

PLANT MASTER MECHANIC

GENERAL STATEMENT OF DUTIES: Performs a variety of technical, skilled and physical work in the maintenance, repair, upkeep and operation of an advanced municipal wastewater treatment facility and municipal water supply facility and system, including wells, treatment, storage and pumping.

SUPERVISION RECEIVED: All work is to be performed under the direction of the Wastewater Treatment Plant Superintendent or Water Treatment Plant Superintendent. A Plant Master Mechanic is expected to know and carry out the job functions with a minimum of supervision, while working with and receiving assignments from both utility superintendents.

SUPERVISION EXERCISED: A Plant Master Mechanic is expected to train, provide instruction, and give guidance to co-workers assigned to perform or assist in preventive maintenance, equipment repairs and overhauls, special projects and other work as assigned by the utility superintendents.

ESSENTIAL FUNCTIONS:

- Sit on plant safety committee and assist in the development and implementation of safety procedures.
- Develop and implement preventive maintenance schedules and procedures, as approved by management.
- Train other personnel to carry out equipment inspection, operation and maintenance procedures.
- Routinely and thoroughly inspect equipment for proper operation and assess need for adjustment, repair, overhaul or replacement. Possess understanding of the engineering and design of these components and equipment in order to determine and initiate the proper repair, replacement, or reconfiguration.
- Plan and carry out various equipment overhauls or replacement involving pumps, piping, valves, motors, gear and belt reducers, hydraulic systems, chemical feed equipment, building mechanical equipment and other equipment at both plants.
- Maintain maintenance and material management data base to support MDEQ Asset Management Program requirements, including equipment record files, maintenance schedules and logs, and parts inventory. Assist in ordering parts, supplies and equipment.
- Maintain and repair plant vehicles and maintenance equipment as required.
- Maintain shop area, spare parts inventory and tools in a neat, orderly and clean condition.
- Inspect grounds and buildings for safety and structural integrity. Make recommendations for repair and replacement, and assist immediate supervisor in obtaining outside expertise to confirm necessity.
- Recommend improvements to extend equipment service life, to improve operating efficiency and improve maintenance capabilities.
- Assist in ordering parts, equipment and supplies and assist in preparing both plant maintenance budgets.
- Assist in both plant operations by effectively troubleshooting mechanical and process equipment problems, and understand and predict the impact of inoperable equipment on other processes.

- Provide routine and emergency snow plowing at both water system facilities as needed.

Note: The functions listed above illustrate the various types of work that may be performed at both facilities and systems. The omission of a specific statement of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. The normal work hours are day shift including overtime, as required. Standby shifts may be required at employer's discretion.

JOB REQUIREMENTS:

Education and Experience:

- Graduation from an accredited high school, supplemented by technical training in fields or skills associated with mechanical equipment maintenance and repair. A two year vocational certification or mechanical engineering degree, may waive two of the four years minimum experience.
- Minimum four years (eight years preferred) of work experience in responsible positions performing industrial and/or mechanical equipment maintenance and repair, automotive and heavy equipment maintenance and repair, or other work experience relevant to and preparatory for carrying out the above described ESSENTIAL FUNCTIONS.
- Prior experience in the operation and maintenance of a water or wastewater treatment facility is desirable.
- Any equivalent combination of education and experience.

Necessary knowledge, skills and abilities:

- Knowledge and use of proper safety precautions in the use of tools and in performing mechanical and electrical equipment servicing and repairs.
- Knowledge of hydraulics, mathematics, mechanical principles, and electrical principles and practices and the ability to apply this knowledge to understanding water and wastewater treatment operations and maintenance functions.
- The ability to troubleshoot and repair electro-mechanical equipment.
- The ability to organize and efficiently carry out complex and major repairs or replacements.
- The ability to schedule work, direct and train co-workers, and to coordinate maintenance functions with plant operating requirements.
- The ability to use and properly care for a variety of power and hand tools, and precision measuring and testing equipment.
- The ability to perform heavy manual tasks for extended periods of time.
- The ability to maintain accurate records and to use a personal computer and software for work scheduling and record keeping.
- The ability to communicate effectively verbally and in writing; ability to establish and maintain effective working relationships with co-workers; ability to understand and carry out written and oral instructions.

SPECIAL REQUIREMENTS:

License and Certifications. Valid State of Michigan Driver's license with a CDL certification Group B with air brakes and N-Tank vehicle endorsement is required within six months of appointment date or up to 12 months with extended probation.

The State of Michigan Operator Certification F-4 and Wastewater Treatment Plant Operator D are required for the Plant Master Mechanic. If upon appointment, neither certification is held, either the F-4 or the D license must be obtained within 18 months of appointment. The other certification (either the F-4 or D license) must be obtained within thirty-six months of appointment.

Possession of a mechanics or mechanical license or certification is desired.

TOOLS AND EQUIPMENT USED: Power and hand tools and equipment for installation and maintenance of plumbing, piping and mechanical systems; mechanic's tools including jacks, hydraulic lifts, air tools, and other tools required for minor repairs and routine maintenance of motorized vehicles, snow plow; welding equipment, cutting torches, pipefitting tools; electrical and electronic testing and calibration equipment; ladders, chainfalls and hoists; personal computer, calculator, phone; mobile and portable radio.

PHYSICAL DEMANDS: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee frequently is required to stand and talk or hear. The employee is occasionally required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORKING CONDITIONS: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee may work in outside weather conditions as experienced year-round in Michigan including inclement weather. The employee frequently works near moving mechanical equipment and is frequently exposed to wet and/or humid conditions and vibration. The employee works near and may come into contact with municipal wastewater and may be exposed to fumes and gases encountered in a municipal wastewater system. The employee may occasionally enter into confined spaces with limited ventilation. The employee may occasionally work in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or hazardous chemicals, and risk of electrical shock. The noise level in the work environment is moderately loud.

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