

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES
CLASS SPECIFICATION

ENVIRONMENTAL ENGINEER II

POSITION CODE: 13752
Effective: 12-1-81

DISTINGUISHING FEATURES OF WORK:

Under general supervision of a registered engineer, works on specified portions or minor phases of sanitary and environmental engineering project monitoring and engineering plan and systems reviews pertaining to safe and sanitary design, construction and operation of swimming pools, bathing beaches, water systems, sewage disposal systems, and other environmental engineering systems and devices. Assignments are typically screened to eliminate difficult or unusual engineering problems, and work is performed under the control 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. Studies engineering manuals, periodicals, manufacturers' publications and other technical material to obtain information on materials, equipment, and pertinent data to be used by higher level engineers in the development of specifications or technical reports.
2. Visits facility or construction sites to obtain information on environmental factors or conditions of existing facilities or systems.
3. Reviews architect-engineer or contractor drawings for adherence to appropriate contract specifications, referring deviations to a higher level engineer.
4. Consults with superintendent of waterworks on the operation of purification and other treatment units, motors, pumps, and other machinery; collects samples of water for bacteriological analysis.

ENVIRONMENTAL ENGINEER II (Continued)

5. Investigates reported stream pollution, including the collection of samples of raw sewage, stream and lake waters; performs field chemical and physical examination on samples collected.
6. 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 one year professional experience in the practice of environmental engineering, sanitary engineering, or public health engineering.

Knowledges, Skills and Abilities

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

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

Requires ability to prepare technical engineering reports and investigative findings.

Requires ability to consult with and advise plant owners, operators, engineers and officials of the design, construction, and operation of water and sewage treatment plants to comply with health requirements.

Requires ability to evaluate the adequacy of sanitary installations, methods, and processes.

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

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