

# City of Caldwell

## Class Specification

<b>Class Title</b>	<b>WASTEWATER TREATMENT PLANT LAB TECHNICIAN</b>
<b>Job Valuation Number</b>	<b>1750</b>
<b>FLSA Designation</b>	<b>Covered</b>
<b>Pay Grade</b>	<b>Grade 8</b>
<b>Effective Date</b>	<b>January 2015</b>

### General Statement of Duties

Performs entry level and technical laboratory tasks related to the analysis of waste to identify and determine characteristics of industrial, commercial, and institutional waste introduced into the wastewater system; performs process control and permit related testing of influent, intermediate and effluent water quality as well as digester and biosolids processes; performs related work and tasks as required.

### Classification Summary

The principal function of an employee in this class is to perform entry level and technical tasks related to the analysis of waste to identify and determine characteristics of waste introduced into and discharged from the City's wastewater treatment system as well as process constituents at intermediate points within the treatment plant. A function of this position is contact and cooperative work with the wastewater treatment plant employees, general public, City employees, and other government agencies. The work is performed under the direct supervision of the plant superintendents. The principal duties of this class are performed in a laboratory setting with periodic travel in the field to collect waste and water samples; daily exposure to hazardous conditions such as exposure to methane, hydrogen sulfide, chlorine gases, sodium bisulfate, acids, wastes, raw sewage, and other chemicals.

### Examples of Work (Illustrative Only)

#### ESSENTIAL DUTIES AND RESPONSIBILITIES

- Secures representative samples of waste from industrial, commercial and institutional establishments flowing into the wastewater system as well as samples from various processes within the wastewater treatment works to inform process operations;
- Conducts routine and special tests to ascertain the characteristics of materials likely to

require special treatment as wastewater;

- Ascertains industrial waste characteristics, such as peak load concentration, duration of peak load and load variations at different times of the day;
- Conducts tests relating to industrial waste to ascertain such factors as PH, temperature, biological and chemical oxygen demand, total solids, suspended solids, volatile solids, and alkalinity;
- Performs duties as assigned respecting the Industrial Pretreatment Program.
- Tests for the presence of detergents, chlorine, and a variety of minerals;
- Analyzes samples during treatment stages and after full treatment;
- Records test results on prepared forms and maintains records;
- Cleans and sterilizes glassware and other laboratory equipment;
- Logs data on testing methodology for quality control;
- Prepares and tests standardized stains, culture media and reagents;
- Assists in the development of laboratory protocol and testing guidelines;
- Coordinates sampling schedule with pre-treatment program personnel and outside entities;
- Assists in inputting and maintaining sample data in the computer;
- Performs general lab housekeeping to assure a hygienically clean, visually appealing and orderly facility;
- Maintains various records and prepares related reports;
- Adheres to and complies with all state, federal and local regulations, policies and procedures pertaining to safe work practices;
- Keeps immediate supervisor and designated others fully and accurately informed concerning work progress and status, including present and potential work problems and suggestions for new or improved ways of addressing such problems;
- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on the principles, practices and new developments in assigned work areas as approved;
- Responds to citizens' questions and comments in a courteous and timely manner;
- Provides observation and assistance at the WWTP and gives appropriate information and feedback to plant superintendents;
- Communicates and coordinates with others to maximize the effectiveness and efficiency of interdepartmental operations and activities to help keep a positive work environment;
- Respects the opinions of others and maintains a positive and professional working relationship with plant operator, employees, supervisors, public, and others;
- Accepts and performs in a timely and effective manner changes in work assignments and/or how work is performed;
- Assists in other duties related to plant and collections infrastructure maintenance and operation as needed or assigned.

## **OTHER DUTIES AND RESPONSIBILITIES**

- Performs other related duties as assigned.

<b>Required Knowledge, Skills and Abilities</b>
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- Working knowledge of standard laboratory methodology and procedures;

- Working knowledge of chemical principles, terminology, techniques, and equipment;
- Working knowledge of sampling techniques and presentation of sample;
- Working knowledge of laboratory hazards and safety precautions;
- Working knowledge in the use of and care of equipment typical to this position;
- Knowledge of processes and treatment stages of wastewater;
- Knowledge of and ability to review and understand the city policies and procedures;
- Knowledge of and ability to review and understand laws, ordinances and regulations governing wastewater treatment plant operations and procedures;
- Ability to use laboratory-related equipment;
- Ability to perform various mathematical calculations in recording test results;
- Ability to recognize micro-organisms typically found in wastewater and activated sludge processes;
- Ability to follow meticulous procedures in using hazardous chemicals;
- Ability to detect equipment problems and identify serious malfunctions before they occur;
- Ability to make quick and accurate decisions in potentially dangerous situations;
- Ability to work in a health hazardous environment;
- Ability to establish and maintain exceptional customer service to the general public, City employees and other agencies;
- Ability to work effectively and harmoniously in a team environment;
- Ability to adapt to emergency or unusual situations and make accurate decisions;
- Ability to effectively operate a personal computer using standard or customized software applications appropriate to assigned tasks including word processing, spreadsheet, and database software;
- Ability to manage a variety and a multi-project workload to ensure timely and effective production;
- Ability to accurately and clearly inform the public and others regarding various processes and specific requirements for regulations;
- Ability to understand and follow oral and/or written policies, procedures and instructions;
- Ability to use logical and creative thought processes to develop solutions according to written specifications and/or oral instructions. Must be detail oriented and possess good organizational skills;
- Ability to perform a wide variety of duties and responsibilities with accuracy and speed under the pressure of time-sensitive deadlines;
- Ability to communicate effectively and maintain effective working relationships with other City departments and employees, contractors, consultants, elected officials, regulatory agency personnel, and the public;
- Ability and willingness to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;
- Ability to perform all work duties and activities in accordance with City policies, procedures and safety practices;
- Integrity, ingenuity and inventiveness in the performance of assigned tasks.

### Acceptable Experience and Training

- High School diploma or GED with course work in chemistry, biology or some other related field; and
- Bachelor degree in Biology or other related field desirable but not required; and
- One (1) year of laboratory experience in examining micro-organisms; or
- Any equivalent combination of education, experience and training which provides the knowledge, skills and abilities necessary to perform the work.

### Required Special Qualifications

- Possession of a current and valid driver's license.
- Possession or the ability to obtain a Wastewater Certification I within one (1) year of employment.
- Must complete .6 Continuing Education Units in Wastewater annually.
- Subject to a background check.

### Physical Demands

- N (Not Applicable)**      Activity is not applicable to this position.  
**O (Occasionally)**      Position requires this activity up to 30% of the time (2.5+ hours/day)  
**F (Frequently)**          Position requires this activity 30% - 60% of the time (Up to 5.5 hours/day)  
**C (Constantly)**          Position requires this activity more than 60% of the time (5.5+ hours/day)

Physical Demands	Lift/Carry	Hazards/Potential Exposure
<u>C</u> Stand	<u>C</u> 10 lbs or less	<u>C</u> Toxins/caustics/chemicals
<u>C</u> Walk	<u>C</u> 11 – 20 lbs	<u>C</u> Extreme conditions
<u>F</u> Sit	<u>O</u> 21 – 50 lbs	<u>C</u> Dust
<u>C</u> Manual Manipulation	<u>O</u> 51 – 100 lbs	<u>F</u> Moving mechanical parts
<u>C</u> Grasp	<u>N</u> Over 100 lbs	<u>O</u> Potential electrical shock
<u>C</u> Reach Outward		<u>F</u> High-pitched noises
<u>C</u> Reach Above Shoulder	<b>Push/Pull</b>	<u>C</u> Blood-borne pathogens
<u>C</u> Speak	<u>C</u> 12 lbs or less	<u>C</u> Gaseous risk/fumes
<u>O</u> Climb	<u>C</u> 13 – 25 lbs	<u>N</u> Construction zone hazards
<u>O</u> Crawl	<u>O</u> 26 – 40 lbs	<u>C</u> Communicable disease
<u>F</u> Squat or Kneel	<u>O</u> 41 – 100 lbs	<u>C</u> Hot liquids/fire
<u>F</u> Bend	<u>N</u> Over 100 lbs	<u>F</u> Height & confined spaces

### Essential Physical Abilities

- Sufficient clarity of speech and hearing or other communication capabilities, with or without reasonable accommodation, which permits the employee to understand policies and procedures, as well as safety rules and regulations;
- Sufficient vision or other powers of observation, with or without reasonable accommodation, which permits the employee to detect equipment malfunctions, perform sampling of waste and raw sewage, and work safely in a laboratory setting;

- Sufficient manual dexterity with or without reasonable accommodation, which permits the employee to operate laboratory-related equipment and take samplings of waste and raw sewage;
- Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, which permits the employee to travel in the field to collect waste and water samples.

I have reviewed this job description and I verify that I can perform the physical demands and essential physical functions of this position.

Employee Printed Name: \_\_\_\_\_

Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_