

## MISHAWAKA UTILITIES - WASTEWATER DIVISION

### A. **JOB TITLE –UTILITY OPERATOR “C”**

### B. **DEFINITION**

To monitor the Wastewater plant's treatment processes on the various shifts and to make necessary adjustments to control and insure that all phases of the plant operation are running efficiently and within established parameters. Perform general labor and maintenance tasks as assigned by plant management. Must use independent judgment in; collecting and analyzing samples, interpreting metering charts, interpreting SCADA display screens, determining chemical feed rates, and computing data on the daily log sheets. Reports to and accepts assignments from the Division Manager or his designee. All Shift and Non-Shift operators may be required to work variable shift assignments and hours of work.

### C. **EQUIPMENT USED**

Must have sufficient knowledge and dexterity to operate:

1. Plant Process control & monitoring computer system (SCADA System)
2. pH meter
3. Dissolved oxygen meters
4. Magnetic stirrer
5. Gas Monitor
6. Portable radio
9. Screening devices
10. Liquid sampling devices
11. Chlorine Residual Analyzers
12. Measuring Equipment
13. Push/Riding Lawn Mower
14. Zero Turn Mower
15. Weed Whacker
16. Hedge Trimmers
17. Snow Blower
18. Snow Shovel
19. Various Hand Tools (Hammer, Shovel, Rake, Screw Driver, etc.)
20. Various Power Tools
21. Bobcat
22. Forklift /Pallet Jack
23. Janitorial Cleaning Devices

### D. **JOB LOCATION**

Duties are performed primarily in and around the wastewater treatment plant buildings, tanks, structures, and grounds.

**E. PHYSICAL REQUIREMENTS**

Must be able to stand and walk for long periods, negotiate stairs both up and down, bend, and stoop. Must be able to lift and carry a minimum of 50 pounds. Must be able to work in enclosed areas or environments, walk on metal grates, slippery surfaces, and narrow passageways. Must be able to hear and respond to alarms. Must be able to make process control decisions based on visual observations. Must wear protective footwear that meets ASTM Standard F2413-18 requirements for impact and compression resistance. Must wear appropriate personal protective equipment (PPE) as directed by management.

**F. ENVIRONMENTAL/WORKING CONDITIONS**

Must be able to perform duties both indoors and outdoors and in all types of weather, at all times of the day or night. Will be required to work in noisy, dusty, and odorous environments. Cramped, closed areas must often be entered. May come in contact with treatment plant wastewater, sludges, and chemicals (sodium hypochlorite, sodium bisulfite, ferrous chloride, acid and iodide reagents, etc.) Must work around open tanks, both full and empty, and around operating equipment. May be designated to enter and work in confined space and strictly adhere to confined space permit requirements.

**G. ESSENTIAL FUNCTIONS OF THE JOB**

Must maintain a scheduled inspection of various treatment units, machines, pumps, equipment, and instrumentation used in the operation of the wastewater treatment plant. Make inspection rounds through plant areas as established by management. Must be able to accurately read, record and interpret data from plant meters, gauges and instrumentation, and SCADA display screens, and apply information toward the efficient control and regulation of treatment processes.

Must conduct process control tests and analysis and apply information toward the efficient regulation of treatment processes. Must take the required samples of wastewater and sludges at various stages of treatment, and composite said samples honestly, precisely, and accurately.

Must be able to monitor and control the treatment plant operations during wet weather conditions to maximize flow through the facility while ensuring process integrity and effluent quality.

Must monitor Primary Tank Collectors on each shift as per established procedure and carefully monitor and draw appropriate volumes of sludge. Must remove floating material from primary tanks each shift or more frequently as need dictates.

Must monitor the anaerobic digester system of treatment including such parameters as pH, temperature, tank levels, and gas production. Must withdraw supernatant as per the established procedure. Must remove condensate from gas condensate traps as required.

Must be able to operate and carefully monitor the secondary activated sludge treatment process. Must regulate and properly balance air to aeration, return activated sludge and the waste-activated sludge including belt thickener operation as per established procedures. Must monitor and regulate oxygen levels, mixed liquor solids concentrations, the character and settleability of the activated sludge, blower speed adjustments per established procedures, and other pertinent parameters. Must monitor the final tank collectors. Must be able to install shear pins on mechanical bar screens, grit collectors, primary collectors, and final collectors as required.

Must monitor chemical feed systems as per established procedures and as required. Check Ferrous Chloride, Hypochlorite, and Bisulfite feed equipment and adjust if necessary. Must monitor and respond to toxic gas monitors as per established emergency procedures. Must be able to comprehend and operate plant-wide Supervisory Control and Data Acquisition System (SCADA), and related interfaces both hardware and software. Must be able to operate a desktop computer operator interface. Must be able to communicate all pertinent operational and mechanical status information to the relief operator, Maintenance Manager, and other Division personnel whenever appropriate.

Must remove floating material from chlorine contact tanks each shift or more frequently as need dictates.

Must keep all areas of the facility clean on each shift.

## **H. ADDITIONAL EXAMPLES OF WORK PERFORMED**

Must monitor the security of the plant and its vehicles, tools, and equipment at all times but especially during those times when no maintenance personnel is present. Must assist in the cleaning and housekeeping of plant buildings, equipment, and grounds. Must assist in the removal of snow from walkways. Must monitor lift station computer, answer the phone when necessary and take and relay written messages, and call in maintenance personnel as per established procedures. Must measure and record precipitation and monitor other pertinent weather information.

**NOTE:** This list of basic duties and responsibilities includes most, but may not comprise all of the specific tasks that may have to be performed. Shift operators may be required to assist Maintenance Technicians and assist in building and grounds maintenance.

Non-shift operators will be assigned to Utility Operations that include but are not limited to, janitorial duties, grounds maintenance, and other duties as assigned by the Division Manager or designee.

**I. REQUIRED KNOWLEDGE AND ABILITIES**

Must have the ability to effectively communicate with all levels of employees both orally and in written form. Must be able and willing to carry out and accomplish the operational directives and goals of the Manager or his designee. Must be able to work without direct supervision. Must be able to understand and interpret meter, instrumentation, and lab and log sheet data and apply this information toward maintaining efficient process control. Must be familiar with the use and function of pumps, plant machinery, and equipment. Must be able to maintain accurate, legible logs and records and conduct lab tests and mathematical calculations related to process control. Must be able to analyze operational problems and respond appropriately. Must have a good mathematical aptitude. Must have the ability to service and make minor repairs and adjustments to pumps and other related equipment. Must be able to perform basic maintenance and mechanical functions in and around the plant.

**J. QUALIFICATIONS**

1. Valid driver’s license.
2. Must possess a High School diploma or equivalent.
3. Possess a valid Class I or higher Wastewater Plant Operator certification from the Department of Environmental Management **or...**
4. Must enroll in and successfully complete within 2 years of the date of hire: Operation of Wastewater Treatment Plants, “Volume I”, A Field Study Training Program. California State University, Sacramento.
5. Complete a 90-day probationary period and at the end of the probationary or qualification period, the candidate must demonstrate sufficient knowledge and ability to perform the essential functions of the Utility Operator “C” position.

***Failure to successfully complete Qualification 4 will result in disqualification from holding an Operator job and may result in termination from employment.***

5. Must acquire and maintain an increased level of efficiency in the performance of the job.
6. Must adhere to the City of Mishawaka’s drug and alcohol-free policy.
7. Must pass a pre-employment drug screen.

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Employee Signature

\_\_\_\_\_  
Date

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Department Manager

\_\_\_\_\_  
Date

