

**Water Treatment Plant Operator
Job Description
Southwest Water Authority**

Scope of Work

The individual in this position will perform work activities associated with a Class III ultrafiltration and reverse osmosis water treatment plant. The general work activities are plant operations, which involve water treatment theory and practice, plant equipment operation, maintenance, and repair. The Southwest Water Authority (SWA) is responsible for management, operations, and maintenance of the Southwest Pipeline Project (SWPP). The SWA is a political subdivision led by a 15-member Board of Directors. The SWPP is a regional water delivery system serving municipal, rural, and industrial water user entities in southwest North Dakota.

Essential Functions

1. Produce potable water for the Southwest Pipeline Project, in accordance with all state and federal regulations.
2. Understand water treatment theory and technology, and apply that knowledge to the water treatment process and production.
3. Operate a Class III water treatment plant which includes:
 - A. Monitor gauges, flowmeters, charts, system control computer, etc.
 - B. Conduct water analysis tests such as hardness, alkalinity, PH, conductivity, turbidity, chlorine residual, etc., for treatment process control.
 - C. Determine chemical feed rates and adjust chemical dosages with approval of the Water Treatment Plant Operator III or IV.
 - D. Determine and maintain proper flow rates and in accordance with water consumption demand.
 - E. Maintain treatment records in accordance with SWA, state and federal regulations.
 - F. Operate and maintain ultrafiltration and reverse osmosis equipment to include cleaning, testing, and membrane repair and replacement.
 - G. Comply with North Dakota Pollutant Discharge Elimination System (NDPDES) discharge permit requirements, pertaining to the disposal of reverse osmosis concentrate and membrane cleaning solutions.
4. Conduct water analysis tests to ensure safety and water quality by collecting representative water samples and testing for contaminants and properties such as color, odor, chlorine levels, nitrification, etc.
5. Collect representative water samples to be used by other agencies for water analysis testing for regulation compliance.
6. Ensure that plant operations are in compliance with operating guidelines and that treated water is safe and acceptable entering the distribution system.
7. Maintain all required records such as operating logs, chemical and repair part inventories, maintenance logs; distributes information to internal and external personnel.

8. Perform routine preventive maintenance on plant equipment to include: operating adjustments and calibrations on equipment, basic mechanical and electrical work and cleaning, lubricating and replacing equipment parts.
9. Perform building and grounds maintenance as needed, including mowing, painting, cleaning, etc.
10. Maintain the Intake and Dodge pre-treatment facilities including routine maintenance, calibration of chemical injection equipment and adjusting chemical feed rates.
11. Assist Safety Officer with regular safety inspections of plant equipment, facilities and vehicles; record violations or potential hazards and take corrective action.
12. Become familiar with plant manuals such as maintenance, treatment and safety.
13. Assist outside contractors, supplying necessary information and inspect contractors work.
14. Promote positive relationships and communicate effectively and courteously with co-workers, and outside plant associates.
15. Perform minor corrective maintenance on plant equipment.
16. Discuss water quality with the public and conduct plant tours if needed.
17. Become familiar with the rules, regulations and policies of the SWA.
18. Order chemicals, repair parts and tools.
19. Be available and willing to be on-call on a 24-hour basis. This could be a one week per month requirement.
20. Obtain a Grade I operators certification by obtaining continuing education credit hours set forth by the State Health Department, and actively pursue a Grade III certification.
21. Assist SWA Water Distribution Operators during emergencies or as may be required to maintain quality service to SWA customers.
22. Perform other related duties required from time to time.

Knowledge, Skills, and Abilities

1. Ability to maintain effective working relationships with a diversified group of people under trying and stressful conditions.
2. Ability to communicate courteously and professionally to reflect a positive image of SWA and water treatment plant to its customers and the public.
3. Ability to express self logically and concisely in both oral and written form.
4. Ability to access and interact with computer control systems.
5. Ability to analyze, evaluate, and recommend sound solutions to problems of routine nature.
6. Ability to research, interpret, explain, and correctly apply policies, rules, regulations, and procedures.
7. Ability to work independently and efficiently.
8. Ability to adjust work schedule to perform necessary duties.
9. Ability to handle confidential matters.
10. Ability to understand basic math and chemistry and being able to apply the knowledge to the water treatment process.
11. Ability to understand mechanical problems and equipment.
12. Ability to use common hand tools and other related equipment.

Typical Physical/Mental/Environmental Demands

1. Requires extended periods of standing, also requires finger dexterity, hearing and vision.
2. Requires periodic lifting of 50 pound chemical bags. Occasionally maintenance may require lifting of approximately 75 pounds.
3. On a daily basis, requires the ability to read, write, compile, and analyze data and reports.
4. On a daily basis, requires the ability to work as a team player, courteously and respectfully with co-workers in a close working environment.
5. Must enter confined space areas such as manholes, vaults, and reservoirs.
6. May be subject to noise and chemical dust. Must work with hazardous chemicals in a liquid, vapor or solid form.

Supervision

1. The Water Treatment Plant Operator is under the general supervision of the Water Treatment Manager.
2. The Water Treatment Plant Operator is responsible to assist in the day-to-day operation of the water treatment plant.
3. The Water Treatment Plant Operator may at times consult the Water Treatment Manager, or in the Water Treatment Manager's absence, the Manager/CEO on complex or managerial problems or concerns.

Guidelines

1. The Water Treatment Plant Operator will follow procedures and guidelines set forth by governing agencies and the SWA.
2. Guidelines may consist of operations, equipment and safety manuals, EPA rulings, and state and local regulations.
3. The Water Treatment Plant Operator will exercise judgment in selecting applicable procedure and decides various matters as related to processing water. In situations where guidelines do not apply, the Water Treatment Plant Operator will refer questions to the supervisor for assistance.

Complexity

Work consists of duties that involve various related steps, processes, or methods. Actions to be taken, or responses to be made differ depending upon the situation involved. Assignments and tasks are usually standardized.

Personal Contacts

Contacts are with co-workers within SWA, customers, the public, the SWA Board of Directors, employees of other federal, state, and local agencies, contractors, suppliers and other business interests.

Purpose of Contacts

The purpose of the contacts is to obtain, clarify, give facts, or exchange information directly related to the treatment of water. Contacts with customers and the public often require exceptional tact and judgement. To ensure compliance with legal and regulatory requirements, the Water Treatment Plant Operator must frequently coordinate and effectively deal with supervisors, co-workers, and others.

Education and Experience

1. High school diploma or equivalent.
2. Valid driver’s license.
3. Minimum six months experience with small power equipment and hand tools.

Knowledge of Equipment

Computers and related equipment	Vehicles	Multimeters	Pumps
Bobcat	Calculators	Generators	
Personal Protective Equipment	Lab Equipment	Hand Tools	
Chemical Feeders	Chemical Analyzers	Monitoring Equipment	

Nonessential Functions

1. Use of personal computer
2. Use of calculator
3. Use of computer, spreadsheets, databases, and any other software required to perform job functions.

Location

This position is located approximately seven miles north of Zap, ND. There are pretreatment facilities located at the Intake (Lake Sakakawea) and near Dodge, ND, and may require travel to those locations, usually once per week. Travel to other distribution facilities may be necessary.

Salary

This is a full time, non-exempt position with standard benefit package.

The statements herein are intended to describe the general nature and level of work being performed by the person assigned to this position. The statements are not intended to be construed as an exhaustive list of all responsibilities, duties, and skills required of personnel as classified.