

Hourly Rate Range: \$22.69- \$32.03
 Hiring Rate Range: \$22.69- \$26.67

NEW Water
Job Description



SECTION 1 DEMOGRAPHIC INFORMATION			
Job Title	WWTP Operator-in-Training	Division	Operations
Department	Treatment	Reports To (Job Title)	Treatment Manager
Full-Time / Part-Time	Full Time	Part-Time (Hrs per Wk)	
Pay Grade	8	Exempt/Non-exempt	Non-Exempt
Adoption Date (original job description date)		Last Revision Date	July 12, 2016
Approved By (generally same as "Reports To")	Treatment Manager	Human Resources Approval Date	July 31, 2016
Director Approved By (Job Title)	Director of Operations		

SECTION 2 JOB SUMMARY
<p>The primary role of this position is to develop the skills, knowledge, and experience required to operate all NEW Water treatment processes and their associated equipment at both wastewater treatment facilities. An individual in this position will initially be classified as an "Operator-In-Training". As operational knowledge at the Green Bay (GBF) and De Pere (DPF) facilities increase to a satisfactory level, as determined by the Treatment Manager, this person will be utilized as a relief operator on a crew. This position is expected to perform all of the same tasks as a Treatment Operator but at a reduced level of responsibility.</p> <p>Advancement opportunities exist for this person to move into a Treatment Operator position upon successfully completing all training and upon approval by the Treatment Manager.</p>

SECTION 3 DESCRIPTION OF ESSENTIAL RESPONSIBILITIES & DUTIES	
Frequency: Daily, Weekly, Biweekly, Monthly, Quarterly, Annually, or As Needed	
Description of Duties	Frequency
Key Area: Plant Operation	60% of job
Responsible for operating all equipment, facilities, and associated processes at both wastewater treatment facilities.	Daily
Develop the skills needed to ensure all equipment is operating at peak efficiency.	Daily
Identify improvement opportunities in the processes, facilities, and equipment as part of a continuous improvement culture.	Daily
Assist Maintenance, Field Services, and Utilities staff in troubleshooting equipment and process issues.	Daily
Request proper maintenance and servicing of equipment using the Computerized Maintenance Management System (CMMS) in a timely, efficient, and effective manner.	Daily
Develop the skills necessary to interpret analytical data from which intelligent decisions are made. These decisions affect the safe and proper operation of both of NEW Water's facilities, processes, and equipment. Utilizes analytical data, physical and chemical observations, electrical, mechanical and instrumentation conditions, computer-generated data, and log entries to make these decisions.	Daily
Must effectively organize work assignments and perform follow-up inspections to ensure that both facilities are operating efficiently.	Daily
Effectively communicate with internal and external customers while coordinating work activities to determine how changes in the operation will affect the process.	Daily
Key Area: Safety	15% of job
Ensures that all NEW Water Safety and Security policies are followed.	Daily
Participates in safety and security training as directed by the Treatment Manager.	Monthly
Reports unsafe conditions within the plants and makes recommendations to correct the issue.	As Needed
Communicates with the Treatment crews and other NEW Water staff regarding safety hazards.	As Needed
Takes appropriate action when a safety hazard is identified (e.g., notifies direct supervision and crew members	As Needed

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after properly identifying and mitigating the hazard).	
Key Area: Research and Development	15% of job
Assists in development, preparation, and updating of all division documents including: plant logs, analytical data, Operation and Maintenance (O&M) manuals, and Standard Operating Procedures (SOPs).	Daily
Key Area: Coordinating, Scheduling, and Requisitioning	10% of job
Responsible for the coordination, scheduling, and receiving of hauled-in-wastes at the GBF.	Daily
Responsible for the coordination, scheduling, requisitioning, receiving, and unloading of chemicals at the GBF and DPFF.	As Needed
Identifies, orders, and receives supplies (e.g., small tools, chemicals, materials, and equipment) needed for normal plant operation and for special projects.	Daily
Other:	
Perform other job related duties as assigned.	As Needed
Promote and enhance environmental, health, and safety compliance within the work environment and actively engage in improvement efforts.	Daily
Follow organizational policies and procedures.	Daily

SECTION 4 EDUCATION REQUIRED	
Minimum Level of Education	Field(s) of Study
Associate's Degree	Wastewater Treatment, Environmental Sciences, or related field of study.
Additional Information Regarding the Required Education:	Completion of the Wisconsin Wastewater Operators State Apprenticeship Program may substitute for the associate's degree. Demonstrated aptitude in the areas of mechanical operation, mathematics, biology, and chemistry, or an equivalent combination of training and relevant experience.

SECTION 5 EXPERIENCE REQUIRED	
Years of Experience	0 – 6 months
Other Specific Experience Required or Preferred	Internship in a related field preferred.

SECTION 6 CERTIFICATION / LICENSURE / TRAINING TO PERFORM JOB		
Required Certification/Licensure	Required Upon Hire?	If no, timeframe to obtain?
Current and valid motor vehicle operator's license.	Yes	
Incinerator Operator Certification		Two Years
Be certified in confined space entry procedures, CPR, and First Aid,		Two Years
Training in forklift operation, respiratory protection, lockout/tagout, and fire extinguisher operation.		Two Years
Preferred Certification/Licensure		
All applicable subclasses for the advanced Grade IV level Wastewater Treatment Plant Operator's license as issued by (or acceptable to) the Wisconsin Department of Natural Resources (Including Continued Education Credits required to maintain a valid Wisconsin Wastewater Operator License.)		
Microbiology/Microscope Training		

SECTION 7	ADDITIONAL KNOWLEDGE, SKILLS, AND ABILITIES
<p>Good knowledge of the principles, practices, and methods used in wastewater treatment facility operations. Knowledge of the methods, practices, tools, and materials used in the operation of pumps, blowers, valves, and related equipment. A growing understanding of preventative maintenance practices applicable to treatment plant equipment. Knowledge in the operation and troubleshooting of mechanical, electrical, and instrumentation equipment used in wastewater treatment plants.</p> <p>Demonstrated aptitude in the areas of mechanical operation, mathematics, computers, biology, and chemistry.</p> <p>Good knowledge of laboratory testing procedures and how to use the results in correcting operating conditions related to permit compliance. Good knowledge of sludge processing biology (aerobic and anaerobic) and of the techniques used to correct bacterial upsets to maintain or restore biological process balance. Good knowledge of water and air regulatory programs and their effect on plant operation (EPA Title V, EPA 503, WPDES permit, EPA 40 CFR Part 60 Subpart LLLL, and EPA 40 CFR Part 62 LLL).</p> <p>Good knowledge in confined space entry procedures (Permit-required Confined Space OSHA 1910.146), lockout/tag out procedures (Lockout/Tagout OSHA 1910.147), and hazard communication practices related to Safety Data Sheets (Hazard Communication OSHA 1910.1200).</p> <p>Ability to establish and maintain effective working relationships with staff, including both internal and external customers. Ability to communicate effectively both orally and in writing.</p> <p>Ability to understand complex policies, procedures, and technical problems. Ability to critically analyze process problems and to use sound judgment in arriving at an effective and appropriate solution.</p> <p>Competence in the use of personal computers for writing reports using word processing programs and the generation of data utilizing spreadsheets and databases for collection and process analysis.</p> <p>The ability to work independently and safely while maintaining a safe work environment for all staff.</p> <p>The ability to multi-task in stressful situations (i.e. Emergency response protocols, unplanned power outages, and high flow situations).</p>	

SECTION 8	SOFTWARE / TECHNOLOGY UTILIZED
<p>Microsoft Outlook, Word, Excel, Access, SharePoint, Rockwell Systems (SCADA), Maximo (CMMS), Maxcom (SDS for Chemicals), ExecuTime (Time and Attendance), Programmable Logic Controllers (PLC's), Stackvision (Continuous Emissions Monitoring System - CEM), Simplex security system</p>	

SECTION 9	EQUIPMENT / MACHINERY UTILIZED
<p>Computers, forklift, motorized carts and hand tools, power tools.</p> <p>Operation of all plant equipment including: Pumps, screening equipment, samplers, air monitoring sensors and equipment, grit removal systems, clarifiers, scum removal equipment, aeration basins, air compressors, mixing equipment, on-line analyzers and monitors, valves (manual, electric, pneumatic), treated cooling water and service water systems, sand filtration equipment, gravity thickeners, gravity belt thickeners, dry polymer system, belt filter presses, HVAC, multiple hearth incinerators, chemical feed systems, conveyor systems, flow control gates, plant heating boilers, emergency generators, air emissions system, and disinfection equipment.</p>	

SECTION 10	JUDGMENTS / DECISION-MAKING: IMPACT
Description of Duties	Check One
Job Centered / Work Unit: Decisions are typically isolated to an individual's job or work unit.	<input checked="" type="checkbox"/>
Department-Wide: Decisions may impact across work units, and involve a significant function of the department. Supervision or management is typically—but not always—a component of the job.	<input type="checkbox"/>

Multiple Departments: Decisions are made on behalf of and impact across multiple departments; or across several sections of a significantly large department.	<input type="checkbox"/>
Entire Organization: Decisions are made on behalf of and affect the entire organization including, but not limited to: employees, customers, vendors, governing body, etc.	<input type="checkbox"/>

SECTION 11 JUDGMENTS / DECISION-MAKING EXAMPLES

Frequency: Daily, Weekly, Biweekly, Monthly, Quarterly, Annually, or As Needed		
Example of Decision / Judgment	Job Title of Who Reviews (If Anyone)	Frequency
Maintain safe and efficient plant operational practices and procedures to ensure regulatory compliance.	Treatment Manager Treatment Leaders, Treatment Operators, Wisconsin DNR, EPA	Daily
Contribute to plant operational changes by interpretation of operational spreadsheets, databases, lab data and microscope analysis.	Treatment Manager Treatment Leaders, Treatment Operators, Wisconsin DNR, EPA	Weekly
Assist in coordination of process changes and equipment rotation.	Treatment Manager Treatment Leaders, Treatment Operators	Daily
Assist in maintaining staffing requirements and balancing workloads.	Treatment Manager Treatment Leaders, Treatment Operators	Daily
Troubleshooting, performing minor maintenance on equipment.	Treatment Manager Treatment Leaders, Treatment Operators, other departments	Daily
Assist in equipment rotations driven by service requests.	Treatment Manager Treatment Leaders, Treatment Operators	Daily
Perform position requirements using proper personal protective equipment.	Treatment Manager Treatment Leaders, Treatment Operators, Safety and Security Coordinator	Daily

SECTION 12..... PROBLEM SOLVING

Example of Problem	Resources Used
Assist in monitoring, evaluating, and adjusting parameters to the following processes: pump station, screenings, primary treatment, biological aeration, effluent filtration, effluent disinfection, gravity belt thickening, gravity thickening, belt filter presses, and incinerators.	SCADA, CEM Systems, samplers, Microsoft Access, Lab Data, Analytical Measurement Devices (e.g. TSS and DO Probes), PLC's, and operational knowledge and experience.
Assist in monitoring and adjusting plant operation at both facilities to accommodate fluctuating loadings and flows.	Flow Meters, Lab Data, SCADA System, external customer communications, interdepartmental coordination
Assist in monitoring and adjusting plant operations during any upsets such as major rain events to prevent any sewer backups within our service area, maintaining adequate treatment of incoming flow and preventing any bypass to the river.	Additional equipment and/or processes, DPF force main transfer, collection system monitoring, call-in list, NOAA weather forecasting.
Assist in monitoring for shock or toxic loads, unplanned power outages, and/or high seasonal loadings	Communication with Pre-Treatment coordinator, sampling, security system, power monitoring devices.
Protection of equipment from freezing during winter months.	Basin Winterization Procedures, Service Water, Process air, ice chippers.
Assist in troubleshooting operational problems and upsets.	SCADA, Lab Data, Grab Sampling, Operational Experience
Assist in troubleshooting equipment failures	CMMS (Maximo), SCADA, Operational Experience
Assist in monitoring and adjusting plant performance during construction/upgrade projects.	SCADA, Lab Data, Grab Sampling, Operational Experience, Project Coordinator updates.

SECTION 13WORKING RELATIONSHIPS / INTERACTIONS / CONTACTS

Frequency: Daily, Weekly, Biweekly, Monthly, Quarterly, Annually, or As Needed

Title/Description of Contact	Purpose of Contact	Frequency
Treatment Department	Offer team encouragement and direction as a self-directed work group.	Daily
Interdepartmental (all NEW Water Departments)	Plant maintenance, repairs, troubleshooting, equipment rotations, power switches, sample data, monthly plant sampling (MPS), priority pollutant sampling, whole effluent toxicity testing (WET), plant tours, special projects, rules and regulations.	Daily
Solid Waste Disposal Company	Schedule and coordinate filling and pick-up times of ash, grit, and solid waste.	Daily
General public, consultants, business representatives, other wastewater professionals, outside vendors, outside contractors.	Answering outside phone calls during off hours, primary contact for emergencies, plant modifications, public education, lead plant tours.	Daily
Chemical Supply Companies	Order and schedule delivery of chemicals,	As needed
Regulatory Agencies	Reporting of any incinerator upsets chemical/hazardous waste spills.	As needed
GBF and DPF Mill Flows	Monitoring unusual flows, pH or shutdowns.	Daily
Wisconsin Public Service	Power Outages	As Needed
Diggers Hotline	Monitor for Non-Emergency and Emergency locates to dispatch appropriate personnel when needed	Daily

SECTION 14SUPERVISION / MANAGEMENT AUTHORITY

Action	Yes	No	Provides Input
Screen / Interview Applicants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hire / Promote Employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide Written / Verbal Warnings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Suspend Employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Terminate Employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prepare Work Schedules	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Project Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide Work Direction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evaluate Performance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Coach Employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Train Employees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approve Overtime	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Approve Time Off	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Develop / Implement Policies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Evaluate and Approve Exceptions to Policies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Classification / Compensation Changes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Employees <u>D</u>irectly Supervised	
# Employees	Job Title
Employees <u>I</u>ndirectly Supervised	

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# Employees	Job Title
2	Youth Apprentices
3	Summer Interns
4	Limited Term Employees

SECTION 15.....WORK ENVIRONMENT / WORKING CONDITIONS / PHYSICAL REQUIREMENTS

Refer to ErgoFactor Job Analysis for this position for details.
<S:\Safety\Blankenheim Project\Operations\WWTP Operator in Training.pdf>

SECTION 16ADDITIONAL COMMENTS

Assist in accurately making quick and accurate process changes/decisions for unanticipated problems at both facilities.

Must be able to comprehend how a process change in one area of either facility can affect the complete treatment process.

Ability to work 12 hour shifts, including nights, weekends and holidays, show flexibility to rearrange hours to experience unique operational events

Must keep current on all of NEW Water’s emergency and safety procedures, NEW Water policies, new technologies, computer software, state and federal regulations.

Assist in training Interns, Youth Apprentices, Limited Term Employees.

THIS JOB DESCRIPTION IS INTENDED TO IDENTIFY ESSENTIAL DUTIES AND ALSO ILLUSTRATES OTHER TYPES OF DUTIES THAT MAY BE ASSIGNED TO ITS INCUMBENTS. IT SHOULD NOT BE INTERPRETED AS DESCRIBING ALL OF THE DUTIES THAT WILL BE REQUIRED OF EMPLOYEES OR BE USED TO LIMIT THE NATURE AND EXTENT OF ASSIGNMENTS THAT AN INDIVIDUAL IS REQUIRED TO PERFORM.

JOB DESCRIPTIONS ARE SUBJECT TO REVISION AT ANY TIME AT THE DISCRETION OF MANAGEMENT.

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Treatment

Employer: Green Bay Sewerage

Location: Green Bay, WI

Dept: Treatment

Position: WWTP Operator In Training

Author: Ge Xiong

Date: 09/23/2014

Description: The WWTP Operator in Training is primarily responsible for operating all equipment and related processes within the facility. Position description is attached above.

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Comments: The basic personal protective equipment includes safety glasses, safety shoes, work gloves, nitrile gloves, puncture proof gloves, yellow safety vest, face shield, rain suit, hard hat, ear plugs, earmuffs, etc. based on the tasks being performed.

The associate generally works a rotating 12 hours shift with no scheduled break; however, the associate noted that a 15-30 minute break is allowed as workload permits.

Created: 9/23/2014By: Ge XiongUpdated: 5/5/2015By: Ge Xiong

Ergonomic Risk Factors

Alpha - Significant ergonomic risk present.
 Beta - Work stress present but within ergonomic recommendations.
 Gamma - Occasional to frequent sub maximal efforts.
 Delta - Minimal stress to body part.

Musculoskeletal Complex	Ergonomic Corollary	Rationale
Lower Extremities	Beta	The associate is apt to experience constantly stands on concrete floor or slippery surfaces, frequent walking on potentially wet and slippery surfaces, and occasionally climbs stairs to work on belt presses and to get to different levels within the facility. The associate climbs up to (17 feet) on 11 inch ladder rungs. He/she is also exposed to occasional below waist level work is seen.
Wrist / Hand	Beta	The associate is likely to experience "hard to very hard" pull forces to remove rags from pipes or operate chain valves. The force required to operate chain valves may exceed 100 pounds, however sufficient rest may be taken between efforts.
Cervical	Beta	The associate is apt to experience "hard to very hard" pull forces to remove rags from pipes or operate chain valves. The force required to operate chain valves may exceed 100 pounds, however sufficient rest may be taken between efforts. The associate's cervical motions do not exceed 30 degrees, and minimal head gear is used when needed.
Shoulder	Alpha	The associate is likely to perform occasional reaching above shoulders when performing liquid thickening and cleaning belt press. He/she also pulls out rags from pipes and pulls chains to operate chain valves. The force required to operate chain valves may exceed 100 pounds.

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Elbow / Forearm	Alpha	The associate is apt to experience occasionally reaching greater than 15 inches away from the body when cleaning the belt press, performing maintenance on equipment and machinery. He/she will experience "hard to very hard" pull forces to remove rags from pipes or operate chain valves. The force required to operate chain valves may exceed 100 pounds.
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Trunk	Beta	The associate is likely minimally exposed to lifting five gallon pail filled with liquids weighing up to 42 pounds, from 22 inches to 46 inches.
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Comments: Working conditions call for occasional levels of physically demanding effort characterized by lifting and hauling of loads (under 100 pounds) a few times a day. Individuals in this position work a rotating shift in a wastewater plant environment with exposure to potentially harmful atmosphere, inclement weather, extreme heat sources (>1400 degrees Fahrenheit), raw wastewater, biosolids, and dust conditions. Some work deals with exposure to heights. The level of risk is such that it requires close attention and proper use of safety devices to prevent accidents or injuries.

Created: 9/23/2014 By: Ge Xiong Updated: 12/30/2014 By: Ge Xiong

Risk Factor Potential: BACK

Task	The associate is likely minimally exposed to lifting 5 gallon pail filled with liquids, weighing approximately 42 pounds.
Frequency	Minimal - Less than one lift per hour.
Trunk Angle	45 degrees
Horizontal (est. worse case)	Estimated to be 12 inches.
Vertical (est. worse case)	Estimated to be 22 inches to 46 inches.

Comments: The associate is more commonly exposed to minimally lifting pails and chemical sampling jugs weighing up to 35 pounds.

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Risk Factor Potential: HAND/WRIST

Task: The associate is apt to experience "very hard" hand grasp force when opening/closing chain valves.

Upper Extremity Strain Index

Extremity	Dominant	Non-Dominant
Duration of Exertion	< 10%	< 10%
Duration of Task per Days (hours)	< 1	< 1
Intensity of Exertion	Very Hard	Very Hard
Efforts per Minute	4 - 8	4 - 8
Hand/Wrist Posture	Fair	Fair
Speed of Work	Fair	Fair
Upper extremity strain index score	1.6875	1.6875

Comments: The duration of exertion component of the calculation is theorized to be <10% as the task being performed by the associate is self-pace. The hand and wrist postures tend to be highly variable, and thus, considered "fair" The analysis reflects that the work exposure is less than 1 hour that the actual engaged time performed at a "very hard" grasping effort.

The associate is apt to experience reaching above shoulders to for pulling on the chain to open valves experiencing "very hard" hand grasp force. The potential ergonomic risk is likely compounded by high reaching and maintaining a overhead arm reach position; however, the associate can generally plan ergonomic risk factors by attaining tools to assist with reducing force. The associate may also request for assistance from other staff members.

Created: 9/23/2014By: Ge XiongUpdated: 12/30/2014By: Ge Xiong

Physical Requirements

(Minimal: greater than once per week and less than 5% of work cycle. Occasional: less than 1/3.
Frequent: 1/3 to 2/3. Constant: over 2/3 of work cycle.)

Requirement	Frequency	Examples
Sitting	Frequent	The associate is likely to experience frequent sitting postures on occasion in an electric cart to drive to certain locations within the facility. The associate also noted that the incinerator operator sits frequently while monitoring the security systems. He/she can also be in seated postures while driving utility truck to the DePere facility or while in meetings.
Standing	Constant	The associate is apt to likely experience constant standing on hard surfaces when monitoring security systems and standing in potentially wet slippery surface areas. He/she is likely to stand in sewage and human waste water.

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Walking	Frequent	The associate is apt to experience frequent walking to different departments to assist other coworkers and perform job tasks. He/she is likely to walk in wet slippery surfaces. The associate is likely walk through sewage and waste water. He/she must possess the ability to walk throughout the facility and walk outside when needed.
Foot Use	Occasional	The associate is apt to experience occasional use of foot to press down on the brake and accelerator pedals on forklift, electric cart, and utility truck when traveling to different work areas. He/she is also apt to experience using foot to move items out of the line of work.
Below waist Level Work	Occasional	The associate is likely to experience occasional working below waist level such as kneeling and stooping when gathering sludge samples, cleaning conveyors, troubleshooting machinery, and inspecting wash boxes. He/she is also likely to experience minimally crawling into the incinerator when necessary.
Climbing	Occasional	The associate noted occasional climbing of stairs to work on belt presses and to get to different levels within the facility. The associate climbs up to (17 foot) 11 inch ladder rungs. The associate must be able to work comfortably from high heights. The associate is likely to experience climbing stairs to get to different levels within the facility; however, there is an elevator available for use.
Balancing	Occasional	The associate should possess at least functional balance to perform work while climbing on ladders and walking on potentially slippery surfaces. The associate should possess normal functional dynamic and static balance required to maintain upright postures while sitting or standing to transitioning between sitting and standing postures.
Push / Pull	Occasional	The associate is apt to experience occasional pulling force on rags out of pumps and water wells, pulls chain valves, pushes dumpsters filled with liquids, and pushes a cart with tools and equipment. The pull force to move hatch cover is 70 pounds.
Carrying	Frequent	The associate noted frequent carrying of liquid samples, fire hoses, tools, tape measure, shovel, and broom. The distance varies depending on where the associate needs to go too with the carried items.

Comments: This position involves moving and working around machinery. Depending on the job task, the associate will be required to stand, sit, walk, crouch, crawl, twist, climb, use hand tools, use heavy power assisted tools, lift equipment, and work in potentially awkward positions for limited periods. Some work deals with exposure to heights.

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Physical Requirements: LIFTING

(Minimal - Once per hour. Occasional - Less than 15 lifts per hour.
Frequent - between 15 and 30 lifts per hour. Constant - More than 30 per hour.)

Requirement	Frequency	Examples
0 – 10 lbs	Frequent	The associate noted frequent lifting wrenches, shovels, clipboards, small sample bottles, fire hose, various hand tools, etc.
11 – 20 lbs	Occasional	The associate noted occasional lifting of valve wrench (15 pounds), full sample jugs (20 pounds to 25 pounds). Working heights range from floor to shoulder height.
21 – 35 lbs	Occasional	The associate noted occasional lifting pails and chemical jugs. Weight may vary depending on amount of content.
36 – 50 lbs	Minimal	The associate is apt to experience minimal lifting of full 5 gallon pail (42 pounds), lifted between 22 inches and 46 inches.
51 – 75 lbs	Minimal	The associate is apt to experience minimal lifting of sump pump (57 pounds). This item is generally lifted using a chain/pulley system.
76 – 100 lbs	None Noted	
Over 100 lbs	None Noted	

Maximum Lifted Weight (in lbs): **57**

Object: **Sump pump**

Is a mechanical lift or hoist available? (y/n): **Yes**

Comments: The associate noted that a mechanical hoist is typically available for lifts greater than 50 pounds; however, in certain locations within the facility a hoist or lift may not be accessible. The associate may request assistance for lifting heavy items. In certain locations within the facility, a forklift truck may be accessible to assist with heavy lifting.

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Physical Requirements: UPPER EXTREMITIES

(Minimal: greater than once per week and less than 5% of work cycle. Occasional: less than 1/3.
Frequent: 1/3 to 2/3. Constant: over 2/3 of work cycle.)

Requirement	Frequency	Examples
Reaching over 15" away from the body	Occasional	The associate is apt to occasional reaching greater than 15 inches away from the body when cleaning the belt press, performing maintenance on equipment and machinery, and operating valves. He/she is also likely to experience reaching away from the body to pull out materials from pumps and water wells.
Reaching above shoulder (51.9")	Occasional	The associate is apt to experience occasional reaching above shoulders when performing liquid thickening, cleaning belt press, pulling chain valves, and cranking and turning valves. The estimated reach height maybe greater than 65 inches with ladders and step stools available for assistance. He/she is also likely to reach above shoulders for tools and supplies when needed.
Fine Motor	Occasional	The associate is apt to experience occasional fine motor use when performing maintenance works such pinching nuts and bolts. The associate is apt to experience use gloves to perform fine motor tasks when needed. He/she also spends time on a computer to type on a computer keyboard. The associate will also control knobs and use writing instruments.
Forceful Motion	Occasional	The associate will experience occasional "hard" hand grasping when cranking multiple wash boxes, using tools, along with cranking and turning of valves. He/she is also likely exposed to occasional "very hard" pulling of chains to open and close valves. The associate is likely to experience "hard" hand grasp force with opening a hatch door with 70 pounds of force.

Can this job be performed one-handed? (y/n):

No

Comments: The work can present a wide array of awkward postures and reaching that may occur occasionally. This can include reaching into confined space areas, pulling rags and materials out of pumps, performing tasks while standing on a ladder step, or while driving vehicle. The length of continuous exposure to any effort is typically controlled and self-limited by the associate.

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Sensory Requirements		Within Good Limits (Exceptional skill requirements) Within Functional Limits (Ordinary or typical skill requirements) Minimal (Negligible skill requirements)
Requirement	Minimum Ability Required	Examples
Vision	Within Good Limits	The associate should possess correctable vision to at least 20/30 for observing plant operations, monitoring valve controls, reading SOPs, and emails. The associate should possess good vision for color discrimination. In general, the associate should possess good vision ability to perform tasks safely and accurately.
Hearing	Within Functional Limits	The associate should possess functional ability to communicate with co-workers in loud work areas, hear voices through a radio or telephone, and hear safety alarms. The associate should also possess functional ability to detect machine "knock" is also required. He/she can also diagnose equipment with any unusual sounds coming from machinery and equipment.
Touch	Within Functional Limits	The associate should possess functional tactile ability to perform fine motor work, and use hand and power tools safely. He/she should also possess the ability for temperature discrimination is required to detect heat from hot equipment. The associate may be wearing gloves while performing tasks and the associate must be able to detect abnormal vibrations in machines.
Taste	None Noted	
Smell	Within Good Limits	The associate should possess good sense of smell to detect burning equipment or rubber, presence of chemical hazards, and water sewage smell. He/she must be able to tolerate and work with human waste and sewage smells.

Comments: The associate is likely to perform tasks and duties indoors; however, some tasks may require the associate to drive to the DePere facility in snow and rain conditions. He/she is also likely exposed to extreme heat measured at over 1400 degrees Fahrenheit. The associate must have good knowledge in maintaining and restoring biological process balance. He/she must also be willing to work and be aware of biological hazards attributed to waste water.

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Mental/Communication Requirements		Within Good Limits (Exceptional skill requirements) Within Functional Limits (Ordinary or typical skill requirements) Minimal (Negligible skill requirements)
Requirement	Minimum Ability Required	Examples
Math	Within Good Limits	The associate should possess good ability to calculate SVI - settle volume, interpret gauges, measurements, and understand how perform unit conversions. He/she should be able to use spreadsheets and apply calculations to the spreadsheets. The associate should possess at least good mathematics to perform tasks.

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Reading	Within Good Limits	The associate should possess good ability to read email, updates on equipment, manuals, procedure manuals, SOPs, signs, safety procedures, training manuals, and measurements. He/she should possess good ability to read orders, supplies lists, forms, work orders, etc.
Writing	Within Functional Limits	The associate should possess functional writing ability to type emails, logs, incinerator charts, process changes, and sampler volumes. He/she should also be able to write and request work orders, training evaluations of Operators in Training, and sign off on equipment checks.
Oral	Within Functional Limits	The associate should possess at least functional ability to effectively communicate with other operators, Treatment Leads, Maintenance, and other staff member from different shifts and/or departments. He/she must be able to communicate clearly through telephone or radio with other staff members in order to complete tasks safely and efficiently. The associate is apt to respond to diggers hotline, relay messages, and at times present information to different shift operators regarding issues or tasks being performed.
Following Instructions	Within Good Limits	The associate should possess good ability to follow written and verbal instructions from Treatment Leads and other operators. He/she must also follow safety and standard procedures on troubleshooting equipment and shutdown/turn on machinery. The associate is apt to understand and know the job at times without any assistance available for a certain period of time.
Giving Instructions	Within Functional Limits	The associate should possess at least functional ability to give instructions to Operator in Training, Youth Apprentices, Interns, and other crew members when on a shift change. He/she trains Operator in Training and/or crew members to perform procedures that they may not be familiar with. The associate is also apt to experience giving clear and concise oral or written instructions to maintenance and other staff members from different departments regarding issues or tasks.
Working with Others	Within Good Limits	The associate should possess good ability to work with other crew members. A crew consists of 4 members and must work together to safely complete tasks and assignments. There is one crew member that will work alone at the De Pere facility. The associate should also be able to work with different crew members from different shifts in order to relay tasks and duties that need to be complete. He/she is also likely to work with maintenance to assist with troubleshooting equipment along with relaying messages to Field Service Technicians.
Problem Solving	Within Good Limits	The associate should possess good problem solving ability to troubleshoot equipment before calling maintenance, understand how equipment operates, and utilize training and experience to resolve a problem. He/she is apt to handle multiple issues at once and must react/resolve issues quickly and in a timely manner.

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The associate should also possess the necessary skills and training to occasionally operate electric cart, forklift, and manlift along with obtaining training in confined space entry, respiratory protection, lockout/tagout, fire extinguisher, CPR, and First Aid.

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Human Performance Function Matrix

Mainly Physical (Mechanical)	Example 1	Example 2	Example 3	Example 4
Musculoskeletal:	The associate is likely minimally exposed to perform lifting a sump pump weighing up to 57 pounds from ground level to knee level.	The associate should possess the ability to occasionally perform manual lifting to 35 pounds between ground level and waist level.	The associate is likely to experience constant standing and frequent walking on hard floor surfaces and potentially on wet slippery floors. He/she is also likely to be standing and walking in human waste and sewage waste water.	The associate is apt to experience occasional fine motor work such as pinching nuts and bolts along with experiencing occasional hand grasping while cranking and turning valves. He/she is also apt to experience "hard to very hard" hand grasp force when pulling out rags and materials from water pumps along with pulling on chains to close and open valves with 100 pounds of force used.

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Sensori-Motor:	The associate should possess functional tactile ability to perform fine motor work and have the ability to detect heat sensation on equipment along with using hand and power tools safely and properly. He/she is apt to wear gloves during some tasks that may require it and the associate must be able to perform tasks with gloves on.	The associate should possess functional sense of smell to detect burning equipment, chemical hazards, natural gas leaks, and water sewerage. He/she should also be able to tolerate and work with human waste and sewage smells.	The associate should possess functional hearing ability to communicate with other crew members over the radio or phone and in loud areas. The associate should also possess the ability to hear safety alarms. He/she should be able to communicate effectively with other staff members from different departments.	The associate should possess functional vision for monitoring plant operations and valve controls. He/she should also be able to see the computer screen while performing computer tasks. The associate is also apt to have at least functional vision to perform tasks safely.
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Human Performance Function Matrix

Mainly Non-Physical (Intellectual)	Example 1	Example 2	Example 3	Example 4
Perceptual-Motor:	The associate should have spatial awareness when working in confined spaces or working with other operators within the facility.	The associate should have at least functional hand-eye-foot coordination when operating an electric cart, utility truck, and/or forklift safely. He/she is likely to experience operating heavy equipment with other staff members around and must ensure the safety of others. He/she must be trained on forklift operation.	The associate should possess functional depth perception to safely navigate throughout the facility when monitoring systems. He/she should possess good directional awareness and know the routes of the facilities to the designated area.	The associate should possess functional object orientation and recognize the correct orientation of machinery and equipment. In order to maintain the safety of the plant and other staff members, the operators must ensure all machinery and equipment are in their correct place.

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<p>Perceptual-Cognitive (Mental):</p>	<p>The associate should possess functional visual memory to remember an image of a part or task that may need attention. He/she is likely to troubleshoot equipment prior to maintenance assistance.</p>	<p>The associate must be aware of biological hazards attributed to working with human waste and sewerage waste. He/she should be able to tolerate and work with human and sewage waste water.</p>	<p>The associate must be attentive to other coworkers assignments and status when performing coordinated duties. He/she must be able to ensure the safety of him/herself and other staff members when they are working together in or near the same area.</p>	<p>The associate should possess at least functional ability to be aware of hot/cold temperatures when walking outside during the winter time or when working around the incinerator. He/she should also possess the ability to wear and use PPE for such conditions.</p>
<p>Cognitive (Mental):</p>	<p>The associate should be on alert for general safety awareness within the facility and monitoring of off site locations. He/she must also ensure the safety of other staff members whether they are working within the facility or working off-site.</p>	<p>The associate should possess good problem solving skills to troubleshoot equipment issues. He/she should be able to resolve issues prior to contacting maintenance.</p>	<p>The associate should be able to learn and follow new procedures on equipment and systems. He/she may also assist with training youth apprentices, interns, and operator in training on using new or existing equipment.</p>	<p>The associate should possess the ability to communicate with other crew members within the facility and staff members working off-site.</p>

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