



**DECEMBER 2018
FLSA: NON-EXEMPT**

LEAD MECHANIC

This class specification indicates, in general terms, the type and level of work performed as well as the responsibilities of employees in this classification. The job functions described are not to be interpreted as being all-inclusive to any specific employee.

DEFINITION

Under direct or general supervision or direction, leads, oversees, and participates in the most complex and difficult work of staff responsible for the maintenance, repair, service, and troubleshooting of equipment, vehicles and machinery in wastewater treatment plants, pumping stations, and related facilities; oversees and participates in cleaning sewer lines, manholes and wet wells including removing all debris; and oversees and participates in performing preventive, predictive and corrective maintenance on assigned equipment, vehicles, and machinery.

SUPERVISION RECEIVED AND EXERCISED

Receives direct or general supervision or direction from the assigned supervisory and/or managerial staff. Exercises no direct supervision of staff. Exercises technical and functional direction and training over assigned staff.

CLASS CHARACTERISTICS

This classification is the fourth of five (5) levels within the plant maintenance job series and the third of three (3) levels within the fleet maintenance job series and serves in a lead role. Incumbents organize and oversee the day-to-day work of staff in assigned areas of responsibility and ensure that equipment and machinery in District wastewater treatment plants, pumping stations, and related facilities are maintained in a safe and efficient manner. Responsibilities include inspecting and attending to assigned areas in a timely manner and performing a wide variety of tasks in the operation, maintenance, and repair of assigned facilities and systems. This class is distinguished from the Maintenance Supervisor in that the latter has full supervisory authority for planning, organizing, and overseeing the full scope of assigned maintenance functions within the department.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

The following essential job functions are typical for this classification. Incumbents may not perform all of the listed job functions and/or may be required to perform additional or different job functions from those set forth below to address business needs and changing business practices.

When performing all assignments:

- Plans, assigns, reviews, and participates in the work of staff responsible for the maintenance, repair, service, and troubleshooting of equipment and machinery in wastewater treatment plants, pumping stations, and related facilities.
- Ensures established safety precautions are adhered to, corrects unsafe work conditions/practices, and/or reports unsafe work conditions/practices to assigned supervisory or managerial staff.
- Assists in developing work plans, procedures, and schedules, and coordinates personnel, equipment and other resources needed to complete day-to-day work.
- Requests supplies and equipment for work projects; maintains records of purchase orders; may assist in developing budget figures for division.

- Monitors work sites and ensures adherence to safe work practices and procedures; responds to and resolves complex work related or equipment operating problems.
- Supervises the use, care, and operation of a variety of mechanical repair equipment including hand tools, power tools, and pneumatic tools.
- Inspects work in progress and upon completion to assure that repairs, maintenance, and project activities are in accordance with District regulations, policies, and operating procedures and practices.
- Provides technical and safety training to workers on safety hazards, work procedures, and care and use of equipment and tools; performs inspections of equipment and tools; completes documentation outlining confined space entry and lockout/tagout procedures.
- Coordinates projects with members of other divisions, departments, and outside agencies.
- Completes and logs daily written and electronic work sheets and service sheets; reviews equipment service logs for previous comments or repairs on equipment; completes work orders detailing work completed during maintenance and repair tasks; maintains all records.
- Responds to public inquiries in a courteous manner; provides information within the area of assignment; resolves complaints in an efficient and timely manner.
- Estimates time, materials, and equipment required for jobs assigned; orders all parts necessary to perform maintenance and repairs; researches vendors to locate necessary items, determine compatibility, and, as needed obtain competitive prices; identifies parts that need to be added to warehouse stores.
- Responds to a variety of wastewater emergencies on an assigned standby shift.
- Performs related duties as assigned.

When assigned to Plant Maintenance:

- Oversees and participates in work on process equipment in the plant, including but not limited to boilers, pumps, mobile and stationary engines, air and gas compressors, evaporators, scrubbers, blowers, belt filter presses, bar screens, augers, centrifuges, hydraulic systems, and conveyor belts.
- Performs the most difficult and complex preventive mechanical maintenance by inspecting and cleaning equipment, including but not limited to replacing oil, adjusting and/or replacing belts, gear boxes, pistons, rollers, filters, valves, water, gaskets and other related parts.
- Performs the most difficult and complex corrective mechanical maintenance by troubleshooting cause of malfunction using visual inspection and precision measuring and testing instruments and replacing or repairing broken parts such as gauges, gaskets, plugs, coils, wires, bearings, drive lines, valves, pistons, rings, crankshafts and pumps.
- Oversees and participates in rebuilding equipment by disassembling, cleaning, and repairing mechanical malfunctions; reassembles, installs and tests equipment to ensure that it is in proper working condition.
- Plans and drafts confined space entry procedures; initiates and completes documentation for confined space entry.
- Drafts documentation outlining confined space entry procedures; reads schematic drawings to determine location and layout of equipment; isolates and tags equipment to be worked on before performing mechanical maintenance.
- Coordinates work with District personnel in areas where equipment shutdown, maintenance and repair activities are to be performed.

When assigned to Rebuild Shop:

- Performs the most difficult and complex repair functions and complete rebuilds on various wastewater treatment plant equipment and related components.
- Responsibilities for miscellaneous types of machines to include, but not limited to gear boxes and gear reducers, variable drive assemblies both mechanical and hydraulic; grinders assemblies, grit assembly complete repair, regulators and valves, belt filter press rollers and related repair.
- Oversees and participates in disassembling all machinery in pump shop to carefully evaluate for required machine work and parts; cleans, bead blasts, primes and paints prior to reassembly.

- Test runs equipment on specially designed test stands to ensure proper operation; tests mechanical seals for leaks either hydrostatically or pneumatically.
- Oversees and participates in designing and fabricating special tools for installation and removal of different components when standard tools are not applicable.
- Oversees and participates in creating blueprints and schematics as required to assist in all facets of repair.

When assigned to any Mechanical Maintenance function:

- Lead, plan, train, and review the work of assigned staff responsible for the maintenance and repair of mechanical equipment, vehicles, and machinery; provide technical direction including assessment of performance for assigned staff; review work orders for work to be performed; assign and coordinate work assignments.
- Train assigned employees in their areas of work including proper mechanical, maintenance and repair work and safety methods, procedures, and techniques.

When assigned to Automotive/Heavy Equipment Maintenance:

- Oversee and participate in work on District automotive equipment including cars, trucks, electric carts, bicycles and portable equipment.
- Perform the most difficult and complex preventive mechanical maintenance by inspecting equipment and adjusting or replacing oil, filters, gear boxes, drive belts, brakes, air systems, exhaust systems, pressure systems and cab equipment.
- Perform the most difficult and complex corrective mechanical maintenance by troubleshooting cause of malfunction using visual inspection and precision measuring and testing instruments; troubleshoot electrical systems; replace or repair broken parts such as engines, computer diagnostic systems, brakes and front-end suspensions.
- Oversee and participate in overhauling, repairing, and adjusting engines, transmissions, and carburetors; tune-up engines as necessary.
- Schedule and participate in smog and opacity tests on gasoline and diesel engines.
- Read electrical diagrams to determine location and layout of equipment.
- Perform service calls on job sites to perform minor repairs.

When assigned to Collection Facilities Maintenance:

- Oversee and participate in cleaning sewer lines, manholes, and wet wells; read line location blueprints; open manhole covers; set up atmospheric monitors; enter confined spaces in a body harness; attaching a tire or ball to line cleaning rig to remove debris from lines; use a shovel and bucket to remove debris from manholes; remove floating debris; shovel grit at bottom of wet well and scrape all grease that is on wall of wet well.
- Direct wastewater flow by setting pillow plugs or diversion boards.
- Perform the most difficult and complex pump station repair work; troubleshoot pumps and other equipment; identify malfunctions and take corrective action including removing, replacing, or repairing parts and pumps; install and monitor flow meters and gas flaps in sewer lines.
- Oversee and participate in pump station maintenance work; scrub and clean facilities; remove rags and debris; perform routine inspections, cleaning and painting; communicate with the public regarding activities being performed at pump stations, including odor complaints.
- Oversee and participate in manhole frame and cover replacement duties; raise manhole covers to street level by operating jackhammer to remove asphalt and concrete; lift manhole ring with appropriate equipment; mix cement, sand, and gravel to form concrete; remove broken asphalt and concrete; pour and smooth concrete and reset ring cover.
- Direct crew in traffic control procedures for field work locations; drive District's vehicles and direct crew in driving, placing, and operating vehicles.
- Oversee and participate in general maintenance work at treatment plants or in the field including, vegetation control or general cleanup; clears and cleans easements as necessary.

QUALIFICATIONS

Knowledge of:

- Principles of coaching and training.
- Plan, organize, schedule, assign, and review the work of and train staff.
- The operation and minor maintenance of a variety of hand and power tools, vehicles, and power equipment.
- Traffic control procedures and traffic sign regulations.
- Safety principles, practices, and procedures of all facilities, equipment, and materials used in wastewater treatment and wastewater collection systems.
- Operational characteristics of wastewater treatment plant systems and equipment.
- Computerized maintenance management system used to research history, data, and maintenance records.
- Advanced principles, methods, materials, and tools employed in the repair and maintenance of assigned equipment, vehicles, and/or machinery.
- Advanced methods and techniques of performing diagnostic troubleshooting services.
- Predictive maintenance methods and tools.
- Operating characteristics of computers and applicable software applications such as word processing, spreadsheets, and databases.
- Mathematical principles and calculations.
- Basic principles and practices of cost estimate preparation.
- Principles and procedures of record keeping.
- Confined space entry requiring the use and operation of Self Contained Breathing Apparatus (SCBA).
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Modern office practices, methods, and computer equipment and applications related to the work, including word processing, database, and spreadsheet applications.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Principles and practices of customer service and techniques for effectively communicating with the public, vendors, contractors, and District staff.

Ability to:

- Plan, organize, schedule, assign, review and oversee activities of wastewater collection system maintenance and repair personnel.
- Inspect the work of others and maintain established quality control standards.
- Train others in proper and safe work procedures.
- Identify and implement effective course of action to complete assigned work.
- Estimate the cost and time of repairs.
- Oversee and participate in maintenance and other related projects.
- Perform the most complex mechanical maintenance duties and operate related equipment safely and effectively.
- Operate specialized maintenance and repair equipment related to wastewater main cleaning.
- Perform preventive setup and operate traffic zones, including cones, barricades and flagging.
- Locate underground utilities by use of blue prints and electronic locating equipment.
- Perform work in accordance with Underground Service Alert (USA) regulations.
- Troubleshoot maintenance problems and determine materials and supplies required for repair.
- Operate precision alignment tools.
- Make accurate arithmetic calculations.
- Read and interpret construction drawings and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, and equipment required for the work.

- Perform confined space entries.
- Maintain a variety of written and electronic accurate logs, records and basic written records of work performed.
- Understand and follow oral and written instructions.
- Interpret, apply, explain, and ensure compliance with Federal, State, and local policies, procedures, laws, rules, and regulations.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Utilize a computer, relevant software applications and/or other equipment.
- Work independently in the absence of supervision
- Work extended hours, including nights, weekends and holidays when necessary.
- Ensure adherence to safe work practices and procedures in the workplace.
- Operate a motor vehicle and travel to various District sites, projects and/or meetings.
- Effectively communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Employment Standards:

Any combination of education and experience that provides the required knowledge, skills, and abilities may be qualifying as determined by OCSD.

1. High school diploma or G.E.D., supplemented by specialized training or coursework such as relevant trade school in mechanical equipment maintenance and repair, or a related field; AND
2. Four (4) years of work experience applying preventive and corrective mechanical maintenance skills on field equipment and/or automotive equipment, rebuild facilities and collection systems with two (2) years of experience performing duties at a level comparable to a Senior Mechanic with the District.

Licenses and/or Certifications:

- Valid California Class C Driver's License.

Rebuild Shop or Field Maintenance:

- None.

Automotive/Heavy Equipment Maintenance:

- Valid California Class B Driver's License with air brakes and tanker endorsements.
- Valid California Class A Driver's License with air brakes and tanker endorsements is required within six (6) months of date of hire.
- Valid Class P endorsement is required within six (6) months of date of hire.
- Valid hazardous materials endorsement is required within six (6) months of date of hire.
- Valid manual transmission endorsement is required within six (6) months of date of hire.

Collection Facilities Maintenance:

- Possession of a valid Grade III Collection System Maintenance Certificate from the California Water Environment Association.
- Valid California Class B Driver's License with air brakes and tanker certificate.

Disaster Service Workers:

All Orange County Sanitation District employees are designated Disaster Service Workers through state law (California Government Code Section 3100-3109). Employment with the Orange County Sanitation

District requires the affirmation of a loyalty oath to this effect. Employees are required to complete all related training as assigned, and to return to work as ordered in the event of an emergency.

Standby and Call Back:

Employees in this classification may be required to participate in standby duty and are subject to call back, which may include nights, weekends and 24-hour emergency call out with little or no notice. Any employee designated to serve on standby, or report to an emergency, and refuses to do such, shall be subject to disciplinary action up to and including termination.

PHYSICAL DEMANDS

Must possess mobility to work in the field; ability to operate a motor vehicle to travel to various District sites, projects and/or meetings; strength, stamina and mobility to perform moderate to heavy physical work, to work in confined spaces, around machines and to climb and descend ladders, and operate varied hand and power tools and construction equipment; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 40 pounds, or heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives, and contractors in interpreting and enforcing departmental policies and procedures.