CITY OF OCEANSIDE

REVISED: JANUARY 2006
JOB CODE: UTIL03
UNIT: OCEA

ASSOCIATE CHEMIST

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under supervision, performs water, wastewater, sludge and industrial waste testing for regulatory compliance, plant process control, and laboratory certification using chemical, physical and biological analytical procedures; to maintain quality assurance, lab records, database, equipment, instrumentation and supplies; provide back up support for other laboratory staff; and to perform related duties as assigned.

EXAMPLES OF DUTIES – *Examples of duties performed by employees in this class may not include all required duties, nor are all listed tasks necessarily performed by everyone in this class.*

Performs physical, chemical and biological tests and analyses of water, wastewater, sewage sludge, soils and industrial waste for ammonia, cyanide, fluoride, TKN and MBAS; prepares chemical solutions and standards; maintains quality assurance documents and written records of all analyses; enters data into the main laboratory database; designs database queries and creates reports; performs maintenance on laboratory equipment; evaluates and recommends the purchase of new equipment; provides back-up support for other laboratory functions and may include field sampling; provides training to new personnel on the use of equipment and database.

MINIMUM QUALIFICATIONS

Knowledge of:

- Principles, practices and applications of chemistry and microbiology.
- Chemistry, math, and analytical techniques utilized in water/wastewater laboratories.
- Mathematical principles including statistics and algebra.
- Operational characteristics of various equipment utilized in water/wastewater laboratories.
- Standard safety procedures and applications.
- Pertinent Federal, State, and local laws, codes and regulations.
- Modern office procedures, methods and equipment including computers and applicable software applications.
- Principles and procedures of record keeping.
- Principles of business letter writing and basic report preparation.

Ability to:

- Perform a broad range of routine and non-standard bench tests utilizing a variety of laboratory instruments.
- Perform complex chemical analyses.
- Perform statistical calculations.

- Adapt standard methods and techniques to different sample types.
- Read and follow instrument manuals.
- Operate and maintain laboratory facilities and equipment.
- Maintain a database of tests conducted and data collected.
- Maintain and update accurate records and files.
- Prepare clear and concise reports.
- Perform arithmetic calculations accurately.
- Work independently and efficiently to carry out assignments.
- Communicate clearly and concisely, both orally and in writing.
- Understand and carry out oral and written instructions.
- Establish and maintain effective relationships with those contacted in the course of work.

Experience and Training Guidelines

Experience: Two years of experience in a water or wastewater laboratory performing instrumental, gravimetric and volumetric analyses and interpretations.

Training: Equivalent to a Bachelor's degree from an accredited college or university with major course work in the physical, chemical or biological sciences or a related field.

License or Certificate: A current, valid, California driver's license. Possession of a Laboratory Analyst, Grade II certification issued by the AWWA or CWPCA within 24 months of appointment.

WORKING CONDITIONS

Environmental Conditions: Laboratory environment; work with water, wastewater and sludge conducting laboratory tests; exposure to toxic chemicals, electrical or radiant energy and fumes or gases.

Physical Conditions: Essential functions may require maintaining physical condition necessary for sitting and standing for prolonged periods of time; speaking and hearing to exchange information; operate a variety of laboratory equipment; visual acuity to conduct laboratory tests and read and interpret data; operation of City vehicle; collecting field samples from riverbeds, streams, lagoons, shores and oceans.