



# MARIN MUNICIPAL WATER DISTRICT

## Treatment Plant System Operator IV

### **DEFINITION**

Under general supervision, operates, inspects and maintains a water treatment plant and water recycling plant and control system facilities on an assigned shift; and to do related work as required.

### **DISTINGUISHING CHARACTERISTICS**

Treatment Plant System Operator IV is the advanced journey-level classification in the Treatment Plant Operator series. Individuals in this classification use a computer-based supervisory control and data acquisition system to efficiently operate and generally maintain the water supply facilities, water treatment plants and recycling plants on an assigned shift without immediate supervision. Incumbents must demonstrate the ability to independently operate all of the District's water treatment facilities. Work requires independent judgement, initiative and action within established operational parameters. Incumbents perform the more difficult duties and may have lead responsibilities over other operators.

### **EXAMPLES OF DUTIES**

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

- Operates pumps and valves to regulate the flow of water through treatment or recycling facilities; determines the rate from appropriate meters, gauges, charts and visual inspection, and coordinates the rate with demand, storage, and production from other facilities;
- performs such records and report functions as collecting, maintaining, analyzing, and interpreting computer-generated data on a log of plant operations, test results, maintenance work performed, and unusual operating conditions; makes periodic inspections and prepares reports as required;
- may drive a motor vehicle to a number of pumping stations and water distribution and treatment facilities; operates District communication equipment;
- observes pumping equipment and reports any failures or operating difficulties;
- observes condition of pumping station building, fences, reservoirs, tanks, grounds, and other facilities, and reports any maintenance needs;
- changes recording charts and assures their continuous operation;
- takes samples of water at established times, makes standardized quality control tests;
- operates a computer-controlled console to regulate the supply facilities, water treatment plants or reclamation plants;
- monitors water quality at control console and adjusts chemical feed rates and other plant equipment accordingly;
- establishes, implements, and adjusts computer scheduling programs to efficiently operate the water supply/treatment facilities;
- directs, coordinates, and communicates water supply/treatment operational changes, outages, shutdowns, limitations and information with District staff;
- monitors pressure and flow data, routine field activities, and plants and facilities security;

- responds to alarms, equipment failures, security violations, and takes necessary actions to maintain a reliable water supply;
- maintains the plant and operating equipment and facilities in a clean and orderly condition, including hosing filters and basins;
- performs routine plant maintenance, and may make minor equipment repairs or adjustments;
- shuts down portions of a plant system as necessary;
- works with hazardous chemicals in laboratory and bulk volumes;
- orders and maintains bulk chemical supplies;
- conducts tours, trains new employees and may have lead responsibility over operators of lesser certification;
- receives materials delivered and ensures that they are properly recorded, examined and stored;
- operates computerized instrumentation and equipment related to water supply/treatment facilities;
- compiles technical information and data, evaluates and takes or recommends, as appropriate, actions to improve water treatment operations and water quality within established guidelines.

### **QUALIFICATIONS FOR EMPLOYMENT**

Knowledge of:

- Operation, maintenance and cleaning of a water, and recycled water treatment plant;
- current water treatment and water recycling regulations;
- principles, methods, materials and equipment used in the safe, efficient treating, testing and production of water for domestic purposes;
- chemistry and mathematics as used in the operation of a water treatment facility;
- storing and handling of hazardous chemicals;
- standardized water quality tests;
- mechanical, electrical and hydraulic principles;
- uses and principles of computerized electronic equipment in the collection, storage and interpretation of operational data related to water treatment and water supply;
- computer inventory control for water treatment chemicals, fuel and supplies;
- routine operating report generation;
- principles and practices of servicing, repairing and calibrating water plant equipment;
- current technological developments in water treatment, and water quality.

Ability to:

- Demonstrate the ability to independently operate all of the District's water treatment facilities;
- operate a programmable controller;
- analyze and evaluate the water treatment process, including unusual, inefficient or dangerous operating conditions, and exercise independent judgment within established guidelines to make corrective changes as needed;
- read and interpret plant piping, metering gauges, recording equipment and distribution diagrams;
- perform standardized water quality tests and adjust equipment accordingly;
- operate and maintain water treatment or water recycling facility equipment;
- maintain and prepare operational and water quality records, reports, and charts;
- work cooperatively with others;
- understand and follow written and oral instructions;
- observe and accurately record operating conditions and make verbal or written reports;
- operate and routinely service computerized instrumentation and plant operational equipment;
- depending upon job assignment, drive a vehicle; and

- travel to alternative work locations and offsite meetings.

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 of experience in the operation of a water treatment plant;
- possession of a valid Grade T4 Water Treatment Plant Operator's Certificate earned through the California State Department of Health Services.

### **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 for emergency situations;
- must be willing to work any day and any shift within a 24-hour period as assigned, including holidays, weekends and overtime as needed.

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

- Possession of or the ability to obtain an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record.

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

During the course of performing job duties the employee will need the mobility to work in a standard office setting, 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 which is often performed while sitting for extended periods of time. 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 occasionally required to lift and carry short distances objects such as reams of copier paper, office supplies, files, books, printed materials and other packages or equipment weighing up to 70 pounds. This position requires that the employee demonstrate adequate hearing and speech to converse in person and over the telephone, and vision to read printed materials, distinguish color, and use a computer screen.

In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

The noise level in the work environment is quiet to moderate noise. The employee is exposed to outdoor temperature, humidity, wetness and dust. The position may require the ability to work overtime and weekends as needed.

**ADDITIONAL PHYSICAL DEMANDS**

- 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.
- Exposure to potentially hazardous materials, laboratory chemicals, solvents, microbiological pathogens, odors and fumes.

*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 2003  
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Approved by: Human Resources Manager