

Maintenance Electrician/Mechanic II
Roanoke Rapids Sanitary District
Central Maintenance Department



General Statement of Duties:

Performs responsible technical and skilled work to keep machines, mechanical equipment, treatment plant grounds, structures, and vehicles in repair in the operation and maintenance of water and wastewater treatment systems. Employees assigned to maintenance duties work a normal eight-hour shift and routine call-duty.

Work is performed in coordination with the ORC at each work site and under the regular supervision of the Maintenance Manager/Supervisor.

A key expectation for employees in this classification is their willingness to undergo cross-training at the District's discretion.

Distinguishing Features of the Class:

This class is responsible for technical work and calls for the exercise of judgment in the application of maintenance. Performs the preventative maintenance and repair of all (1) electrical and mechanical equipment (2) plant structures and (3) fleet maintenance at all facilities. Participates and ensures the on-going vitality of programs for training (technical and non-technical), tagging procedures, safety and health, and workplace environment, including required record keeping. Work may be done under the supervision of a supervisor to whom their work is subject to general review and inspection. Employees of this class must be capable of exercising independent judgment and delivering a high level of customer service within and outside the department. "On call" obligations require nights, weekends, and holidays.

Examples of Work: (Illustrative Only)

Performs regular preventive maintenance such as greasing moving parts, changing oil, electrical diagnostics, and overall visual inspections of equipment and related parts. Install breakers, switches, controllers, and conductors; Read electrical prints; Terminate equipment wiring; Replace, troubleshoot and program VFDs; Lubricate pumps, motors, etc.; Repair and/or assist in repair of pumps, motors, etc.; Replaces corroded pipelines; Clean obstructed pipelines; Paint and clean buildings, equipment, and appurtenances; Assist in maintaining records and materials inventory; Participate in performing corrective maintenance procedures such as changing bearings in pumps and motors, packing pumps, changing belts, replace shear-pins, etc.; Retrofit plant equipment, structures, plumbing and electrical systems; Operate various landscaping equipment, perform landscaping, and grounds maintenance duties; Collect data from preventative maintenance program and take corrective action as required; Troubleshoot electrical and mechanical problems; Check blueprints, electrical schematics, manuals, etc. to determine problems; Preventative, predictive, and minor repairs to fleet vehicles; Maintain safe working environment; Dismantle and overhaul various plant equipment such as gauges, grit collectors, conveyors, mechanical grinders, pumps, engines, blowers, gas and air compressors, and ventilation systems; Perform troubleshooting and maintenance on complex electronic systems; Install new equipment; Perform skilled mechanical and electrical work in high stress, high danger situations; And perform additional duties as may be required.

Working Conditions:

Work in this class is medium to heavy work and may require exposure to various inside and

outside environmental conditions such as extreme cold, extreme heat, noise, atmospheric conditions, oils and gases and unpleasant surroundings. An employee must have the physical agility to move about freely including climbing stairs and ladders and crawling into confined spaces. Moderate to heavy lifting up to 50 pounds of force occasionally, up to 20 pounds of force frequently, and 10 pounds of force constantly to move objects is required in performing the work. The exertion of work requires reaching, bending, stooping, fingering and repetitive motions; vocal communication is required for expressing or exchanging ideas by means of the spoken word, and conveying detailed or important instructions to others accurately, loudly, or quickly; hearing is required to perceive information at normal spoken word levels; visual acuity is required for preparing and analyzing written or computer data, visual inspection involving small defects and/or small parts, operation of motor vehicles or equipment, determining the accuracy and thoroughness of work, and observing general surrounding and activities. An employee must also be able to smell.

Required Knowledge, Skills, and Abilities:

Good knowledge of materials, hazards, and safety precautions; ability to communicate material inventory and maintenance records; ability to keep equipment in good working condition. Thorough knowledge of the operating characteristics and maintenance requirements of water and wastewater treatment plants; thorough knowledge of electrical and electronic systems; thorough knowledge of hydraulic, chemical, and mechanical principles pertinent to water treatment systems operations; safety and health program involvement and participation; hazard identification and evaluation; hazard prevention and control; safety and health training; ability to operate a computer and troubleshoot malfunctions; ability to detect flaws in the operation of mechanical equipment and to determine proper remedial measures; ability to understand and follow moderately complex oral and written instructions; ability to read meters and charts accurately and to maintain maintenance records; ability to work in adverse conditions; skill in the use and care of equipment and hand tools. Must hold or can acquire an appropriate Class 1 Plant Maintenance Technologist within twelve months of employment. Ability to establish and maintain effective working relationships with associates.

Acceptable Experience and Training:

High school diploma/GED, or accredited trade school graduate with an emphasis in electrical training and with years of progressive industrial maintenance experience in performing maintenance tasks on systems of comparable processes as water and wastewater facilities required. Prior experience in plumbing, mechanics, pipe fitting, electrical work, or any combination of experience and training which provides the required knowledge, skills, and abilities. A certificate of graduation from a technical program related to electrical, welding, engine repair, millwright, machinist, or other related skills is preferred. Candidate must be experienced with computerized documentation. Experience with water/wastewater facilities is preferred but not required.

This position is safety-sensitive and subject to random drug screening. Non-Exempt.