

7042 – LABORATORY TECHNICIAN

EMPLOYMENT STANDARDS:

Position Characteristics: Under general supervision, performs a variety of routine to complex standardized chemical, biological, and bacteriological analysis on wastewater, reclaimed water, biosolids, and soil samples; performs a variety of technical tasks relative to conducting and interpreting standard and complex laboratory analysis; coordinates or performs sample collection activities; sets up testing procedures, records data, and analyzes results; assists with field investigations to determine and mitigate wastewater problems; performs the inspection of industrial, commercial, and residential discharge to the collection system; provides guidance and recommendations to local business owners to ensure compliance with the District's Pretreatment Program; assists in coordinating and implementing a source control program; ensures that discharge is in compliance with local regulations and ordinances; and performs related work as required.

Distinguishing Characteristics: The Laboratory Technician is designed to serve as the designated District Laboratory Technical Manager if/when the District Laboratory Manager is absent for a period of time exceeding fifteen (15) consecutive calendar days; perform routine to complex laboratory tests and analyses with only occasional instruction or assistance, as well as inspections of industrial, commercial, and residential discharges to the sewer system including tactfully enforcing codes, ordinances, and other regulations. The Laboratory Technician requires a CWEA Grade I Laboratory analyst Certification.

Supervision Received and Exercised: Receives general supervision from the Laboratory Manager. No Supervision of staff is exercised.

Minimum Qualifications:

Education: Possession of a bachelor's degree or higher from an accredited college in chemistry, biology, environmental sciences, or a closely related field.

Experience: Minimum of six months experience with water or wastewater lab equipment.

OR any combination of education, training and/or work experience to demonstrate knowledge, skills, and abilities to meet the above minimum requirements.

Possession of: A Grade I or higher certification from the California Water Environmental Agency (CWEA) or California-Nevada American Water Works Association (CA-NV/AWWA) certification as a Lab Analyst/Water Quality Analyst. A CWEA Grade I Environmental Compliance Inspector, or ability to obtain one within twelve (12) months of hire. A valid Class "C" California driver's license, with a satisfactory driving record. Must have and maintain a satisfactory driving record to be insurable to operate District vehicles.

Failure to possess and maintain the required license(s) and/or certificate(s) may be cause for discipline up to and including termination.

Knowledge of:

- Chemical, biological, and physical characteristics of wastewater.
- Principles, practices, equipment, and materials related for the chemical, biochemical, biological, bacteriological, and physical analysis of samples of wastewater.
- Principles, practices, and programs for the District's wastewater pretreatment program, the waste inspection function, and related programs and projects.
- Use of laboratory and analytical equipment.
- Principles, practices, and terminology of commercial wastewater source control.
- Sampling techniques and related statistical analysis techniques.
- Laboratory and wastewater plant safety procedures and equipment.
- Basic principles of wastewater treatment and disposal.
- Practices and techniques of performing facility and process inspections related to areas of assignment.
- Applicable Federal and State laws; District regulations, codes, ordinances, policies and procedures.
- Principles of report writing and preparation.
- Principles and practices of safety management and application.
- Operating systems including SCADA and other computer applications related to the work.
- Laboratory Information Management Software (LIMS)
- Record keeping principles and procedures.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service to public and District staff, in person and over the phone.

Ability to:

- Perform complex and accurate chemical, biochemical, biological, bacteriological, and physical analyses of water, wastewater, and biosolids.
- Analyze the results of such test and make appropriate recommendations for plant operations.
- Research, analyze, and summarize data, and prepare and present accurate and reliable reports containing findings and recommendations.
- Perform in-depth inspections of industrial, commercial, and residential users.
- Assemble data and prepare reports and Notices of Violation and maintain records of testing and findings.
- Read and interpret a variety of meters, gauges, and recording charts.
- Use and perform calibration and minor maintenance and repair on a variety of laboratory equipment.
- Interpret, apply, and explain applicable federal, state, and local policies, laws, and regulations.
- Understand, interpret, follow, and successfully communicate both orally and in writing, pertinent department policies and procedures.
- Analyze data and information using established criteria to determine consequences and to identify and select alternatives.
- Make accurate arithmetic and statistical computations.

- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, maintain attention to detail and accuracy while meeting critical deadlines.
- Understand and follow oral and written instructions.
- Operate modern office equipment including computer equipment and specialized software application programs.
- Organize, maintain, and update office database and record systems.
- Identify and take appropriate action when unusual operating problems occur.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgement within general policy and legal guidelines.
- Establish and maintain effective working relationships with those contacted in the course of work, using diplomacy and tact.
- Work unusual shifts, weekends, evening, and holidays when required.
- Prepare a variety of basic reports and other written materials on division activities in a clear and concise manner, using proper English, grammar, spelling, vocabulary, and punctuation.
- Keep accurate and legible records.
- Effectively and efficiently implement operations changes.
- Take a proactive approach to problem solving, including recognizing and correcting unusual, inefficient or dangerous conditions.
- Lift up to fifty (50) pounds in the normal course of work.

Typical Duties:

Duties may include, but are not limited to, the following:

- Performs and interprets complex chemical, biochemical, biological, bacteriological, and physical analyses of samples related to the treatment, quality control, and disposal of wastewater influent and effluent, following standard procedures and guidelines.
- Identifies and determines sampling procedures and programs; collects 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.
- Prepares standard chemical solutions and reagents; disposes of outdated materials in a safe manner and ensures that the laboratory is maintained in a clean and orderly condition.
- Analyzes and interprets laboratory results, recognizing problems that may be occurring during the treatment process.
- Sets up, calibrates, operates, and performs maintenance and repair to a variety of laboratory instruments and equipment.
- Maintains quality control and quality assurance and follow safe work procedures within standard operating procedures and protocols.
- Maintains accurate records of work performed and analysis results.
- Assists in the preparation of periodic and special reports for submission to appropriate regulatory agencies in a timely manner; develops methods and assembles data to ensure that laboratory certification is in compliance with regulatory requirements.

- Enters data into and retrieves data from an automated data control system.
- Meets and corresponds with industrial, commercial, and residential users to interpret and implement Federal, State, and local regulations, ordinances, and policies of the pretreatment and pollution prevention programs.
- Prepares accurate records and correspondence, including writing, updating, negotiating, and maintaining wastewater discharge permits.
- May collect wastewater samples from industrial, commercial, residential users and District sanitary sewers and perform well-defined chemical and biological tests in the field.
- Organizes, maintains, and documents all required information for enforcement of District code as directed by the federal requirements; analyzes lab data by comparing test results to requirements; prepares technical reports, evidence, and documentation; prepares and issues Notice of Violation when noncompliance is established.
- Writes and issues permits, and notices related to the pretreatment program.
- Tracks new business entering District boundaries; research new business license requirements; collects pertinent data; updates and maintains records; enrolls in environmental compliance program as necessary.
- Responds to public inquiries on wastewater services, and other problem areas as related to compliance program.
- Reads, interprets, applies, and explains regulations and standards to customers.
- Participates in various technical projects related to process problems and improvement.
- Attends professional conferences and seminars to keep abreast of new developments in the industry; participates in various industry related groups and meetings; serves as a representative of the District.
- Operates standard office equipment, including job-related computer hardware and software applications, facsimile equipment, and multi-line telephones; may operate other department specific equipment.
- Researches and maintains awareness of current and proposed state and local regulations, ordinances, and legislation as it relates to District programs, services, and customer and community relations.
- Assists in training new staff as required.
- Builds and maintains positive working relationships with co-workers, other District employees, and the public.
- Drives motor vehicles.
- Performs related duties similar to above in scope and function as required.

Working Conditions: Work in wastewater treatment plant, wastewater collection system environments; exposure to the environment, water, chemicals, hazardous materials, noise, and traffic; heavy lifting/moving, standing, and climbing. Wear personal protective equipment as appropriate for job assignments. May work at heights, in confined spaces, and in inclement weather conditions.

Physical Demands: Must possess strength, stamina and mobility to work in a wastewater treatment plant, collections system, and laboratory setting, to move materials weighing up to fifty (50) pounds and to use specialized test equipment, hand and power tools and

instrumentation; stamina to work in confined spaces around machines and to ascend and descend ladders; vision to read printed materials, charts, gauges and a computer screen; hearing and speech to converse in person and over the telephone or radio.