



July 2017  
FLSA: EXEMPT

## ASSOCIATE ENGINEER

### DEFINITION

Under general direction, plans, organizes, directs and assists in a variety of facility, plant, and equipment maintenance activities for the District including mechanical, electrical, instrumentation, grounds, structures maintenance, repair, operation, construction and inspection tasks in connection with operating and maintaining facilities and properties associated with the District's wastewater treatment plant and collection system; and performs related work as required.

Under administrative direction of the General Manager performs a variety of engineering and non-engineering activities in the planning, design, and construction of wastewater collection and treatment facilities. Provides highly responsible and complex technical support to the General Manager/Principal Engineer. Ensures compliance with District's standards and specifications.

This is an "at will" management position.

### SUPERVISION RECEIVED AND EXERCISED

Receives administrative direction from the General Manager. Exercises direct supervision over maintenance mechanics. Works in close relationship with both Principal Engineer, Plant Superintendent, and Operations staff.

### CLASS CHARACTERISTICS

This is professional engineering class, and incumbents must have a working knowledge of various aspects of civil or mechanical engineering as it relates to planning, design, and construction of wastewater collection and treatment facilities.

Positions assigned to this class are characterized by responsibility for strategic and general planning and prioritization of maintenance, repair and rehabilitation activities at District facilities. Successful performance requires the ability to effectively plan, sequence, direct, and

coordinate multiple short to long-range maintenance, repair, and rehabilitation projects. Responsibilities include coordinating the activities of the division with those of other divisions and managing and accomplishing the complex and varied functions of the divisions. The incumbent is accountable for accomplishing planning and operational goals and for furthering District goals and objectives within general policy guidelines.

#### **EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)**

*Management reserves the rights 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.*

- Advise General Manager on status and technical issues related to assigned design work and projects.
- Coordinate Plant Improvement projects, including requests for proposals, studies, design engineering, inspection and construction management.
- Design/plan/prepare/coordinate a wide variety of engineering design work and inspection of construction projects. Act as project manager on various District projects.
- Prepares reviews and checks engineering drawings, plans, computations, estimates and reports for completeness, accuracy, and soundness of applied engineering principles and District standards.
- Administers outside consultant contracts, including writing and issuing request for qualifications/request for proposal (RFQ/RFP), interviewing consultants, reviewing and evaluating proposals, writing contracts and issuing the notice to proceed in order to begin the project.
- Assists in review and conditioning of proposed projects, real property matters, CEQA compliance tasks, planning studies and permit processing and tracking.
- Provides engineering support to construction inspectors; responds to inquiries and provide information to contractors, developers, other agencies and the public.
- Prepares staff reports, Board Summaries, and recommendations and may make presentations to Committees and the Board of Directors.
- Builds and maintains positive working relationships with co-workers, other District employees, and the public.
- Provide technical input to treatment plant and collection system staff on operations and proposes modifications.
- Initiates, plans, directs and oversees the sequence of operations for large and complex repair, maintenance and construction work at treatment plant, pump stations, storm drainage stations, and other associated water systems, chemical handling systems and oxygen injection systems
- Coordinates staffing with operational and mechanical activities, directs the coordination of assigned work with appropriate personnel, reviews, preliminary design and specification and in association with appropriate staff, makes recommendations involving modifications to facilities

- Implements and assists in planning preventive and predictive maintenance programs for supporting continuous operations of plant equipment and processes and for other facilities. Recommends, develops, implements improvements in plant and facility maintenance procedures and work processes to increase effectiveness of maintenance programs.
- Interprets mechanical, electrical or instrumentation drawings, diagrams and specifications to subordinates; inspects work in progress; ensures that work complies with appropriate repair methods and techniques; adjusts existing allocation of staff, materials, and budgetary resources within division to meet maintenance service agreements and plant operational requirements.
- Provide recommendations to engineering on proposed facility design specifications; proactively coordinates with other departments and supervisors regarding current and proposed capital programs and their impact on quality and level of maintenance support, negotiates and implements internal and external service agreements.
- Designs and implements training of crews in plant maintenance, construction, repair and safety principles to meet and comply with national, federal, state and local regulations
- Schedules and directs computer-based maintenance programs. Directs, coordinates and reviews the work plan for administrative staff assigned to manage computerized maintenance management software.
- Formulates and implements a predictive maintenance program.
- Formulates, initiates and directs the operational parameters for facilities and equipment under manager's jurisdiction, including storm periods or emergencies
- Participates in the development and implementation of goals, objectives, policies and priorities
- Selects, trains, motivates and evaluates personnel performance; implements discipline and termination procedures, when required
- Establish safety and regulatory goals consistent with overall District standards; manage District Safety/Regulatory Compliance position to meet District goals. Designs and administers safety programs
- Performs other duties and responsibilities as assigned or required.

## **QUALIFICATIONS**

### **Knowledge of:**

- Thorough knowledge of civil and/or mechanical engineering principles, practices and methods as applied to the planning, design, construction, operations and maintenance of wastewater treatment systems.
- Working knowledge of: hydraulics, statistics and engineering economics, structural and pipeline design techniques, engineering mathematics and statistical techniques, engineering materials, surveying, and applicable building codes and standards, construction practices and methods, quantitative analysis, public policy. State and federal wastewater regulations, state/national/local construction codes, and applicable safety standards.

- Familiarity with process control of an activated sludge, secondary wastewater treatment facility is highly desirable.
- Thorough knowledge of the standard methods and practices used in managing preventive and predictive maintenance programs for mechanical and electrical equipment, facilities, and structures common to a wastewater utility plant; safety regulations and practices pertaining to the work of the assigned section.
- Working knowledge of standard specifications, methods, materials, and equipment used in construction
- Working knowledge of the materials, tools, equipment, industry standards, and local and national codes associated with repair, maintenance, and rehabilitation work for one or more of the following: electrical, instrumentation and process controls, mechanical, structural, or pipeline installation and repair.
- Ability to plan, assign, coordinate, direct, and review the work of others; train and evaluate others on proper work methods and on safety regulations and precautions; plan and direct a preventive maintenance program; recommend and implement improved maintenance procedures and work processes; inspect and evaluate work sites for quality of work performed; and
- Safety principles and state-OSHA NFPA (National Fire Protection Association) 70E and federal, state and local safety order requirements involved in all aspects of plant maintenance work, equipment usage, and confined space work performed
- Building inspection methods and procedures; building construction materials, methods, and principles used in the design construction and maintenance of public buildings, mechanical plumbing and electrical systems used in commercial buildings
- Knowledge of Uniform Building Code, Uniform Fire Code, National Electrical Code, Uniform mechanical Code, Uniform Plumbing Code, and other related standards
- Leadership supervisory principles and practices that include training, planning, budgeting and scheduling effective use of personnel, equipment and materials
- Computer systems relevant to wastewater quality treatment facilities, including SCADA operating systems
- Permit and regulatory requirements for the operation of a wastewater quality facility (desired)
- Principles of budget preparations and control

Ability to:

- Develop, implement and administer goals, objectives, and procedures for providing effective and efficient engineering services.
- Understand, interpret, explain and apply applicable laws, codes, regulations and standards.
- Perform complex planning, design and engineering functions.
- Prepare clear, concise, and comprehensive engineering reports, recommendations, correspondence, policies, procedures, and other written materials.

- Analyze data and information using established criteria in order to determine consequences and to identify and select alternatives.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work and set priorities.
- Negotiate, prepare and manage consultant contracts.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Identify and take appropriate action when operating problems occur.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Respond to public inquiries and requests concerning the District's sewer system and facilities.
- Establish and maintain effective working relationships with those contacted in the course of the work.
- Ability to perform a variety of mechanical maintenance and repair work to shop, plant and field equipment; keep records and make reports; train and direct the work of sub-journey employees; make estimates of labor and materials
- Read and interpret mechanical and pipeline drawings, construction plans, specifications, and work orders; making accurate mathematical calculations relating to construction and survey.
- Draw valid conclusions and make appropriate recommendations based on work site inspections, review of work order files and project documents
- Plan, assign, monitor, and direct the work of others; make verbal and written reports and keep accurate records; exercise resourcefulness in the field and work without immediate supervision
- Communicate effectively with other District personnel, members of the general public, developers, and other agencies orally and in writing
- Supervise/direct/coordinate the work of staff
- Plan and oversee complex jobs, including the utilization of personnel, materials, and equipment
- Prepare and communicate budget information
- Maintain facility to meet permit and regulatory requirements

**Education and Experience:**

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

Experience:

Four years of experience in civil, sanitary or mechanical engineering. Must have lead or supervisory experience planning, assigning, directing and reviewing the maintenance and repair of equipment and facilities common to a wastewater utility in one or more of the following trades: mechanical, electrical, instrumentation and process control, structural maintenance and repair is desirable.

Training:

Equivalent to a Bachelor's Degree from an accredited college with major coursework in civil, sanitary, mechanical engineering, or a related field.

Desired Licenses and Certifications:

- Possession of, or ability to obtain, an appropriate valid California's driver's license and motor vehicle records which meets the District's driving standards.
- Possession of a valid Certificate of Registration as a professional engineer issued by the California State Board of Registration. May be registered as either a civil or mechanical engineer in the State of California.

A successful applicant may substitute other certifications and/or degree programs that support training and experience desired.

**PHYSICAL DEMANDS**

Must possess mobility to work in standard wastewater treatment plant and related facilities; strength, stamina, and mobility to perform light to medium physical work, to work in confined spaces, around machines, to climb and descend ladders, to operate varied hand and power tools and equipment; vision to read printed materials and a computer screen; color vision to read gauges and identify appurtenances; and hearing and speech to communicate in person and over the telephone or radio. The job involves frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds and heavier weights with the use of proper equipment.

**ENVIRONMENTAL ELEMENTS**

Employees work partially indoors and partially outdoors and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances, odors, and fumes.