State Classification Job Description

**Engineering Specialist VI**

**General Description**
Performs highly advanced (senior-level) engineering work. Work involves overseeing and/or providing high-level technical expertise and coordination for engineering and environmental programs, activities, and projects; evaluating, validating, and reporting engineering and environmental data; performing planning and design functions; overseeing construction or fabrication plans and work; and conducting inspections and materials research and testing. 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 and/or provides high-level technical expertise for programs, activities, studies, and projects.

Oversees and/or performs engineering or environmental assessments, modeling, monitoring, and materials research and testing activities, including those of high complexity and large in scope.

Oversees and/or reviews plans, specifications, estimates, reports, testing procedures, and material designs for compliance with laws, specifications, and standards; and approves recommendations for revisions.

Oversees and/or conducts engineering fieldwork, such as surveying, inspecting, drafting, and design; and prepares drawings and sketches.

Oversees and/or performs the collection, validation, and analysis of data.

Oversees and/or plans, evaluates, validates, and reports ambient air and water data for environmental monitoring in compliance with state and federal monitoring regulations.

Oversees and/or coordinates reviews of ambient air and water quality data to determine data quality and ensure compliance with procedures.

Oversees the construction of, fabrication plans for, and work on structures, supports, or housings to accommodate specialized equipment.

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Reviews engineering work for calculation errors and compliance with applicable federal and state laws and industry standards and guidelines.

Reviews, processes, and transmits design plans.

Reviews the activities of consultants, contractors, operators, or civic authorities.

Reviews and prepares correspondence and technical reports.

Reviews; designs; and develops plans, specifications, and estimates for future projects.

Evaluates, designs, and programs computer hardware and software for engineering design applications and/or data management and validation applications.

Evaluates data for adherence to laws and specified requirements.

Initiates special studies, reduces facts to specific findings, and recommends solutions to problems.

Provides engineering consultation services and training.

Calibrates equipment and develops procedures for the collection and analysis of engineering and environmental data.

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

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

May evaluate data and conduct research to analyze environmental issues.

May coordinate and perform final inspections to identify deficiencies.

May supervise the work of 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, principles, and theories; of equipment design and development; of computer-assisted troubleshooting procedures and techniques; and of data modeling and forecasting.
Skill in the use of computers and computer-aided design equipment and automated programs and in the use and maintenance of scientific instruments.

Ability to apply engineering concepts; to organize and analyze complex data; to oversee programs, projects, activities, and construction or fabrication plans and work; to prepare designs and specifications; to evaluate, design, and program computer hardware and software; to communicate effectively; and to supervise the work of others.