computer system processors to back up and monitor software security.

Sets up and manipulates alarms and alarm paging programs.

Implements and troubleshoots communication strategies between remote PLCs and SCADA central locations utilizing radio, telecom, and Ethernet based systems.

Diagnoses hardware and software problems by logical tracing of failed function from its source to its final destination.

Monitors and implements technological advances in SCADA programs and advises management about upgrades and improves programs as necessary.

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Orders materials and components for repairs and/or modifications at facilities; coordinates with vendors to resolve issues with software and hardware; plans, coordinates and monitors special projects with outside contractors.

Maintains accurate historical records, files, and data; assists in the generation of monthly compliance and special project reports.

Builds and maintains positive working relationships with co-workers, other District employees and the public using principles of good customer service.

Performs related duties as assigned.

### **QUALIFICATIONS**

#### Knowledge of:

Various software applications including those associated with SCADA. Computer programming languages. Practices and principles related to control system automation. Plant operations. Electrical and instrumentation principles. Safe work methods and safety regulations pertaining to the work. Control system theory and its practical application to control and field automation. Pertinent local, State and Federal laws, rules and regulations.

#### Skill/Ability to:

Install, program, troubleshoot and modify hardware and software related to SCADA systems. Apply principles of software management to organize and maintain software integrity. Troubleshoot and correct control system programming issues. Analyze and evaluate system software requirements. Keep records and prepare reports. Read, interpret, and understand technical manuals, blueprints, drawings, and diagrams. Establish and maintain effective working relationships with those contacted in the course of work. Communicate clearly and concisely, both orally and in writing. Ability to maintain reliable attendance is a condition of employment, subject to applicable medical and disability leave laws. On a continuous basis, know and understand maintenance activities and observe safety rules; intermittently, analyze problem equipment; identify safety hazards; locate equipment; interpret work orders; remember how to operate equipment; and explain jobs to other employees. Intermittently, sit while studying or preparing reports; stand and walk while performing maintenance activities; bend and twist to adjust equipment; kneel and squat to review work; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 25 pounds or less.

#### Experience and/or Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

#### Experience:

Three years of increasingly responsible experience involving the configuration and programming of PLCs and HMI systems.

#### Education:

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Equivalent to completion of the twelfth grade, supplemented by college or equivalent course work in electronics, instrumentation, control systems, and/or computer systems.


**SPECIAL QUALIFICATIONS**

License and Certificate:

Possession of, or ability to obtain, a valid California driver's license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Possession of a California Water Environment Association (CWEA) Grade II Electrical/Instrumentation Certificate or an Instrumentation, Systems, and Automation Society of America (ISA) Level I Certified Control Systems Technician Certificate within 18 months of appointment.

Employees in this classification whose job duties require internet connectivity or the use of a District laptop and air card while on standby must provide and utilize, at their sole expense, a functionally reliable personal internet connection or District provided reliable air card with a District-provided laptop to facilitate District stand-by business.

 _____ Director of Human Resources	<u>02/26/2022</u> Date
Established: 08/18/2009 Revised: 08/07/2012, 02/26/2022 FLSA: Non-Exempt Unit: Safety	

