

City of South San Francisco  
Human Resources Department

**Plant Operator II**  
Class Description

**Definition**

Under general supervision, performs a variety of semi-skilled and skilled tasks associated with the operation and maintenance of the water quality control plant and related facilities on an assigned shift; monitors treatment plant system operations and responds to alarms; collects and analyzes water samples; maintains and submits a variety of State documents and reports; and performs related work as required.

**Distinguishing Characteristics**

This class is a journey level within the Plant Operator series. Employees within this class are distinguished from the Plant Operator I by the performance of the full range of duties as assigned. Positions assigned to 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 with minimal supervision. Employees 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.

**Typical and Important Duties**

1. 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.
2. 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.
3. Monitors, operates, and adjusts controls on plant equipment and machinery, such as valves, motors, pumps, filters, chemical feeders, adjusters, and clarifiers.
4. Collects samples of wastewater and other materials; runs laboratory tests and identifies and implements process control changes.
5. Calibrates and utilizes a variety of laboratory equipment.
6. 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 reports.
7. Regulates pressure and flow rates.
8. Reads and records information taken from gauges, dials, and other instruments.
9. Services, oils, greases, and cares for plant equipment; cleans, adjusts, and packs valves and pumps.
10. Inspects plant equipment and facilities to ensure proper operation.
11. Removes, installs, and performs minor mechanical repair to a variety of plant equipment

including pumps, compressors, motors, and related apparatus.

12. Responds to plant hazardous material spills, leaks, and emergencies.
13. Receives and supervises the safe delivery and handling of chemicals.
14. Performs work in confined spaces.
15. Assists in the preparation and maintenance of Standard Operating Procedures.
16. Performs general plant maintenance, such as sweeping, cleaning, sanding, and painting.
17. Builds and maintains positive working relationships with co-workers, other City employees and the public using principles of good customer service.
18. Performs related duties and responsibilities as assigned.

### **Job-related Qualifications**

#### **Knowledge of:**

- 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.
- Methods of troubleshooting operational and/or mechanical issues related to water quality control processes.
- Local, State and Federal regulatory requirements.
- Basic chemistry.
- Basic laboratory analysis procedures.
- Arithmetic calculations.
- 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:**

- Independently operate the water quality control plant on an assigned shift.
- Independently troubleshoot and resolve operations issues.
- Troubleshoot and resolve routine maintenance issues associated with water quality control equipment.
- 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 unusual, inefficient or dangerous operating conditions and take appropriate action.
- Read and interpret plant piping and distribution diagrams and schematics.
- Collect, preserve and interpret samples.
- Read and interpret gauges and recording devices and keep accurate plant operations

records.

- Calibrate and accurately operate laboratory equipment in the analysis of water samples.
- Work 12-hour shifts within a 24-hour schedule with rotating days off. Understand and carry out oral and written directions.
- Make process improvement changes to streamline procedures.
- 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.

### **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:

Two years of experience comparable to a Plant Operator I 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 II Certification issued by the State Water Resources Control Board.
- Possession of, or ability to obtain and maintain, a Forklift Operator's certification by the end of the probationary period.
- Possession of, or ability to obtain and maintain, a Confined Space Certification by the end

of the 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 the 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.

### **Additional Information:**

- Approved: September 2013
- Revised Date: July 1995, May 2001, January 2003, June 2003
- Abolished:
- Former Titles: Plant Operator
- Bargaining Unit: Operating Engineers
- DOT: Yes
- Status: Classified/Non-exempt
- Job Code: D150