

PLANT MAINTENANCE SPECIALIST I/II

DEFINITION

Under general direction, performs a variety of work up to the full range of work in the operation and maintenance of a continuously-operating Membrane Bio Reactor Water Recycling Facility and related facilities; provides input and direction in the maintenance and repair activities of all plant equipment and systems, including but not limited to mechanical, electrical, plumbing, painting, carpentry, welding, fencing, and grounds work assignments in the installation, alteration, and repair of treatment and pumping plant equipment and facilities; and performs other duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

General supervision is given by the Plant Manager. Additional direction may be provided by the Lead Plant Operator. Lead direction, technical direction, and training are provided to less experienced staff in regard to complex maintenance and repair activities.

CLASS CHARACTERISTICS

Plant Maintenance Specialist I/II is a flexibly-staffed class series. Positions are normally filled at the I level. Advancement from the I to II level is at the discretion of the General Manager provided that the following criteria are met: (1) the minimum qualifications including education, experience, license, and certification, (2) demonstration of the ability to independently perform the full scope of the assigned duties.

Plant Maintenance Specialist I is the entry level class of the Plant Maintenance Specialist Series. Initially, under close supervision, incumbents perform the more routine plant maintenance duties and learn to handle a variety of the more difficult and complex work. As experience is gained, there is greater independence of action within established guidelines and incumbents are expected to perform a broader scope of duties and handle the more complex work.

Plant Maintenance Specialist II is the skilled, journey-level class in the Plant Maintenance Specialist Series, fully competent to independently perform the full range of plant maintenance duties. Incumbents are expected to work more independently, to exercise a greater degree of discretion in the execution of duties, and to perform the more complex and difficult work on plant equipment and systems.

The Plant Maintenance Specialist class differs from the Plant Operator class in that the primary focus of the latter is on the plant operations versus the plant maintenance. The Plant Maintenance Specialist class will provide work instruction, guidance, and oversight to the Plant Operator class in regard to maintenance activities. The work of the Plant Maintenance Specialist Series involves the more complex plant maintenance and repair of mechanical, electrical, instrumentation, and analytical equipment; as well as performing work in all plant operations and maintenance areas including maintaining the Computerized Maintenance Management System (CMMS).

EXAMPLES OF DUTIES (Illustrative Only)

Plant Maintenance Specialist I duties are performed at the entry level and handle the more routine work; Plant Maintenance Specialist II - duties are performed at the skilled journey level and handle the more complex and difficult work:

- Installs, modifies and repairs wastewater mechanical treatment and pumping plant equipment and facilities.
- Assists in developing specifications for contract plant installation, maintenance and repair activities; manages contract work as assigned and inspects the work of contractors in progress and upon completion.
- Installs and modifies electrical systems used to monitor and control plant processes and equipment up to 600V.
- Troubleshoots, repairs and maintains electrical systems that include a variety of equipment and circuitries such as generators, motors, controllers, variable speed drives, laboratory equipment, and lighting.
- Troubleshoots, repairs and maintains mechanical and electrical equipment; estimates materials and supplies required and performs skilled repair work.
- Cleans, services, and paints equipment, machinery, structures, pipelines and related appurtenances.
- Uses gas or arc welding equipment to cut, heat, weld or braze.
- Confers with operations staff to determine equipment problems; suggests methods of minimizing such problems in an operational setting.
- Reads and interprets specifications, diagrams, manuals and other documentation.
- Maintains accurate records and files of work performed and materials and supplies used.
- Operates heavy equipment including forklift, overhead cranes and hoists.
- Performs confined space entry.
- May direct the work of others on a project basis; instructs less experienced staff in work and safety procedures.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Basic techniques of project management and monitoring.
- Methods, tools and testing equipment used in the installation, maintenance, calibration, and repair of electrical, electronic and mechanical equipment used in wastewater treatment and pumping facilities, including radios, telemetry equipment and communications equipment.
- Elements of the National Electrical Code.
- Techniques for troubleshooting complex equipment problems and estimating time, equipment, and materials to effect repairs.
- Telemetry systems and related equipment.
- SCADA and computer applications related to the work.
- Principles and practices of welding.
- General principles and practices of wastewater treatment.
- Occupational hazards and safety precautions related to job assignments.
- Practices of record keeping and standard operating guidelines.
- Basic supervisory principles and practices, including instructing staff in work procedures.
- Techniques for providing a high level of customer service to public and District staff, in person and over the telephone.

Skill in:

- Performing safe and efficient journey-level work in the implementation of a comprehensive preventive maintenance and repair program for equipment and structures such as found in a wastewater treatment plant and related facilities.
- Interpreting electrical and mechanical diagrams, blueprints and electronic schematic diagrams.
- Troubleshooting and repairing complex equipment problems and determining time, materials and supply requirements.
- Making accurate mathematical calculations.
- Communicating effectively both orally and in writing.
- Exercising independent judgment and working without direct supervision.
- Maintaining accurate records of work performed.
- Performing basic project management and instructing staff in work and safety procedures.
- Establishing and maintaining effective working relationships with those contacted in the course of work.

Education and Experience:

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

Plant Maintenance Specialist I

Equivalent to graduation from high school and two years of experience in the maintenance and repair of electrical, electronic, mechanical equipment, instrumentation and communication systems such as found in a wastewater treatment plant; OR an AA degree in a related field and one year of related experience; OR possession of a BA degree in a related field.

Plant Maintenance Specialist II

Equivalent to graduation from high school and four years of experience in the maintenance and repair of electrical, electronic, mechanical equipment, instrumentation and communication systems such as found in a wastewater treatment plant; OR an AA degree in a related field and two years of related experience; OR possession of a BA degree in a related field and one year of related experience.

License and Certifications:

Plant Maintenance Specialist I

Must possess and maintain a valid California class C driver's license and satisfactory driving record. Must possess a CWEA Grade I or higher Plant Maintenance Technologist Certificate. A California SWRCB Grade I or higher Wastewater Treatment Plant Operator certificate is highly desirable.

Plant Maintenance Specialist II

Must possess and maintain a valid California class C driver's license and satisfactory driving record. Must possess a CWEA Grade II or higher Plant Maintenance Mechanical Technologist certificate and a CWEA Grade II or higher Plant Maintenance Electrical/Instrumentation certificate. A California Grade I or higher Wastewater Treatment Plant Operator certificate is highly desirable.

Physical Demands:

Mobility to work in a standard wastewater treatment plant and laboratory setting, and use specialized test equipment, hand and power tools and instrumentation; stamina to work in confined spaces, around machines, and to climb and descend ladders; strength to lift and carry materials and equipment weighing up to 75 pounds; vision to read printed materials, charts and gauges and a computer screen; and hearing and speech to communicate in person and over the telephone.

Other Requirements:

Must be available for regular, standby, and weekend assignments and for “call-back” and emergency overtime as required. May be exposed to inclement weather conditions, fumes, odors, dust, potentially toxic chemicals and conditions and electrical or heavy equipment.