



INSTRUMENTATION MAINTENANCE TECHNICIAN

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include** all duties performed by individuals within a classification. In addition, specifications are intended to outline the minimum qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

DEFINITION

Under general supervision, leads and participates in the operation of the pump station maintenance program; performs the full array of duties involved in the maintenance and repair of storm and sewer pump stations and City owned creeks and storm channels and related facilities; provide direction to work crews as required; demonstrates a full understanding of all applicable policies, procedures, and work methods associated with assigned duties; assists in the training of assigned personnel; performs other related duties as required.

DISTINGUISHING CHARACTERISTICS

The **Instrumentation Maintenance Technician** is an advanced journey/lead class in the Streets and Sewer Division. Incumbents frequently work independently in inspecting and performing preventive maintenance on pumps and related wastewater collection and storm systems and perform lead supervisory duties, including assisting in the planning, assigning, and evaluation of the work of subordinates, giving recommendations on discipline, and providing training. This classification differs from the next higher classification of Street and Sewer Supervisor in that the latter has full supervisory responsibility for maintenance crews in the Street and Sewer program.

SUPERVISION RECEIVED/EXERCISED

Receives general direction from Street and Sewer Supervisor. Exercises functional, technical, and lead supervision over assigned staff, as required.

ESSENTIAL FUNCTIONS *(include, but are not limited to the following)*

- Leads, reviews, assigns, and performs the work of staff engaged in the in the maintenance and repair of wastewater collection and storm pump stations and City owned creeks, channels and related facilities; develops and implements crew assignments; inspects and reviews work methods, performance, and quality of work performed; conducts safety and training meetings; answers questions; evaluates and provides input and recommendations on employee evaluations; assumes responsibility for the more difficult and complex tasks.
- Recommends and reports service levels to the Supervisor; performs field observations to ensure compliance with department policies, practices, and City ordinances; prepares reports for the Supervisor related to division activities.
- Inspect and perform preventive and emergency maintenance on equipment, machinery, and controls related to wastewater pumping, stormwater pumping, and other pumping systems; monitors and services pumps, motors, valves, grinders, and controls; removes and cleans sewer pumps; sends pumps for repair or replaces as needed; inspects, maintains and repairs outfalls, flap-gates, bar screens, channel and creek crossings.
- Performs daily rounds, records pump readings, fills oil reservoirs and performs preventive maintenance activities; performs valve exercising and ensures bypass readiness.
- Operates, adjusts and programs computerized SCADA system; responds day or night, as needed, to operate system.
- Monitor sanitary sewer system, stormwater, and other facilities through the SCADA system; assists in the monitoring of pump repair and storm channel and creek maintenance contract services; inspects the work of private contract maintenance services providers; may be required to perform sewer lateral testing and cleanout installation repairs and inspections.

- Performs and leads confined space entry and maintains confined space trailer.
- Utilizes technology such as computers, mobile devices, and computerized maintenance management systems (CMMS).
- Performs the duties of a Street, Sewer and Downtown Leadworker when required: assists other Public Works divisions.
- Responds to questions, concerns, and emergency calls from the general public; makes recommendations and/or takes appropriate action to resolve issues and problems; responds to inquiries about department policies, rules, regulations and City ordinances; establishes and maintains a customer service orientation within the work unit.
- Demonstrates a full understanding of applicable policies, procedures, and work methods associated with assigned duties; evaluates assigned work activities; estimates time, materials, and equipment necessary for the successful completion of assignments; acquires necessary resources as is appropriate.
- Establishes positive working relationships with representatives of community organizations, state/local agencies, City management and staff, and the public.
- Knowledge of procedures for installing, configuring, upgrading, troubleshooting, and repairing applicable software, hardware, and peripherals, and techniques associated with SCADA systems.
- Explain technical concepts and procedures to non-technical users.

PHYSICAL, MENTAL AND ENVIRONMENTAL WORKING CONDITIONS

Position requires sitting, standing, walking on level and slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping and making repetitive hand movement in the performance of daily duties. The position also requires both near and far vision when inspecting work and operating assigned equipment. The need to lift, carry and push tools, equipment and supplies weighing 90 pounds or more is also required. Additionally, the incumbent in this outdoor position works in all weather conditions, including wet, hot and cold. The incumbent may use disinfecting and lubricating chemicals that may expose the employee to fumes, dust and air contaminants, and/or hazardous materials. The nature of the work also requires the incumbent to climb ladders, use power and noise producing tools and equipment, drive motorized vehicles and construction equipment, and work in confined spaces. The incumbent is required to respond to after-hours emergency call-outs and perform routine standby duties.

Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

QUALIFICATIONS *(The following are minimal qualifications necessary for entry into the classification.)*

Education and/or Experience

Any combination of education and experience that has provided the knowledge, skills and abilities necessary for an Instrumentation Maintenance Technician. A typical way of obtaining the required qualifications is to possess the equivalent of three years of experience as a pump station mechanic or the equivalent of three years of experience as a Street and Sewer Maintenance worker with a CWEA Collection Systems Operator Grade II certificate, and a high school diploma or equivalent.

License/Certificate

Possession of, or ability to obtain, a valid class B California driver's license with tank and airbrake endorsements. Possession of a Grade II Wastewater Collection System Operator Certificate issued by the California Water Environment Association within 12 months. Possession of a California Water Environment Association Mechanical Technologist Certification and a California Water Environment Association Electrical Instrumentation Technology Grade 1 within 2 years is required. Possession of a CPR/1st aid certification is required, and a certification as a Competent Person is desirable.

KNOWLEDGE/ABILITIES/SKILLS *(The following are a representative sample of the knowledge/abilities and skills necessary to perform essential duties of the position.)*

Knowledge of

The operation and maintenance of a wide variety of pumping facilities used for lift stations in sanitary sewer and storm water systems, including line shaft and submersible pumps used in deep wells; valve and system operations; practices, techniques, equipment and materials used in maintenance of sanitary sewer systems and pump station related facilities and equipment; techniques for diagnosing system problems; applicable federal, state, and local laws, codes, and regulations related to assigned areas; basic water hydraulics; principles of SCADA system operation; basic understanding of motor controls, variable frequency drives, relays, timers, and indicating devices; methods and techniques of collection, pump, and storm system inspection and maintenance; basic construction, carpentry, masonry, and painting work; remove vegetation, debris, and trash from immediate vicinity of station facilities; safety requirements for operation of equipment; methods and techniques for record keeping and report preparation and writing; proper English, spelling, and grammar; basic principles of mathematics; occupational hazards and standard safety practices.

Ability to

Operate and maintain pumping equipment; read and understand the meaning of telemetry reports used in pumping operations; train city staff on operation and maintenance of existing and newly modified systems; utilize and stay abreast with technology and programs used with SCADA systems; perform routine maintenance, repair, and troubleshooting of the HMI screens and RTU's maintenance and basic repair and installation tasks associated with the collection system operations and appurtenances, and pump stations; make sound decisions within established guidelines; perform heavy manual labor for extended periods of time; read and interpret basic sketches, drawings, specifications, and technical manuals; perform algebraic calculations in order to perform cost comparisons, evaluate energy efficiencies and calculate pump curves; methods and techniques of scheduling work assignments; analyze an issue, and develop and implement an appropriate response; follow written and oral directions; read, interpret, and record data accurately; keep accurate records; work independently; observe safety principles and work in a safe manner; operate overhead electric hoist and/or truck mounted crane; communicate clearly and concisely, both orally and in writing in proper English; establish and maintain effective working relationships.

Skill to

Train duty personnel; **Proficient computer skills** to operate computers, mobile devices, and other computerized software systems; safely and effectively operate a variety of maintenance and monitor of equipment used in the operation and maintenance of sewer and storm systems; operate vehicles used in pump system maintenance. Perform as an advanced operator of SCADA software from a desktop or remotely from a laptop.

S610
Instrumentation Maintenance Technician
AFSCME 829 MAINTENANCE UNIT
NON-EXEMPT
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(Formerly Pump Station Leadworker)