

Sanitary Engineer Series

California State Personnel Board Specification

Series established July 28, 1976

Scope

This series specification describes four class levels in the sanitary engineering field. Employees in these classes perform or supervise health related investigations, studies, and other engineering and regulatory activities involving domestic water supply, sewage disposal and waste water reuse, treatment systems, distribution and collection systems, shellfish growing waters, recreational waters, and a variety of related activities. Sanitary engineers review or supervise the review of plans for waste treatment plants and proposed projects for waste water disposal or reuse to determine compliance with health and engineering standards and regulations; make and check engineering calculations, designs, drawings, maps and other engineering documents; prepare or review reports and recommendations on permit requests for construction or modification of water treatment plants, distribution and collection systems, and perform other related construction activities.

Positions in these classes also consult with and advise a variety of health and other public officials, engineers, attorneys, water consumer groups, and others on the public health aspects of water pollution control programs and sanitary engineering assistance on water quality management plans, treatment facilities, research projects, policies and studies; enforce a wide variety of water regulations and laws pertaining to public health; develop water quality standards, criteria and guidelines for drinking water, reclaimed water, waste water, recreational water, shellfish growing water and other kinds of water; testify at hearings and other judicial proceedings as technical experts in sanitary engineering; make presentations to interested groups on a variety of health related water matters; and may direct or conduct research projects involving water and waste water treatment or other health related water research.

Schem Code	Class Code	Class
HZ15	3848	Sanitary Engineer
HY70	3825	Associate Sanitary Engineer
HY60	3822	Senior Sanitary Engineer
HY50	3821	Supervising Sanitary Engineer

Sanitary Engineer Series Specification - Class Titles and Codes

Definition of Levels

Sanitary Engineer

This is the entry and first journey level engineer in the series. Employees assigned to Range A perform the less difficult sanitary engineering work on domestic water supply and waste water disposal systems, waste management and other related activities.

Incumbents advance to Range B when qualified and perform sanitary engineering assignments of average difficulty.

Associate Sanitary Engineer

This is the full journey level engineer in the series. Employees perform difficult sanitary engineering work on domestic water supply and waste water disposal systems, waste management, and other related activities.

Senior Sanitary Engineer

The Senior Sanitary Engineer is either (1) supervisor of a district of the State, (2) the supervisor of a small group of lower level engineers involved in major sanitary engineering projects, or (3) a staff specialist assigned to perform sensitive and complex sanitary engineering studies which are highly technical and of limited duration.

Supervising Sanitary Engineer

The Supervising Sanitary Engineer is either (1) a supervisor of a region comprising several districts of the State, or (2) a supervisor of a major statewide sanitary engineering technical or regulatory program.

Minimum Qualifications

Sanitary Engineer

Education: Equivalent to graduation from a curriculum accredited by the Accreditation Board for Engineering and Technology with major work in sanitary, environmental, chemical, civil, technical, or a related engineering field. Possession of equivalent qualifications may be demonstrated by graduation from an environmental, sanitary, chemical or civil engineering curriculum which includes the basic engineering courses normally required in a standard four-year engineering curriculum and by qualifying in a written examination covering sanitary engineering. Registration as a Senior in such a curriculum will admit the applicant to the examination, but the applicant must produce evidence of graduation before he/she will be considered eligible for appointment.) (Possession of a valid certificate as an engineer-in-training as issued by the California State Board of Registration for Professional Engineers may be substituted for the required education.)

Associate Sanitary Engineer

Possession of a valid certificate of registration as a professional engineer issued by the California State Board of Registration for Professional Engineers. (Applicants who are not registered professional engineers will be admitted to the examination but they must secure the certificate of registration before they will be considered for appointment.) and

EITHER I

Two years of experience performing the duties of Sanitary Engineer, Range B, Assistant Engineering Specialist (Sanitary), or Sanitary Engineering Technician, Range B, in the California state service.

OR II

Experience: Three years of increasingly responsible sanitary engineering experience. (Possession of a doctoral degree in environmental or sanitary engineering may be substituted for two years of the required experience; possession of a Master's Degree in Environmental, Sanitary, or Chemical Engineering may be substituted for one year of the required experience.) and

Education: Equivalent to graduation from college with major work in sanitary, chemical, or environmental engineering; or civil engineering with an option in sanitary, environmental, or water resources engineering. (Additional qualifying experience may be substituted for the required education on a year-for-year basis.)

Senior Sanitary Engineer

Possession of a valid certificate of registration as a professional engineer issued by the California State Board of Registration for Professional Engineers. (Applicants who are not registered professional engineers will be admitted to the examination but they must secure the certificate of registration before they will be considered for appointment.) and

EITHER I

Two years of experience performing the duties of an Associate Sanitary Engineer in the California state service.

OR II

Experience: Four years of increasingly responsible sanitary or public health engineering experience in the health department of a government agency, two years of which must have been comparable in type and level to that of an Associate Sanitary Engineer in the California state service. (Possession of a Doctoral Degree in Environmental, Sanitary or Chemical Engineering may be substituted for two years of the required general experience; possession of a Master's Degree in Environmental, Sanitary, or Chemical Engineering may be substituted for one year of the required general experience.) and

Education: Equivalent to graduation from college with major work in sanitary, chemical, or environmental engineering; or civil engineering with an option in sanitary, environmental or water resources engineering. (Additional qualifying experience may be substituted for the required education on a year-for-year basis.)

Supervising Sanitary Engineer

Possession of a valid certificate of registration as a professional engineer issued by the California State Board of Registration for Professional Engineers. (Applicants who are not registered professional engineers will be admitted to the examination but they must secure the certificate of registration before they will be considered for appointment.) and

EITHER I

Two years of experience performing the duties of a Senior Sanitary Engineer in the California state service.

OR II

Experience: Five years of increasingly responsible sanitary or public health engineering experience, two years of which must have been in a public health agency in a position comparable in type and level to that of a Senior Sanitary Engineer in the California state service. (Possession of a Doctoral Degree in Environmental, Sanitary, or Chemical Engineering may be substituted for two years of the required general experience; possession of a Master's Degree in Environmental, Sanitary, or Chemical Engineering may be substituted for one year of the required general experience.) and

Education: Equivalent to graduation from college with major work in sanitary, chemical, or environmental engineering; or civil engineering with an option in sanitary, environmental or water resources engineering. (Additional qualifying experience may be substituted for the required education on a year-for-year basis.)

Knowledge and Abilities

Sanitary Engineer

Associate Sanitary Engineer

Knowledge of: Sanitary engineering principles and practices, water supply, sewage, refuse, and industrial waste disposal systems, purification processes, and swimming pool construction and sanitation; problems of the disposal of industrial wastes; principles and practices of environmental sanitation; public health principles, practices, and administrative procedures; sanitary engineering design and construction.

Ability to: Prepare, review, check, and interpret sanitary engineering plans, estimates, and specifications; interpret laws, rules, and regulations pertaining to public health engineering and water pollution control in California; establish and maintain cooperative relations with those contacted in the course of work; speak and write effectively; analyze situations accurately and adopt an effective course of action.

Senior and Supervising Sanitary Engineer

Knowledge of: Sanitary and public health engineering principles and practices; water supply, sewage, refuse, and industrial waste disposal systems, purification processes, and swimming pool construction and sanitation; problems of sanitation; problems of the disposal of industrial wastes, and environmental sanitation in industry; sanitary engineering design and construction; principles and practices of environmental sanitation; State laws pertaining to public health engineering in California; public health principles, practices, and administrative procedures; principles and techniques of personnel management and supervision; equal employment opportunity and affirmative action policies.

Ability to: Interpret the State laws pertaining to public health engineering in California; review, check, and interpret major sanitary engineering plans, estimates, and specifications; plan and direct the work of others; establish and maintain cooperative relationships with those contacted in the course of work; speak and write effectively; analyze situations accurately and adopt an effective course of action; effectively carry out equal employment opportunity and affirmative action policies.

Class History

Class	Date Established	Date Revised	Title Changed
Sanitary Engineer	07/05/1983	--	--
Associate Sanitary Engineer	07/22/1943	07/05/1983	--
Senior Sanitary Engineer	1931	07/05/1983	--
Supervising Sanitary Engineer	01/20/1950	07/05/1983	--

Sanitary Engineer Series History - Dates Established, Revised, and Title Changed

Alternate Range Criteria

These criteria will be used to allocate incumbents to Alternate Range A or Range B.

Range A. This range shall apply to incumbents who do not meet the criteria for payment in Range B.

Range B. This range shall apply to incumbents who have satisfactorily completed: (1) the equivalent to twelve months of Sanitary Engineer, Range A experience; or (2) who have one year of professional experience in sanitary engineering, water quality engineering, environmental engineering or a closely related field; or (3) who possess a Master's Degree in Engineering with a specialization in environmental engineering, water resources, sanitary or related engineering option. (Candidates who are pursuing graduate work toward a master's degree must receive the degree before they will be considered eligible for appointment to this range.)

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