

City of South San Francisco
Human Resources Department

Lead Plant Mechanic
Class Description

Definition

Under direction, organizes, assigns, and reviews the work of assigned personnel engaged in semi-skilled and skilled tasks associated with the maintenance and repair of water quality control plant and pumping station equipment, machinery, and facilities; 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 Mechanic 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 maintenance and are expected to carry out assigned duties and responsibility.

Typical and Important Duties

1. Plans, prioritizes, and reviews the work of staff assigned to install, maintain, and repair water quality control plant equipment, pump stations, and associated facilities and grounds.
2. Develops schedules and methods to accomplish assignments ensuring work is completed in a timely and efficient manner.
3. Participates in evaluating the activities of staff, recommending improvements and modifications.
4. Provides and coordinates training; works with employees to correct deficiencies.
5. Prioritizes and assigns work orders to staff for the maintenance and repair of the water pollution control plant, pump stations, and related equipment; reviews and processes completed work orders.
6. Researches new products and methods of repair; contacts vendors to determine best methods and configuration of equipment; reviews cost, capacity, and maintenance requirements of equipment; and maintains inventory.
7. Assists in the development and maintenance of a comprehensive preventative maintenance plan.
8. Develops and implements plant and pump station reliability programs.
9. Coordinates with and oversees the work of outside contractors ensuring the completion of work for consistency with City standards.
10. Provides design input on upgrade and refurbishment projects for treatment plant and pump stations.
11. Inspects, locates, and diagnoses the more complex mechanical defects in water quality

- control plant equipment and facilities.
12. Installs and services a variety of water quality control plant equipment including pumps, pipelines, valves and other types of stationary machinery and equipment.
 13. Performs predictive, preventative and emergency maintenance on pumps, motors and related equipment; maintains appropriate records and documentation of repairs.
 14. Identifies and mitigates unsafe work environment and maintains safe work practices such as “lockout/tag-out”, confined space entry, and fall protection.
 15. Assists in the implementation of safety and training programs; conducts safety tailgate sessions; reports observed safety hazards or exposures.
 16. Builds and maintains positive working relationships with co-workers, other City employees and the public using principles of good customer service.
 17. Performs related duties and responsibilities as assigned.

Job-related Qualifications

Knowledge of:

- Principles and practices of technical and functional supervision and training.
- Practices of repairing and maintaining electrical and gas motors, engines and pumps and other electrical and mechanical equipment associated with wastewater treatment.
- Methods, tools, equipment and troubleshooting practices used in mechanical and electrical maintenance and repair of a water quality control plant.
- Methods of developing and implementing preventative maintenance programs utilized in water quality control plant.
- Operating principles and procedures of valves, pumps, and motors.
- Recordkeeping procedures.
- Welding practices.
- Basic design principles.
- Local, State and Federal wastewater regulations and requirements.
- 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.
- Produce Standard Operating Procedures related to the correct operation of plant equipment and pump stations.

- Detect and take appropriate action to correct mechanical and electrical faults and failures.
- Read and interpret drawings, plans and sketches.
- Perform a wide variety of skilled mechanical and electrical tasks.
- Align rotary equipment.
- Use required tools and equipment skillfully and safely.
- Keep accurate records and prepare work and time reports.
- Interpret and work from sketches, blueprints, and shop manuals. Understand and carry out oral and written directions.
- Read and interpret gauges, recording devices, and instrumentation.
- 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.
- Performing heavy manual labor.
- 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 experience comparable to a Plant Mechanic II with the City of South San Francisco.

Training:

Equivalent to graduation from high school, supplemented by completion of mechanical coursework or an applicable apprenticeship program.

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 Grade II Mechanical or Electrical and Instrumentation Technologist Certificate issued by the California Water Environment Association, and a Grade III within two years of employment.
- 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.

Additional Information:

- Approved: September 2013
- Revised Date: June 1997, November 1998, December 1998, June 2000, July 2001, January 2003, June 2003, March 2023
- Former Titles: Lead Maintenance Worker-WQCP, Lead WQCP Mechanic
- Abolished:
- Bargaining Unit: Operating Engineers

- DOT: No
- Status: Classified/Non-exempt
- Job Code: D180