

City of South San Francisco
Human Resources Department

Plant Mechanic I
Class Description

Definition

Under close supervision, learns to perform a variety of semi-skilled and skilled tasks associated with the maintenance and repair of water quality control plant and pump station equipment, machinery, and facilities; and performs related work as required.

Distinguishing Characteristics

This class represents the entry level for the Plant Mechanic series where incumbents may be assigned increasingly responsible duties with the expectation of eventually promoting to the journey level class of Plant Mechanic II. This class is distinguished from the Plant Mechanic II by the performance of the more routine tasks and duties assigned to positions. Since this class is typically used as a training class, employees may have limited or no directly related work experience.

Typical and Important Duties

1. Learn to inspect, locate, and diagnose mechanical defects in water quality control plant equipment and facilities.
2. Learns to install and service a variety of equipment, including pumps, pipelines, valves, and other types of stationary machinery, and equipment; assists with the more complex installation, servicing, rebuilding, replacement and maintenance of equipment.
3. Learns to perform predictive, preventative and emergency maintenance on pumps, motors and related equipment; maintains appropriate records and documentation of repairs.
4. Identifies and mitigates unsafe work environment and maintains safe work practices such as “lockout/tag-out”, confined space entry, and fall protection.
5. Cleans and lubricates pumps, motors, and related equipment.
6. Repairs and replaces pipes, valves, fittings, and other related-plumbing equipment; cleans out pipes and performs other plumbing and pipe fitting tasks as required.
7. Assists in fabricating, assembling and installing special structures and equipment as needed.
8. Uses a variety of mechanic’s tools, welders, plumbing tools, and machinist tools to fabricate, rebuild, strengthen, and maintain various plant parts and pieces.
9. Works in confined spaces and at elevated locations.
10. Loads and unloads chemicals.
11. Assists in minor construction, painting, and rough carpentry.
12. Communicates to operations staff the status of repairs and maintenance to equipment.
13. Builds and maintains positive working relationships with co-workers, other City employees and the public using principles of good customer service.
14. Performs related duties and responsibilities as assigned.

Job-related and Qualifications

Knowledge of:

- Basic practices of repairing and maintaining electrical and gas motors, engines and pumps and other electrical and mechanical equipment associated with wastewater treatment.
- Safe use and care of various materials, lubricants, supplies, and tools used in general repair and preventative maintenance work.
- Water quality control plant maintenance, repair, and construction operations.
- Operating principles and procedures of valves, pumps, and motors.
- Basic record keeping procedures.
- Basic welding practices.
- Basic electrical systems and troubleshooting practices.
- Basic knowledge of local, State and Federal wastewater regulations and requirements.
- Basic knowledge of wastewater treatment processes.
- Basic mathematics.
- 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.
- Basic office equipment, methods, procedures, and computer hardware and software.

Ability to:

- Learn to effectively and safely perform a variety of semi-skilled and skilled tasks in the construction, repair, and maintenance of water quality control plant and pump station facilities.
- Accurately perform basic mathematic calculations.
- Demonstrate mechanical aptitude.
- Perform minor repairs to plant equipment and facilities.
- Keep accurate plant maintenance records.
- Make process improvement changes to streamline procedures.
- Safely use and maintain a variety of hand and power tools, and operate light motorized equipment and vehicles.
- Administer CPR and first aid.
- Understand and carry out oral and written directions.
- 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.
- Performing heavy manual labor.
- 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:

One year of experience performing duties involving the maintenance of mechanical equipment at a water quality control plant or similar position in a related facility.

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.
- Ability to obtain and maintain a Grade I Mechanical Technologist Certificate issued by the California Water Environment Association 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.
- Possession of, or ability to obtain and maintain, a Forklift 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, plant 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, July 2001, January 2003, June 2003
- Former Titles: Maintenance Worker II-WQCP, Assistant Plant Mechanic
- Abolished:
- Bargaining Unit: Operating Engineers
- DOT: No
- Status: Classified/Non-exempt
- Job Code: D130