SAUSALITO-MARIN CITY SANITARY DISTRICT

ENGINEER-IN-TRAINING / LAB TECHNICIAN

DEFINITION

Performs a variety of skilled, technical and administrative work in two critical areas of the District: Engineering and Laboratory with time split equally in both areas.

Engineering: To perform and coordinate engineering assignments designed to develop professional working knowledge, requiring the application of standard techniques, procedures, and criteria necessary to fulfill the experience requirement for licensure as a professional engineer; perform related work.

Laboratory: To assist and perform routine laboratory analyses under supervision of Lab Director. May be able to work independently when sufficient proficiency has been demonstrated. Collect samples, prepare reagents and maintain sampling equipment. Assist in inventory of chemical and lab supplies and maintenance of sampling equipment. The position will enable incumbent to apply experience in laboratory to pursue CWEA Laboratory certification.

SUPERVISION RECEIVED AND EXERCISED

Direct supervision and training is given by both the Associate Engineer and/or the Laboratory Director. Incumbent has no direct supervision of any staff under this classification.

CLASS CHARACTERISTICS

Engineering: Incumbents work under the supervision of a Professional Engineer and receive on-the-job, structured training which is a prerequisite for licensure as a Professional Engineer. After certification as to completion of training, candidates will be eligible to take the examination to become a Professional Engineer as determined by the California Board of Professional Engineers. Responsibilities depend on specialization of the position, and can be varied in any of the disciplines associated with engineering. Works under close supervision of PE. Receives specific and detailed instructions as to required tasks and results expected.

Laboratory: This is an entry-level position in the Laboratory. Initially under close supervision, incumbents learn District and operational procedures for wastewater analysis and related equipment and accessories. As experience is gained, assignments become more varied and the work is performed more independently. This class may also work closely with Operations and Maintenance personnel and incumbents may be asked to perform additional tasks as needed.

EXAMPLES OF DUTIES (Illustrative Only)

Engineering:

- Perform work in planning, inspection, design, testing, and construction of structures, pump stations and treatment plants, and the evaluation of environmental concerns.
- Works on permitting required for construction projects.
- Participates in all phases of project design.

- Analyzes engineering data, interprets plans and specifications, and makes recommendations regarding feasibility.
- Prepares comments on proposals and/or studies by consultants and partner agencies.
- Develops technical exhibits and working papers in support of projects and testimony.
- Assists in preparation and analysis of multi-objective planning studies.
- Works on specified portions or minor phases of projects.
- Assists in the preparation of Board reports.
- Manages budgets as applicable to assignments.

Laboratory:

- Assists in the collection of samples from wastewater collection and treatment facilities in preparation for analysis.
- Prepares the calibration of laboratory instrumentation, records the various incubator and refrigeration temperature records and maintains the proper logs.
- Prepare reagents and solutions as needed.
- Assists in the analysis of daily, weekly and monthly tests required by the District's NPDES permit until the necessary experience and proficiency, as determined by the Laboratory Director, allows for independent work.
- Ensure laboratory practices and procedures are followed as determined by SOPs and/or Standard Methods of analysis.
- Perform all tasks in a safe manner, observing all safety regulations as set by District policy and Laboratory Chemical Hygiene guidelines.
- Perform basic maintenance and care of many laboratory equipment, plant monitoring devices and permanent and field samplers as needed.
- Assist in maintaining required QC/QA tasks as determined by ELAP and laboratory guidelines.

QUALIFICATIONS

Knowledge of:

Engineering:

- Solid and current understanding of engineering principles
- Understanding of basic hydraulics including pump curves and piping losses

Laboratory:

- Basic practices and methods of chemical, biochemical and bacteriological testing and analysis.
- Laboratory and field safety and equipment and material care and maintenance.
- Effective techniques for dealing with the public and dealing with basic customer complaints.

Skill in:

- Proficiency in Microsoft Word and Excel
- Providing a high level of customer service to public and Agency staff, in person and over the telephone.
- Learning to and recognizing and correcting or reporting unusual, inefficient or dangerous operating conditions.
- Learning proper handling of hazardous chemicals in a safe manner.

- Maintaining accurate records of work performed.
- Understanding and following oral and written directions.
- Working independently within established procedural guidelines
- Establishing and maintaining effective working relationships with those contacted in the course of the work.

OTHER QUALIFICATIONS

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

Experience and Education:

- Bachelors of Science in Engineering; and
- Courses in analytical chemistry, biology, environmental science, sanitary engineering or a related field would be desirable; and/or
- Experience in laboratory analytical methods and techniques.

Licenses and Certificates:

- Must possess a valid California class C driver's license and have a satisfactory driving record.
- Must have the certification by a state Board of Professional Engineers as an Engineer-In-Training.

Physical Demands and Work Environment:

While performing the duties of this job, the employee is frequently required to sit, stand, walk, talk, hear, and reach with hands and arms. The employee is frequently required to use hands to finger, handle, or feel objects, tools, or controls, and will frequently be required to enter data into a terminal, personal computer or keyboard device and operate office equipment requiring repetitive arm/hand movement; and hearing and speech to communicate in person and over the telephone.

The employee is often required to climb, balance, stoop, kneel, crouch, or crawl or use the ability to smell. The employee must be able to perform a moderate amount of physical labor, including having sufficient strength to lift, carry and/or move items up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

The employee is often exposed to outside weather and wet conditions. Other work conditions include exposure to unpleasant odors, mechanical parts, fumes, airborne particles and moderate noise levels. There is risk of exposure to hazardous fumes and substances.

Other Requirements:

Must be available for regular and emergency standby and weekend and holiday assignments and to be called-back as required.