
Mt. View Sanitary District

Policies and Procedures Manual

POLICY TITLE: Laboratory Analyst

POLICY NUMBER: 2385

SEPTEMBER 2019

FLSA: NON-EXEMPT

LABORATORY ANALYST

DEFINITION

Under general supervision, performs a variety of standardized routine to complex chemical, physical, biological, and bacteriological analyses involved in the testing of District's wastewater quality; performs a variety of technical tasks relative to conducting and interpreting standard and complex laboratory analyses; provides technical and specialized assistance to the Wastewater Operations Supervisor; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Assistant District Manager. Exercises no direct supervision over staff.

CLASS CHARACTERISTICS

This is the journey-level class that performs the full range of routine to complex laboratory tests to ensure that the District is in compliance with all Federal and State requirements for the processing, distribution, and disposal of water and wastewater. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise. Responsibilities include inspecting and attending to assigned areas in a timely manner and performing a wide variety of laboratory testing and analysis duties with only occasional instruction or assistance.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Participates in performing water and wastewater laboratory testing work.
- Plans, schedules, prioritizes, and performs laboratory testing work and assignments in consultation with the Assistant District Manager; communicates status of assignments to appropriate personnel, working cooperatively to schedule assignments in accordance with established and special operational priorities; instructs operations staff in work procedures.
- Estimates costs of maintenance work, supplies, equipment, and materials; orders supplies and equipment for work projects; maintains records of purchase orders; assists in developing budget figures for the division; monitors expenditures.

Adopted: 10/10/2019

- Inspects and evaluates work in progress and upon completion to assure that operations and project activities are performed in accordance with District standards and specifications.
- Performs and interprets chemical, biochemical, biological, bacteriological, and physical analyses of samples related to the treatment, quality control, and disposal of wastewater, following standard procedures and guidelines.
- Collects, transports, prepares, and preserves samples at various sites throughout the treatment plants and other District sites for testing to determine the effectiveness of each stage of the treatment process.
- Analyzes and interprets laboratory results, recognizing problems that may be occurring during the treatment process.
- Prepares samples for analysis by commercial laboratories; ensures that test results are reviewed and reported.
- Sets up, calibrates, operates, and performs minor maintenance and repair to a variety of laboratory instruments and equipment.
- Maintains quality control and quality assurance and follows safe work procedures.
- Maintains accurate records of work performed and analysis results.
- Consults with treatment plant staff regarding analysis results.
- Prepares standard chemical solutions and reagents; disposes of outdated materials in a safe manner; cleans glassware and equipment and ensures that the laboratory is maintained in a clean and orderly condition.
- Responds to emergency situations as required.
- Observes safe work methods and makes appropriate use of related safety equipment as required.
- Performs related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Chemical, biological, and physical characteristics of water and wastewater.
- Principles, practices, equipment, and materials required for the chemical, biochemical, biological, bacteriological, and physical analysis of samples of water and wastewater.
- Sampling techniques and related statistical analysis techniques.
- Laboratory and treatment plant safety procedures and equipment.
- Basic principles of water and wastewater treatment and distribution/disposal.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Technical report writing practices and procedures.
- Principles and procedures of record-keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- Safe driving rules and practices.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Inspect the work of others and maintain established quality control standards.
- Identify and implement effective course of action to complete assigned work.
- Oversee and perform chemical, biochemical, biological, bacteriological, and physical analyses of water and wastewater.
- Analyze the results of such tests and make appropriate recommendations for plant operations.
- Use and perform calibration and minor maintenance and repair on a variety of laboratory equipment.
- Maintain an inventory of supplies and equipment required for the performance of necessary analyses.
- Interpret, apply, and explain complex laws, codes, regulations, and ordinances.
- Prepare and maintain clear and concise reports and accurate records and files.
- Utilize computer and related word processing, database, and spreadsheet software and applications.
- Maintain accurate logs, records, and basic written records of work performed.
- Operate a motor vehicle safely.
- Follow department policies and procedures related to assigned duties.
- Understand and follow, oral, and written instructions.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.
- Work in a team environment as a contributing team member.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to the completion of an Associate's Degree with major coursework in chemistry, biology, microbiology, or a related field and three (3) years responsible experience in water/wastewater treatment or laboratory experience. A bachelor's degree in chemistry, biology, microbiology, or a related field is highly desirable.

Licenses and Certifications:

- Must possess and maintain a valid Class C California driver's license. Must continue to meet all of the provisions of the District to be insured with the terms and conditions of the District's insurance program as condition of employment.
- Possession of, or ability to obtain within 12 months of appointment, a Grade II Laboratory Analyst Certificate issued by the California Water Environment Association (CWEA).

PHYSICAL DEMANDS

Must possess mobility to work in a wastewater treatment plant laboratory; operate a motor vehicle; vision to read printed materials and a computer screen; color vision to identify chemical and biological solvents and substances; and hearing and speech to communicate in person and over the telephone and radio. Employees primarily work indoors but frequently walk within treatment plants to take samples. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to handle laboratory equipment. Employees must possess the ability to lift laboratory instruments, sample trays,

chemical and waste containers as well as boxes with files and reports or office furniture or equipment up to 50 pounds.

ENVIRONMENTAL ELEMENTS

Employees work primarily indoors but are occasionally exposed to loud noise levels, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances, odors, and fumes. Employees may interact with upset staff and/or public and private representatives, and contractors in interpreting and enforcing departmental policies and procedures.