ENGINEERING SPECIALIST III

GENERAL DESCRIPTION

Performs complex (journey-level) engineering work. Work involves collecting and validating engineering and environmental data; planning and design functions; conducting inspections and materials research and testing; and construction or fabrication work. May provide guidance to others. Works under general supervision, with moderate latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Provides technical expertise for programs, activities, studies, and projects.

Performs engineering or environmental assessments, modeling, and monitoring.

Performs detailed design work on structures, roads, equipment, and machinery.

Plans, constructs, or fabricates structures, supports, or housings to accommodate specialized equipment.

Prepares plans, specifications, estimates, reports, and related documents for compliance with laws and standards; and makes recommendations for improvements.

Prepares correspondence and technical reports.

Prepares plans, specifications, and estimates for future projects.

Conducts engineering fieldwork, such as surveying, inspecting, drafting, and design; and inspects the work of contractors and operators for compliance with laws and specifications.

Conducts materials research and testing activities.

Conducts investigations of complaints.

Coordinates and monitors reviews of ambient air and water quality data to determine data quality and to ensure compliance with policies and procedures.

Evaluates, validates, and reports ambient air and water data for environmental monitoring in compliance with state and federal monitoring regulations.
Collects and samples field data for engineering and environmental projects, and analyzes and validates data.

Calculates geometric, hydraulic, grade, and quantity estimates.

Assists with planning and assigning work projects.

Assists with project planning and oversight and the development of policies and procedures for area of responsibility.

May provide technical guidance involving the evaluation of data, coordination of research, analysis of issues, and preparation of reports and recommendations.

May evaluate, design, and program computer hardware and software for engineering design applications.

May provide engineering consultation services.

May assist with the development of new or refined techniques, procedures, processes, and/or scientific methods.

May provide guidance to others.

Performs related work as assigned.

GENERAL QUALIFICATION GUIDELINES

EXPERIENCE AND EDUCATION

Experience in engineering work. Graduation from an accredited four-year college or university with major coursework in engineering, natural resources, mathematics, or a related field is generally preferred. Experience and education may be substituted for one another.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of engineering and data analysis techniques and theories.

Skill in the use of computers and computer-aided design equipment and in the use and maintenance of scientific instruments.

Ability to apply engineering concepts, to conduct inspections, to perform maintenance activities, to perform design work, to perform construction or fabrication work, to operate specialized equipment, to organize and analyze data, to plan and coordinate programs and activities, to communicate effectively, and to provide guidance to others.