

WATER TREATMENT PLANT OPERATOR

DEFINITION

Under general supervision, participates in the operation and maintenance of surface water treatment facilities and equipment.

SUPERVISION RECEIVED/EXERCISED

Receives supervision from a Water Manager or Designee. This classification does not exercise supervision.

DISTINGUISHING CHARACTERISTICS

This journey-level class performs technically complex work in the operation of surface water treatment facilities. Incumbents exercise independent discretion and judgment in matters related to work procedures and methods. Incumbents at this level are expected to become fully knowledgeable of the assigned area and learn the full range of maintenance and repair functions. Incumbents perform the most advanced functions related to the maintenance and repair of equipment at water treatment/production facilities. This class serves as a Shift Operator. This class may provide technical guidance to Water Treatment Plant Operators-in-Training. This class is distinguished from Senior Water Treatment Plant Operator in that incumbents of the latter provide lead direction to Water Treatment Plant Operators and Water Treatment Plant Operators-In-Training.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

May include, but are not limited to, the following:

Monitors plant performance by conducting analyses on samples from various stages in the treatment process; reads gauges, makes flow adjustments, and controls reservoir levels using SCADA computers.

Determines chemical dosage and makes adjustments to plant processes as necessary.

Performs laboratory analyses on water samples.

Operates and maintains mechanical equipment at the water treatment facilities, which includes but is not limited to the chemical feed systems, pumps, motors, and mixers.

Performs general, preventative, and repair maintenance on equipment.

Assists in bulk chemical deliveries.

Cleans and lubricates equipment.

Operates disinfection equipment and obtains samples as required.

Provides appropriate response to emergencies and spills, including hazardous materials.

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Maintains operational logs and records.

Makes visual inspections and monitors surface treatment facilities and grounds.

Assists in training and provides technical guidance to new operators and OIT's.

Receives and participates in training on laboratory procedures, plant operations, safety procedures, and emergency response.

Operates light vehicles and equipment.

Works as a shift operator.

Assists in the preparation of plant and laboratory reports.

Gives facility tours to the public and responds to inquiries regarding water quality.

Orders chemicals as needed to maintain adequate supply.

Maintains a high level of safety awareness.

Wears and uses applicable Personal Protective Equipment consistent with state mandates as required.

Performs related work as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

The occupational hazards and safety precautions related to the operation of mechanical/electrical equipment.

Water treatment plant operations and the materials, methods (basic chemistry, math and laboratory formulas), tools, and equipment used in water treatment.

Operation of pumps, motors, and appurtenances of the plant.

Applicable state and federal regulations.

Basic computer operating systems, including MS Word and MS Excel.

Safety principles and practices related to the operation of a major water treatment facility.

Principles of customer service.

Skill/Ability to:

Use tools necessary to operate and maintain plant equipment.

- Collect samples, which are representative of various plant flows and unit processes.
- Operate a motor vehicle safely.
- Follow oral and written instructions.
- Work well with others in a team environment.
- Complete work within an assigned time frame.
- Utilize a variety of hand tools in accordance with safety principles.
- Perform mechanical repairs and manual labor work in outdoor weather conditions.
- Perform math calculations related to water works.
- Interpret and maintain records of laboratory tests.

MINIMUM QUALIFICATIONS

Education:

Possession of a High School Diploma or equivalent GED completion.

Experience:

Two (2) years of full-time work experience in the testing, cleaning, maintenance, inspection, repair, installation, replacement, construction, distribution, and operation of water systems;

OR

Two (2) years of full-time work experience operating a groundwater or surface water treatment plant that shares equivalent State of California classification with the City of Fresno.

Special Requirement(s):

Possession of a valid California Class C Driver's License is required at the time of application and continued maintenance throughout the entire term of employment in this classification.

Possession of a valid Water Treatment Operator Certificate, Grade T3, from the State Water Resources Control Board is required at the time of application and continued maintenance throughout the entire term of employment in this classification.

Due to the nature of the work environment, the incumbent is required to participate in a medical monitoring program to ensure respiratory fitness for using required respiratory equipment.

PHYSICAL DEMANDS

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The physical demands described here are representative of those that are necessary to safely, effectively, and efficiently perform the essential functions of this job with or without reasonable accommodation.

This classification's physical demands involve medium work exerting up to 50 pounds of force occasionally, and/or up to 30 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Additionally, the following physical demands may be required: balancing, climbing, crawling, crouching, feeling, manual dexterity, grasping, handling, hearing, kneeling, lifting, mental acuity, pulling, pushing, reaching, repetitive motion, speaking, standing, stooping, talking, visual acuity, walking.

APPROVED: Signature on File
Director of Personnel Services

DATE: 10/20/2025

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