SENIOR ENVIRONMENTAL HEALTH ENGINEER

NATURE OF WORK

This is advanced environmental engineering work.

Work involves responsibility for: writing federally approvable environmental permits for air, waste, wastewater and water; reviewing and approving complex facility plans and engineering specifications for construction and operation of community water supply systems, and community, industrial, or feed lot sewage treatment facilities; reviewing and approving engineering plans and industrial process to identify emissions/discharges and to determine appropriate pollution control equipment; recommending industrial process modifications to achieve pollution prevention and risk reduction to public health and environment; designing monitoring strategies; modeling emissions/discharges; developing risk management strategies; updating the Comprehensive Plan and Transportation Plan; completing land use plan reviews to protect public health risks and environmental quality; determining business and industry compliance with environmental laws; developing civil penalty orders. Work may involve supervising and coordinating the activities of professional and technical staff. Considerable independent judgment and personal initiative is expected when making technical decisions on environmental engineering problems. Supervision is received from a professional or an administrative superior and reviewed through written reports, conferences and results achieved.

EXAMPLES OF WORK

Writes, reviews and approves Federal Clean Air Act Operating permits for Class I, complex Class II and Synthetic Minor Class II Air Pollution sources; designs Class II Air Pollution Source permitting strategies; writes, reviews and approves Clean Water Act permits for industry, small communities and non-standard systems; and RCRA waste disposal site permits.

Reviews and approves plans for expansion, increased input or output, changes in processes and chemicals, to determine Federal applicable requirements.

Writes and issues operating and construction permits; determines pollution control equipment requirements.

Reviews and approves engineering studies, remediation plans, laboratory analysis and specifications used to: manage waste, clean up property, develop emission factors, discharge limits and testing plans.

Uses GIS software and environmental databases to review land use plans for water quality and quantity, air quality, and public health risk reduction.

Designs and conducts modeling, sampling and monitoring studies to identify public health and environmental risks/impacts; make recommendations for risk reduction.

Organizes and prepares enforcement recommendations and civil penalty orders; calculates civil penalty orders based on federal guidance; negotiates supplemental environmental project (SEP) strategies to mitigate fines; writes final penalty order; approves SEPs.

Prepares RFPs for contracting environmental modeling, sampling and monitoring.

Reviews changes in federal, state, and local laws to ensure environmental health programs maintain federally approved status; develops and analyzes new environmental regulations and strategies.

Reviews and updates the Comprehensive Plan, the Transportation Plan, Watershed Plans, etc.; ensures compliance with federal law, public health and environment protection.

Makes presentations on various environmental issues to the public, and various appointed or elected boards and officials on behalf of the Department.

Assists in the preparation and monitoring of emission fees and budget justification.

Prepares special reports and grants.

Performs related work as required.

DESIRABLE KNOWLEDGE, ABILITIES AND SKILLS

Thorough knowledge of environmental engineering principles and practices as they apply to public health, environmental quality and pollution prevention.

Thorough knowledge of federal, state and local laws pertaining to environmental quality and environmental health.

Thorough knowledge of the principles and practices of toxicology, risk assessment and risk communication.

Ability to use internet search engines, computer word processing, spreadsheet, database and application development, graphing, various modeling, and GIS software.

Ability to use engineering mathematics and statistical analysis, analyze data, conduct modeling, provide accurate interpretation of results, and summarize the analysis into report format.

Ability to establish and maintain effective working relationships with other government agencies, citizen committees, elected officials, the media, coworkers and the general public.

Ability to communicate effectively, both orally and in writing.

DESIRABLE TRAINING AND EXPERIENCE

Graduation from an accredited four-year college or university with major course work in environmental, civil or chemical engineering and additional course work in toxicology, risk assessment or meteorology, plus thorough experience in progressively responsible environmental engineering work.

MINIMUM QUALIFICATIONS

Graduation from an accredited four-year college or university with major course work environmental, civil or chemical engineering and additional course work in toxicology, risk assessment or meteorology, plus considerable experience in progressively responsible environmental engineering work; or any equivalent combination of training and experience which provides the desirable knowledge, abilities and skills.

NECESSARY SPECIAL REQUIREMENTS

Possession of a valid driver's license when operating a vehicle may be necessary to the satisfactory performance of assigned duties for some positions within this classification.

Registration as a Professional Engineer in the State of Nebraska. If registered in another state must obtain Nebraska registration within one year of employment.

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