



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

ENGINEERING TECHNICIAN III

Group-Section: Various	FLSA Status: Non-Exempt Bargaining Unit: AFSCME	Salary Grade: 48 Job #: XA22A
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JOB SUMMARY

This is the journey level position performing Engineering Technician III job duties.

DISTINGUISHING CHARACTERISTICS

Positions at this level are fully competent and apply the full range of specialized skills and job knowledge in area of specialization; adapts procedures, operations, techniques, tools, materials, and equipment to meet needs of area of specialization. Uses judgment in interpreting and adapting guidelines such as policies, regulations, precedents, and work directions for application to specific cases or problems. The decision regarding what needs to be done depends upon the analysis of the subject, phase, or issues involved in each assignment, and the chosen course of action may have to be selected from many alternatives. The work involves treating a variety of conventional problems, questions, or situations in conformance with established criteria.

OVERSIGHT

Supervision Received: The supervisor makes assignments by defining objectives, priorities, and deadlines; and assists employee with unusual situations that do not have clear precedents. The employee plans and carries out the successive steps and handles problems and deviations in the work assignment in accordance with instructions, policies, previous training, or accepted practices in the occupation. Completed work is usually evaluated for technical soundness, appropriateness, and conformity to policy and requirements. The methods used in arriving at the end results are not usually reviewed in detail.

Supervision Given: May act as a lead. May coordinate and review 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

GENERAL

1. May develop technical training materials for area of responsibility.
2. Conducts analyses and investigations of technical issues, prepares reports and makes recommendations.
3. Conducts technical studies, tests, inspections, and research for area of responsibility.
4. Prepares and reviews, estimates, plans, submittals, design criteria, and specifications.
5. Develops, prepares, and delivers presentations.
6. May represent Metropolitan within area of responsibility to obtain or convey information and resolve issues.

7. May develop and administer contracts and agreements; oversees the work of vendors, consultants and contractors.
8. May serve on a project team.
9. Develops, and maintains databases within area of responsibility.
10. Develops and updates of standards, procedures, guidelines, and manuals.
11. May provide emergency response within area of responsibility.
12. May act as resident inspector within area of responsibility.
13. Performs other related Engineering Technician job duties as required.

CORROSION

1. Performs infrastructure condition assessments and implements protection measures.
2. Performs testing, evaluation, and analysis in the areas of materials performance, selection, and metallurgy for infrastructure reliability.

MAINTENANCE MANAGEMENT

1. Develops plans, conducts cost-benefit analysis, and implements standard maintenance processes, strategies, and metrics for maintenance decisions.
2. Maintains, modifies, and tests the Computerized Maintenance Management System.
3. Establishes and recommends standard frequency dates or maintenance intervals.

CONTROL SYSTEMS

1. Performs evaluation, testing, installation, and upgrades of Supervisory Control and Data Acquisition system.
2. Performs plant startup for Supervisory Control and Data Acquisition instrumentation and control.
3. Performs development, support and maintenance of Supervisory Control and Data Acquisition system software and hardware, database, graphics, and applications.
4. Performs real-time Automatic Process Control and Programmable Logic Controller development, support and maintenance.
5. May assist with research on Supervisory Control and Data Acquisition technologies.
6. Conducts factory acceptance testing and integration of new systems and hardware and software upgrades.
7. Receives, reviews, and implements Supervisory Control and Data Acquisition change requests.

8. Performs Supervisory Control and Data Acquisition system administration, security, and network support and maintenance.

CONTRACTS

1. Monitors, reviews, evaluates, and makes recommendations regarding contractor schedules, change orders, working days, claims, and disputes.
2. Evaluates monthly progress payment requests and prepares pay estimates including withholding of funds.

EMPLOYMENT STANDARDS

MINIMUM QUALIFICATIONS

Education and Experience: High school diploma or general education development test (GED), and two years of accredited college or university in engineering and six years of relevant experience, two years of which must have been at the Engineering Technician II level.

General Required Knowledge of: Practical application of engineering science and technology; arithmetic, algebra, geometry, trigonometry, and their applications; applicable federal, state and local laws, codes and regulations; design principles and techniques; project management; construction means and methods; facility planning; technical research, analysis and report preparation; applicable safety practices; and current office equipment and technology.

Corrosion Required Knowledge of: Corrosion science; corrosion control methods including coatings, material selection, and cathodic protection; waterworks corrosion issues and control methods.

Maintenance Management Required Knowledge of: Mechanical, electrical, and instrumentation maintenance practices; computerized maintenance management systems; maintenance planning practices; cost-benefit value analyses.

Control Systems Required Knowledge of: None

Contracts Required Knowledge of: Construction management and administration; cost estimating procedures; value engineering; quality assurance and quality control.

General Required Skills and Abilities to: Prepare and deliver presentations; perform calculations; apply safe work practices; analyze; train; manage projects; develop plans, specifications, drawings, and models; 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; and operate current office equipment including computers and supporting applications.

Corrosion Required Skills and Ability to: Inspect, test, and assess infrastructure and equipment to determine corrosion condition using standard methods and techniques; test and implement appropriate corrosion control methods.

Maintenance Management Required Skills and Ability to: Develop and implement maintenance plans and processes; analyze systems and processes.

Control Systems Required Skills and Ability to: None

Contracts Required Skills and Ability to: Prepare cost estimates and schedules; use project management software.

CERTIFICATIONS, LICENSES, AND REGISTRATION REQUIREMENTS

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

Certificates

- None

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 environment involves high risks with exposure to potentially dangerous situations or unusual environmental stress that require a range of safety and other precautions, e.g., irritant chemicals, electrically energized equipment including high voltage systems, working at great heights under extreme outdoor weather conditions, or similar situations where conditions cannot be controlled.

Vision Requirements: No special vision requirements.