

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 direction, leads, oversees, and participates in the work of staff responsible for the maintenance, repair, servicing, rebuilding, and troubleshooting of equipment, vehicles, and machinery found in wastewater treatment plants, collection systems, pumping stations, and related facilities; oversees and participates in cleaning sewer lines, manholes, and wet wells; ensures high-precision, millwright craftsmanship work quality; oversees and participates in performing the most complex and difficult preventive, predictive, and corrective maintenance on assigned equipment, vehicles, and machinery; and performs duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory and/or managerial staff. Exercises no direct supervision of staff. Exercises technical and functional direction and provides training to lower-level staff.

CLASS CHARACTERISTICS

This classification is the fourth of five levels within the mechanical maintenance job series and the third of three levels within the fleet maintenance job series. Incumbents organize and oversee the day-to-day work of staff in assigned areas of responsibility and ensure that equipment and machinery in OC San 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. Performance of the work requires the use of considerable independence and initiative within established guidelines. This class is distinguished from Maintenance Specialist in that the latter plans corrective, preventative, and predictive maintenance work orders using the Computerized Maintenance Management System (CMMS) and assists in developing maintenance strategies based on preventative and predictive maintenance best practices.

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:

- Leads, plans, trains, and reviews the work of staff responsible for the maintenance, repair, service, rebuilding, and troubleshooting of equipment and machinery found in wastewater treatment plants, collection systems, pumping stations, and related facilities; provides technical and safety training; assists in developing work plans, procedures, and schedules, and coordinates personnel, equipment, and other resources needed to complete day-to-day work.

- Performs the most complex and difficult mechanical preventative, predictive, and corrective maintenance and repair work in assigned area(s) of responsibility.
- Verifies the work of assigned employees for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications.
- Supervises the use, care, and operation of a variety of mechanical repair equipment including specialized industry tools, hand tools, power tools, heavy equipment, cranes, and/or pneumatic tools.
- Plans and drafts confined space entry procedures; reviews and completes documentation for confined space entry and lockout/tagout procedures; oversees and directs the work of staff during a confined space entry including the isolation and tagging of equipment to be worked on before performing mechanical maintenance.
- Attends planning meetings to provide input on functional design, installation, location, and continued maintenance needs of equipment.
- Estimates and requests time, materials, and equipment required for jobs assigned; researches vendors to locate necessary items, determine compatibility, and, gather competitive prices; orders parts and obtains outside services to perform maintenance and repairs; identifies and recommends parts to be added to warehouse stores; maintains records of purchase orders; may assist in developing budget figures for division.
- 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.
- Coordinates work and projects with other divisions, departments, and outside agencies.
- Reads and interprets schematic drawings to determine location and layout of equipment; creates blueprints and schematics as required to assist in all facets of repair.
- Oversees the preparation and implementation of traffic control plans.
- Directs general maintenance work at treatment plants or in the field, including vegetation control or general cleanup; oversees the clearing and cleaning of easements as necessary.
- Responds to public inquiries in a courteous manner; provides information within the area of assignment; resolves complaints in an efficient and timely manner.
- Responds to a variety of wastewater emergencies on an assigned standby shift.
- Ensures safety and health procedures and precautions are adhered to, corrects unsafe work conditions/practices, and/or reports unsafe work conditions/practices to assigned supervisory or managerial staff.
- Performs duties as assigned.

When assigned to Plant Maintenance:

- Leads and participates in mechanical maintenance 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, bar screens, augers, centrifuges, hydraulic systems, and conveyor belts.
- Leads and participates in the replacement of oil, adjustment and/or replacement of belts, gear boxes, pistons, rollers, filters, valves, water, gaskets, and other related parts, and replacement or repair of broken parts such as gauges, gaskets, plugs, coils, wires, bearings, drive lines, valves, pistons, rings, crankshafts, and pumps.
- Leads and participates in the rebuilding of equipment; reassembles, installs, and tests equipment to ensure that it is in proper working condition.
- Oversees the monitoring and inspection of power plant and gas compressors to ensure proper working conditions.

When assigned to Rebuild Shop:

- Leads and participates in repair functions and complete rebuilds on various wastewater treatment plant equipment and related components such as gear boxes and gear reducers, mechanical and hydraulic variable drive assemblies, grinders assemblies, grit assembly, regulators, valves, –and related equipment.

- Leads and participates in disassembling all machinery in pump shop to carefully evaluate for required machine work and parts.
- Oversees the test runs of equipment on specially designed test stands to ensure proper operation; tests mechanical seals for leaks either hydrostatically or pneumatically; reviews reassembly of machinery and ensures application of tags with installation instructions.
- Leads and participates in designing and fabricating special tools for installation and removal of different components when standard tools are not applicable.

When assigned to Automotive/Heavy Equipment Maintenance:

- Leads and participates in mechanical maintenance of OC San automotive equipment including cars, trucks, electric carts, bicycles, and portable equipment in the shop or on job sites.
- Leads and participates in the adjustment or replacement of oil, filters, gear boxes, drive belts, brakes, air systems, exhaust systems, pressure systems, and cab equipment; troubleshooting electrical systems; and replacing or repairing broken parts such as engines, computer diagnostic systems, brakes, and front-end suspensions.
- Leads and participates in overhauling, repairing, and adjusting engines, transmissions, and carburetors; tune-up engines as necessary.
- Schedules and participates in smog and opacity tests on gasoline and diesel engines.

When assigned to Collection Facilities Maintenance:

- Directs the development of and approves cleaning plans; leads and participates in cleaning sewer lines, manholes, and wet wells and replacement of manhole frames and covers; reads line location blueprints; opens manhole covers; sets-up atmospheric monitors; enters confined spaces in a body harness attaching a tire or ball to line cleaning rig to remove debris from lines; oversees the set-up of the combo vacuum truck for staff to use to remove debris from manholes; removes floating debris; shovels grit at bottom of wet well and scraping all grease that is on wall of wet well.
- Directs the monitoring and control of wastewater flow and pump station processes to ensure efficient and safe operation of facilities and equipment.
- Performs the most difficult and complex pump station repair work; conducts inspections, identifies malfunctions and determines root cause, troubleshoots pumps and other equipment, and takes corrective action including removing, replacing, or repairing parts and pumps; installs and monitors flow meters and gas flaps in sewer lines.
- Locates interplant digester gas pipeline; monitors excavation work performed near the pipeline; assists performing preventative and routine maintenance on interplant gas pipelines.
- Receives, prioritizes, assigns, and ensures completion of requests for locating underground utilities in accordance with Underground Service Alert (USA) regulations.

QUALIFICATIONS

Knowledge of:

- Principles of providing functional direction and training.
- Operations, services, and activities of a wastewater treatment maintenance program.
- Advanced methods and specialized industry techniques, tools, devices, and materials for performing preventive, predictive, and corrective maintenance on and complete overhaul of assigned equipment.
- Operational characteristics and advanced maintenance principles of wastewater treatment plant systems and equipment.
- Procedures for confined space entry initiation and documentation, including the use and operation of Self Contained Breathing Apparatus (SCBA).
- The operation and minor maintenance of a variety of hand and power tools, vehicles, and power equipment.
- Advanced methods and techniques of performing diagnostic troubleshooting services.

- Traffic control plan development and implementation procedures and traffic sign regulations.
- Applicable federal, state, and local laws, codes, and ordinances relevant to area(s) of responsibility.
- Mathematical principles and calculations.
- Basic principles and practices of cost estimate preparation.
- Principles and procedures of record keeping.
- Procurement practices sufficient to order parts and consult with vendors.
- Safety principles, practices, and procedures of all facilities, equipment, and materials used in wastewater treatment and wastewater collection systems.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Current equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Plan, organize, and coordinate the work of assigned staff.
- Effectively provide staff leadership and work direction.
- Inspect the work of assigned staff and maintain established quality control standards.
- Train assigned staff in proper and safe work procedures.
- Independently perform a variety of increasingly complex troubleshooting, repair, maintenance, rebuilding, servicing, and cleaning tasks on assigned equipment, vehicles, and machinery found in wastewater treatment plants, collection systems, pumping stations, and related facilities.
- Understand, interpret, apply, and ensure compliance with all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Safely and effectively use a variety of maintenance and repair equipment, specialized industry tools, and hand, power, and alignment tools.
- Direct the set up and ensure proper implementation of traffic control plans.
- Direct and participate in locating underground utilities by use of blueprints and electronic locating equipment in accordance with Underground Service Alert (USA) regulations.
- Oversee and participate in maintenance and other related projects, including troubleshooting problems, identifying root cause, and estimating cost and time and determining materials and supplies required for repair.
- Make accurate arithmetic calculations.
- Read and interpret construction drawings and specifications.
- Initiate and complete documentation for confined space entry procedures; enter confined space requiring the use and operation of SCBA.
- Maintain accurate logs, records, and basic written records of work performed.
- 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.
- Operate a motor vehicle and travel to various OC San sites, projects, and/or meetings.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Comply with safe work practices and procedures in the workplace.
- Provide a high level of customer service by effectively dealing with the public, vendors, contractors, and OC San staff.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- 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 OC San.

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.
2. Five (5) years of increasingly responsible experience applying preventive and corrective mechanical maintenance skills on field equipment and/or automotive equipment, rebuild facilities, and collection systems.

Licenses and/or Certifications:

- Must possess a valid California Class C Driver's License.
- In addition, when assigned to Automotive/Heavy Equipment Maintenance, must possess a:
 - 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 within six (6) months of date of hire.
 - Valid Class P endorsement within six (6) months of date of hire.
 - Valid hazardous materials endorsement within six (6) months of date of hire.
 - Valid manual transmission endorsement within six (6) months of date of hire.
- In addition, when assigned to Collection Facilities Maintenance, must possess 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 endorsements.

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.

PHYSICAL DEMANDS

- Mobility to work in the field; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp, and make repetitive hand movement in the performance of daily duties; to climb and descend ladders, to operate varied hand and power tools and equipment, and to operate a motor vehicle and visit various OC San sites, projects, and/or meetings.
- Perform moderate to heavy physical work; to lift, carry, push, and pull materials and objects averaging a weight of 51 pounds or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.
- Work requires entry into confined spaces and the use of confined entry equipment and protective safety equipment.
- Vision to inspect and operate equipment.
- Field work requiring frequent walking in operational areas to identify problems or hazards.
- Finger dexterity to operate and repair tools and equipment.

ENVIRONMENTAL ELEMENTS

- Field work in and around facilities with exposure to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, heights, chemicals,

mechanical and/or electrical hazards, hazardous physical substances and fumes, dust, and air contaminants.

- Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

OTHER REQUIREMENTS

- May be required to work extended hours, including nights, weekends, and holidays when necessary.
- 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.
- Probationary Period: All OC San employees, except classifications considered “at-will”, are subject to the probationary period provisions as specified in the applicable Memorandum of Understanding, policies, and/or resolutions. Employees who have not yet successfully completed their initial probationary period serve “at-will” and may be released from employment without cause or recourse to any appeal or grievance procedures.
- Pre-Employment: All employment offers are contingent upon successful completion of OC San’s pre-employment process, which includes a background investigation, a physical examination, and a drug screen.
- Work Location Assignment: Employees will be assigned to a work location based on business needs which may be located at any/all of OC San locations; this work location may be changed at any time.