

## CITY OF SEDRO-WOOLLEY

### *JOB DESCRIPTION*

**JOB TITLE:** WASTEWATER TREATMENT PLANT OPERATOR I  
WASTEWATER TREATMENT PLANT OPERATOR II  
WASTEWATER TREATMENT PLANT OPERATOR III

**DEPARTMENT:** Public Works, Wastewater Division

**REPORTS TO:** WWTP Supervisor or Lead Operator

**FLSA CLASSIFICATION:** Non-Exempt

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

#### **GENERAL PURPOSE OF JOB:**

Under supervision (Wastewater Treatment Plant Operator I), general supervision (Wastewater Treatment Plant Operator II), or direction (Wastewater Treatment Plant Operator III), performs a variety of duties essential to the operation of a Major (>1.0 mgd) Wastewater Treatment Facility; inspects, operates, monitors, and maintains a variety of equipment, and systems involved in various processes of the wastewater treatment plant facility and associated pump stations; monitors plant operation through visual observation and computer screens; regulates flows; performs chemical analysis and tests; and performs a variety of related duties to ensure the facility's final effluent is of the best quality in order to protect the community and all downstream receiving waters and their users while utilizing plant resources wisely and efficiently.

#### **DISTINGUISHING CHARACTERISTICS:**

**Wastewater Treatment Plant Operator I** – This is the first level class in the Wastewater Treatment Plant Operator series. Positions at this level, working under direct supervision, have prior experience in the operation, repair, and maintenance of machinery, pumps, or mechanical equipment, including some experience in a wastewater treatment plant, but are not expected to function with the same amount of program knowledge or skill level as positions allocated to the Wastewater Treatment Plant Operator II level and exercise less independent discretion and judgment in matters related to work procedures and methods. Individuals at this level are expected to become fully knowledgeable of the assigned area and to learn the full range of plant maintenance, repair, and operations functions. Individuals at this level participate in regular assignment to the on call rotation, using sound professional judgement to determine proper response to alarm/emergency situation while understanding that all process control decisions must be approved by a supervisor or a higher classified operator. Certification as an operator is required and training is provided by the City. Certification as a Group I Wastewater Treatment Plant Operator issued by the Washington State Department of Ecology is required.

**Wastewater Treatment Plant Operator II** – This is the journey level class in the Wastewater Treatment Plant Operator series. Positions at this level, working under general supervision, require

demonstrated ability to perform a variety of wastewater treatment plant maintenance and repair duties as well as a variety of plant operational duties. Individuals at this level may act as the operator in charge and have direct charge of the operation of the wastewater treatment facility in the absence of a supervisor. Positions at this level participate in regular assignment to the on call rotation and are qualified to make independent process control decisions. Positions in this class series at the Wastewater Treatment Plant Operator II level are normally filled by advancement from the Wastewater Treatment Plant Operator I level. Positions at this level require two years of experience comparable to a Wastewater Treatment Plant Operator I with the City of Sedro-Woolley and must possess a Group II Wastewater Treatment Plant Operator Certificate issued by the Washington State Department of Ecology.

**Wastewater Treatment Plant Operator III** – This is the advanced journey level class in Wastewater Treatment Plant Operator series. Positions at this level, working with direction only, require demonstrated ability to perform the most advanced functions related to the operation, maintenance, and repair of equipment at all wastewater treatment facilities. Positions allocated to this class level may act as the operator in charge, having direct charge of the operation of the wastewater treatment facility in the absence of a supervisor, performing complex analysis of the Wastewater Treatment Plant operations. Positions at this level may provide instruction and assistance to lower level Wastewater Treatment Plant Operators and interns. Positions in this class series at the Wastewater Treatment Plant Operator III level are normally filled by advancement from the Wastewater Treatment Plant Operator II level. Positions at this level require two years of experience comparable to a Wastewater Treatment Plant Operator II with the City of Sedro-Woolley and must possess a Group III Wastewater Treatment Plant Operator Certificate issued by the Washington State Department of Ecology.

#### **ESSENTIAL JOB FUNCTIONS:**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

- Performs the full range of duties related to pump station, and plant operations; operates a variety of facilities, systems, equipment, pumps, and valves; learns to operate and maintain new systems and equipment as necessary, participates in implementing new operational strategies.
- Performs a variety of equipment maintenance duties; exercises, tests, inspects, removes, cleans, lubricates, repairs, maintains, and reinstalls equipment related to a variety of wastewater treatment plant and pump station facilities, systems, tanks, pumps, motors, valves, piping systems and related equipment; cleans and calibrates meters, probes and level sensors; trouble shoots equipment control systems; performs general housekeeping and upkeep of all areas associated with assigned facilities.
- Performs a variety of process control related duties; collects samples from various plant processes for laboratory analysis; operates and calibrates automatic samplers; performs a variety of tests and analysis; measures secondary settling basins sludge depths; performs mathematical calculations including those related to flows, areas, volume, weight, force, pressure, chemical dosage, and those related to various tests and analysis; evaluates laboratory and plant testing results, calculations, data, graphs, and reports and implements results in operational control.

- Performs the full scope of biosolids handling duties; applies basic aerobic digestion principles, takes action to prevent malfunctions, monitors and adjusts equipment related to pressing, thickening and mixing polymer.
- Participates in major and minor project work; improving, replacing or relocating equipment and systems, and installing new equipment and systems.
- Investigates and acknowledges alarms throughout the wastewater treatment facility; monitors, and responds to pump station alarms; responds to or locates and notifies appropriate personnel to respond to plant and pump station alarms; provides support, security, and communication as needed when responding to alarms.
- Performs a variety of recordkeeping duties; creates new log books and properly stores old records and log books; reviews and maintains Safety Data Sheets (SDS) records; completes, maintains, and files a variety of forms, lists, records, schedules, and informational logs.
- Performs a variety of duties in response to power outage emergencies; operates, monitors, adjusts, and maintains backup generators; responds to power outages by properly resetting, restarting, and bringing systems essential to proper plant operations back on-line; maintains proper fuel levels in generators and storage tanks.
- Performs a variety of duties in response to wet weather emergencies; operates, monitors, and adjusts plant, collection system and pump station processes.
- Performs a variety of public relations related duties; conducts tours and provides educational information; receives, investigates, documents, and responds to odor/sewer complaints; receives telephone inquiries from the public; answers questions and directs inquiries to appropriate personnel as necessary, maintains good relations with professional and business contacts.
- Participates in a variety of training activities; studies equipment manuals for all facility equipment; receives and applies training on new equipment and processes as well as initial and periodic refresher training on processes, procedures, systems, equipment and safety related to assignment; maintains familiarity with all standard operating procedures pertaining to equipment and plant processes; participates in all and conducts assigned safety meetings; may provide training to new operators-in-training and interns on equipment and plant processes.
- Performs and participates in a variety of safety related duties and activities; follows all safety plans and procedures when performing work; uses appropriate safety devices, equipment and personal protective equipment; maintains awareness of and reports/corrects any trip hazards, spills, and unsafe equipment; properly handles, stores, and labels various chemicals; maintains familiarity with the Chemical Hygiene Plan; maintains familiarity with chemical handling procedures and responses; inspects, cleans, and maintains eye-wash stations; maintains and inspects all personal protective equipment and restocks as necessary; maintains and updates SDS catalog; maintains proper facility lighting; performs proper lock-out/tag-out procedures; employs correct confined space procedures, secures facility perimeter and ensures buildings and vehicles are secure.
- Participates in regular assignment to the on call rotation; responds to plant alarms and after normal working hour emergencies and required jobs. Uses sound professional judgement to determine proper response to alarm/emergency situation, notify supervisory staff as necessary. Must be able to perform the duties of a collection specialist when required.
- Safely operates a utility truck and pickup in and out of plant and Operates forklift inside the plant grounds as required.

## **QUALIFICATIONS:**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

### **Knowledge of:**

- Operations, services, activities, and terminology of a wastewater treatment program including wastewater treatment plant processes and controls.
- Principles, practices, chemicals, and operating procedures related to the operation and maintenance of a wastewater treatment plant, and pump stations.
- Principles of operation, inspection, and maintenance of running a belt filter press, belt thickener and polymer mixing equipment. Familiarity with applicable regulations, environmental concerns, and pollution prevention as applied to Biosolids Management Practices.
- Materials, tools, equipment, and methods used in the general construction, operation, maintenance, and repair of wastewater treatment plant facilities, systems, and equipment.
- Operating principles of pump station and plant equipment including large pumps, valves, and motors.
- Methods and techniques of reading and interpreting gauges, recording devices, and related monitoring systems.
- Maintenance, repair and troubleshooting principles and practices including preventative maintenance procedures.
- Emergency maintenance and repair procedures related to wastewater treatment facilities.
- Methods and techniques of conducting tests and procedures related to wastewater treatment analysis.
- Basic principles of wastewater microbiology.
- Mathematical calculations used in wastewater treatment operations including algebraic calculations.
- Hydraulic principles of pumping and piping systems.
- Plumbing systems and material selection.
- NPDES permit requirements, and other pertinent federal, state, and local laws, codes, and regulations.
- Operational and safety regulations pertaining to wastewater treatment plant operations.
- Occupational hazards and standard safety precautions.
- Principles and procedures used in the proper handling of chemicals.
- Basic mechanical, electrical, pneumatic, and hydraulic principles.
- Principles and practices of customer service.
- Office procedures, methods, and equipment including computers and applicable software applications.
- Principles and practices of record keeping.
- Basic principles of training.

**Ability to:**

- Operate, monitor, and maintain a variety of wastewater treatment plant, and pump station equipment, facilities, and systems.
- Perform complex inspections and preventive maintenance of treatment plant facilities and equipment.
- Read and interpret gauges, meters, human machine interfaces and other indicator or instrument readings and take effective course of action.
- Operate and manipulate SCADA system, programmable logic controllers (PLC), variable frequency drives (VFD), specialized computer applications and programmable human machine interface devices.
- Diagnose complex operational problems and perform effective maintenance on equipment.
- Perform mechanical repairs.
- Monitor and adjust plant processes.
- Collect a variety of samples and conduct appropriate tests in accordance with state and federal regulations and requirements.
- Evaluate process information and respond accordingly to ensure adherence to federal and state limits and requirements.
- Compile and record complex data and information.
- Read and interpret drawings, utility maps, equipment instructions and maintenance manuals.
- Maintain accurate and detailed logs and records of work and tests performed.
- Complete emergency response training and perform in emergency situations.
- Respond to emergency situations outside of normal working hours.
- Work well with others in a team environment.
- Complete work within an assigned time frame.
- Perform math calculations related to wastewater treatment processes and related testing and analysis.
- Operate assigned equipment and tools in a safe and effective manner.
- Operate office equipment including computers and applicable software applications.
- Work independently in the absence of supervision.
- Demonstrate strong problem solving and decision making skills.
- Display attention to detail.
- Perform manual labor.
- Follow detailed oral and written instructions.
- Demonstrate an awareness and appreciation of the diversity of the community.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.

**EDUCATION AND EXPERIENCE:**

*Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

## **Wastewater Treatment Plant Operator I/II/III**

**Education/Training:** Must be a high school graduate or equivalent. In addition, two (2) years of post-secondary college or technical training or a bachelor in science in water/wastewater/process technology, chemistry, biology, engineering, environmental science, or related field is desirable. Relevant work experience is considered as it pertains to water/wastewater treatment.

### **Wastewater Treatment Plant Operator I**

**Experience:** One year of experience in the operation, repair, and maintenance of machinery, pumps, or mechanical equipment including one year of experience in a wastewater treatment plant. Equivalent combinations of education and experience that provide the incumbent with the necessary qualifications will be considered.

#### **License or Certificate:**

- Possession of a Group I Wastewater Treatment Plant Operator Certificate issued by the Washington State Department of Ecology.
- Valid Washington State Driver's license with Class B CDL, Air Brake Endorsement and Tanker Endorsement.
- Valid First Aid and CPR cards or ability to obtain within six months
- Valid Washington State Traffic Control FLAGGER license or ability to obtain within six months.

#### **Other Licenses which are desired and may be required:**

- Erosion and Sedimentation Control (ESC Lead) certified.
- Pesticide Certification.
- Wastewater Collection Specialist Certification

### **Wastewater Treatment Plant Operator II**

**Experience:** Two years of experience comparable to a Wastewater Treatment Plant Operator I with the City of Sedro-Woolley.

#### **License or Certificate:**

- Possession of a Group II Wastewater Treatment Plant Operator Certificate issued by the Washington State Department of Ecology.
- Valid Washington State Driver's license with Class B CDL, Air Brake Endorsement and Tanker Endorsement.
- Valid First Aid and CPR cards or ability to obtain within six months
- Valid Washington State Traffic Control FLAGGER license or ability to obtain within six months.

#### **Other Licenses which are desired and may be required:**

- Erosion and Sedimentation Control (ESC Lead) certified .
- Pesticide Certification.
- Wastewater Collection Specialist Certification

### **Wastewater Treatment Plant Operator III**

**Experience:** Two years of experience comparable to a Wastewater Treatment Plant Operator II with the City of Sedro-Woolley.

#### **License or Certificate:**

- Possession of a Group III Wastewater Treatment Plant Operator Certificate issued by the Washington State Department of Ecology.
- Valid Washington State Driver's license with Class B CDL, Air Brake Endorsement and Tanker Endorsement.
- Valid First Aid and CPR cards or ability to obtain within six months
- Valid Washington State Traffic Control FLAGGER license or ability to obtain within six months.

#### **Other Licenses which are desired and may be required:**

- Erosion and Sedimentation Control (ESC Lead) certified .
- Pesticide Certification.
- Wastewater Collection Specialist Certification

#### **WORK ENVIRONMENT:**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Wastewater treatment plant. Exposure to noise of plant machinery and other equipment; mechanical and electrical hazards of operating equipment; fumes and odors of sewage, chemicals, and gases; potential contact with raw sewage: toxic substances such as chemicals, cleaners, solvents, and gases; all types of weather and temperature conditions. Work and/or walk for long periods of time on various types of surfaces including slippery or uneven surfaces and rough terrain. Subject to 24-hour emergency callbacks and routine assignment to on call rotation; requires working varying hours, overtime, weekends, and holidays. Work environment is informal, team-oriented, having both routine and variable tasks with variable pace and pressure. Work is performed in both indoors in plant area and outdoors in field and collateral facilities.

#### **Physical:**

Primary functions require sufficient physical ability to work in a plant and field setting and operate assigned equipment.

**Continuous:** Walking, sitting, standing

**Frequent:** Bending, stooping, squatting, kneeling, climbing up and down ladders and ascending or descending stairs; hand strength and manual dexterity to grasp and manipulate tools, parts and supplies; fine finger dexterity to operate computer and laboratory equipment, lifting of objects weighing up to 25 lbs.

**Occasional:** Reaching at and above shoulder height, balancing above ground, pushing and pulling, twisting at waist, upward and downward flexion of neck, side-to-side turning of neck, lifting of objects up to 60 lbs. without assistance.

**Infrequent:** Crawling, lifting objects weighing more than 60 lbs. with or without assistance.

**Focus:** Sustained attention to functioning machinery and equipment.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens, printed documents, meter-reading equipment, dials, gauges, lab apparatus and to operate vehicles and equipment; color vision acuity.

**Hearing:** Hear in the normal audio range with or without correction.

**Smell:** Sufficient to detect odors and abnormal equipment conditions.

**Touch:** Sufficient to identify abnormal temperature or vibration in equipment.

**OTHER:**

The statements contained herein reflect general details as necessary to describe the principal functions of this job, the level of knowledge and skill typically required and the scope of responsibility; but should not be considered an all-inclusive listing of work requirements. Individual may perform other duties as assigned including work in other functional areas to cover absences or relief, to equalize peak work periods or otherwise to balance the workload. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or is a logical assignment to the position. Individuals may perform other duties as assigned.

Effective Date: January 19, 2018

Revision History: