



Chemist 2

Category: Classified/Excluded
Pay Grade: C24
Job Code: 17460

To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.

JOB SUMMARY

This is professional scientific work performing complex chemical, biological, bacteriological and physical analysis of fluids and solids in the Utilities Laboratory. Work usually involves the regular use of sophisticated automatic analyzing instrumentation used in organic, metals, and nutrients analysis. Employees in this class exercise a high degree of independent judgment and skill in the performance of complex scientific analyses. Work requires knowledge of the regulations and the methods used for collection and analyses of samples to ensure quality assurance compliance.

ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)

- Performs analyses primarily using specialized techniques and sophisticated automated and standard instrumentation such as auto analyzers, microwave digesters, gas chromatographs, mass spectrometers, and graphite furnaces;
- Performs preliminary troubleshooting of complex analytical problems;
- Acts as technical lead worker as required;
- Suggests modifications to standard and regulatory methods or develops and documents new laboratory methods for review by Senior Chemist;
- Assists with preparation for special projects as required;
- Reviews preliminary data of analyses performed for appropriate client profile or permit parameters, and QC compliance criteria;
- Generates corresponding QC chart plotting and logging functions for preliminary data;
- Performs preliminary troubleshooting, calibration, and maintenance of automated analyzing equipment/instrumentation;
- Provides lists of materials and supplies needed to ensure the proper and timely operation of the section;
- Performs other related job duties as assigned.

QUALIFICATIONS

Education and Experience:

Bachelor's Degree in chemistry, bacteriology, biology or related discipline and two (2) years of experience in general laboratory analysis, including the basic understanding of automated analysis and instrumentation; or an equivalent combination of education, training and/or experience.

Special Qualifications (May be required depending on area of assignment):

- Florida Driver's License or Florida Commercial Driver's License and endorsement, if any.
- Assignment to work a variety of work schedules including compulsory work periods in special, emergency, and/or disaster situations.
- Other highly desirable knowledge, skills, abilities, and credentials required for a specific position.

Knowledge, Skills and Abilities:

- Knowledge of the laboratory principles, practices and techniques of chemistry, biology and bacteriology;
- Knowledge of the principles, practices, techniques of laboratory quality assurance;
- Knowledge of the capabilities and limitations of electronic computers and complex automated instrumentation and the role they perform in laboratory analysis;
- Knowledge of sewage treatment and disposal, industrial wastes, stream pollution or the methods for treating and testing water supply systems, depending on area of assignment;
- Knowledge of local, state and federal laws and regulations pertaining to water quality, wastewater treatment, and data validity;
- Knowledge of laboratory equipment, procedures and cleanliness requirements;
- Knowledge of OSHA regulations and recognized safety operating practices for laboratory work;
- Knowledge of mathematics through calculus;
- Skill in the laboratory techniques and in following and adapting scientific methods and procedures;
- Ability to modify EPA or standard methods or create custom methods;
- Ability to perform a variety of laboratory tests on water, wastewater, or sludge samples, and to prepare and standardize laboratory reagents;
- Ability to interpret test results, and adjust, operate and maintain laboratory equipment;
- Responsible for the preparation and standardization of chemical, bacteriological and Atomic Absorption Spectrophotometer reagents used in the analyses of samples;
- Ability to present scientific ideas and findings clearly and concisely in written, oral and graphic form.

PHYSICAL/MENTAL DEMANDS

The work is medium and requires exerting up to 50 pounds of force occasionally, and up to 30 pounds of force frequently, and up to 10 pounds of force constantly to move objects. Additionally, the following physical abilities are required:

- **Balancing:** Maintaining body equilibrium to prevent falling while walking, standing or crouching on narrow, slippery, or erratically moving surfaces. The amount of balancing exceeds that needed for ordinary locomotion and maintenance of body equilibrium.
- **Crouching:** Bending the body downward and forward by bending leg and spine.
- **Feeling:** Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- **Fingering:** Picking, pinching, typing, or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- **Grasping:** Applying pressure to an object with the fingers and palm.
- **Handling:** Picking, holding, or otherwise working, primarily with the whole hand.
- **Hearing:** Perceiving the nature of sounds at normal speaking levels with or without correction. Ability to receive detailed information through oral communication, and to make the discrimination in sound.
- **Lifting:** Raising objects from a lower to a higher position or moving objects horizontally from position-to-position. Occurs to a considerable degree and requires substantial use of upper extremities and back muscles.
- **Mental Acuity:** Ability to make rational decisions through sound logic and deductive processes.
- **Pulling:** Using upper extremities to exert force in order to draw, haul or tug objects in a sustained motion.
- **Pushing:** Using upper extremities to press against something with steady force in order to thrust forward, downward or outward.
- **Reaching:** Extending hand(s) and arm(s) in any direction.
- **Repetitive Motion:** Substantial movements (motions) of the wrist, hands, and/or fingers.
- **Speaking:** Expressing or exchanging ideas by means of the spoken word including the ability to convey detailed or important spoken instructions to other workers accurately and concisely.
- **Standing:** Particularly for sustained periods of time.
- **Stooping:** Bending body downward and forward by bending spine at the waist. Occurs to a considerable degree and requires full motion of the lower extremities and back muscles.
- **Talking:** Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.

- Visual Acuity: Have close visual acuity such as color differentiation, depth perception, and adequate field vision.
- Walking: Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.

WORKING CONDITIONS

Incumbent regularly makes decisions that could lead to major community or organizational consequences if there is a failure to make the appropriate decision at the time.