

City of South San Francisco  
Human Resources Department

**Lead Plant Operator**  
Class Description

**Definition**

Under direction, organizes, assigns, and reviews the work of assigned personnel engaged in semi-skilled and skilled tasks associated with the operation and maintenance of the water quality control plant and related facilities on an assigned shift; performs duties requiring specialized knowledge; provides administrative support to an assigned supervisor; and performs related work as required.

**Distinguishing Characteristics**

This is the advanced journey level position in the Plant Operator series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, and by the amount of time performing the more complex duties. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including providing technical and functional supervision over assigned personnel. Positions in this class are required to have complete working knowledge of water quality control plant operations and are expected to carry out assigned duties and responsibilities.

**Typical and Important Duties**

1. During the absence of the Chief Plant Operator, serves as the “designated operator-in-charge” pursuant to Title 23, Division 3, Chapter 26, Section 3680(b) of the California Water Code.
2. Plans, prioritizes, and reviews the work of staff assigned to operate the water pollution control plant and related facilities and equipment.
3. Develops schedules and methods to accomplish assignments ensuring work is completed in a timely and efficient manner.
4. Participates in evaluating the activities of staff, recommending improvements and modifications.
5. Provides and coordinates staff training; works with employees to correct deficiencies.
6. Directs the day-to-day shift operations of the water quality control plant.
7. Reads meters, gauges, charts and instruments associated with the monitoring of operations; ensures proper processing of wastewater to meet local, State and Federal regulations; makes adjustments to treatment processes necessary to ensure proper wastewater standards.
8. Inspects plant equipment and reports any failures or operating difficulties; stops and starts equipment as required for repairs; operates, adjusts, and maintains equipment to ensure compliance with established standards; troubleshoots electrical system problems and makes minor repairs and/or modifications.
9. Programs and calibrates SCADA operation systems and associated instrumentation as necessary for the effective monitoring of wastewater treatment processes.
10. Requisitions bulk chemicals to maintain adequate inventory levels.

11. Monitors, operates, and adjust controls on plant equipment and machinery, such as valves, motors, pumps, filters, chemical feeders, adjusters, and clarifiers.
12. Monitors, interprets and records information taken from gauges, dials, and other instruments.
13. Collects samples of wastewater and other materials; runs laboratory tests and identifies and implements process control changes.
14. Inspects plant equipment and facilities to ensure proper operation; performs the more complex troubleshooting and maintenance of equipment and processes and takes or recommends corrective action. Performs minor mechanical repair to a variety of plant equipment including pumps, compressors, motors, and related apparatus; provides preventative maintenance to equipment..
15. Performs record keeping functions such as logging plant operations, test results, maintenance work performed and unusual operating conditions; prepares, maintains and submits a variety of records and report.
16. Generates and reviews Standard Operating Procedures for plant and pump stations.
17. Responds to plant hazardous material spills, leaks, and emergencies.
18. Receives and supervises the safe delivery and handling of chemicals.
19. Performs work in confined spaces.
20. Interprets laboratory data and initiates process control strategies as needed.
21. Ensures that required log entries made related to plant performance and status are complete and accurate during assigned shift.
22. Builds and maintains positive working relationships with co-workers, other City employees and the public using principles of good customer service.
23. Performs related duties and responsibilities as assigned.

### **Job-related Qualifications**

#### *Knowledge of:*

- Principles and practices of technical and functional supervision and training.
- Water quality control plant operations.
- Operating principles and procedures of valves, pumps, and motors.
- Mechanical, electrical and hydraulic principles and practices as they apply to a water quality control plant.
- Advanced methods of troubleshooting operational issues related to water quality control processes.
- Local, State and Federal regulatory requirements.
- Laboratory analysis procedures.
- Safety principles, practices, regulations, and procedures related to the work, including OSHA regulations.
- Appropriate emergency response.
- Confined space entry and rescue requirements.
- English usage, spelling, grammar, and punctuation used in report writing.
- Safety principles, practices, regulations, and procedures related to the work, including OSHA regulations.

- Principles and practices of customer service.
- Modern office equipment, methods, procedures, and computer hardware and software.

*Ability to:*

- Provide technical and functional supervision over assigned staff; effectively train staff.
- Perform the most complex duties related to the operation of the water pollution control plant and related facilities and equipment.
- Independently operate the water quality control plant on an assigned shift.
- Troubleshoot and resolve routine maintenance issues associated with water quality control equipment.
- Direct and make operating adjustments to water quality control equipment to ensure compliance with local, State and Federal regulations.
- Understand basic physics and chemistry to predict changing plant dynamics.
- Recognize and resolve unusual, inefficient or dangerous operating conditions.
- Read and interpret plant piping and distribution diagrams and schematics.
- Collect, preserve and interpret samples.
- Perform minor repairs to plant equipment and facilities.
- Inspect work in progress and upon completion.
- Detect and analyze malfunctions in plant operating machinery and equipment, and make or take the necessary steps for adjustment.
- Ensure the accurate maintenance of plant operations records.
- Safely handle chemicals and other materials.
- Make process improvement changes to streamline procedures.
- Administer first aid.
- Observe proper safety precautions and procedures.
- Take a proactive approach to customer service issues.
- Understand and carry out oral and written directions.
- Work in a safe manner, following City safety practices and procedures; safely handle hazardous materials; identify, correct, and report safety hazards; and administer first aid.
- Organize own work, set priorities, meet critical deadlines, and follow-up on assignments with minimal supervision.
- Communicate effectively in writing and orally, and with others to assimilate, understand and convey information, in a manner consistent with job functions.
- Establish and maintain cooperative working relationships with those contacted in the course of work.
- Maintain confidentiality regarding sensitive information.

*Skill in:*

- Using tools and instruments properly and safely.
- Operating light power-driven equipment.
- Driving a truck and forklift safely and competently.
- Operating a personal computer and a variety of software applications, including SCADA software, and preventative maintenance programs.

### **Experience and Training**

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

*Experience:* Four years of progressively responsible experience comparable to a Plant Operator II with the City of South San Francisco.

*Training:* Equivalent to graduation from high school.

### **Licenses and Certificates**

All licenses and certificates must be maintained as a condition of employment.

- Possession of, or ability to obtain, and maintain an appropriate, valid California driver's license and a satisfactory driving record.
- Possession and maintenance of a California Wastewater Treatment Plant Operator Grade III Certification issued by the State Water Resources Control Board.
- Possession of, or ability to obtain and maintain, a Confined Space Certification by the end of probationary period.
- Possession of, or ability to obtain and maintain, a Forklift operator's certification by the end of probationary period.
- Ability to obtain and maintain CPR/First Aid certification.
- Ability to obtain and maintain a Hazardous Materials First Responder Certification by the end of probationary period.

### **Special Requirements**

Essential duties require the following physical skills and work environment:

*Physical Skills:* Able to sit, stand, walk, kneel, crouch, stoop, squat, crawl, twist, and climb stairs and ladders; lift and carry 75 pounds; perform simple and power grasping, pushing, pulling, and fine manipulation; maintain sustained posture for prolonged periods of time; distinguish among various colors; distinguish various computer generated auditory signals; use common hand tools; vision to read printed materials and a computer screen; hearing and speech to communicate in person and over the telephone; smell to distinguish odors.

*Work Environment:* Work in a standard office, shop, or field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards, and bio-hazards.

*Ability to:* Travel to different sites and locations; drive safely to different sites and locations; maintain a safe driving record; maintain a clean and neat appearance; work shifts including weekends, nights, and holidays; work protracted and irregular hours; respond to a pager; take 24-hour call and stand-by; available for unusual hours in emergencies.

Approved: September 2013  
Revised Date: September 2009  
Former Titles: Lead Plant Operator – Assignment  
Abolished:  
Bargaining Unit: Operating Engineers  
ADA Review: August 2009, September 2013  
DOT: No  
Physical: Class 2  
Status: Classified/Non-Exempt  
EEOC Category: EF13/EJ7  
Job Code: D190

**ADA Documentation of Essential Duties**

1. SDE
2. SDE
3. SDE
4. SDE
5. SDE
6. SDE
7. SDE
8. SDE
9. OAE
10. MAE
11. SDE
12. SDE
13. SDE
14. SDE
15. MME
16. SDE
17. SDE
18. OAE
19. MAE
20. OAE
21. MAE
22. SDE
23. SDE
24. SAE