

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES
CLASS SPECIFICATION

ENVIRONMENTAL ENGINEER IV

POSITION CODE: 13754
Effective: 12-1-81

DISTINGUISHING FEATURES OF WORK:

Under general direction, supervises a small centralized professional engineering staff in the administration of several statewide engineering programs; or, performs independent engineering studies and consulting work providing technical supervision to lower level engineers in the administration of a division's statewide program; acts as a line assistant to the regional engineer in a field office performing advanced level professional environmental engineering work requiring the services of a registered engineer. Positions subsumed by this series define the need for formal training as an environmental or sanitary engineer, and demonstrate an application of professional engineering principles and techniques such as engineering plan reviews, evaluation of environmental engineering systems and equipment, development of engineering studies and reports concerning standards, regulations, permitting and analyses of variance from existing standards.

ILLUSTRATIVE EXAMPLES OF WORK:

1. Plans, directs and coordinates the activities of the Building Engineering Section comprised of professional and technical staff involved in various aspects of plumbing, manufactured housing and mobile home tie-down equipment; functions in a professional staff capacity working on a variety of studies and technical problems requiring an in-depth analysis and knowledge of engineering.
2. Plans the technical phase in the administration of the statewide noncommunity public water systems program; approves plans and specifications for the design and construction of noncommunity public water systems.
3. Plans the technical phase in the administration of the statewide public swimming pools and bathing beaches program; issues swimming pool and bathing beach licenses; reviews and approves plans and specifications for the design and construction of public swimming pools and bathing beaches.
4. Reviews plans and specifications prepared by consulting engineers and architects; recommends approval or denial of permits or authority for work based on soundness of engineering design features and end capability of proposed facility.
5. Assists the regional engineer in planning, developing, organizing and directing all environmental and sanitary engineering programs in the region; directs professional and technical staff engaged in carrying out, interpreting and enforcing state and federal laws and department rules and regulations; acts for the regional engineer in his absence.
6. Reviews engineering and technical reports of subordinate regional field personnel as they relate to the engineering aspects of the plumbing, private water supplies and private sewage problems; performs original engineering surveys of licensed facilities and consults with engineers on plans and specifications for compliance with rules and regulations.

ENVIRONMENTAL ENGINEER IV (Continued)

7. Provides consultation and assistance to local health department supervisory personnel in planning and implementing environmental health programs; assists in solution of special problems necessitating engineering expertise; keeps regional engineer informed on problem areas, suggested corrective measures and progress.
8. Conducts studies and develops technical reports on various environmental engineering programs to determine legal compliance and overall effectiveness to assist in program planning.
9. Supervises engineering staff assigned to programs; evaluates performance and makes recommendations to supervisor for maximum utilization of available personnel.
10. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

DESIRABLE REQUIREMENTS:

Education and Experience

Requires knowledge, skill and mental development equivalent to completion of four years college with a bachelor's degree in engineering and coursework in sanitary, public health or environmental engineering.

Requires possession of an Illinois Certificate as a Registered Professional Engineer.

Requires four years of progressively responsible professional engineering experience in the field of environmental engineering, sanitary engineering or public health engineering.

Knowledges, Skills and Abilities

Requires extensive knowledge of basic principles, practices, subject matter and administration of environmental engineering, including the design, construction, and operation of water purification and treatment facilities, sewage systems, waste treatment plants, swimming pools and other environmental systems and devices.

Requires extensive knowledge of modern engineering practices in all phases of sanitation and sanitary facilities, chemistry and bacteriology.

Requires extensive knowledge of controlling health laws, rules and regulations and the scope and aspects of the public health program.

Requires working knowledge of epidemiology and relationship of environmental conditions to the spread of disease and promotion of health.

Requires ability to supervise and coordinate general and specialized environmental health engineering activities.

Requires ability to prepare technical reports and articles on sanitary engineering, and provide technical consultation in environmental and sanitary engineering program standards, requirements and policies.

Requires ability to supervise and direct the work of engineers, technicians and other employees.

Requires ability to establish and maintain good working relationships with the general public.

Requires ability to speak to large groups or assemblies.

Requires ability to evaluate major sanitary engineering problems and apply professional sanitary engineering techniques in their solution.