

WATER TREATMENT PLANT TRAINEE WATER TREATMENT PLANT OPERATOR

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

SUMMARY DESCRIPTION

Under supervision (Water Treatment Plant Trainee) or general supervision (Water Treatment Plant Operator), operates, inspects, and maintains water treatment plants and related facilities to supply, treat, store, and distribute water for a potable water distribution system; ensures the safe and efficient delivery of clean water to customers; conducts regular testing of treated water; maintains plant equipment; and maintains a variety of records and logs.

DISTINGUISHING CHARACTERISTICS

Water Treatment Plant Trainee – This is the entry level class in the Water Treatment Plant Operator series. Positions at this level are not expected to function with the same amount of program knowledge or skill level as positions allocated to the Water Treatment Plant Operator level and exercise less independent discretion and judgment in matters related to work procedures and methods. Work is typically supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As a condition of employment, incumbents must have successfully completed a course in water treatment from an accredited college or possess a Water Treatment Plant Operator Grade II Certificate as issued by the State of California by the end of probationary period (one year). Further, incumbents in this class must meet the requirements of the Water Treatment Plant Operator classification within 3 years. Upon meeting the requirements of the Water Treatment Plant Operator classification and at the discretion of higher level supervisory or management staff, the Trainee may be appointed to the position of Operator without further testing.

Water Treatment Plant Operator – This is the full journey level class in the Water Treatment Plant Operator series performing the full range of duties with only occasional instruction or assistance. Positions at this level are distinguished from the Water Treatment Plant Trainee level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Work is normally reviewed only on completion and for overall results. Positions in this class series are flexibly staffed and positions at the Water Treatment Plant Operator level are normally filled by advancement from the Water Treatment Plant Trainee level or, when hired from the outside, have prior experience and possess a Grade III Water Treatment Plant Operator certificate issued by the State of California.

REPRESENTATIVE DUTIES

The following duties are typical for this classification. Incumbents may not 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 needs and changing business practices.

1. Perform a variety of tasks associated with the daily operation of the City's water treatment plant; ensure compliance with all county, state, and federal regulations related to water quality; take immediate and appropriate actions to maintain water quality.

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2. Operate and maintain the City's water treatment plants including related subsystems and instrumentation in order to produce high quality finished water that meets state drinking water standards; monitor plant processes and functions including reading meters, gauges, graphs, and control panels; regulate flow of water through the plant.
3. Physically and/or with Supervisory and Data Acquisition (SCADA) system adjust pump settings, chemical feed settings and other equipment to maintain compliance with all county, state, and federal regulations.
4. Conduct regular testing of treated water to observe quality standards of water and instrumentation.
5. Take samples and perform laboratory tests including those for temperature, alkalinity, ph, chlorine residuals, turbidity, chloride, fluoride, sludge density, total solids, and bacteriological analysis.
6. Conduct rounds of plant operation during shift; check pumps, motors, flights, recorders, filters, analyzers, meters, piping, leaks, levels and all related equipment; make any repairs or adjustments as necessary.
7. Monitor chemical inventories; record and report needs and volumes; safely receive deliveries of chemicals; maintain log; maintain safety equipment for use with hazardous chemicals; stay up to date on hazards of chemicals handled and current methods for safe handling.
8. Conduct instrumentation and equipment installation, calibration, adjustment, and overall maintenance.
9. Monitor cameras, gate access, intrusion alarms, and alarm systems in order to ensure security of the water treatment plant and distribution system.
10. Maintain the plant and operation equipment and facilities in a clean and orderly condition; make minor repairs and adjustments to machinery, equipment and pipes, and assist in major repair work; perform maintenance of buildings and grounds and perform a variety of routine housekeeping duties.
11. Operate a variety of vehicles, tools, and equipment necessary to maintain the water treatment plant and equipment.
12. Respond to public inquiries in a courteous manner; provide information within the area of assignment; resolve complaints in an efficient and timely manner.
13. Keep and maintain maintenance and operational records and logs.
14. Attend training and safety meetings as necessary.
15. Must be able to respond to emergency call out situations and perform standby duty for emergency response on weeknights, weekends, and holidays.
16. Perform related duties as required.

QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

- Operations, services, and activities of a water treatment program.
- Principles, practices, and procedures used in the operation and maintenance of a water treatment facility and system.
- Methods, equipment, chemicals, and materials used in the treatment, storage, and distribution of water.
- Methods and techniques of reading and interpreting gauges, recording devices, and related monitoring systems.
- Basic laboratory techniques and apparatus used in making standard tests.
- Basic operation, maintenance and servicing of pumps and other plant equipment and machinery.
- Mathematical calculations used in water treatment operations.
- Safe handling procedures for water treatment chemicals.
- Operational characteristics of water treatment plant and laboratory tools and equipment.
- Occupational hazards and standard safety practices.
- Principles and procedures of record keeping.
- Office procedures, methods, and equipment including computers and applicable software applications.
- Pertinent federal, state, and local laws, codes, and regulations.

Ability to:

- Operate, monitor, and maintain a variety of water treatment plant equipment, facilities, and systems.
- Perform inspections and preventive maintenance of treatment plant facilities and equipment.
- Read and interpret gauges, meters, and other instrument readings and take effective course of action.
- Diagnose operational problems and perform effective maintenance on equipment.
- Respond to changing demands on water flow, water quality, and equipment requirements.
- Monitor and adjust plant processes.
- Collect a variety of water samples and conduct appropriate tests in accordance with state and federal regulations and requirements.
- Maintain accurate and detailed logs and records of work.
- Perform math calculations related to water works.
- Operate assigned equipment and tools in a safe and effective manner.
- Successfully operate various software programs as required using computers or other types of hand held devices.
- Take coaching, instruction, and feedback with a cooperative and positive attitude.
- Work independently in the absence of supervision.
- Understand and follow oral and written instructions.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work, including the ability to interact effectively and courteously with the public, coworkers and vendors.

Education and Experience Guidelines

Water Treatment Plant Trainee

Education/Training:

Equivalent to the completion of the twelfth grade.

Experience:

Some experience in mechanical maintenance work preferably including the operation and repair of pumps and electric motors is desirable.

License or Certificate:

Possession of, an appropriate, valid driver's license.

Possession of a valid T3 Water Treatment Plant Operator Certificate issued by the State of California, Department of Health Services within 3 years of employment.

Water Treatment Plant Operator

Education/Training:

Equivalent to completion of the twelfth grade supplemented by specialized training in water treatment operations or a related field.

Experience:

Two years of experience comparable to a Water Treatment Plant Trainee with the City of Antioch. A Bachelor's Degree in a related field may be substituted for one (1) year of experience.

License or Certificate:

Possession of a valid California Driver's License.

Possession of a valid T3 Water Treatment Plant Operator Certificate issued by the State of California, Department of Health Services.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment: Water treatment plant and field environment; exposure to noise, dust, grease, fumes, gases, potentially hazardous chemicals, electrical energy, and inclement weather conditions including wet and/or humid conditions; work around water; work on slippery surfaces; regularly work near moving mechanical parts; and work around moderately loud noise levels; incumbents may be required to work evenings, nights, and weekends.

Physical: Primary functions require sufficient physical ability and mobility to work in a water treatment plant setting; to walk, stand, and sit for prolonged periods of time; occasionally stoop, bend, kneel, crouch, crawl, climb, reach, and twist; push, pull, lift, and/or carry moderate to light amounts of weights; operate assigned equipment and vehicles; and to verbally communicate to exchange information.

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January 1984

Revised: March 2010, September 2011, September 2013

This class specification identifies the essential functions typically assigned to positions in this class. Other duties not described may be assigned to employees in order to meet changing business needs or staffing levels but will be reasonably related to an employee's position and qualifications. Other duties outside of an individual's skill level may also be assigned on a short term basis in order to provide job enrichment opportunities or to address emergency situations.