

**BAY COUNTY DEPARTMENT OF WATER AND SEWER
JOB DESCRIPTION
WASTEWATER ELECTRICAL/MECHANICAL TECHNICIAN**

GENERAL SUMMARY:

Under the supervision of the Maintenance Supervisor, an employee in this classification will perform skilled electrical/mechanical work in the maintenance, repair, installation, and overhaul of plant and pumping station electrical, electronic, and mechanical equipment. Employees will also perform other maintenance-related tasks as assigned. Persons in the classification should be motivated work as part of a team or alone and have excellent attention to detail.

EXAMPLES OF DUTIES:

- a. Duties involve the performance of technical (ground up) medium/low voltage electrical installations and repairs using National Electrical Code (NEC) approved standards and methods, complete PLC and control panel builds, telemetry repairs and installations, variable frequency drive installations etc. Duties also involve the comprehensive documentation associated with these installations and builds.
- b. Follow manufacturer's blueprints, manuals and instructions and/or directions of supervision to install equipment and perform plant, lift station and metering stations maintenance, clean and make repairs to large and small pumps, large and small motors, chemical feeders, sump pumps, sludge pumps, sewage pumps, air compressors, valves, conveyors, polymer pumps, lights, vacuum pumps, filter presses, heaters, grit mechanisms, fans, blowers, meters, pressure reducing stations, electric, pneumatic and hydraulic valve operators and controls, telemetering equipment, instrumentation, and other equipment of the department.
- c. Operates equipment to check for malfunctions, determines what repairs or adjustments are necessary, makes repairs or adjustments or arranges for such repairs or adjustments to be made.
- d. Disassembles equipment and repairs by repacking, lubricating, repairing or replacing bearings, seals, shafts, relays or other work or broken parts.
- e. Install or replace and connect equipment such as lighting fixtures, ballast's, fans, service lights, fuses, light bulbs or fluorescent bulbs, batteries, electrical and mechanical switches, receptacles, and electric motors (large or small).
- f. Drills holes for and installs hangers, supports, brackets, controllers, guards, insulators, switches and other equipment.
- g. Removes and/or installs piping, fittings, valves, pumps, and other wastewater process equipment.
- h. Measure, cut, bend, assemble and install conduit and fittings, housing, and covers.
- i. Responsible for maintaining an adequate inventory of parts for maintenance of equipment located at the lift stations or wastewater plant.
- j. Responsible for keeping plant, lift station and metering stations maintenance records.

- k. Responsible, on own initiative, for performing timely and proper inspection, maintenance, and repair work necessary to assure proper operation of all equipment and maintenance of the physical plants of the sewage lift stations.
- l. Calibrate flow meters of various types.
- m. Proper housekeeping practices must be followed on the job.
- n. Use appropriate PPE, including arc flash safety equipment.
- o. Performs "On-Call" Duties.
- p. Performs any other assigned duties, as deemed necessary by Supervision, to continue the efficient operation of wastewater systems.

The foregoing are not to be construed as a list of all the duties of this classification and Supervision has the right to assign other duties, as deemed necessary, to continue with the efficient operation of the employer's business.

THE FOLLOWING KNOWLEDGE AND ABILITIES ARE REQUIRED ON THIS JOB:

- a. Ability to read, interpret and follow and to apply manufacturer's instruction manuals and blueprints to disassemble repair and reassemble equipment.
- b. A thorough knowledge of State and County electrical codes and safety standards.
- c. Ability to climb and work from ladders as necessary.
- d. Ability to use hand and power tools.
- e. Ability to understand and properly follow written and verbal instructions and cooperate with others.
- f. A thorough knowledge of shop tools, equipment, and materials to repair mechanical equipment.
- g. Sufficient knowledge of instrumentation, electrical and telemetering circuits, terms and practices to understand and follow procedures to effect repairs or replacement.
- h. Ability to direct the work of others to assure timely and effective maintenance and repairs of plant equipment and sewer systems.
- i. Performs on-call work as assigned.

EDUCATION AND/OR EXPERIENCE:

High school or electrical trade school graduate or equivalent training and experience.

Electrical, mechanical, or engineering college coursework is highly preferred.

Three years of practical electrical experience, including maintenance and repair of equipment and systems found in wastewater treatment plant, is highly preferred.

GENERAL EDUCATIONAL DEVELOPMENT:

a. REASONING:

Apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Interpret a variety of instructions furnished in written, oral, diagrammatic, or schedule form.

b. MATHEMATICAL:

Perform ordinary arithmetical and algebraic procedures in standard, practical applications.

c. LANGUAGE:

Comprehension and expression of a level to interpret technical manuals, including drawings and specifications, layouts, blueprints, and schematics.

CERTIFICATES, LICENSES, REGISTRATIONS:

- a.** Position requires a valid and continuously maintained State of Michigan issued Journeyman Electrician License.
- b.** Must possess and continuously maintain a valid CDL "B" license with "N" endorsement and Air Brake endorsement within 6 months of hire date.
- c.** Must have a valid Michigan driver's license.

TEMPERAMENT:

Worker must be willing to and have the mental capacity to adjust to situations involving a variety of duties, precise attainment of set limits, tolerances or standards, and direction of the activities of others.

PHYSICAL DEMANDS:

Ability to lift up to 50 lbs. Involves climbing, balancing, stooping, kneeling, crouching, crawling, reaching, and handling.

Reasonable accommodations will be made for otherwise qualified applicants unable to fulfill one or more of these requirements

WORKING CONDITIONS:

Both inside and outside. Exposed to weather. Subject to noises, vibrations, fumes, foul odors, and dust. Select duties may require confined space entry and use of appropriate safety and/or respiratory equipment. Worker must adjust to a variety of duties, involving working alone and apart in physical isolation from others.

THE BAY COUNTY DEPARTMENT OF WATER AND SEWER IS AN EQUAL OPPORTUNITY EMPLOYER. IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, THE DEPARTMENT OF WATER AND SEWER WILL PROVIDE REASONABLE ACCOMMODATIONS TO QUALIFIED INDIVIDUALS WITH DISABILITIES AND ENCOURAGES BOTH PROSPECTIVE EMPLOYEES AND INCUMBENTS TO DISCUSS POTENTIAL ACCOMMODATIONS WITH THE EMPLOYER.

Ryan Goebel, Director

Keri Christian, Accounting & HR Mgr

1.31.2025