EL DORADO IRRIGATION DISTRICT
Class Specification

CLASS TITLE: Plant Mechanic I/Plant Mechanic II

DEFINITION

Under supervision performs skilled duties related to the maintenance, repair and installation of mechanical equipment associated with wastewater and water treatment and water distribution facilities; repairs pumps, valves, pressure and flow control regulators and related equipment.

DISTINGUISHING CHARACTERISTICS

Plant Mechanic I - This is the entry level class in the Plant Mechanic series. Positions in this class typically have little or no directly related work experience. The Plant Mechanic I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

Plant Mechanic II - This is the journey level class in the Plant Mechanic series and is distinguished from the I level by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new, unusual or unique situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the I level.

This class is distinguished from the Senior Plant Mechanic in that the latter performs the most difficult and responsible types of duties assigned to classes within this series and provides technical and functional supervision over assigned staff.

SUPERVISION RECEIVED AND EXERCISED

Plant Mechanic I

 Receives immediate supervision from an assigned supervisor; receives technical and functional supervision from the Senior Plant Mechanic.

Plant Mechanic II

 Receives general supervision from an assigned supervisor; receives technical and functional supervision from the Senior Plant Mechanic.

EXAMPLES OF ESSENTIAL DUTIES: the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

Troubleshoots and repairs equipment failures associated with a variety of mechanical equipment including pumps, engines, electric motors, valves, pressure and flow regulators, emergency generators, air compressors, hydraulic systems, pneumatic systems, filters and chlorination systems.
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Overhauls and rebuilds pumps, chemical feeders and related process equipment; reviews technical manuals and manufacturer documents in the repair of equipment.

Performs predictive, preventative and emergency maintenance on pumps, motors and related equipment; maintains appropriate records and documentation of repairs; reviews, revises and implements maintenance schedules.

Performs instrumental, electrical and general troubleshooting of engines, pumps, blower compressors, boilers, gear reduces, turntables, filter assemblies, belt filter presses, generators, regulators, and valves.

Identifies and mitigates unsafe work environmental and maintains safe work practices such as “lock-out/tag-out,” confined space entry and fall protection.

Utilizes proper rigging techniques and methods.

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.

Coordinates with other divisions to implement operational solutions.

Reads blueprints, schematic drawings; makes redline corrections to as-built and construction drawings.

Builds and maintains positive working relationships with co-workers, other District employees and the public using principles of good customer service.

Performs related duties as assigned.

QUALIFICATIONS

Plant Mechanic I

Knowledge of:
Practices of repairing and maintaining electrical and gas motors, engines and pumps and other electrical and mechanical equipment associated with water and wastewater treatment and water distribution facilities. Safe work practices such as lock-out/tag-out, confined space entry, fall protection, and Personal Protection Equipment use. Safe use of a variety of hand tools, power tools, and welding equipment. Basic record keeping procedures. Basic welding practices. Basic electrical systems and troubleshooting practices. Basic knowledge of State and Federal water and wastewater regulations and requirements. Basic knowledge of water and wastewater treatment processes. Basic instrumentation theory and SCADA systems. Basic mathematics.

Skill/Ability to:
Learn to repair, maintain and troubleshoot a variety of mechanical equipment associated with water and wastewater treatment and water distribution facilities. Accurately perform mathematic calculations. Learn to maintain maintenance records. Learn and apply safe work practices.
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including confined space entry. Establish and maintain effective working relationships with those contacted in the course of work. Communicate clearly and concisely, both orally and in writing. On a continuous basis, know and understand maintenance activities and observe safety rules; intermittently, analyze problem equipment; identify safety hazards; locate equipment; interpret work orders; remember how to operate equipment; and explain jobs to other employees. Intermittently, sit while studying or preparing reports; stand and walk while performing maintenance activities; bend and twist to adjust equipment; kneel and squat to review work; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

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

Experience:
Two years of increasingly responsible experience performing maintenance and repair duties, preferably in a utility environment.

Education:
Equivalent to the completion of the twelfth grade.

SPECIAL QUALIFICATIONS

License and Certificate:
Possession of, or ability to obtain, a valid California driver’s license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Plant Mechanic II

In addition to the qualifications for the Plant Mechanic I:

Knowledge of:
Standard operating practices and procedures of skilled plant and equipment mechanical work associated with construction, maintenance, repair and service of equipment related to water and wastewater operations. Practices of troubleshooting equipment. Pertinent local, State and Federal laws, ordinances, rules and regulations.

Skill/Ability to:
Independently perform a variety of skilled and complex repair, maintenance, and service tasks involving pumps and motors and other equipment associated with the operation of wastewater and water treatment plants and water distribution systems. Respond to emergency situations. Read a variety of technical documentation, schematics, blue prints and related documents. Operate a computer to access, enter and retrieve data.
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Experience and Education:
Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:
Two years of responsible experience similar to Plant Mechanic I with the El Dorado Irrigation District.

Education:
Equivalent to the completion of the twelfth grade.

SPECIAL QUALIFICATIONS

License and Certificate:
Possession of, or ability to obtain, a valid California driver’s license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Some positions may require the ability to obtain and maintain a valid Crane Certification.

Possession of a valid Water Treatment Operator- Certificate 1 issued by the State of California Department of Public Health if assigned to the Drinking Water Division.

Possession of a valid Grade 1 California Water Environment Association Plant Maintenance certificate if assigned to Wastewater/Recycled Water Division.