

UTILITIES CHEMIST 2

Job Code	Pay Grade
17460	CL16

Nature of Work

This is professional scientific work performing complex chemical, biological, bacteriological and physical analysis of fluids and/or 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.

Minimum Qualification Requirements

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

Appointing Authority May Also Require

- 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 relevant to position.

Illustrative Tasks (These are examples and are 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.
- Preliminary troubleshooting of complex analytical problems.
- May act 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/or supplies needed to ensure the proper and timely operation of the section.
- Performs related work as assigned or required.

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.

UTILITIES CHEMIST 2 (continued)

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Knowledge, Skills, and Abilities (continued)

- 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.

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Revised	EEOC Code	Overtime Code
10/98	Professionals	Classified/Excluded