Utilities Department Process Specialist

Division: Wastewater & Water Treatment Division

Reports To: Utilities Department Deputy Director

FLSA Status: Non-exempt

Pay Grade: 9

The Process Specialist is responsible for supporting the Wastewater and Water groups through advanced process monitoring and process optimization. This position serves as a technical and operational bridge between Operations, Lab, Safety, Maintenance and Management.

The Process Specialist monitors and evaluates biological, chemical, and physical treatment performance to support regulatory compliance objectives and overall facility reliability at both the Appleton Wastewater Treatment Plant and Appleton Water Treatment Facility. The position also assists with treatment-related capital projects, equipment improvements, asset documentation, and operational process evaluations, in addition to providing departmental safety program support.

This position is intended to function primarily as a day-shift technical and project support role. The position may occasionally assist operations staff during abnormal operating conditions, startup activities, or significant process events.

JOB FUNCTIONS

Essential Duties & Responsibilities

Treatment Process Monitoring & Optimization

- Monitor and evaluate wastewater and water treatment process performance to support regulatory compliance, operational reliability, and process optimization.
- Analyze SCADA data, laboratory data, operational trends, and equipment performance to identify process improvement opportunities.
- Assist Operations Supervisors in troubleshooting treatment process issues and coordinating corrective actions.
- Coordinate and assist with process startups, shutdowns, operational transitions, and treatment process changes.
- Assist in evaluating treatment system capacity, redundancy, and operational resiliency.
- Develop operational and laboratory process recommendations based on process data analysis, equipment condition, and regulatory requirements.

- Coordinate with laboratory, maintenance, and operations staff to investigate and resolve treatment performance concerns.
- Support implementation and optimization of new treatment technologies, pilot testing, and equipment upgrades.

Project Coordination & Technical Support

- Assist with coordination of assigned treatment and infrastructure improvement projects.
- Review and comment on P&IDs, shop drawings, specifications, operational sequences, and construction drawings.
- Research and evaluate treatment equipment, technologies, and operational improvements for potential implementation.
- Provide technical support and guidance to operators and maintenance staff regarding treatment processes and equipment operation.
- Assist with operational training activities related to treatment process optimization and new equipment implementation.
- Support implementation and continued development of the Utilities Department Asset Management Program (AMP).
- Assist with maintaining treatment asset inventories, condition assessments, equipment records, and related documentation.
- Coordinate with Operations and Maintenance staff to identify critical asset risks, equipment deficiencies, and lifecycle replacement priorities.

Safety Program Support

- Assist the Safety Coordinator with developing, reviewing, and updating confined space entry and Lockout/Tagout (LOTO) procedures in accordance with OSHA standards.
- Support departmental safety initiatives and programs, including participation in safety committees, hazard assessments, and corrective action follow-up.
- Maintain and update safety-related documentation across treatment operations, maintenance, and infrastructure activities.

Reporting & Administrative Support

- Prepare and communicate technical reports, operational summaries, and process evaluations to management, regulatory agencies, consultants, and vendors.
- Maintain accurate records and documentation related to operations, projects, and asset management, including procedures and training materials.

Other Duties

- Perform other related duties as assigned.

SUPERVISORY RESPONSIBILITY

This position has no direct supervisory responsibility. The Process Specialist may provide technical guidance and project direction to operations and maintenance staff but does not have formal supervisory authority.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

This position requires a minimum of an Associate's degree in Wastewater or Water Treatment, Environmental Sciences, Engineering Technology, or a related technical field, or equivalent combination of education, training, and experience. A minimum of five (5) years of progressively responsible experience is required in wastewater or water treatment operations, process optimization, infrastructure systems, or related industrial operations.

- Working knowledge of water and wastewater treatment infrastructure, systems, processes, and applicable regulatory requirements.
- Familiarity with WPDES and Safe Drinking Water Act compliance reporting, including discharge monitoring reports (DMRs) and permit documentation.
- Working knowledge of treatment equipment, pumps, blowers, valves, instrumentation, electrical systems, and process controls.
- Knowledge of preventative maintenance principles and equipment reliability concepts.
- Knowledge of applicable safety standards.
- Familiarity with asset management principles including lifecycle planning, condition assessment, and infrastructure prioritization.
- Familiarity with CMMS or enterprise asset management systems.
- Ability to analyze operational and process data and develop practical operational recommendations.
- Ability to read and interpret engineering drawings, P&IDs, technical specifications, and equipment documentation.
- Ability to communicate effectively both orally and in writing.
- Ability to establish and maintain effective working relationships with operations staff, maintenance staff, consultants, contractors, vendors, and management.
- Strong organizational, analytical, and problem-solving skills.
- Proficiency in Microsoft Office applications including Excel, Word, and Outlook.
- Working knowledge of SCADA systems and operational data analysis tools.

- Ability to work independently while supporting collaborative team objectives.
- Possession or the ability to obtain WDNR Wastewater Operator (certification subclass A1, B, C, D, L, P and SS) and Water Operator certifications (certification subclass D, L, and S) preferred within 48 months of employment and maintain the certificate when employed.
- Valid Wisconsin driver's license required.
- Certification or training in confined space entry, lockout/tagout, CPR, First Aid, and related safety procedures preferred.

PHYSICAL DEMANDS & WORK ENVIRONMENT

Work is performed in a combination of office, laboratory, and operating plant environments. The position involves periodic field work at the treatment facilities, including potential exposure to wastewater, treatment chemicals, noise, confined spaces, elevated structures, and varying weather conditions. The physical demands and work environment described here are representative of those that must be met by an employee to successfully perform the essential functions of this position.

- While performing duties, the employee may be exposed to varying weather conditions, wet or humid conditions, confined spaces, elevated noise levels (above 85 decibels), vibration, fumes, odors, dust, treatment chemicals and gases (e.g., CH4, H2S, CO2, sodium hypochlorite), and grease or oils; appropriate personal protective equipment (PPE) is required.
- The employee must be able to distinguish basic colors and shades, maintain adequate near and far vision and depth perception, and communicate clearly.
- All duties must be performed in a safe manner consistent with department and City safety policies and procedures.
- The employee must be able to move about treatment facilities and field sites, including climbing stairs and ladders and accessing elevated or below-grade structures and occasionally lift and carry up to [50] pounds.
- Must possess and maintain a valid Wisconsin driver's license.