GENERAL DESCRIPTION

Performs highly advanced (senior-level) chemical analysis work. Work involves overseeing the operations of a chemistry laboratory involved in the chemical analysis and physical testing of materials, chemicals, physiological specimens, and other products; overseeing and evaluating research; and reviewing technical reports. May supervise the work of others. Works under minimal supervision, with extensive latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Oversees the activities of a chemical laboratory.

Oversees and reviews the chemical and physical analysis of food, drugs, human clinical specimens, construction materials, wastewater, stream pollution, hazardous waste, alcohol, or other materials.

Oversees and evaluates research projects; interprets research data and documents findings; and reviews technical reports and scientific papers.

Oversees, plans, and reviews audits of environmental laboratories to ensure compliance with applicable environmental or public health laws, rules, regulations and policies; reviews and evaluates corrective action plans; and makes appropriate recommendations.

Oversees special research projects.

Coordinates the training of staff on the interpretation of laboratory and analytical results and on the environmental laboratory accreditation process.

Provides leadership, guidance, and technical support to laboratory staff.

Prepares and evaluates laboratory procedures, safety guidelines, or guidelines for laboratory assessments and/or accreditation.

Consults with staff on proper research, analysis, and interpretive procedures; and determines the appropriate analytical methods for examinations.

Consults with management regarding methods of analysis, sample assignments, work flow, and quality assurance.
Determines the appropriate specifications for the use of laboratory chemicals, reagents, equipment, and supplies.

Interprets laboratory and analytical results for use in regulatory determination decisions.

May interpret and verify analytical findings in cases in which results are used in court.

May consult with physicians, public health staff, and field inspectors concerning proper procedures for the collection and submission of samples for chemical tests.

May supervise the work of others.

Performs related work as assigned.

GENERAL QUALIFICATION GUIDELINES

EXPERIENCE AND EDUCATION

Experience in chemical analyses and laboratory work. Graduation from an accredited four-year college or university with major coursework in chemistry or a related field is generally preferred. Experience and education may be substituted for one another.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of the principles of chemical processes and analyses; of the preparation, properties, structures, and use of chemical and physical substances; and of the laws and standards related to the technical areas of responsibility.

Skill in the operation of laboratory equipment and in the use of a computer and applicable software.

Ability to conduct physical and chemical analyses and tests, to interpret test results, to prepare reports, to communicate effectively, and to supervise the work of others.