

WASTEWATER TREATMENT PLANT LAB CHEMIST

GENERAL STATEMENT OF DUTIES

Supervises and performs responsible technical work in performing specialized and complex chemical, bacteriological, and physical tests of wastewater.

DISTINGUISHING FEATURES OF THE CLASS

An employee in this class performs specialized and complex chemical and bacteriological tests of wastewater and supervises lower level employees. Other duties include interpreting laboratory tests and preparing required reports; maintaining inventory of chemicals, solutions, culture media, required forms and other laboratory equipment; and training new employees. Work is performed under the general supervision of the superintendent and is evaluated through observation, reports and review by the superintendent. Independent judgement and initiative are required in the setup and analysis of laboratory tests.

ILLUSTRATIVE EXAMPLES OF WORK

Supervises and/or performs specialized and complex chemical, bacteriological and physical tests and analyses of wastewater, industrial wastewater, and by-products to determine treatment plant loadings, efficiency of plant processes and influent/effluent quality. Analyzes samples for BOD, TSS, temperature, COD, fecal coliform, pH, residual chlorine, and conductivity.

Writes standard operating procedures (SOPs) for laboratory and insures SOPs are up to date.

Establishes quality control guidelines and insures compliance with guidelines.

Supervises performance of routine testing by lab technician.

Supervises and performs the collection of laboratory samples.

Evaluates and interprets test results to insure quality control requirements are being met, establishes testing priorities, and supervises routine reports.

Assembles data, prepares required reports for the state, and maintains records.

Responsible for maintaining lab certification.

Sets up pilot processes when conducting research on improved procedures.

Provides direct and indirect instruction to operating personnel.

Order laboratory supplies and maintains inventory of chemicals, solutions, culture media, required forms, and other laboratory equipment.

Serves as county pretreatment program coordinator. Duties include evaluation of significant industrial users, completing inspections, writing permits, monitoring data, and preparing notices of violation. Performs headworks loading analyses and completes the annual pretreatment report to the state. Performs related duties as required.

KNOWLEDGES, SKILLS AND ABILITIES

Considerable knowledge of wastewater treatment processes and chemical, biological or physical actions involved in each process.

Considerable knowledge of laboratory techniques, materials, and equipment used in chemical and biochemical analysis of wastewater.

Considerable knowledge of organic and inorganic chemistry.

Working knowledge of local, state, and federal regulations and requirements for wastewater treatment.

Skill in the administration of laboratory tests.

Ability to train and supervise lower level employees.

Ability to work solely on one's own initiative and establish testing procedures.

Ability to organize and interpret data and prepare reports.

Ability to communicate information to subordinates, as well as higher levels of management.

DESIRABLE EXPERIENCE AND TRAINING

Graduation from a four year college or university with a degree in chemistry or biology, or a related field; and considerable experience in performing laboratory tests; or an equivalent combination of education and experience.