

CENTRAL COAST WATER AUTHORITY

Maintenance/Instrumentation Calibration and Repair Technician

Salary Grade 26

\$100,116 - \$122,142 Annually

\$8,343-\$10,178 per month

DEFINITION

Under general supervision of the Maintenance Superintendent, performs skilled work in the maintenance of water treatment plant and distribution system equipment. Calibrates, maintains, repairs, and replaces a wide variety of electrical, electronic and fiber optic equipment and instrumentation. Conducts computer, instrument, electronic, electrical, hydraulic, and pneumatic work on various types of control equipment and instrumentation systems.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The following statements are intended to describe the level of work and essential job duties being performed by an individual assigned to this job. Other duties may be assigned.

1. Provide routine calibration, maintenance and repair of instrumentation, metering, tank level sensors, on-line chemical analyzers and control equipment associated with the water treatment plant and distribution systems.
2. Provide emergency troubleshooting and repair of essential equipment during and after hours and on an On-Call basis.
3. Plans work sequences and tool requirements for maintenance activities. In addition, coordinates plans with assigned personnel to enhance operational efficiency.
4. Use of hand held and tabletop microprocessor based equipment for testing and calibration of instrumentation, radio based communication equipment and programmable logic controllers.
5. Read and interpret wiring diagrams, mechanical and instrument drawings and specifications in making installations, or performing major repair work.
6. Perform electrical equipment and instrumentation replacement involving layout, mounting hardware, enclosure, electrical, plumbing modifications and documentation.
7. Troubleshoot programmable logic controller and related input/output and interface devices.
8. Modify logic controller programming software and document, as required.
9. Maintain, troubleshoot and repair radio based network communications equipment.

10. Utilize fiber optic cable test equipment for maintenance and troubleshooting of the fiber optic cable network.
11. Install and repair fiber optic cable utilizing mechanical and thermal-fusion equipment.
12. Maintain a functional knowledge of the Supervisory Control and Data Acquisition System (SCADA) software and hardware for the purpose of maintaining, troubleshooting and repairing, as required.
13. Participate in the performance of periodic plant operational integrity and safety tests to verify the proper operation of fire detectors, hazardous and explosive gas detectors, process alarm instrumentation, protective monitoring systems, and computerized control system fault detection and failover functions.
14. Complete work tasks in compliance with applicable safety standards and CCWA safety policies. Satisfactorily pass quarterly safety testing.

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 as long as the accommodation does not result in undue hardship for CCWA.

Education and Experience:

High School diploma or equivalent plus technical course work in maintenance of instrumentation, electrical, electronic, fiber optic and SCADA systems. Two (2) years journey level experience in calibration, maintenance, repair and replacement of a wide variety of electrical, electronic and fiber optic equipment and instrumentation, including recent experience in maintaining SCADA systems including programming and screen development.

Knowledge of:

1. Work methods, techniques, test equipment, and test procedures used for maintenance of instrumentation, electrical and electronic equipment, SCADA systems, fiber optic equipment, and programmable controllers.
2. The safe use of a wide variety of hand and power tools.
3. Standards contained in the Uniform Building Code and National Electric Code.
4. Safe working practices, procedures, and regulations, including OSHA regulations.
5. Computers and software for use in tracking preventive maintenance activities and in programming SCADA systems and programmable controllers.

Ability to:

1. Independently provide electrical, electronic and fiber optic maintenance of the treatment plant and pipeline facilities.
2. Coordinate work with the Maintenance Superintendent and the Instrumentation & Control Specialist to prioritize maintenance tasks based on plant and pipeline performance needs.
3. Modify computer software and read/write ladder logic for programmable logic controllers.
4. Provide vacation and sick relief for the Instrumentation & Control Specialist.
5. Plans tool requirements and work sequences necessary for maintenance activities and coordinates plans with assigned personnel to enhance operational efficiency.
6. Maintain regular attendance, subject to authorized and legally required leaves.

License Requirements:

1. Possession of a valid driver class C license issued by the California Department of Motor Vehicles is required.
2. Possession of a Cisco Certified Network Associate certificate and a Microsoft Certified System Engineer certificate are considered desirable.
3. Possession of a California State Water Resources Control Board, Division of Drinking Water, Water Treatment Operator Certificate or Distribution Operator Certificate is considered desirable.
4. Possession of an Electrical/Instrumentation Technologist Certificate from the California Water Environment Association or the International Society of Automation 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 as long as the accommodation does not result in undue hardship for CCWA.

1. Employee is required to pass a pre-employment physical and drug panel (Performed by designated District Physician)
2. A Respiratory evaluation along with a spirometry test to determine the physical ability to wear respiratory protective gear will be required along with the pre-employment physical and every 5 years after.
 - o Cal/OSHA requires that facial hair not be present if it comes between the sealing surfaces of the faceplate and the face or that interferes with valve function. Title 8 S.S.R. 5144(g)(1)(A)

3. Perform field work that involves driving four wheel drive vehicles over occasionally rough and steep terrain, climbing and descending ladders into vaults and tanks and perform work within confined spaces.
4. Operate District owned vehicles for extended amounts of time to travel between District facilities or on District business. Employee may be required to enter and exit the vehicle several times per day.
5. Stand/walk for extended periods of time and perform work duties over a variety of terrain which may include sharp increases or decreases in grade.
6. Perform manual labor involving frequent bending, pulling, pushing, twisting and crawling and manipulating weights up to 50 lbs.
7. Ability to lift/carry/move objects up to 50 lbs.
8. Must be able to communicate verbally with other staff members.
 - Regularly use telephone, cell phone or hand held radios to provide communication.
9. Use office equipment, such as computers, copiers and fax machines.

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 as long as the accommodation does not result in undue hardship for CCWA.

1. The Standard work shift is a 9/80 work schedule – 0700 hrs to 1630 hrs (Monday thru Friday) (every other Friday off, every other Friday on at 0700 – 1530 hrs).
2. Work alone or with a partner.

Reports To: Maintenance Superintendent
FLSA Status: Non-Exempt
Prepared Date: March 2003
Approved By: John Brady
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