ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES
CLASS SPECIFICATION

ENVIRONMENTAL ENGINEER III

POSITION CODE: 13753
Effective: 12-1-81

DISTINGUISHING FEATURES OF WORK:

Under direction of a registered engineer, performs difficult duties of a professional sanitary or environmental engineering nature providing a full range of staff services relating to specialized phases of the engineering program such as water supply, pollution control, or the safe and sanitary construction and operation of swimming pools, functioning in the central office or in a regional office setting. At this class level, engineers would typically work in one or more specialized areas of the total engineering program without detailed supervision, responsible for developing engineering studies and reports of licensed facilities, interpreting agency policy and regulations, providing engineering advice and consultation; may provide project leadership or supervise a small staff of nonengineering professional and support personnel in the area of assignment. 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. Advises, consults with and directs responsible officials in the elimination of water contamination, sewage and other health hazards at facilities and installations regulated by Public Health's Division of Engineering programs.

2. Instructs and provides engineering consultation to professional and nonprofessional persons concerned with the design or operation of regulated facilities; inspects regulated facilities for conformance with approved plans and specifications.

3. Performs inspections of engineering systems and equipment at regulated facilities to determine and advise the central office on the issuance of licenses or variances; advises and instructs facility owners and operators on the use of water treatment and sewage treatment processes; reviews laboratory reports on bacterial analysis of pool samples.

4. As a specialist in the central office, reviews engineering plans and specifications to assure compliance with applicable laws, rules and regulations and policies governing the area of assignment.

ENVIRONMENTAL ENGINEER III (Continued)

5. Inspects engineering reports, inspection reports and letters of recommendation from field personnel regarding field inspections and variance requests to assure technical accuracy and consistency with department policies, rules, and regulations.

6. Assists program manager with preparation of documentation in cases of alleged noncompliance; testifies at hearings; consults with and advises department's legal section of technical infractions and violations.

7. 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 two years professional experience in the practice of environmental engineering, sanitary engineering, or public health engineering.

Knowledges, Skills and Abilities

Requires extensive knowledge of principles, practices, and subject matter 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 working knowledge of chemistry and bacteriology of water, sewage, and liquid waste.

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

Requires ability to perform field investigations involving the application of sanitary and environmental engineering theory.

Requires ability to consult with and advise plant owners, operators, engineers, and officials on the design and construction of sanitary facilities.

Requires ability to prepare comprehensive technical engineering reports and investigative findings.

Requires ability to interpret regulations, requirements, standards and policies of the program.

Requires ability to make computations and calculations involving the application of engineering practices.

Requires ability to evaluate the adequacy of sanitary installations, methods, and processes in achieving and maintaining sanitary and environmental engineering standards.