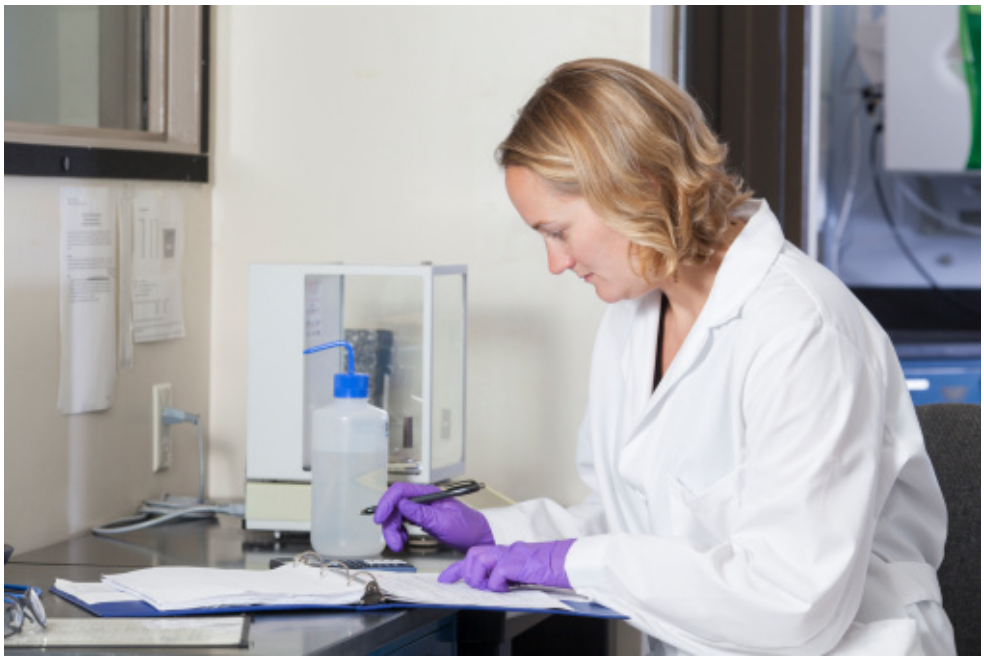
WATER AND WASTEWATER TREATMENT SPECIALISTS



Job Description: As with most large industrial processes, energy industries use large quantities of water in their operations and need to dispose of or reuse wastewater. For example, oil drilling requires huge amounts of water and sand for the fracturing (fracking) of shale, and a continuous flow of water for the oil pumping process. Substantial amounts of water are used in power plants, ethanol plants, and North Dakota's coal gasification plant. Water and wastewater treatment specialists oversee an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater. Core tasks include:

- Adding chemicals such as ammonia, chlorine, or lime to disinfect and deodorize water
- Inspecting equipment or monitoring operating conditions, meters, and gauges to determine load requirements and detect malfunctions
- Collecting and testing water and wastewater samples, using test equipment and color analysis standards
- Recording operational data, or meter and gauge readings on specified forms
- Operating and adjusting controls on equipment to purify and clarify water, and process or dispose of wastewater
- Understanding local, state, and federal rules and regulations regarding water treatment and wastewater disposal

Needed Skills and Education: A high school diploma is usually required to become a water and wastewater treatment specialist. Most employers look for coursework in chemistry, biology and mathematics. Completion of an associate degree or certificate program in water quality and waste treatment technology increases an applicant's chances for employment and promotion because processes are becoming more complex. An increasing number of community colleges and technical schools are offering two-year associate's degrees or one-year certificate programs in water quality technology, water pollution control, and treatment.

Wages: The average annual wage in North Dakota for a water and wastewater treatment specialist is $36,750. This is below the national average annual wage of $44,630. Average hourly wages in North Dakota begin at $8.38 and rise to $27.27 for experienced individuals.

Other Information: The employment outlook for this occupation is stable in North Dakota and nationally. However, an increasing population and the growth of the economy are expected to boost demand for water and wastewater treatment specialists. In addition to the energy industry's needs for employees in this field, larger cities and many other industrial processors will have job openings.

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