

JOB DESCRIPTION



ENVIRONMENTAL LABORATORY TECHNICIAN

DEFINITION

Under general supervision of the Wastewater Treatment Plant Supervisor, performs laboratory analysis of water, wastewater, and sludges. Administers the Quality Assurance program for Environmental Laboratory Assurance Program (ELAP) certified Environmental Monitoring Laboratory. Prepares reports pursuant to NPDES monitoring program requirements, and certifies accuracy of data. Collects samples, and coordinates with plant operations personnel. Insures sample hold times are met and chain-of-custody procedures are followed. Reports results of process control analysis to operations personnel. Positions in this class series are flexibly staffed and typically serve as the lab director pursuant to the Environmental Laboratory Assurance Program (ELAP)

Laboratory Technician I, II, III

EXAMPLES OF DUTIES: (These examples are intended only as illustrations of the various types of work performed. The examples of work performed are neither restricted to nor all-encompassing of the duties to be performed under this job title.) **(E=Essential Duty; M=Major Portion of Time)**

- Collects, preserves, and transports samples of wastewater and sludge from various points in the wastewater treatment process and receiving waters. (E, M)
- Trains sample collectors and receives samples according to chain-of-custody procedures. Ensures samples to be delivered to outside laboratories are properly preserved and documented. (E, M)
- Performs laboratory analysis of water, wastewater, and sludge for physical and chemical parameters such as temperature, conductivity, pH, suspended solids, BOD, total solids, volatile acids, alkalinity, volatile solids, dissolved oxygen, and turbidity. Uses wet chemistry techniques and basic instrumental analysis. (E, M)
- Submits reports for drinking water to the California Department of Public Health as required by regulations.
- Performs microbiological analysis of water and wastewater for coliform bacteria. (E)
- Maintains laboratory Quality Assurance program in accordance with ELAP and maintains certification of the facility as an Environmental Monitoring Laboratory. (E)
- Calibrates, adjusts, and makes minor repairs to laboratory equipment and instruments. (E)
- Prepares reagents and media for use in the Laboratory. (E)
- Ensures adequate supplies of analytical materials are kept on hand, and procures replacement stock as needed. (E)
- Prepares written documentation and reporting of laboratory findings in accordance with permit requirements, and certifies accuracy of results. (E, M)
- Uses personal computers and software to input data and generate reports, laboratory forms, etc. (E)
- Develops and improves analytical methodology and procedures as the state of the art advances and regulatory demands increase. Coordinates with consulting engineers and other outside entities in developing new process control programs as improvements and expansions are made to the treatment works. (E)
- Prepare reports pursuant to the City's NPDES monitoring program requirements and DPS Water Supply
- Attends California Water Environment Association lab committee meetings
- Use and application of microcomputers and software
- Recognize and correct problems in laboratory test procedures and equipment
- Train department personnel in sample collection and analytical records procedure and receive samples according to chain-of-custody procedures.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Various chemicals and compounds used in wastewater treatment, and safe and appropriate handling techniques for their use.
- Safe handling of hazardous chemical and biological materials.
- Safe and efficient laboratory practices and procedures.
- Safe sampling, analysis, quality assurance, and reporting procedures as appropriate for an Environmental Monitoring Laboratory.
- Water/wastewater treatment plant operations and ability to conduct laboratory activities in the plant environment.
- Operation, maintenance, and repair of wastewater treatment plant lab equipment.
- Recordkeeping and reporting procedures.
- Safety rules, codes, and regulations pertaining to the work.
- Basic first aid and CPR techniques.

Ability to:

- Obtain representative samples of liquids and solids from locations throughout a wastewater treatment plant, using appropriate equipment and safety procedures.
- Safely collect samples from the Russian River at periods of high flow and in inclement weather.
- Manual dexterity and vision sufficient to manipulate laboratory glassware and apparatus, take readings, and record data.
- Conduct analysis of water, wastewater, sludge, and solids for a variety of physical and chemical constituents.
- Conduct microbiological analysis of water and wastewater using approved methods for drinking water and waste water analysis.
- Employ microscopic examination and differential staining techniques for microbiologic examination.
- Keep records and prepare reports.
- Understand and carry out oral and written directions.
- Sit for long periods of time, or stand for long periods on hard-surface laboratory floor.
- Establish and maintain cooperative relationships with those contacted in the course of work.
- Work various shifts and flexible hours, including weekends and holidays.
- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

Education and Experience:

Education and experience requirements may be met in the following ways:

Environmental Laboratory Technician I

1. A Baccalaureate degree in chemistry, biochemistry, biology, microbiology, environmental, sanitary or chemical engineering, natural or physical science; **AND** three (3) years experience in the analysis of chemical, biological, or microbiological samples required and Grade IILab Analyst Certificate issued by the California Water Environment Association (CWEA)

OR

2.

OR

3. and 5 years' experience.

4. OR

Grade I Lab Analyst Certificate issued by the California Water Environment Association (CWEA) and 10 years experience

Environmental Laboratory Technician 2

1. All of the above requirements and Grade III Lab Analyst Certificate issued by the California Water Environment Association (CWEA).

Environmental Laboratory Technician 3

1. All of the above requirements and Grade IV Lab Analyst Certificate issued by the California Water Environment Association (CWEA).

Necessary Special Requirements:

Possession of a valid Class C California Driver's License
CRP & First Aid certification or obtain within 6 months

RESIDENCY REQUIREMENT

All Wastewater Treatment Plant employees shall be expected, within six months of hire, to establish permanent residence within a 45-minute notification to respond zone.

S:\Human Resources\Human Resources\COU JOB DES Files\WWTP\EnvirLabTech_JobDes.doc