Office of Human Resources

Chemist – CE0377

**General Statement of Duties**

Performs full performance laboratory analysis of water samples to determine compliance with water quality standards and provides technical analytic support for governmental agencies responsible for enforcement of standards.

**Distinguishing Characteristics**

This classification performs full performance laboratory analysis of water samples to determine compliance with water quality standards and provides technical analytic support for governmental agencies responsible for enforcement of standards. This class is distinguished from the Wastewater Quality Control Manager, which performs management-level work planning and directing the activities of the Quality Control and Laboratory Sections of Wastewater Management, which includes the Industrial Pretreatment, Sampling, and Investigation units.

**Guidelines, Difficulty and Decision-Making Level**

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

**Level of Supervision Received & Quality Review**

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.

**Interpersonal Communication & Purpose**

Contacts with the public or employees where explanatory or interpretive information is exchanged, defended, and gathered and discretion and judgment are required within the parameters of the job function.

**Level of Supervision Exercised**

By position, performs lead work.

**Essential Duties**

Performs qualitative and quantitative analysis of water, wastewater, sludge, and industrial effluents using laboratory equipment and standardized procedures.
Calculates the chemical and biological oxygen demands, alkalinity, suspended solids, volatile solids, the presence
of and identification of microorganisms, chemicals, or other contaminants constituting a public health hazard.

Performs tasks which may require familiarity with a variety of laboratory techniques and equipment including
oxygen analyzers, pH/selective ion systems, total organic carbon analyzer, spectrophotometer, conductivity
analyzers, turbid meter, atomic absorption systems (furnace and flame), gas chromatographs, high performance
liquid chromatography, and fluorimeter.

Provides information on water sampling and preservation techniques,

Performs water quality analysis for governmental agencies.

Testifies in court regarding laboratory test procedures and results.

Restocks supplies and maintains supply inventories.

Assists in training and checking the work of other employees on various projects.

Maintains established departmental policies and procedures, objectives, recordkeeping in laboratory notebooks,
reports and data charts, quality assurance program, safety, environment and infection control standards.

Performs other related duties as assigned or requested.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined
by the amount of time spent in performing the essential duties listed above.

**Competencies**

Attention to Detail - Is thorough when performing work and conscientious about attending to detail.

Decision Making - Specifies goals and obstacles to achieving those goals, generates alternatives, considers risks,
and evaluates and chooses the best alternative in order to make a determination, draw conclusions, or solve a
problem.

Oral Communication - Expresses information to individuals or groups effectively; taking into account the audience
and nature of the information; makes clear and convincing oral presentations; listens to others, attends to
nonverbal cues and responds appropriately.

Problem Solving - Identifies problems; determines accuracy and relevance of information; uses sound judgment to
generate and evaluate alternatives, and to make recommendations.

Reasoning - Identifies rules, principles, or relationships that explain facts, data, or other information; analyzes
information and makes correct inferences or draws accurate conclusions.

Writing - Writes in a clear, concise, organized, and convincing manner for the intended audience.

**Knowledge & Skills**

Knowledge of the concepts, principles, and theories of the composition, structure, and properties of substances,
and of the chemical processes and transformations, including uses of chemicals and their interactions, danger
signs, production techniques, and disposal methods.
**Education Requirement**

Bachelor's Degree in Chemistry, or in a related science with a minor in Chemistry.

**Experience Requirement**

Three (3) years of experience in a laboratory performing quantitative analysis and testing.

**Education & Experience Equivalency**

No substitution of experience for education is permitted.

Additional appropriate education may be substituted for experience requirements.

**Licensure & Certification**

None

**Working Environment**

Extreme Heat: temperature hot enough to cause marked bodily discomfort.

Wet: Frequent contact with water or other liquid.

Hazards: conditions where there is danger to life, body, and/or health.

Atmospheric Conditions: conditions that affect the skin or respiratory system.

Potential exposure to hazardous chemicals.

Potential exposure to hazardous anesthetic agents, body fluids and wastes.

Potential exposure to infection from disease-bearing specimens

Potential exposure to odorous chemical and specimens

Potential exposure to toxic chemicals

Potential exposure to infections and contagious disease.

Subject to burns and cuts

Subject to electrical and radiant energy hazards.

**Level of Physical Demand**

1-Sedentary (0-10 lbs.)

**Physical Demands**

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

- Sitting: remaining in the normal seated position.
- Carrying: transporting and object, usually by hand, arm, or shoulder.
- Stooping: Bending the body by bending the spine at the waist
- Reaching: extending the hand(s) and arm(s) in any direction.
- Handling: seizing, holding, grasping, or otherwise working with hand(s).
- Fingering: picking, pinching, or otherwise working with fingers.
- Feeling: perceiving attributes of objects by means of skin receptors.
- Talking: expressing or exchanging ideas by means of spoken words.
- Hearing: perceiving the nature of sounds by the ear.
- Eye/hand/foot coordination: performing work through using two or more.
- Near Acuity: ability to see clearly at 20 inches or less.
- Color Vision: ability to distinguish and identify different colors.
- Lifting: raising or lowering objects weighing no more than 10 pounds, from one level to another.
### Background Check Requirement

- Criminal Check
- Education Check
- Employment Verification
- By position, Motor Vehicle Record

### Assessment Requirement

None

### Probation Period

Six (6) months.

### Class Detail

- Pay Grade: E-814
- FLSA Code: Y
- Management Level: 10
- Established Date: 9/21/2018
- Established By: Lori Schumann
- Revised Date: 1/1/2019; 06/11/2019
- Revised By: Susan Keller; Ryland Feno

**Class History:**

- 01/01/2019 - Updated pay grade per pay survey market changes.
- 06/11/2019 - Updated working environment verbiage.