



**MARCH 2013**  
**FLSA: NON-EXEMPT**

## **SENIOR PLANT OPERATOR**

*This class specification indicates, in general terms, the type and level of work performed as well as the responsibilities of employees in this classification. The job functions described are not to be interpreted as being all-inclusive to any specific employee.*

### **DEFINITION**

Under direction, oversees and participates in the more complex and difficult work of staff responsible for operating, monitoring, and maintaining plant equipment including engines, motors, boilers, compressors, and pumps to control unit processes; ensures waste treatment plant operates within regulatory guidelines; performs adjustments and repairs to plant equipment; collects samples for laboratory testing; and performs minor maintenance such as flushing sludge lines to digesters, adding oil, and cleaning drains.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from the Operations Supervisor. Exercises technical and functional direction over and provides training to assigned staff.

### **CLASS CHARACTERISTICS**

This is the senior journey-level class in the plant operator series. Incumbents oversee the day-to-day work of staff in assigned areas of responsibility, and ensure that equipment, systems, and facilities in District wastewater treatment plants are operated and maintained in a safe and efficient manner. Responsibilities include inspecting and attending to assigned areas in a timely manner, and performing a wide variety of tasks in the operation, maintenance, and repair of assigned facilities and systems. Within the requirements of a 24/7 operation, this class, as with the Lead Plant Operator, may be responsible for planning, organizing, and overseeing assigned operations functions of an assigned shift and/or area of responsibility within the plant.

### **EXAMPLES OF ESSENTIAL JOB FUNCTIONS**

The following essential job functions are typical for this classification. Incumbents may not perform all of the listed job functions and/or may be required to perform additional or different job functions from those set forth below to address business needs and changing business practices.

- Provide technical direction and training to employees involved in the operation and control of wastewater through the treatment plant; work with supervisors to formulate work plans; delegate tasks to be performed and monitor performance.
- Participate in overseeing the operations of an assigned area; perform assigned rounds including adjusting process controls to daily required parameters, inspecting, monitoring and documenting plant operations by reading plant equipment gauges, dials, graphs and other instrumentation; ensure that the waste treatment plant operates within regulatory guidelines.
- Participate in the development of goals and objectives for wastewater treatment operation activities; gather and analyze data; develop a variety of reports.
- Oversee and participate in the operation of plant equipment including engines, motors, boilers, compressors, conveyers and pumps to control unit processes such as raw sludge pumps and primary clarifiers, digesters, belt presses, activated sludge, dissolved air flotation, scrubbers, prime movers

and pumping facilities regulating the flow of wastewater through the treatment plant; ensure compliance with all local, state, and federal laws, rules, and regulations.

- Ensure compliance with all local, state, and federal laws, rules, and regulations.
- Oversee and participate in the monitoring and controlling of wastewater flow and plant processes to ensure efficient and safe operation and compliance with permit requirements; perform sight and sound inspections of equipment; take readings of meters and gauges; collect wastewater and sludge samples to perform lab tests; adjust processes within authorized parameters, including plant flow, sludge pumping cycles and chemical addition units.
- Maintain equipment or working area by cleaning pump rooms, dewatering area, tunnels and general facilities.
- Perform minor operational tasks on equipment such as flushing sludge lines to digesters, adding oil, flushing y-screens and clearing drains; reports malfunctions to appropriate department; perform emergency repair work on plant operation equipment, as directed, or assist other divisions with repairs.
- Assist supervisors in planning and overseeing the operation of various maintenance and construction projects; respond to maintenance and construction requests to facilitate process operation equipment by performing isolations, shut-downs, tag-outs and start-ups of plant operation equipment before and after testing, maintenance and emergency repairs are performed.
- Record data related to plant operation processes, including digester temperatures, sludge density, blanket levels and dissolved oxygen reading; complete daily operating logs of routine and unusual operating or maintenance conditions encountered and any repair work performed; initiate work orders, memos and requests for maintenance repairs as necessary.
- Read and review a variety of pertinent data connected with plant operations including logs of previous shifts, lab reports, emails, status boards and bulletin boards.
- Determine chemical ordering levels and inventory requirements; receive and store chemicals, equipment, and parts necessary for plant operations; may be trained to operate shop mule, forklift or stationary crane to move materials, supplies and equipment.
- Oversee and participate in general plant maintenance including cleaning, rolling of hoses, sweeping and removal of trash and debris; maintain work area to ensure safety and order.
- Maintain, compile, and update a variety of plant operations logs, reports and lists including round sheets, spreadsheets, monthly summaries, data sheets, timesheets, overtime reports, spill reports, odor complaint reports, standby lists, emergency notification lists, shutdown lists, and equipment lists; gather data for Monthly Summary of Operations and submit to supervisor.
- Maintain security of plant facilities.
- Attend meetings and trainings as necessary; maintain current knowledge and understanding of treatment plant processes.
- Provide technical direction to less experienced Plant Operators and may provide supervision in absence of Operations Supervisors, if qualified.
- Operate a variety of equipment and tools necessary to maintain the wastewater treatment plant system and equipment.
- Perform related duties as required.

## **QUALIFICATIONS**

### **Knowledge of:**

- Operations, services, and activities of a wastewater treatment program.
- Advanced principles, practices, materials, chemicals, and operating procedures related to the operation and maintenance of a wastewater treatment plant.
- Advanced operating principles of plant equipment such as valves, pumps, and motors.
- Advanced methods and techniques of reading and interpreting gauges, recording devices, and related system monitors.
- Advanced methods and techniques of conducting laboratory tests and procedures related to

- wastewater treatment analysis.
- Advanced methods and techniques of preventive maintenance.
- Tools, equipment and procedures used in the operation and maintenance of wastewater treatment plant facilities.
- Emergency maintenance and repair procedures related to wastewater treatment facilities.
- Operational and safety regulations pertaining to wastewater treatment plant operations.
- Advanced principles and procedures used in the proper handling of chemicals.
- Advanced principles of chemistry, biology, and mathematics.
- Principles and practices of record keeping.
- Confined space entry requiring the use and operation of Self Contained Breathing Apparatus (SCBA).
- Principle of training.
- Occupational hazards and standard safety precautions.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Modern office practices, methods, and computer equipment and applications related to the work, including word processing, database, and spreadsheet applications.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

**Ability to:**

- Plan, schedule, assign, and oversee activities of wastewater plant operations personnel.
- Train lower level plant operations staff.
- Inspect the work of others and maintain established quality control standards.
- Operate, monitor, and maintain a variety of wastewater treatment plant equipment, facilities, and systems.
- Read and interpret gauges, recording devices, and related monitors.
- Collect a variety of wastewater samples and conduct appropriate tests in accordance with State and Federal regulations and requirements.
- Diagnose complex operational problems and perform effective maintenance on equipment.
- Perform complex inspections and preventive maintenance of treatment plant facilities and equipment.
- Monitor and adjust plant processes.
- Write detailed outage and LOTO procedures.
- Enter confined space requiring the use and operation of Self Contained Breathing Apparatus (SCBA).
- Ensure compliance with permit regulations.
- Compile and record complex data and material.
- Make accurate arithmetic calculations.
- Read and interpret construction drawings and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, and equipment required for the work.
- Maintain accurate and detailed logs and records of work and laboratory tests performed.
- Operate assigned equipment and tools in a safe and effective manner.
- Operate office equipment including computers and applicable software applications.
- Work independently in the absence of supervision.
- Understand and follow oral and written instructions.
- Interpret, apply, explain, and ensure compliance with Federal, State, and local policies, procedures, laws, rules, and regulations.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software programs.
- Use English effectively to communicate in person, over the telephone, and in writing.

- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Employment Standards:**

Any combination of education and experience that provides the required knowledge, skills, and abilities may be qualifying as determined by OCSD.

1. High school diploma or equivalent supplemented by specialized training in wastewater treatment plant operations or a related field; AND
2. Three (3) years of experience in wastewater treatment plant operations including at least two (2) years of experience at a level comparable to a Plant Operator with the District.

**License or Certificate:**

- Possession of a valid Grade III California Wastewater Treatment Plant Operator's Certificate.
- Possession of a valid California class C driver's license.

**Disaster Service Workers:**

All Orange County Sanitation District employees are designated Disaster Service Workers through state law (California Government Code Section 3100-3109). Employment with the Orange County Sanitation District requires the affirmation of a loyalty oath to this effect. Employees are required to complete all related training as assigned, and to return to work as ordered in the event of an emergency.

**PHYSICAL DEMANDS**

Must possess mobility to work in the plant; strength, stamina and mobility to perform medium to heavy physical work, to work in confined spaces, around machines and to climb and descend ladders, and operate varied hand and power tools and construction equipment; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. The job involves fieldwork requiring 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 a minimum of 40 pounds, or heavier weights with the use of proper equipment.

**ENVIRONMENTAL ELEMENTS**

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