

## CITY OF MADERA

### WASTEWATER TREATMENT LAB ANALYST/INSPECTOR II

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include** all duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

#### **DEFINITION:**

Under general supervision, plans, organizes and conducts a variety of water pollution laboratory tests and analyses necessary for the waste water treatment plant to remain in compliance with state and federal mandates; operates and inspects the laboratory and maintains a quality level which is within EPA guidelines; performs other related duties as required.

#### **DISTINGUISHING CHARACTERISTICS:**

The Wastewater Treatment Lab Analyst/Inspector II is a journey level class responsible for a wide variety of preventative maintenance and waste water analytical testing. Inspects industrial and commercial businesses for compliance with City pretreatment and waste water discharge permits. Incumbents in this class must work independently in the performance of assigned duties. This classification is distinguished from the Wastewater Treatment Lab Analyst/Inspector I in that the former occasionally assists in the training of lower level Wastewater Treatment Lab Analyst/Inspector I positions.

#### **SUPERVISION RECEIVED/EXERCISED:**

Receives general supervision from the Wastewater Treatment Plant Operations Manager. May exercise functional and technical supervision over assigned staff.

#### **ESSENTIAL FUNCTIONS:** *(include but are not limited to the following)*

- Performs or knowledge of routine laboratory analyses, including atomic absorption (FAA, GFAA, cold vapor, gaseous hydride generation), sulfate, chlorine demand, oil and grease, nitrate, nitrite, ammonia, phosphate, fluoride, TKN, total phosphorus, process control topics (MLSS/SVI, MCRT, F/M, chlorination/dechlorination, volatile acids/alkalinity ratio); microbiological testing (completed test, membrane filter technique), acute bioassay, total organic carbon
- Assists in design/development of new methods and techniques of analysis
- Calibrates, operates and maintains wastewater laboratory equipment related to subject matter including field wastewater monitoring equipment
- Complete basic lab reports
- Inspecting a variety of pretreatment systems, facilities, and processes of industrial, commercial, residential, and institutional establishments for compliance with federal, state, and local regulations and permit conditions related to pretreatment of industrial wastewater, storm runoff, and pollution prevention requirements
- Maintain laboratory Quality Assurance Program, in accordance with County Department of Health Environmental Laboratory Approval Program
- Prepares data and submits reports to regulatory agencies

- Reviewing and evaluating all but the most complex permit applications, self-monitoring reports, facility modifications, and pretreatment systems; issues permits following established practices, policies, procedures, internal guidelines, and models; performs calculations related to industrial discharge permitting, including calculation of production-based and alternative limits
- Initiating appropriate enforcement action after identifying noncompliance with local, state or federal requirements; preparing and issuing written notices of requirement and violations of regulations; researching compliance history of facilities; participating in enforcement hearings; and monitoring follow-up action
- Reviewing compliance monitoring reports, such as toxic organic management plans, spill prevention control and countermeasures, pollution prevention plans, baseline monitoring reports, 90-day reports, periodic reports of continued compliance, and self-monitoring reports and sample results for compliance with federal, state, and local requirements
- Determining sampling locations and methods; collecting representative samples of water and wastewater from industrial, commercial, residential, institutional sources, and storm sewers; using appropriate containers and preservation methods; performing field or laboratory tests on samples collected; observing and recording field conditions, meter readings, field test results, and other data relevant to sampling conditions and completing documentation
- Investigating and tracing sources of illegal or nuisance waste discharges; responding to call-outs; providing technical assistance and guidance; and observing, monitoring, and evaluating conditions and initiating appropriate responses
- Preparing manual and computerized written, oral, tabular and graphic reports and summarizing requirements and regulations
- Explaining environmental compliance regulations, requirements, and policies to business owners and operators, other government agencies and the general public
- Planning and participating in pollution prevention and fats, oils, grease (FOG) program, including commercial business regulation, development of best management practices and public outreach
- Analyzing dischargers' activities and preparing data for sewer service charges; researching tenant occupancy uses; determining and verifying wastewater strength classifications; verifying sewer service and/or capacity charges and information; reviewing and analyzing information for sewer service, making recommendations and providing the supervisor and/or manager with documentation; and responding to inquiries concerning sewer service
- Responding to and initiating contact with system users; providing detailed information on a variety of topics in a clear, succinct manner using the appropriate approach and response for the situation; sharing technical and/or specialized information with appropriate staff, industrial users, and other public agencies; and providing feedback, observations, and analysis to appropriate staff
- Researching and keeping current on pertinent information and development in environmental compliance functional areas; analyzing and implementing state, federal or local requirements as necessary to maintain approved pretreatment, pollution prevention, and storm water runoff programs
- Recognizing and correcting unsafe conditions. Understanding safety regulations; implementing and recommending proper safety protocols

**WORKING CONDITIONS:**

Position requires sitting, standing, walking on level and slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping and making repetitive hand movement in the performance of daily duties. The position also requires both near and far vision when inspecting work and performing maintenance on assigned equipment. The need to lift, carry and push tools, equipment and supplies weighing 25 pounds or more is also required. Additionally, the incumbent in this position works in all conditions including wet, hot and cold. The incumbent may use a variety of chemicals which may expose the employee to fumes, dust and air contaminants. The nature of the work also requires the incumbent to climb ladders and work in confined spaces.

**QUALIFICATIONS:** *(The following are minimal qualifications necessary for entry into the classification.)*

**Education and/or Experience:**

Any combination of education and experience that has provided the knowledge, skills and abilities necessary for a Wastewater Treatment Technician/Environmental Compliance Inspector. A typical way of obtaining the required qualifications is to possess the equivalent of three years of experience in the operation and maintenance of a wastewater treatment laboratory or the performance of related work, and a high school diploma or equivalent supplemented with appropriate course work in laboratory testing and analysis.

**License/Certificate:**

Possession of, or the ability to obtain, a valid class C California driver's license.  
Possession of a Grade II Laboratory Analyst Certificate.  
Possession of Grade II Environmental Compliance Inspector certificate.

**KNOWLEDGE/ABILITIES/SKILLS** *(The following are a representative sample of the KAS's necessary to perform the essential duties of the position.)*

**Knowledge of:**

- Understanding of physical, chemical and microbiological properties of wastewater
- General understanding of basic wastewater processes
- Principles and practices of qualitative and quantitative chemistry, biology and bacteriology
- Basic knowledge of pertinent federal and state codes and regulations involved in discharge permit, ELAP certification
- Methods of handling, storing and disposal of hazardous chemicals and wastes
- Categorical standards
- EPA pretreatment regulations and standards (40 CFR part 403)
- Water quality regulations for storm water (40 CFR part 122)
- Common monitoring technology including common sampling, and flow-measuring methods, equipment, apparatus and their uses
- Principles and methods of wastewater collection, treatment and disposal
- Safety methods, procedures, practices, and precautions related to conducting inspections, traffic control, and using appropriate personal protective equipment

- Complex principles of chemistry with special emphasis on wastewater chemistry and chemistry encountered in industrial processes
- Arithmetic including fractions, decimals, proportions, percentages, and logarithmic notation
- Basic mechanical, hydraulic and environmental engineering principles and concepts
- Pollution prevention principles and activities
- Industrial processes
- Industrial pretreatment technologies
- Industrial activities that could impact storm water runoff
- Collection of samples that could be used as evidence in legal proceedings
- Preservation procedures for routine and non-routine samples
- Basic Computer skills

**Ability to:**

- Perform analyses for subject matter in Essential Duty 201
- Recommend or devise corrective action for analytical or instrumentation procedures (i.e., troubleshoot)
- Conduct more advanced wastewater mathematics
- Prepare clear, concise and technical reports
- Train and supervise the work of others
- Read, interpret, apply and explain complex procedures, rules, regulations, and law relating to water and wastewater
- Interpret physical, chemical, microbiological and bacteriological tests on water and wastewater
- Read and understand technical information relating to wastewater generation and disposal, including engineering drawings and schematics
- Inspect a variety of industrial and commercial waste generating processes and facilities
- Inspect a variety of industrial waste water pretreatment processes
- Inspect industrial effluent monitoring equipment including pH, ORP, flow meters, explosion meters, selective ion recorders, etc.
- Use Microsoft Office software and other related computer programs

**Skill to:**

- Perform standard quantitative laboratory analysis
- Communicate clearly and concisely, both orally and in writing, in the English language
- Establish and maintain effective working relationships with those contacted in the course of work
- Prepare clear, concise, and accurate reports, memorandums and correspondence
- Interact cooperatively and effectively with the public, industrial users, other agencies and staff personnel in conducting environmental compliance inspections
- Communicate the objectives of a program to representatives of commercial, residential and industrial users, in the English language