



QA/QC Specialist

Department: AWP

FLSA Status: Non-Exempt

Salary Grade: 24, 25

SUMMARY DESCRIPTION

The QA/QC Specialist, under general supervision, coordinates and administers a comprehensive quality assurance/quality control (QA/QC) program for all laboratory staff involved in the collection and analysis of water, wastewater, biosolids, stormwater, air and recycled water samples; develops and coordinates special programs and projects related to quality control with a variety of local, state and federal agencies; reviews and implements laboratory practices and procedures that conform to regulatory quality assurance and safety standards for environmental laboratories; prepares a variety of routine reports; and administers and maintains the Quality Assurance Program at the East County Advanced Water Purification Facilities in full compliance with the California Code of Regulations' Title 22, Division 4, Chapter 19.

ESSENTIAL DUTIES

1. Administers, monitors, evaluates maintains and assists in the development of the laboratory's EPA and ELAP mandated Quality Assurance Program to ensure the laboratory operates in conformance with the Environmental Laboratory Accreditation Program (ELAP) standards set forth in Title 22, Division 4, Chapter 19 of the California Code of Regulations.
2. Serves as the focal point for QA/QC and responsible for oversight and review of QC data.
3. Functions independent from laboratory operations.
4. Monitors and evaluates laboratory test results and data objectively to ensure all data reported meets the minimum acceptance criteria for pertinent regulatory compliance monitoring and performs assessments without outside influence (managerial).
5. Regularly uses and maintains the Laboratory Information Management System (LIMS) to track and report analytical data.
6. Coordinates, monitors, and conducts independent audits annually at a minimum of designated laboratory practices and procedures to ensure conformance and compliance with all pertinent regulatory and environmental laboratory certification requirements.
7. Reviews, updates and assists in the development of the laboratory's Quality Assurance Program Manual and policies that address all quality assurance and quality control practices employed by the laboratory to ensure the quality assurance and quality control requirements for maintaining ELAP Certification are met.

8. Reviews and assists in the development and approval of updates to the standard operating procedures for a variety of laboratory sampling, testing and documentation practice to make certain they are in compliance with pertinent state and/or federal codes and regulations; conducts periodic audits of laboratory analytical practices, as required, to ensure compliance with approved standard operating procedures.
9. Administers, coordinates, monitors and updates the laboratory's Corrective Action Program (CAP) to ensure continuing compliance with pertinent codes and regulations.
10. Administers, coordinates, evaluates and documents mandated laboratory proficient testing activities, as required by Cal DPH to maintain ELAP certification.
11. Performs periodic statistical review of analytical data to evaluate effectiveness of test parameter control limits.
12. Participates in safety programs pertaining to the laboratory.
13. Maintains laboratory employee training records in accordance with Title 22 of the California Code of Regulations in accordance to ELAP guidelines; periodically monitors and evaluates laboratory staff procedures in the performance of technical analyses and correct sample handling techniques to conform with quality assurance principles and regulations.
14. Coordinates the laboratory's mandated accreditation process to include audits, EPA, and state regulatory quality assurance requirements.
15. Identifies and communicates deficiencies in the quality system, recommends improvements, and monitors corrective actions.
16. Coordinates, plans and schedules all analyses that are needed to be analyzed using outside contract laboratories.
17. Assists laboratory supervisor in overseeing proper stock and quality of laboratory chemicals, supplies and equipment.
18. Assists laboratory supervisor in the development and selection of new analytical methods and analytical equipment.
19. Performs other duties as assigned.

QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

1. Principles, practices, methods, and techniques used in physical, chemical and bacteriological analyses and testing of drinking water, wastewater and recycled water.
2. California Code of Regulations, Title 22, Division 4, Chapter 19 as it relates to environmental laboratories, sampling techniques, and testing procedure and other pertinent state and federal regulations pertaining to certification of environmental laboratory operations.
3. Specialized computer operations and software including LIMS utilized for data review and statistical analyses, and technical documentation and reporting, spreadsheets, word processing and databases.
4. Methods and applications of environmental laboratory quality assurance/quality control procedures and processes.
5. Chemical, microbiological, and physical characteristics of environmental samples.
6. Standard analytical methods for the analyses of environmental samples.
7. Advanced application of appropriate quality control parameters to ensure the accuracy, precision and validity of analytical data.
8. Advanced statistical analyses methods for environmental testing and reporting.

9. Basis of each laboratory test and understanding of how tests/analyses are used to monitor the treatment of wastewater, to determine the quality of drinking water and to distinguish between different water sources.
10. Methods and techniques of sample collection and sample preservation procedures.
11. Basic characteristics of common chemicals and their safe handling.
12. Operating characteristics of a variety of laboratory instrumentation and equipment.
13. Standard operating calibration procedure for laboratory instrumentation and equipment.
14. Basic principles of laboratory safety and emergency procedures.

Skills/Abilities:

1. Understand, interpret, and apply applicable District policies, procedures and operational standards related to quality control/quality assurance in an environmental laboratory operation and its collection, testing and documentation processes.
2. Perform routine physical, chemical, and bacteriological analyses and laboratory calculations.
3. Utilize a laboratory information management software system (LIMS) in an effective manner.
4. Create and maintain policies, principles and procedures including Standard Operating Procedures.
5. Create and maintain statistical analytical tools.
6. Assist with training aspects of sampling requirements including chain of custody, preservation of samples, quality control of instrumentation, field test, recording of data and sampling procedures.
7. Follow written and oral instructions.
8. Operate a computer and designated software to record data, prepare technical reports and perform a variety of statistical analyses and information collection.
9. Perform advanced statistical analyses of environmental laboratory data in an effective manner.
10. Establish and maintain effective working relationships with those contacted in the course of work.

Training/Experience Required:

1. Bachelor's Degree from an accredited college or university with major course work in chemistry, biology, biochemistry, bacteriology, microbiology, environmental, chemical, sanitary engineering, or a closely related field; and
2. Three years of experience working in an analytical/environmental accredited laboratory performing analyses of environmental samples.
3. Experience with the TNI & ELAP standards for laboratory certification is highly desirable.

Licensing Requirements (position requirements at entry):

1. Possession of a Grade 1 Laboratory Analyst Certification issued by the California Water Environment Association (CWEA) is required. Grade 2 Certification is highly desirable.
2. Possession of a Valid California Driver's License.

Safety Priorities:

1. Knowledge of: general office and field safety
2. Use and care of Personal Protective Equipment specifically related to hazardous gas and chemical exposure
3. Proper body mechanics when moving materials
4. Defensive driving techniques
5. Safe storage and handling of hazardous chemicals
6. Understanding of: Padre Dam's Safety Rules and Regulations, accident and injury reporting policies and Padre Dam's Policy and Procedures for Violence in the Workplace.
7. Ability to complete safety training and work in a safe and efficient manner.

Physical Requirements:

1. Positions in this class typically require: climbing, stooping, crouching, reaching, standing, walking, lifting, grasping, talking, hearing, seeing and repetitive motions. Incumbents may be subjected to fumes, odors, dusts, infectious materials, gases and chemicals.
2. Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

Classification History:

New 4/2023