

CENTRAL UTAH WATER CONSERVANCY DISTRICT
Job Description
Revised: February 2017

JOB TITLE: Laboratory Manager

REPORTS TO: Water Quality Manager

STATUS: Full-time Non-Exempt

JOB SUMMARY:

Responsible for the administrative and technical operations of the District's three certified laboratories. Manage and direct the operation of the laboratories and ensure compliance to the State of Utah Laboratory Certification and National Environmental Laboratory Accreditation Conference (NELAC) requirements. Responsible for the oversight, review and documentation of quality control and quality assurance procedures for the laboratories as required by NELAC. Supervise and train laboratory personnel to perform all certified tests and associated laboratory duties and responsibilities.

Ensure compliance with all regulations and District water quality goals related to the District's environmental laboratories, source waters, drinking water treatment facilities, groundwater sources, and distribution systems. Provide technical assistance and support to District staff and member agencies regarding regulatory compliance and other water quality related issues.

ESSENTIAL FUNCTIONS:

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1. Responsible for overall operation of the District's three environmentally certified laboratories, including maintaining laboratory certification and compliance with State laboratory, National Environmental Laboratory Accreditation Conference (NELAC) and Environmental Protection Agency (EPA) regulations.
 2. Train, evaluate, and direct lab personnel to ensure technical laboratory employees maintain and meet the pre-defined minimum qualifications, experience and skills required. Promote laboratory teamwork, and motivate employees to perform their duties and responsibilities in a competent and professional manner to maximize their skills and abilities. Provide recommendations for hiring, training, retention, and promotion of laboratory personnel. Define minimum qualifications, experience and skills for laboratory positions.
 3. Develop and implement standard operating procedures (SOPs), methods, calibration and testing of laboratory equipment. Manage and train all laboratory personnel to perform all test methods according to written SOPs.
 4. Ensure and document that each employee has: read, understood and is using the latest laboratory in-house quality documentation related to his/her job description; read, acknowledged and understood their personal ethical and legal responsibilities; received training courses in ethical and legal responsibilities; received training courses and workshops on specific equipment, analytical techniques or laboratory procedures; and has read, understood and agreed to perform the most recent version of the test methods. Implements a proactive program for the prevention and detection of improper, unethical, or illegal actions.
 5. Review and coordinate compliance with all state and federal rules and regulations and District goals related to source water protection, drinking water treatment and groundwater sources.
 6. Conduct pilot plant investigations to ensure the correct technical data is used in the evaluation of new technology for the three treatment plants. Provide technical assistance in treatment plant process optimization. Oversee water research and development projects.
 7. Evaluate new and upcoming drinking water and water quality regulations and provide recommendations to District staff in preparing a strategy to meet upcoming regulatory requirements and water quality goals.

8. Provide technical resources and coordinates with Engineering, Water Quality and Treatment Department staff, and other District personnel on water quality and regulatory issues related to source development, capital improvement projects, treatment optimization, and water quality emergency response plans.
9. Provide technical assistance to member agencies related to regulatory compliance and water quality issues.
10. Develop, review, and prepare laboratory and testing protocols, and conduct technical studies.
11. Prepare and monitor annual budget for lab testing, supplies and instruments.
12. Prepare, implement, and evaluates laboratory safety programs.

MARGINAL FUNCTIONS:

1. Provides laboratory testing training.
2. Conducts testing for research projects.
3. Performs other related duties as assigned.

REQUIREMENTS:

Sufficient knowledge of engineering terminology, chemistry principles, and laboratory protocols to understand technical publications and presentations and federal and state regulations.

Working knowledge of various laboratory equipment and testing methods including GC, IC, LC, HPLC, MS, ELIZA, PCR, microscopy, etc.

Working knowledge of water treatment and distribution processes, and related federal and state rules and regulations.

Working knowledge of laboratory and analytical methods, NELAC requirements, and QA/QC protocols.

Ability to work with various personnel on such items as water quality research projects and capital improvement projects, and understand and participate in technical discussions during seminars and committee meetings.

Expected to comprehend and construct detailed memos, letters, reports and other correspondence, actively participate in group meetings, make presentations, and present information both inside and outside the District on the District's behalf.

Ability to apply common sense, analyze data and interpret results yielding varying outcomes that have an ultimate impact on the overall District. Such work may include determining compliance with current rules and regulations and planning for future requirements; solving laboratory and water quality problems; handling customer complaints; managing personnel problems; and establishing protocols and preparing reports for research projects and studies.

Provides daily direct service to employees and department managers. Provides frequent contact and service to some executive staff members, representatives of member agencies, contractors, consultants and related governmental agencies. Serves on or interacts with regulatory committees and boards. Interacts occasionally with customers or the general public.

Advanced management and communication skills, and the ability to train, motivate, and teach employees.

Advanced organization skills with the ability to manage multiple projects simultaneously involving large amounts of data.

Advanced mathematics skills with ability to use scientific calculator to compute ratio and proportion, and percentage; to calculate surfaces, volume, weights, and measures

Ability to effectively use (at an intermediate to advanced level) word processing and spreadsheet software for communicating and maintaining a water quality testing data base.

Ability to analyze water quality trends in order to determine and implement testing objectives for present and future compliance monitoring.

Ability to provide technical assistance based on a working knowledge of present and future drinking water regulations, and the examination of testing data.

Ability to oversee the administrative oversight and overall operation of certified District laboratories.

Ability to perform various physical and chemical tests on water samples using various equipment including pH meter, spectrophotometer, amperometric titrator, turbidimeter, computer, conductivity meter, TDS meter, digital titrator, particle counter, TOC analyzer, etc.

Ability to collect, filter, dilute and incubate samples for bacteriological tests which includes accessing (climbing, stooping, bending into vaults, pipes, etc.) to retrieve water samples.

Ability to maintain, calibrate and clean all laboratory equipment.

Ability to mix and prepare chemical reagents by weighing, measuring, diluting, and mixing liquids and solids.

Ability to prepare and administer contracts for outside services.

Ability to work with and advise plant managers on proper laboratory procedures; ability to travel to District laboratories in Duchesne and Vernal.

Ability to attend various meetings, conferences, seminars; take notes and prepare reports.

Ability to operate/use pen, pencil, PC computer, wordprocessing and spreadsheet software.

Ability to write (inscribe by whatever means) facts, figures, material of a technical nature, summaries, reports, manuals, etc.

Ability to read (by sight or braille) a variety of technical instructions, scientific and technical journals, state and federal regulations, etc.

Ability to communicate distinctly with appropriate pauses and emphasis; correct pronunciation (or sign equivalent) and variation in word order; using present, perfect, and future tenses; to conduct laboratory training for plant managers.

Ability to prepare and monitor annual laboratory budget; to order laboratory supplies, equipment, chemicals, etc.

Ability to prepare, implement, and evaluate District laboratory safety program; ability to ensure SDS' are received and maintained on all lab chemicals; all lab chemicals are properly labeled and stored; appropriate personnel are trained in the use of lab chemicals.

Ability to be subject to hazards: Includes a variety of physical conditions such as proximity to moving mechanical parts, electrical current, exposure to chemicals including chlorine, ferric chloride, potassium permanganate, caustic soda, carbon, etc.

Ability to exert up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects.

Ability to wear a respirator.

Ability to stoop, reach, lift, grasp, finger to perform various tests and operate various testing equipment.

Ability to exercise close vision in the performance of laboratory tests, reading, computing, calculating chemical dosages; color vision required in the performance of some tests, i.e., PH titration tests, etc.

Ability to work with limited supervision; gives technical guidance to plant managers.

Ability to accept responsibility for direction, control, planning, and organizing.

Ability to perform repetitive work, to continuously perform the same work according to set procedures, sequence or pace.

Ability to adapt to situations requiring the precise attainment of set limits, tolerances, or standards; to be precise, thorough, exacting, or meticulous in regard to material worked; or in activities such as numerical determinations, record preparation, testing procedures, inspecting.

Ability to exchange information with others clearly and concisely; to present ideas, facts, and technical information.

Ability to identify task requirements and monitor progress toward accomplishment.

Ability to receive guidance and supervision; follow work rules, safety practices, work procedures; meet deadlines, punctuality and attendance standards, etc.

Ability to systematically identify and define problems, evaluate alternatives, and implement cost effective solutions.

EDUCATION/EXPERIENCE/LICENSE/CERTIFICATION:

Bachelors degree in microbiology, biology, chemistry, environmental sciences, physical sciences, or related field, plus two (2) years of related laboratory work experience or an equivalent combination of education and experience as necessary for State of Utah Certification as Laboratory Manager for a certified environmental laboratory.