



# MARIN MUNICIPAL WATER DISTRICT

## Controls Technician II

### **DEFINITION**

Under general supervision, programs, installs, and maintains all components associated with the District's control systems, and to do related work as required.

### **DISTINGUISHING CHARACTERISTICS**

This is the journey level in the Controls Technician series. Incumbents are expected to troubleshoot and perform independently the more difficult electrical and electronic repairs to control systems located throughout the District.

### **EXAMPLES OF DUTIES**

Typical duties may include but are not limited to the following:

- Programs, installs, and maintains programmable logic controllers (PLC);
- installs, maintains, and repairs telemetry communication devices, such as modems, digital service units, and 900 MHz MAS radios;
- installs, maintains, and repairs control system equipment used for the purposes of monitoring and controlling process variables such as flow, pressure, liquid level, pH turbidity, etc;
- performs the more difficult data base modifications to Supervisory Control and Data Acquisition (SCADA) system software;
- performs the more difficult modifications to SCADA system operator interface screens;
- performs the more difficult electrical and electronic control system repairs;
- maintains control system documentation;
- participates in the design and modification of control system hardware and software;
- trains others in the more difficult tasks;
- prepares written reports and makes as-built drawings of completed jobs;
- uses a computerized maintenance system to organize the maintenance of control system components;
- keeps abreast of technological changes;
- follows applicable safety rules and regulations.

### **QUALIFICATIONS FOR EMPLOYMENT**

Knowledge of:

- Testing and calibration of analyzers and telemetry sensing devices;
- serial data communications;
- terms, practices and procedures common to the electronic and electrical trade;
- tools and instruments used in the repair and maintenance of electronic, electrical and mechanical/electrical equipment.

Ability to:

- Repair and maintain electronic, electrical and mechanical/electrical equipment;
- interpret and work from schematic diagrams;
- troubleshoot and diagnose equipment failures;
- understand and learn from technical documentation associated with District control systems;
- understand and use software used in modern control systems;
- learn and use a variety of application software;
- prepare as-built drawings of completed jobs;
- prepare and write concise reports;
- maintain accurate schedules and records;
- understand and carry out written and oral instructions;
- deal effectively with those contacted in the course of work;
- travel to alternative work locations and off-site meetings;
- drive a vehicle.

Training and Experience: Any combination equivalent to experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

- Completion of the twelfth grade or its equivalent; and two years' working with computer systems or electronic/electrical equipment; and an Associate of Science degree in instrumentation, measurement and control, electrical, electronics or mechanical technologies or closely related field.  
OR
- Completion of the twelfth grade or its equivalent, and four years of experience working with or installing electronic process control or SCADA equipment, at least two of which included working at a level equivalent to a Controls Technician I.

### **OTHER REQUIREMENTS**

- Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100 "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."
- Work on an "on call" basis and carry a District provided pager for emergency situations.

### **LICENSES AND/OR CERTIFICATIONS**

- Possession of an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record;
- pass a "D1" Distribution Operators Examination and obtain a California Department of Health Services (DOHS) "D1" Operator Certificate within one year of date of hire;
- possession of an Instrumentation, Systems, and Automation Society (ISA) certification as "Level II Certified Control Systems Technician" HIGHLY DESIRABLE.

### **PHYSICAL DEMANDS AND WORKING CONDITIONS**

During the course of performing job duties the employee will perform heavy physical work and will need the mobility to operate equipment, which may include office and/or field equipment, or specialized instruments or tools requiring repetitive arm/hand movement and/or the coordinated movement of more than one limb simultaneously; enter and retrieve data from personal computers

and terminals via keyboards. The employee frequently stands, walks, bends at neck and waists, twists at neck and waist, uses simple and power grasping with both hands, uses fine manipulation of both hands and fingers, and may require use of the arms above the shoulder, climb or balance; stoop, kneel or crouch. While working in the field the employee may walk on uneven or un-level ground surfaces such as hills, slopes, ditches or trenches, on or in tanks, and may work at heights up to ten to twelve feet climbing ladders or stairs. The employee is frequently required to lift and carry short distances objects such as materials or equipment weighing up to 10 to 50 pounds and occasionally lift 50 to 75 pounds. This position requires that the employee demonstrate adequate hearing to detect warning alarms and speech to converse in person and over the telephone or radio, and vision to read printed materials and detect color coded materials, and use a computer screen.

The noise level in the work environment is moderate to loud noise. The employee is exposed to moving vehicles and other moving equipment and machinery, excessive noise, extremes in temperature, humidity, wetness and dust. The position may require the ability to work overtime and weekends as needed.

Employees who drive on District business to carry out job-related duties must possess a California driver's license for the class of vehicle driven and meet automobile insurability requirements of the District including review of a recent DMV history. In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

#### **ADDITIONAL PHYSICAL DEMANDS**

- A self contained breathing apparatus must be worn when working in confined spaces and employee must be capable of obtaining and maintaining a proper facial seal for District respiratory equipment.

*To be successful in this job, an individual must be able to satisfactorily perform each of the listed duties. These duties are representative of the knowledge, skill and/or ability required for the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the duties and functions of the position. Requests for reasonable accommodation should be directed to the Human Resources Manager.*

Established: March 1997  
Revised: October 2008  
Approved by: Human Resources Manager