



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

## OPERATIONS AND MAINTENANCE TECHNICIAN III WELDER/FABRICATOR (Skilled)

<b>Group-Section:</b> Water System Operations - Various	<b>FLSA Status:</b> Non-Exempt <b>Bargaining Unit:</b> AFSCME	<b>Classification:</b> Operations and Maintenance Technician <b>Salary Grade:</b> 35 <b>Job #:</b> T10A
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### **JOB SUMMARY**

Utilizes and advances skills, experience and knowledge in the practices, procedures, and methods of design and welding/fabrication including the repair of pipelines, feeders, equipment, assets, appurtenances and parts used in Metropolitan's large-scale water treatment, distribution, and hydroelectric systems, design, and performs the general and advanced practices and procedures of laying out and completing welded/fabricated equipment and parts to repair and maintain a wide variety of water utility assemblies, parts and equipment ranging from large gates, valves, pipelines, shafts, impellers and housings to structures, cabinets, vaults, catwalks, guard rails, drain covers, and similar equipment.

Builds, maintains, and improves a variety of equipment and fixtures composed of metal and metal alloys or other related materials. Supports the operational core of water and power reliability by effectively meeting or exceeding internal and external customer expectations through general and advanced welding and fabrication practices applied to creating, maintaining repairing and improving equipment and parts essential to operating and supporting systems within the conveyance and distribution system, treatment and hydroelectric plants as well as other Metropolitan facilities.

### **SUPERVISION:**

#### **Received:**

General and sometimes minimal supervision is given to ensure proper adherence to standards, procedures, rules, and practices; deviations are referred to a supervisor or lead person. Checking for quality workmanship is accomplished on a routine basis. As the employee progresses in skill, knowledge, and experience, minimal supervision may be appropriate. Direction is provided on the tasks to be undertaken with some latitude to rearrange work sequences and discriminate between established practices and/or methods. Guidance on the approach to standard circumstances, tasks and activities is provided in procedures, manuals, rules, or common craft practice. A lead person or supervisor provides guidance on the approach to tasks or activities encountered in non-standard or uncommon circumstances.

Receives oversight from the Team, Unit, Section, Assistant Group, or Group Manager.

#### **Given:**

As a lead may exercise technical and/or functional direction over assigned staff.

Specific attention is given to on-the-job training and development of O&M Technician Welder/Fabricator I and II employees, in order that those employees attain specialized knowledge and skills to advance to O&M Technician Welder/Fabricator III.

## **JOB DUTIES**

Performs welder/fabricator tasks to support the operational core of water and power through welding and fabrication practices applied to creating, maintaining, repairing and improving equipment and parts essential to operating and supporting systems within the conveyance and distribution system, treatment and hydroelectric plants as well as other Metropolitan facilities.

1. Performs general welding/fabrication techniques to accomplish PM, CM, and improvements related to the rebuilding, repair and maintenance of water conveyance, treatment and hydroelectric equipment and parts to support operational reliability and system capacity.
2. Completes general welding/fabrication in both shop and/or field environments by safely utilizing traditional hand as well as power and fabrication tools such as drill presses, metal brakes and shears, plate-forming rolls, grinders, press brakes, punch presses and other similar tools and equipment to effectively weld/fabricate components from varied materials.
3. In accordance with district required training safely and effectively operate Computerized Numerical Controlled (CNC) cutting systems to complete projects with minimal material waste.
4. Performs general welding techniques on equipment and parts using plasma arc cutting, shielded metal arc, carbon arc, gas metal arc, flux-core arc, gas tungsten arc, submerged arc and oxygen acetylene processes on a variety of both ferrous and non-ferrous metals.
5. Performs fabrication practices to effectively shape, cut, punch, drill and secure metal structures, parts, cages, pipes, steel decks, trusses, machinery foundations, brackets, hand and guardrails.
6. Performs and/or assists with improvements, PM and CM activities on a variety of welding/fabrication related components and tools to ensure equipment life and uptime, as well as quality production and reliability.
7. Operates, in conjunction with large welding and fabrication projects, necessary light equipment such as drills, saws, grinders, air compressors, trucks, overhead shop cranes and auto cranes below 5 tons, lifts or similar equipment to effectively complete work.

## **EMPLOYMENT STANDARDS**

### **MINIMUM QUALIFICATIONS**

#### **Education and Experience:**

High school diploma or GED in addition to 3 years of experience as demonstrated by practical application of general and advanced techniques and practices specific to welder/fabricator.

**OR**

High school diploma or GED and attainment of skills through a recognized welder/fabricator trade training program within a industrial environment.

**Required Knowledge of:** Employees in this title are at the skilled-level and utilize and advance skills through classroom and on-the-job training or they are obtaining the necessary experience working with journey-level Welder/Fabricators to competently demonstrate:

Theories, practices, tools and materials used for welding/fabrication related repair and improvement of water distribution, treatment and hydroelectric equipment and component parts; of and ability to understand, read and interpret blueprints, schematics and drawings of assets, equipment, and parts necessary to effectively weld, fabricate, rebuild, and repair large-scale equipment, parts, structures or component parts; the techniques used to weld and fabricate a wide variety of water utility supporting systems and equipment such as vault and cover systems, guardrails, grates, and similar equipment; of the working characteristics of metals, metallurgy and alloys pertaining to fabrication of parts and equipment. Knowledge of water distribution and treatment processes and practices to ensure compliance with public health and safety regulations; Knowledge of design and layout of complex welding and fabrication projects to ensure a high quality project or product is produced; and safety practices and regulations for operating mechanical and electrical equipment; practical application of techniques and practices specific to the welding/fabrication trades.

**Required Skills and Abilities to:** Use and maintain mechanical, CNC, pneumatic and hydraulic tools and equipment normally and traditionally used in the welding and fabrication trade in either a shop or field environment; Ability to interpret complex instructions, manuals, operating and maintenance procedures and specifications related to water utility welding and fabrication.

### **CERTIFICATES, LICENSES and REGISTRATIONS REQUIREMENTS**

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

- Valid Drivers license from state of residency equivalent to a California Class A, B, and/or C with appropriate commercial license endorsements
- Forklift Certification
- Manlift Certification
- Respirator Certification
- Welding Certification

### **PHYSICAL DEMANDS/WORK ENVIRONMENT**

#### **Expectations of Emergency and Stand-by Service:**

Employees in this position will be required to work stand-by, off-shift hours and/or report to different locations for shutdowns, emergencies or large-scale projects as needed.

#### **Physical Demands:**

Heavy tasks may require lifting and carrying items weighing up to 50 pounds, with intermittent need to lift and carry materials and/or equipment weighing up to 100 pounds with assistance. Frequently requires pushing, pulling, turning and positioning parts, assemblies, equipment and tools weighing as much as 100 pounds with assistance. May be required to lift and move heavy items with the assistance of others and with lifting devices such as jacks, hoists and cranes of varied types and capacities. Physical effort includes frequent walking, stooping, bending, reaching, standing, kneeling and sitting for long periods of time. At times may be required to use respiratory filtration devices.

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**Work Environment:**

May travel to various sites requiring overnight stay; Work is performed indoors and outdoors at large pumping, treatment, hydroelectric or control facilities or other assets under all types of conditions, including extreme temperatures, open and confined spaces ranging from crawl spaces to sub-structures as well as varied types of terrains. Job tasks may require working from heights and functioning from lifts, hoists, scaffolds, and cranes over surfaces ranging from earthen materials to concrete, steel and water. The work environment frequently involves exposure to equipment and tools producing high levels of noise, as well as potentially dangerous materials and chemicals that require careful adherence to extensive safety precautions, rules and regulations.