

**BAY COUNTY DEPARTMENT OF WATER AND SEWER
JOB DESCRIPTION
WTP OPERATIONS SPECIALIST**

GENERAL SUMMARY:

This classification requires the performance of all duties necessary to operate the Water Treatment Plant including laboratory functions. To ensure that the plant is producing potable water that achieves all target quality standards.

EXAMPLE OF DUTIES:

- a. Monitors systems and performs all activities necessary to operate the water treatment plant and laboratory. Components of the system include microstrainers, membrane skids and module elements, control valves, backwash system and air blowers, chemical cleaning systems and waste neutralization, membrane integrity test system, air compressors, membrane system control hardware and software, and membrane chemical transfer systems, and SCADA system.
- b. Operates the SCADA and Membrane System control panel (MCP) of the membrane filtration system and Water Treatment Plant to adjust and set flow, backwashing, chemical cleaning, integrity testing and other processes.
- c. Monitors and adjusts membrane waste washwater treatment and recovery system, including equalization basins and parallel plate clarifier units. This includes overseeing the efficiency of the clarification process.
- d. Conducts walk-through inspections of plant facilities to determine correct operating rates and condition of plant equipment; takes required readings and records problems on log sheets and/or work orders.
- e. Uses standard procedures to conduct water analysis tests such as Chlorine Residual, Fluoride, Turbidity, Conductivity, Hardness, Alkalinity, Calcium, Ortho-phosphate, Total Coliform & E. coli, Heterotrophic Plate Count, pH, Taste & Odor, etc.
- f. Utilizes laboratory and field data to ensure that plant operations are in compliance with operating guidelines and that treated water entering the distribution system is within state and federal clean water standards.
- g. Collects representative water samples to be analyzed either in plant or by outside labs for regulatory compliance. Performs quality control procedures for laboratory analysis as required to confirm test results.
- h. Accepts chemical deliveries into plant and provides direction for proper and safe unloading of Sodium Hypochlorite, Caustic Soda, Hydrofluosilicic Acid, Aluminum Chlorohydrate, Corrosion Inhibitor, Sodium Bisulfite, Citric Acid, Sulfuric Acid and any other treatment or maintenance chemicals.
- i. Determines chemical feed rates and adjusts chemical dosages.
- j. Records and maintains all required plant and laboratory records data on specified charts, log sheets, bench sheets and/or computer terminal.
- k. Performs mathematical calculations to calculate flows, levels, chemical usage, pressures, residual levels, etc. and performs a major role in gathering data for preparation of regulatory reports.

- l.** Monitors water levels of the 10MG raw water tank, finished water tanks and water towers, and adjusts flow rates in response to water demand.
- m.** Operates vehicles as necessary to collect samples or assist in emergencies.
- n.** Performs cleaning operations on equipment, spills, tanks, floors, walls, using brushes, scrubbers, hoses, washers, etc.
- o.** Conducts confined space entry, participates in safety committee and plant safety meetings, installs signage, follows all plant safety requirements, utilizes and inspects safety equipment as necessary.
- p.** Performs minor maintenance activities and adjustments, works on appearance related activities on building and grounds.
- q.** Ability to discuss water quality with the public and conduct plant tours if needed.

The previous examples are not to be construed as a complete list of all the duties of this classification. Supervision has the right to assign other duties as deemed necessary to ensure efficient operation of the employer's business.

THE FOLLOWING KNOWLEDGE AND ABILITIES ARE REQUIRED ON THIS JOB:

- a.** Ability to work independently and efficiently on a swing shift that includes nights and weekends.
- b.** Ability to use the plant computer software and SCADA to monitor treatment and pumping conditions, to log data, and to assist in preparing DEQ monthly reports.
- c.** Reasonable knowledge of drinking water treatment processes and regulatory requirements.
- d.** Ability to establish and maintain effective working relationships with other employees.
- e.** Ability to use general hand tools (screwdriver, wrench, hammer, etc.) to make simple repairs to equipment during the absence of the Maintenance personnel, and the ability to use lab equipment and glassware to perform all lab tests required by the DEQ.

EDUCATION AND/OR EXPERIENCE:

High School diploma or general education degree (GED); or no less than one year related experience and/or training or equivalent combination of education and experience.

GENERAL EDUCATIONAL DEVELOPMENT:**a. REASONING:**

Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram or schedule form.

b. MATHEMATICAL:

Ability to add, subtract, multiply, divide all units of measure, using whole numbers, fractions and decimals. Ability to compute ratio, rate and percent.

c. LANGUAGE:

Ability to read and interpret documents such as safety rules, operating and maintenance instructions and procedure manuals.

CERTIFICATES, LICENSES, REGISTRATIONS:**a. Valid Michigan Driver's License****b. Must obtain and maintain at a minimum a Michigan Department of Environmental Quality (MDEQ) F-4 Water Treatment Operator certification within 18 months of hire.****PHYSICAL DEMANDS:**

Heavy to very heavy work. Involves lifting heavy objects, climbing, walking, balancing, stooping, kneeling, crouching, crawling, reaching and handling. Standing may be continuous.

WORKING CONDITIONS:

Mostly indoor work. Subject to noise and vibration, fumes, odors, dust. Selected 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. Must be able to work scheduled hours, overtime, both scheduled and unscheduled, on days of relief and beyond regular work schedule and to perform shift work, including holidays, nights and weekends.

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.

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