



POSITION DESCRIPTION

TITLE: WATER TREATMENT OPERATOR LEVELS I, II, III, AND IV
REPORTS TO: Water Treatment Facilities Supervisor/Grade V Operator
GRADE: 3, 4, 5 and 6
FLSA: Non-exempt
CONFIDENTIAL: No

SUPERVISORY RESPONSIBILITIES

DIRECT: None*

INDIRECT: None

**As a Lead, Water Treatment Operator IV provides on-site work direction and technical guidance to Water Treatment Operators I, II and III.*

MINIMUM QUALIFICATION REQUIREMENTS

Unless required by law, experience and education may be substituted for each other upon approval by the General Manager or their designee.

EDUCATION: High School diploma or equivalent; valid California driver's license and proof of insurability; Standard First Aid and CPR certifications are required.

EXPERIENCE:

Level I: Possession of a State of California Water Treatment Operator Certificate, Grade T1, and one year experience performing operations or maintenance of a water/wastewater treatment plant, or water distribution/sewer collection system; Hazardous Materials (HazMat) Operations (Level II) and State of California Water Distribution Operator Certificate, Grade D1 required.

Level II: Possession of a State of California Water Treatment Operator Certificate, Grade T2 and one year experience as, or at a level equivalent to a Water Treatment Operator I; HazMat Operations (Level II) and State of California Water Distribution Operator Certificate, Grade D2 required.

Level III *: In addition to the above, possession of a State of California Water Treatment Operator Certificate, Grade T3 and three years experience in the operation and maintenance of a water treatment plant to include PLC/SCADA (programmable logic controller/supervisory control and data acquisition) systems experience; HazMat Operations (Level II) and State of California Water Distribution Operator Certificate, Grade D2 required. Availability for Standby duty is a condition of employment. Operation of a membrane facility highly desirable.

Level IV *: In addition to the above, possession of a State of California Water Treatment Operator Certificate, Grade T4 and five years experience in the operation and maintenance of a water treatment plant to include advanced knowledge of the principles and practices of water treatment, water chemistry, regulatory compliance and reporting. HazMat Technician (Level III) and State of California Water Distribution Operator Certificate, Grade D2 required. Grade T5 Certificate required within two years of appointment. Operation of a membrane facility highly desirable.

CONTACT RESPONSIBILITY

INTERNAL: Interaction with Supervisor and peers to receive general work assignments, address

administrative issues and review results; District water operations and maintenance personnel to coordinate assignments and discuss and resolve technical issues; all other District personnel as required.

EXTERNAL: Interaction with general public to respond to questions on water quality, treatment process impacts, pressure and related matters; San Diego County Water Authority and regulatory agencies to discuss reporting and water quality issues; consultants and vendors as necessary to coordinate projects and purchase supplies; emergency service personnel as required.

PHYSICAL REQUIREMENTS

Ability to walk extended distances; climb steep stairs and ladders; may on an infrequent basis assist with lifting up to 100 pounds; ability to tolerate repeated bending and stooping; good hearing, eyesight and speech are necessary. Ability to effectively utilize a personal computer, keyboard and peripherals; ability to tolerate prolonged exposure to a computer screen.

These positions require the ability to be “on-call”, work evenings, weekends and holidays.

ENVIRONMENTAL CONDITIONS

Work is primarily performed indoors in a water treatment plant with various mechanical and electrical hazards and noise. Subject to; contact with chemicals (e.g. chlorine, ammonia, etc.), confined spaces, foul odors and hazardous materials handling. Work is occasionally performed outdoors on plant premises or accessory facilities in all types of weather. Subject to: noisy conditions, odors, contact with animals and insects, hazardous traffic conditions, confined spaces, variable weather conditions, possible exposure to heavy equipment, dust, and fumes. Wears protective clothing as required. Work is also occasionally performed in an office setting with office type of lighting and ventilation. Subject to conversational noise from other personnel within the facility; standard background noise found in an office environment; long periods of sitting; exposure to a computer screen.

DETAILED DUTIES AND RESPONSIBILITIES - ESSENTIAL FUNCTIONS

This at will position responsibilities include operating and maintaining the District’s water treatment system. This includes but is not limited to the District’s water treatment plant and ammonia feed facility systems. A working knowledge and understanding of District safety rules and regulations, as well as active participation in the District’s safety program is necessary. An ability to perform successfully within a team environment; support of the District Strategic Plan and Mission statement; and an ability to work independently with a clear understanding of goals and objectives are essential. Reliable, stable attendance and excellent verbal and written communication skills are required.

The following tasks are typical for this classification. Incumbents may not regularly perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business or staffing needs and changing business practices as defined by the General Manager.

% OF TIME				TASKS
<u>LEVEL</u>				
I	II	III	IV	
30%	25%	15%	10%	Facilities Maintenance and General Work <ul style="list-style-type: none"> Performs general cleaning of facilities, grounds and process area equipment including piping, basins and tanks; observes safe work methods and safety precautions related to the work. Receives bulk delivery of ammonia, citric acid, sodium

hydroxide, sodium bisulfite and other products.

- Provides assistance as needed for operation or maintenance activities. Uses common hand and power tools and drives motorized vehicles and equipment in the performance of the work.

45% **40%** **25%** **20%**

Preventative and Corrective Equipment Maintenance

- Coordinates and assists with the successful completion of preventative and corrective maintenance projects on all systems throughout the plant, troubleshoots problem areas utilizing appropriate resources; inspects, tests, and maintains safety equipment.
- Performs oil changes, lubrication, changes air and oil filters, calibrates and maintains water quality and instrumentation equipment.
- Troubleshoots, identifies, and repairs fiber leaks within the membrane process area equipment; performs membrane cleanings.
- Maintains chemical feed systems; calibrates pumps; performs repairs to system piping and related equipment; maintains on-site chlorine generation equipment.

15% **25%** **35%** **30%**

Operations and Laboratory Work

- Operates, monitors and controls systems via Supervisory Control and Data Acquisition (SCADA) to include energy recovery, membrane systems, clarification and dewatering systems, chemical feed and related systems equipment; coordinates plant shutdowns, startups and flow changes with the wholesale supplier and distribution Systems Operators to ensure customer demands are met and reservoir levels are maintained; conducts tours.
- Optimizes treatment plant processes to ensure regulatory compliance and water quality objectives are maintained at all times. Monitors and analyzes water quality downstream of the point of entry into the system. Coordinates with distribution Systems Operators to make chemistry changes as necessary to reduce or minimize total trihalomethanes disinfectant byproduct formation (TTHM) and maintain optimal Langlier Saturation Index and disinfectant residuals out in the system.
- Monitors membrane system performance, including membrane integrity testing (MIT), trans-membrane pressure (TMP), flow, flux and related parameters.
- Performs daily process control laboratory analyses, including turbidity, total suspended solids (TSS), pH, temperature, chlorine, fluoride, ammonia, chloramine breakdown. Collects daily, monthly, quarterly and annual samples. Assists distribution Systems Operators with system water analysis to include sample collection and laboratory testing for system nitrification and to help determine if leaks out in the service areas are from the potable treated water source.
- Performs record keeping functions such as logging plant operations data, laboratory test results, maintenance and repair work performed, and unusual operating conditions encountered; prepares routine monitoring and special reports as required; inspects plant equipment and remote facilities and reports on failures or operating difficulties.

0%	0%	15%	30%	<p>Functions as Lead Operator at the Water Treatment Plant</p> <ul style="list-style-type: none"> • Provides technical instruction, guidance, and training to Operations staff; conducts safety and technical training exercises. Develops standard operating procedures (SOPs) for systems as needed. • Prioritizes and schedules daily work assignments including preventative maintenance and corrective maintenance (PM/CM) work orders; plans and coordinates support from District staff as well as contractors for maintenance and repair activities as needed. • Generates reports for regulatory compliance, production and overall system performance.
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DETAILED DUTIES AND RESPONSIBILITIES - NON-ESSENTIAL FUNCTIONS

10%	10%	10%	10%	Performs all related duties as assigned.
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