

SENIOR WASTEWATER TREATMENT PLANT OPERATOR

DEFINITION

Under general supervision, leads and participates in the operation of wastewater treatment plant equipment and facilities on an assigned shift.

SUPERVISION RECEIVED/EXERCISED

Receives supervision from a Wastewater Operations Supervisor. Provides lead direction to assigned staff. Exercises no supervision.

DISTINGUISHING CHARACTERISTICS

Senior Wastewater Treatment Plant Operator is the lead level class in the Wastewater Treatment Plant Operator series. An incumbent provides lead direction and participates in a range of duties including the most difficult operational work assignments requiring the application of independent judgment on an assigned shift. This class is distinguished from Wastewater Treatment Plant Specialist in that incumbents of the latter perform journey level assignments and are not assigned on-going lead responsibility. It is distinguished from the Wastewater Operations Supervisor in that incumbents of the latter are responsible for directing and coordinating the multi-shift activities of the plant's operations section. The incumbent may be assigned to work any shift, weekends and holidays.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

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

Reviews the work of subordinates to ensure accuracy and completeness.

Provides input for performance evaluations and disciplinary actions.

Provides for and participates in the training of new employees.

Provides lead direction and participates in controlling the treatment of wastewater and sludges through the operation of pumps, motors, and valves utilizing manual, automatic and programmable systems.

Provides lead direction, monitors and controls the performance of wastewater unit processes by a variety of methods, including visual observation, physical measurement, sampling, testing, data collection/analysis, and mathematical calculations in order to meet regulatory discharge requirements.

Provides lead direction and collects representative samples from various plant flows and unit processes for laboratory analysis.

Makes necessary adjustments to plant equipment by interpreting the reading of meters, gauges, and other control and measuring devices.

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Utilizes a local area computer network and distributed control system in the routine operating and monitoring of the treatment facility and the collection and maintenance of plant operational data.

May be responsible and accountable for an assigned shift or process.

Trains and instructs subordinate employees in the performance of their duties; ensures compliance with safety procedures.

Monitors and controls plant flows using related instrumentation and equipment.

Performs minor routine preventive maintenance, including lubrication of plant equipment, to maintain operating efficiency.

Maintains proper appearance and cleanliness of equipment and facilities.

Prepares and maintains records on shift activities and plant operations.

Operates other related systems such as a secondary effluent disposal and water reclamation systems.

Evaluates analysis of water, wastewater, and treatment plant products to maintain technical control over wastewater treatment processes.

Performs related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

The occupational hazards and safety precautions related to the operation of wastewater treatment plants.

The operation and maintenance of electric motors, pumps, and other mechanical/electrical equipment related to wastewater treatment.

Wastewater plant physical characteristics including location and configuration of piping and valves in order to provide more efficient operation of the facilities.

Confined space hazards, procedures, and safety requirements.

The wastewater disposal infiltration system and off-site reuse distribution.

The characteristics and safety requirements of the use of various chemicals used in the wastewater treatment industry, e.g. chlorine, ferric/ferrous chloride, polymer, etc.

Theory and operation of the various types of flow measuring equipment.

Regulatory requirements governing discharge, sludge management and disposal, air emissions from unit processes and reclamation.

The principles of chemistry as related to wastewater treatment. Wastewater process control and associated mathematical calculations.

The use of a distributed control system in the routine operating and monitoring of the treatment facility and associated report generation.

Skill/Ability to:

Lead, assign, review, train, and instruct subordinates engaged in the operation, maintenance, and preventive maintenance of wastewater treatment equipment and machinery.

Gather data, prepare reports, and maintain accurate records pertinent to a wastewater treatment plant.

Interpret and apply laboratory analyses to plant process control and overall plant operation. Perform routine wastewater and sludge analyses.

Correctly use self-contained breathing apparatus and air purifying full-face respirators.

Correctly read and interpret wastewater instruments and measuring devices.

Follow oral and written instructions and make brief reports on plant operations.

Use tools necessary to operate and maintain pumps and other plant equipment.

Collect samples which are representative of various plant flows and unit processes.

MINIMUM QUALIFICATIONS

Education:

Possession of a High School Diploma or equivalent GED Completion.

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 Wastewater Treatment Plant Operator Grade III Certificate issued by 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

PHYSICAL DEMANDS

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

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accommodation.

This classification's physical demands involve heavy work exerting up to 100 pounds of force occasionally with assistance, and/or up to 50 pounds of force frequently, and/or up to 20 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, stopping, talking, visual acuity, walking.

APPROVED: Signature on File
Director of Personnel Services

DATE: 10/20/2025

JC/TM/j1/05/30/02

TJM:scm/5/20/13

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