



AUGUST 2020  
FLSA: NON-EXEMPT

## WATER/WASTEWATER TREATMENT PLANTS PLANT OPERATOR I – II - III

### **DEFINITION**

Under direct (Plant Operator I) or general (Plant Operator II and III) supervision, learns and performs a variety of operations, control, and maintenance functions in support of the City's water/wastewater treatment plants, including using coagulation, flocculation, sedimentation, filtration, disinfection, and chlorination to treat water; performs routine water quality laboratory analysis and adjusts chemicals to comply with Federal, State, and local laws and regulations; operates and maintains plant equipment including pumps, motors, valves, chemical feed systems, and filters to maintain adequate production and reserves; assists with preventive maintenance and makes repairs to plant facilities and equipment; and performs other related duties, as assigned.

### **SUPERVISION RECEIVED AND EXERCISED**

#### Plant Operator I/II

Receives direct Plant Operator I and general Plant Operator II and III supervision from the Chief Plant Operator. Exercises no direct supervision over staff.

#### Plant Operator III

Exercises limited functional direction over Plant Operator I/II levels during the assigned shift.

### **CLASS CHARACTERISTICS**

*Water/Wastewater Treatment Plant Operator I* – This is the entry level class in the Water/Wastewater Treatment Plant Operator series. Positions at this level have prior experience in the operation, repair, and maintenance of machinery, pumps, or mechanical equipment, including some experience in a water/wastewater treatment plant. Positions at this level usually perform most of the duties required of the positions at the Water/Wastewater Treatment Plant Operator II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

*Water/Wastewater Treatment Plant Operator II* – This is the journey level class in the Water/Wastewater Treatment Plant Operator series. Positions at this level are distinguished from the Water/Wastewater Treatment Plant Operator I 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.

*Water/Wastewater Treatment Plant Operator III* – This is the advanced journey level class in the Water/Wastewater Treatment Plant Operator series. Positions at this level require demonstrated ability to perform the most advanced functions related to the operation, maintenance and repair duties of the facilities as well as knowledge of the full range of complex plant operations duties. Incumbents also provide technical and functional direction to lower-level staff.

Positions in the Water/Wastewater Treatment Plant Operator class series are flexibly staffed; positions at the Water/Wastewater Treatment Plant Operator II level are normally filled by advancement from the Water/Wastewater Treatment Plant Operator I level; progression to the Water/Wastewater Treatment Plant Operator II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the Water/Wastewater Treatment Plant Operator II level.

**EXAMPLES OF TYPICAL JOB FUNCTIONS** (Illustrative Only)

*Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so qualified employees can perform the essential functions of the job.*

*Positions at the Water/Wastewater Treatment Plant Operator I level may perform some of these duties and responsibilities in a learning capacity.*

- Operate SCADA (Supervisory Control and Data Acquisition) computer equipment to control and monitor flow of water and wastewater treatment and processing chemicals through the treatment plant and water and reclaimed water distribution system; monitor gauges and meters and record meter readings; maintain shift log.
- Observe variations in operating conditions; interpret computer, meter and gauge readings; check, standardize, and calibrate instruments, analyzers and chemical feed pumps; start and stop electric driven pumps and motors to control and adjust flow and treatment processes.
- Collect samples and perform routine laboratory tests and analysis; determine chemical and physical characteristics of raw, settled, filtered, and finished water and reclaimed water.
- Inspect mechanical equipment for proper working order and prepare/submit work orders for mechanic and/or electrical maintenance repairs or maintenance; perform routine maintenance work.
- Participate in preparation of reports to various external regulatory agencies, as well internal divisions and department; and participate in preparing costs estimates related to budget recommendations.
- Maintain records and documentation; responds to customer questions and complaints; and assists in oversight and training of less experienced water/wastewater treatment operators.

- Builds and maintains positive working relationships with co-workers, other City employees, and the public using principles of good customer service.
- Perform related duties as assigned.
- Subject to various shifts and duties during times of declared emergencies.

### **QUALIFICATIONS**

*Positions Water/Wastewater Plant Operator I/II/III level may exercise some of these knowledge and abilities statements in a learning capacity.*

#### **Knowledge of:**

- Operations, services, activities, and terminology of treatment programs including treatment plant processes and controls.
- Principles, practices, chemicals, and operating procedures related to the operation and maintenance of treatment plants.
- Materials, tools, equipment, and methods used in the general construction, operation, maintenance, and repair of plant facilities, systems, and equipment.
- Operating principles of plant equipment including large pumps, valves, and motors.
- Methods and techniques of reading and interpreting gauges, recording devices, and related monitoring systems.
- Maintenance and repair principles and practices including preventative maintenance procedures.
- Emergency maintenance and repair procedures related to facilities.
- Methods and techniques of conducting tests and procedures related to treatment analysis.
- Basic principles of chemistry and microbiology.
- Mathematical calculations used in treatment operations including algebraic calculations.
- Hydraulic principles.
- Pertinent federal, state, and local laws, codes, and regulations.
- Operational and safety regulations pertaining to water/wastewater treatment plant operations.
- Occupational hazards and standard safety precautions.
- Principles and procedures used in the proper handling of chemicals.
- Basic electrical principles.
- Office procedures, methods, and equipment including computers and applicable software applications.
- Basic mathematics.

- Occupational hazards and safety equipment and practices related to the work, including the handling of hazardous chemicals.
- City and mandated safety rules, regulations and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

**Ability to:**

- Follow safe work procedures.
- Operate, monitor, and maintain a variety of 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.
- Perform mechanical repairs.
- Monitor and adjust plant processes.
- Collect a variety of samples and conduct appropriate tests in accordance with state and federal regulations and requirements.
- Compile and record complex data and material.
- Maintain accurate and detailed logs and records of work and tests performed.
- Complete emergency response training and perform in emergency situations.
- Respond to emergency situations outside of normal working hours.
- Work well with others in a team environment.
- Complete work within an assigned time frame.
- Perform math calculations related to treatment processes and related testing and analysis.
- Operate assigned equipment and tools in a safe and effective manner.
- Operate office and treatment plant equipment including computers and applicable software applications.
- Work independently in the absence of supervision.
- Perform heavy manual labor.
- Maintain accurate logs, records, and basic written records of work performed.
- Understand and follow oral and written instructions.

- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

### **Education and Experience:**

*Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

#### Education:

- Water/Wastewater Treatment Plant Operator I/II/III: Equivalent to completion of the twelfth (12<sup>th</sup>) grade supplemented by college-level coursework or trade school training in water/wastewater treatment technology.

#### Experience:

- Water/Wastewater Treatment Plant Operator I: One (1) year of experience in the operation, repair, and maintenance of machinery, pumps, or mechanical equipment including one year of experience in a water/wastewater treatment plant.
- Water/Wastewater Treatment Plant Operator II: Two (2) years of experience in the operation, repair, and maintenance of machinery, pumps, or mechanical equipment including one year of experience in a water/wastewater treatment plant.
- Water/Wastewater Treatment Plant Operator III: Two (2) years of experience comparable to a Plant Operator II with the City of Angels.

### **Licenses and Certifications:**

#### Water/Wastewater Treatment Plant Operator I:

- Possession of both a Grade I Water Treatment Plant Operator Certificate and a Grade I Wastewater Treatment Plant Operator Certification issued by the California State Water Resources Control Board.
- Possession of a valid Class C driver's license.

#### Water/Wastewater Treatment Plant Operator II:

- Possession of both a Grade II Water Treatment Plant Operator Certificate and a Grade II Wastewater Treatment Plant Operator Certification issued by the California State Water Resources Control Board.
- Possession of a valid Class C driver's license.
- Basic First Aid Training, NIMS certification is desirable

Water/Wastewater Treatment Plant Operator III:

- Possession of both a Grade III Water Treatment Plant Operator and a Grade III Wastewater Treatment Plant Operator Certification issued by the California State Water Resources Control Board.
- Possession of a valid Class C driver's license.
- Basic First Aid Training, NIMS certification is desirable.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard water treatment plant and related facilities; strength, stamina, and mobility to perform light to medium physical work, to work in confined spaces, around machines and to climb and descend ladders, and operate varied hand and power tools and equipment; vision to read printed materials and a computer screen; color vision to read gauges and identify appurtenances; and hearing and speech to communicate in person and over the telephone or radio. The job involves frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 100 pounds, or heavier weights with assistance and/or with the use of proper equipment.

**ENVIRONMENTAL CONDITIONS**

Employees work partially indoors and partially outdoors and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances, odors, and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

**For positions allocated to Water/Wastewater Treatment Plant Operator III:** This Position participates in an on-call schedule for emergency response. Must be able and willing to work on weekends/holidays in case of emergency. Must live within a reasonable distance of the City which is considered being no more than a 30-minute drive under normal driving conditions.

For positions allocated to Water/Wastewater Treatment Plant Operator I/II: Position can serve in an on-call capacity for response to emergency situations as needed.