

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼
HUMAN RESOURCES ENTERPRISE
ENVIRONMENTAL ENGINEER

DEFINITION

Performs professional environmental engineering work in an environmental program; performs work in air emission sources, hazardous or solid waste facilities, water supply facilities, industrial and agricultural facilities, pollution sources, existing site conditions, water resource, and underground storage tanks; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Conducts investigations and inspections of air emission sources, hazardous or solid waste facilities, water supply facilities, industrial and agricultural facilities, pollution sources and proposed and existing site conditions, water resources, and underground storage tanks to determine conformance with applicable rules, standards, and construction or operating permits; verifies characteristics of a site, or gives technical assistance on various environmental issues.

Performs engineering review of permit applications, grant applications, engineering and financial reports and designs plans and specifications, standby plans and engineering contracts, integrated waste management plans, and periodic construction inspections, to insure that they comply with applicable state and/or federal regulations and sound engineering practice, determine accuracy and validity of engineering data, determine cost effectiveness, and/or recommends approval or disapproval for funding or permit.

Responds to written or telephone requests received from a wide variety of public or private entities or individuals for information or technical assistance on numerous environmental issues or energy related issues; explains regulations.

Meets with various public or private entities or individuals to discuss issues relating to a variety of environmental problems and programs.

Prepares written, statistical and/or oral reports using a variety of computer software or programming to disseminate or explain information to agency staff, various government or industry officials, or the general public.

Participates in the development and review of departmental regulations, policies, design standards, and methods relating to the assigned program area to provide professional input to insure they are appropriate and efficient for carrying out departmental functions.

Gives informational talks to various public or private entities or individuals to provide information on environmental programs.

Conducts environmental studies and surveys to gain further information on a particular environmental problem or issue and/or to plan for future environmental needs.

COMPETENCIES REQUIRED

Knowledge of engineering principles, practices, and methods and their application to environmental and work related issues.

Knowledge of the fundamentals of natural science as they relate to environmental control.

Knowledge of state and federal environmental and/or building rules and regulations.

Knowledge of engineering and surveying techniques and instruments.

Knowledge of the techniques used in identifying, measuring, sampling and studying environmental control.

Knowledge of computer data analysis and report generation.

Knowledge of math principles and predictive models.

Ability to read and understand plans and specifications and make factual comparisons to the appropriate regulations.

Ability to exercise sound judgement in evaluating situations and making decisions.

Ability to make technical computations and calculations involving the application of engineering principles.

Ability to understand and interpret public health, environmental regulations, and pollution prevention, and to explain them to public or private entities or individuals.

Ability to apply technical knowledge to problems and arrive at the most effective, economical, and logical solution.

Ability to collect and organize engineering, technical and fiscal facts and data and to present those facts, data, and conclusions clearly and concisely, both orally and in written reports.

Ability to prepare accurate reports, tables, charts, and maps for the interpretation or presentation of data, findings, or analyses.

Ability to plan and conduct inspections and investigations on various aspects of the construction and design of facilities or structures, applying applicable regulations and policies.

Ability to use computer and computer software, update data and generate reports.

Ability to perform complex mathematical calculations.

Displays high standards of ethical conduct. Refrains from dishonest behavior.

Works and communicates with all clients and customers providing polite, quality professional service.

Displays a high level of initiative, effort, attention to detail and commitment by completing assignments efficiently with minimal supervision.

Follows policy, cooperates with supervisors and aligns behavior with the goals of the organization.

Fosters and facilitates cooperation, pride, trust, group identity and team spirit throughout the organization.

Exchanges information with individuals or groups effectively by listening and responding appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

Graduation from an accredited college or university with a Bachelor's Degree in Environmental, Sanitary, Civil, Chemical, Nuclear, Mechanical, Industrial, Agricultural, Biomedical, or Public Health Engineering;

OR

Licensure as a Professional Engineer by the Iowa Board of Engineering Examiners.

Effective Date: 04/10 SH