

City of  
**EDMONDS**  
Washington

**WWTP LABORATORY TECHNICIAN**

<b>Department:</b>	Public Works – Wastewater Treatment	<b>Pay Grade:</b>	<b>L</b>
<b>Bargaining Unit:</b>	Teamsters	<b>FLSA Status:</b>	Non Exempt
<b>Revised Date:</b>	June 2013	<b>Reports To:</b>	WWTP Supervisor

**POSITION PURPOSE:** Under general supervision, performs chemical and microbiological tests to ensure that the parameters for the plant discharge permit are met; maintains the quality assurance program to meet the Department of Ecology and Environmental Protection Agency requirements; maintains accurate records on all tests performed; ensures final effluent is sent out to private laboratories to test for priority pollutants, heavy metals, and other toxic organics to meet permit requirements; runs regular and periodic proficiency tests on permit parameters to show that lab procedures are producing acceptable results and advises supervisors of large changes in the process so corrective action can be taken.

**ESSENTIAL FUNCTIONS AND RESPONSIBILITIES:**

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Performs a variety of technical work related to chemical, physical and biological laboratory analysis of process samples in wastewater, and ensures compliance with standard testing methods, procedures and regulations.
- Utilizes manual and automatic samplers to collect samples; utilizes a variety of field equipment probes, such as: pH and temperature meters, dissolved oxygen probe and core sampler. Calibrates field meters as needed such as TSS and DO meters.
- Ensures proper handling, storage and transport of samples to maintain integrity based on standard methods.
- Conducts laboratory analysis such as: pH, suspended solids, volatile and total solids, BOD, COD, ammonia, nitrate, chlorides, chlorine residual, fecal coliform and alkalinity.
- Operates a computer terminal to prepare a variety of reports and records related to lab test results according to established EPA and Department of Ecology requirements; calculates and compiles data and test records.
- Maintains State accreditation of laboratory by ensuring staff is properly trained; applies appropriate analytical methods and assures equipment is maintained and operating properly in order for the lab to meet Quality Assurance/Quality Control guidelines and parameters.
- Prepares periodic and special reports related to quality control and results of laboratory tests according to compliance and certification requirement including: discharge monitoring quality control and assurance reports, laboratory analysis worksheets, equipment maintenance and calibration records and others; submits reports to appropriate agencies or department(s) as required.
- Interprets lab data and determines appropriate laboratory corrective action; notifies operators in cases of potential permit violations as appropriate.

## **JOB DESCRIPTION**

### **WWTP Laboratory Technician**

- Prepares and standardizes chemical reagents and establishes chemical adjustments for the process equipment.
- Maintains current knowledge of technical advances in the field; reads and remains current on new method development procedures and validation including additional testing and other procedures as required by regulatory agencies.
- Operates and maintains a variety of test equipment such as: pH probe, incubators, autoclave, microscope, DO probes, balances and Chlorine test kits.

#### **Required Knowledge of:**

- Principles of microbiology, physics and statistics.
- Principles of activated sludge and wastewater treatment.
- NPDES, Department of Ecology and EPA accreditation and permit regulations, policies and procedures.
- Appropriate quality assurance and quality control laboratory analysis.
- Current laboratory procedures, techniques and related equipment operation, including analytical instruments utilized in water and wastewater analysis.
- Proper laboratory health and safety practices.
- General operations of a secondary treatment plant.
- Technical record keeping and report preparation techniques and practices.
- Modern office procedures, methods, and equipment including computers and computer applications sufficient to perform work assignments.
- Hazardous chemical handling and disposal requirements related to MSDS.

#### **Required Skill in:**

- Performing a variety of technical work related to chemical, physical and biological laboratory analysis of process samples in wastewater.
- Preparing periodic and special reports related to quality control and results of laboratory tests according to compliance and certification requirements.
- Operating a computer terminal to enter data, maintain records and generate reports.
- Learning department and program objectives and goals.
- Maintaining current knowledge of technological advances in the field.
- Observing health and safety regulations and procedures.
- Observing changes in colors during titration.

#### **MINIMUM QUALIFICATIONS:**

##### **Education and Experience:**

High School Diploma/GED Certificate supplemented by college level coursework in chemistry, physics, or microbiology and four years of experience in water, wastewater, or process industry laboratory work that includes experience with collecting, testing, and recording a variety of test samples; OR an equivalent combination of education, training and experience.

##### **Required Licenses or Certifications:**

Valid State of Washington Driver's License.

Valid CPR, First Aid, AED, and Bloodborne Pathogen Cards.

Must be able to successfully complete and pass a background check.

Mandatory drug test subject to conditional job offer.

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**WWTP Laboratory Technician**

**WORKING CONDITIONS:**

**Environment:**

- Indoor/outdoor work environment.
- Driving a vehicle to conduct work.
- Working in a confined or classified space.

**Physical Abilities:**

- Hearing, speaking or otherwise communicating to exchange information in person or on the phone.
- Operating a variety of grounds equipment and power and hand tools.
- Operating a computer keyboard or other office equipment.
- Reading a variety of materials and instruments and possess close vision, far vision, side vision, depth perception, night vision and color vision.
- Ascending/descending ladders.
- Lifting/ carrying or otherwise moving or transporting heavy objects frequently up to 50lbs.
- Sitting/standing or otherwise remaining in a stationary position for extended periods of time
- Walking or otherwise moving over rough or uneven surfaces while performing inspections and investigations.
- Performing repetitive motions, including: balancing, stooping, kneeling, bending, crouching, crawling, reaching overhead, above the shoulders and horizontally, and standing, pushing, pulling and using stairs.
- Working in tight spaces.
- Ability to wear appropriate personal protective equipment based on required City Policy.

**Hazards:**

- Exposure to chemicals, used in Wastewater treatment such as: Sodium Hypochlorite, Caustic Soda, Bisulfate, Polymers, Clay, Lime and Carbon.
- Exposure to raw and treated sewage, odors associated with sewage treatment, high heat and moving equipment.
- Exposure to cleaning chemicals, herbicides and dust.
- Working at heights using ladders and structures
- Working around and with sometimes noisy machinery having moving parts
- Exposure to slippery surfaces, damp spaces while cleaning in and around equipment.
- Exposure to electrical power supply and high voltage.

**Incumbent Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Department Head:** \_\_\_\_\_

**Date:** \_\_\_\_\_