



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

INSTRUMENTATION AND CONTROL TECHNICIAN SPECIALIST

Group-Section: Water System Operations Group	FLSA Status: Non-Exempt Bargaining Unit: AFSCME	Salary Grade: 47 Job #: XA19
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JOB SUMMARY

This is the advanced journey level position performing Instrumentation and Control Technician Specialist job duties.

DISTINGUISHING CHARACTERISTICS

Positions at this level are recognized as technical specialist using initiative and resourcefulness in deviating from traditional methods or researching trends and patterns to develop new methods, criteria, or proposed new policies. Decisions regarding what needs to be done includes interpreting data, planning of the work, or refining the methods and techniques to be used. The work involves formulating projects; assessing program effectiveness; or analyzing variety of unusual conditions, problems, or questions. The work product or service may affect activities, or the operation of other organizations.

OVERSIGHT

Supervision Received: The supervisor sets the overall objectives and resources available. The employee and supervisor, in consultation, develop the deadlines, projects, and work to be done. At this level, the employee, having developed expertise in the line of work, is responsible for planning and carrying out the assignment; resolving most of the conflicts that arise; coordinating the work with others as necessary; and interpreting policy on own initiative in terms of established objectives. In some assignments, the employee also determines the approach to be taken and the methodology to be used. The employee keeps the supervisor informed of progress, potentially controversial matters, or far-reaching implications. Completed work is reviewed only from an overall standpoint in terms of feasibility, compatibility with other work, or effectiveness in meeting requirements or expected results.

Supervision Given: Acts as a lead. Coordinates and reviews work assignments of employees performing the same general work as the lead on a day-to-day basis. Responsibilities may involve solving problems and providing instructions on work procedures.

JOB DUTIES

1. Leads and trains; conducts skills assessment and recommends training; may develop technical training materials.
2. Evaluates and revises job plans based on manufacturer recommendations and operational experience.
3. Assists in development of predictive maintenance procedures to monitor equipment and ensure early detection of potential equipment problems.
4. Leads and coordinates installation, troubleshooting, maintenance, field testing, and adjustment of Supervisory Control and Data Acquisition systems and components including remote terminal units and programmable logic controllers.

5. Reviews studies and reports for consistency with maintenance needs.
6. Coordinates between operations, engineering, contractors, and others to facilitate project completion.
7. Coordinates, prioritizes, and may create work orders.
8. Assists in development of Capital Investment Plan project proposals.
9. Verifies quality of preventive maintenance procedures, predictive maintenance techniques, and corrective equipment repair methods.
10. Reviews equipment preventive maintenance job plans and assesses manufacturer's recommendations, standard industry practices, applicable engineering analysis, and applicable regulations to improve job plans.
11. Reviews written operating or maintenance procedures, assesses gaps between job plans and actual plans and practice, and recommends modifications.
12. Reviews plans and specifications of proposed facilities for potential impacts to maintenance or operations. Identifies and recommends modifications to existing systems and equipment.
13. Reviews as-built drawings and modifies as needed.
14. Diagnoses problems, coordinates special studies or testing with other disciplines, and coordinates and oversees testing performed on critical systems.
15. Performs rebuilding of critical components.
16. Acts as Project Manager; plans, coordinates, and conducts projects within area of responsibility, including monitoring scope, quality, budget, and schedule.
17. Performs other related Instrumentation and Control Technician job duties as required.

EMPLOYMENT STANDARDS

MINIMUM QUALIFICATIONS

Education and Experience: High school diploma or general education development test (GED), and completion of 40 semester units in electronics from an accredited college, university, vocational, or military school and five years as an Instrumentation and Control Technician III at a Metropolitan facility.

Required Knowledge of: Fundamentals of electronics; mechanical principles; water treatment processes; chemical feed and disinfection systems; Supervisory Control and Data Acquisition system; communication networks and protocols; Programmable Logic Controllers; voice and data communication system; audio and video equipment; fiber optic technology; conveyance and distribution systems; pumping and power generation systems; radio base remote monitoring and control technology; mechanical, pneumatic, and hydraulic systems; safety practices and procedures; project management; applicable federal, state, and local laws, codes, and regulations; and current office technology and equipment.

Job Title: Instrumentation and Control Technician Specialist

Job Code: XA19

Adopted: 03/11/13

Revised:

Supersedes:

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Required Skills and Abilities to: Prepare, read, and interpret plans, piping and instrumentation diagrams, blueprints, technical manuals, electrical and electronic schematics; troubleshoot; perform applicable mathematic calculations; build electronic circuitries; use applicable software applications and operating systems; calculate applicable chemical formulas; understand and comply with Metropolitan policies and standards for workplace health and safety; manage projects; prioritize; manage time; use various electronic testing equipment; use independent judgment and exercise discretion; problem solve; prioritize and multi-task; communicate clearly and concisely, both verbally and in writing; establish and maintain effective working relationships with those contacted in the course of work; work independently and in a team environment; lead and train; and operate current office equipment including computers and supporting applications.

CERTIFICATES, LICENSES, AND REGISTRATION REQUIREMENTS

Employees in this position may be required to obtain and maintain the following certifications, licensing, and registrations:

Certificates

- Forklift
- Manlift
- Instrumentation Society of America Certified Controls Systems Technician Level II
- State of California Water Treatment Operator Certification Grade II

Licenses

- Valid California Class C Driver License that allows you to drive in the course of your employment

Registrations

- None

PHYSICAL DEMANDS, WORK ENVIRONMENT, AND VISION REQUIREMENTS

The physical demands and work environment characteristics described here are representative of those that must be met or may be encountered by an employee to successfully perform the job duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the job duties.

Physical Demands: The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as personal computers and record boxes. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

Work Environment: The work involves moderate risks or discomforts that require special safety precautions, e.g., working around moving parts, carts, or machines, or irritant chemicals; etc. Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

Vision Requirements: Color vision (ability to identify and distinguish colors)