



**Range: SG-11**  
**FLSA: Non-exempt**  
**Date: September 2, 2020**

## **WASTEWATER LABORATORY TECHNICIAN**

*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.*

### **DEFINITION**

To perform testing, chemical analysis, and semi-skilled labor in the maintenance, operation, repair and related service activities for the City wastewater facilities; to assist the Director of Wastewater in maintaining the operational efficiency of wastewater systems and facilities and to perform a variety of related duties as assigned.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from the Regulatory Compliance Specialist or designee.

**ESSENTIAL AND MARGINAL FUNCTION STATEMENTS**--*Essential and other important responsibilities and duties may include, but are not limited to, the following:*

#### **Essential Functions:**

1. Coordinate and perform chemical, physical, and bacteriological analysis of water, wastewater, biosolids, and a variety of environmental matrices. The types of analysis include, but are not limited to, Microbiological Analysis, Settleability, Suspended Solids, Total Solids, Dissolved Solids, COD, pH, Temperature, Conductivity, Turbidity, Nitrate, Nitrite, Ammonia, Phosphorus, Fecal Coliform, E.coli, and Colilert.
2. Operate, maintain, and repair laboratory equipment including, but not limited to, spectrophotometer, conductivity meter, pH meter, turbidimeter, analytical balance, BOD meter, furnace, autoclave, water bath, incubator, thermometers, microscope, oven, and related equipment.
3. Maintain records of laboratory test results and process control parameters; prepare process control reports as needed by the Chief Plant Operator or Regulatory Compliance Specialist.
4. Conduct sampling programs to ensure permit testing requirements are completed.
5. Read and interpret regulatory permits as it relates to testing requirements.
6. Calibrate and maintain various pieces of process control instrumentation in the plant (i.e. DO probes, DOB probes, pH probes, chlorine analyzers, turbidimeters, TSS probes, transmittance probes, air monitors, etc.) and maintain records of the results of the calibrations.
7. Ability to work in organized team efforts and assist in problem-solving work-related issues for continuous improvement in work efforts.
8. Manage laboratory supply inventory and identify necessary supplies and equipment to be ordered.
9. Perform general housekeeping duties in the laboratory and operational areas.
10. Assist in plant emergency response situations.

11. Provide responsible staff assistance to the Chief Plant Operator and Regulatory Compliance Specialist as needed.
12. Perform related duties and responsibilities as required.

## **QUALIFICATIONS**

### **Knowledge of:**

- Laboratory Information Management Systems.
- Wastewater chemistry, microbiology, sampling techniques, and treatment processes.
- EPA and Standard Methods for Analysis of Water and Wastewater analytical procedures.
- Quality assurance and quality controls procedures in the laboratory.
- Operational characteristics of wastewater systems.
- Operation, maintenance, and calibration of laboratory equipment.
- Mathematical and statistical concepts including fractions, percentages, ratios, and proportions.
- City, state, and federal rules and regulations governing the treatment of wastewater.
- Occupational hazards and safety precautions pertaining wastewater facilities and laboratories.
- General lab safety work practices.

### **Ability to:**

- Perform accurate and precise chemical, physical, and biological analysis of water, wastewater, biosolids, and sludge.
- Properly operate, maintain, and calibrate analytical instruments and equipment.
- Use proper sample collection and handling techniques.
- Keep accurate and legible records.
- Proficiently use computers and create and enter data into spreadsheets, graphs, and databases.
- Organize and file lab reports and test results.
- Compile and enter technical and statistical data into computers in order to prepare clear and concise reports.
- Work independently in the absence of supervision.
- Understand and follow oral and written instructions.
- Communicate clearly and concisely, both orally and in writing in English at a technical level.
- Maintain effective audio/visual discrimination and perception to the degree necessary for the successful performance of assigned duties.
- Prepare and present written and oral reports to supervisor and others, as directed.
- Report operating conditions and problems and recommend or install appropriate solutions.
- Establish and maintain effective working relationships with city officials, other employees, and deal tactfully with the public and outside agencies.
- Perform in adverse weather conditions and exposure to toxins associated with wastewater.
- Respond to an emergency on or off the plant site with the ability to communicate.
- Work weekends when directed.
- Acquire necessary training for continuous improvement of technical skills.

## **EXPERIENCE AND TRAINING**

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. Typical ways to obtain the knowledge and abilities would be:

### **Experience:**

One year of college classes including chemistry, biology, or other science course, combined with one-year experience working in a wastewater treatment facility.

Laboratory background with previous experience in operating and maintaining wastewater/water treatment systems. One year of increasingly responsible experience in a chemistry, microbiology, bacteriology, or related field and laboratory analysis is desirable.

**Training:**

Associates of Arts (AA) degree from an accredited college or university with major course work in chemistry, biology, environmental engineering, or a related field or equivalent experience.

**License:**

Possession of, or ability to obtain, valid Arizona driver's license within two months of hire.

**WORKING CONDITIONS**

**Environmental Conditions:**

Wastewater treatment plant environment; exposure to noise, grease, smoke, fumes, gases, electrical energy; work in or with water; work on slippery or uneven surfaces. Position may be required to wear respirator to complete a portion of its position accountabilities.

**Physical Conditions:**

Essential and marginal functions may require maintaining physical condition necessary for moderate or light lifting (at least 20 lbs); standing, walking, or sitting for prolonged periods of time; climb ladders, crawl and bend; general manual dexterity; auditory ability to hear such things as motor or pump sounds, and alarms.