LABORATORY ANALYST

JOB PURPOSE AND SUMMARY

The Laboratory Analyst is responsible for assisting in overseeing the daily functions of the treatment plant laboratory contributing to efficient treatment plant operations. The incumbent performs all necessary National Pollution Discharge Elimination System (NPDES) and process control tests, interprets results and recommends corrective actions, assists in the development and maintenance of laboratory accreditation, assists with work plans and budgeting, coordinates special projects and studies with external agencies, and trains other plant personnel in specific laboratory operations.

CLASSIFICATION DISTINCTIONS

Under the general direction of the Wastewater Operations Manager, the incumbent works with general instructions and has relative latitude for exercising independent judgment and initiative within established policies, guidelines and procedures. Work is reviewed through conferences, meetings and reports and is evaluated for overall effectiveness and compliance with goals, policies and performance standards. The Laboratory Analyst may act in a lead capacity and be assigned responsibility for laboratory operations and procedures, and associated laboratory personnel.

KEY OR TYPICAL TASKS AND RESPONSIBILITIES

- Conducts field inspections and assessments; reviews and evaluates delineations, mitigation and enhancement plans as they relate to water quality needs and standards; validates and interprets laboratory test results; provides technical advice and recommendations on an as needed basis.
- Collects and analyzes water, wastewater and industrial waste samples for BOD, COD, suspended solids, pH, metals, coliform and all other tests required by NPDES permit, process control, water quality regulations and industrial pre-treatment categories.
- Performs special chemical and technical studies as required for quality control standards; oversees quality control programs including statistical reports, analytical methods, data recordkeeping, instrument calibration and certification, reagents preparation and standardization.
- Compiles and records test results; prepares data summaries; evaluates and interprets findings; prepares recurring or ad hoc reports and technical studies as needed.
- May testify before appropriate authority regarding determinations, delineations and mitigation plans.
- Prepares and maintains a stock of reagents and standard solutions for use in the laboratory; prepares biological culture media and stains.

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- Ensures compliance with safety procedures and regulations; inspects laboratory and related facilities for hazardous conditions and initiates corrective measures as necessary.
- Oversees the collection testing calibrates and maintains laboratory equipment.

QUALIFICATIONS

Education and Experience:

- Bachelor's degree in Chemistry or related natural science and one year of field or practical experience in the collection and analysis of water samples, or any combination of experience and training, equivalent to five (5) years, which would likely provide the required knowledge and abilities, is qualifying.
- Possession of, or ability to obtain, a valid motor vehicle operator's license.

Knowledge of: the procedures for examination of water and wastewater; water biology, bacteriology and bioassay as applied to the examination and analysis of water and wastewater; supervisory principles; qualitative and quantitative analytical chemistry including instrumental methods; proper methods for taking, preserving and preparing water samples for testing; the operation and capabilities of laboratory equipment used for water and wastewater analysis.

Ability to: establish and maintain cooperative and effective working relationships; perform complex and precise physical, chemical and biological tests of water and wastewater samples; interpret the results of chemical, physical and biological tests; use a variety of software to create monthly discharge monitoring reports; use measurement systems, mathematics and formulas of analytical chemistry; operate standard laboratory equipment, including atomic absorption equipment; prepare reagents and solutions; use proper methods for cleaning and sterilizing laboratory equipment.

WORK ENVIRONMENT AND PHYSICAL DEMANDS

Work is performed primarily in an office setting, with up to 50% of the work performed in a laboratory and in the field. Field work may involve walking over uneven, sloping and sometimes rough and steep terrain, stooping, bending, kneeling and in some cases, walking distances up to a mile. In addition, speaking, hearing and keyboard skills are essential tasks.

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