

PART II	HAWAII HEALTH SYSTEMS CORPORATION	7.001
	STATE OF HAWAII	7.002
		7.003
	Minimum Qualification Specification	7.004
	for the Classes:	7.005
		7.006

ENGINEER I, II, III, IV, V, & VI

Education/Experience Requirement:

All applicants must meet one of the requirements specified in A, B, or C below:

- A. Bachelor's degree from an accredited four (4) year college or university in a school of engineering.

Note: For some positions, graduation from an accredited college or university with a degree in physics, mathematics or chemistry may be accepted as qualifying, provided the applicant has had at least 15 credits in engineering sciences, common to all engineering disciplines; e.g., thermodynamics, statics, electrical science, applied mechanics, engineering drawing, strength of materials, etc.

- B. Administrative, professional or technical experience involving the application and knowledge of the fundamental physical and mathematical sciences underlying professional engineering including physics, chemistry, mathematics through integral calculus and engineering sciences such as statics, dynamics, strength of material, thermodynamics, fluid mechanics and engineering drawing and other specialized courses to one of the branches of engineering. Such experience must be substantially equivalent to the knowledge and understanding gained by completion of a college training leading to a bachelor's degree in engineering; or
- C. A combination of college training in engineering and experience mentioned in B above substantively equivalent to completion of a college training leading to a bachelor's degree in engineering.

Experience Requirement:

Except for the substitutions provided for in this specification, applicants must have had progressively responsible experience of the kind and quality described below, and in the amounts shown in the following table:

Class Title	Engineering Experience (years)	Supervisory or Staff Advisory Experience (years)	Administrative Experience (years)	Total Experience (years)
Engineer I	0	0	0	0
Engineer II	1	0	0	1
Engineer III	2	0	0	2
Engineer IV	3*	0	0	3
Engineer V	4*	**	0	4
Engineer VI	4*	1	0	5

Engineering Experience: Progressively responsible professional engineering which required the knowledge and application of the basic physical and mathematical sciences and the engineering sciences to the solution of theoretical or practical engineering problems.

Examples of qualifying professional engineering experience are as follows:

- A. The development and design of machines, equipment, structures or power, water, communication or transportation systems and facilities or the preparation of development, design or construction specifications for such materials or systems, involving the use of theoretical and applied mechanics, a knowledge of the properties of materials and other appropriate engineering and scientific knowledges and skills.
- B. Original research in one or more branches of engineering, developing engineering applications of physical and other scientific principles.
- C. Administration of engineering programs and projects, involving analysis of requirements for equipment and materials, study of technical feasibility and cost selection of approach and direction of problem solution.
- D. Interpretation of systems operational requirements in terms of physical facilities and the design and development of standard procedures for efficient operational use of maintenance of such facilities.
- E. Evaluation, investigation, or survey of engineering projects, structures, devices or services.
- F. Such activities as production, construction, regulation and test, when they involve engineering considerations and decisions as important and controlling elements.

Note: In some situations, experience which is not of itself clearly professional engineering experience may be accepted in lieu of "professional" engineering experience. In such cases, the experience must have been preceded by prior "professional" engineering experience and must contribute directly and significantly to the candidate's professional engineering competence. For example, an engineer may be assigned to a management or a computer systems analysis position in preparation for assumption of higher level responsibilities in engineering administration.

Quality of Experience:

*For the Engineer IV, V and VI levels, at least one year of the required engineering experience must have been experience comparable to the next lower level.

In any case, the required amount of experience for any level will not in itself be accepted as proof of qualification. The applicant's record of experience and education must show that he has the ability to perform efficiently the duties of the position.

Supervisory or Staff Advisory Experience:

- A. Supervisory Experience: Work experience which demonstrated the applicant's knowledge of and ability to apply the principles, practices, techniques and methods of supervision including: (1) planning, organizing and directing the work of others; (2) assigning and reviewing work; (3) advising others on difficult work problems; (4) timing and scheduling work; and (5) training and developing employees.

- ** For the Engineer V level, supervisory aptitude rather than actual supervisory experience may be accepted. Supervisory aptitude is the demonstration of aptitude or potential for the performance of supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities or aspects; by serving as a group or team leader, previous work experience in a position that demonstrates or performs supervisory functions or in similar work in which opportunities for demonstrating supervisory capabilities exist; by completion of training courses in supervision accompanied by application of supervisory skills in work assignments; or by favorable appraisals by a supervisor indicating the possession of supervisory potential.; and/or

- B. Staff Advisory Experience: Professional engineering experience as technical expert in a specialized area or program function performing staff advisory, consultative and/or reviewing the work of a staff of specialist assigned to such

activities as long-range planning, research and/or development of specific projects, programs, etc.

Administrative Experience: Professional engineering experience which included the planning (including budget planning and justification), organizing, staffing, policy formulation and implementation of same and directing a program providing staff services and/or assistance.

Licenses Required:

Professional License Requirement: For the Engineer IV and higher levels, applicants must possess a Hawaii State certificate of registration as a professional engineer.

Driver's License: For some positions, applicant may be required to have a valid Hawaii State driver's license.

Substitutions Allowed:

Substitution of a Master's degree in Engineering for Engineering Experience: A Master's degree in a pertinent engineering field from a school of engineering in an accredited college or university may by substitutes for one year of engineering experience.

Substitution of Supervisory, Staff Advisory Experience of Administrative Experience for Engineering Experience: Excess Supervisory, Staff Advisory or Administrative experience of the type and quality described above may be substituted for Engineering experience on a year-for-year basis.

Substitution of Administrative Experience for Supervisory, Staff Advisory Experience: Excess Administrative experience of the type and quality described above may be substituted for Supervisory or Staff Advisory experience on a year-for-year basis.

Quality of Experience:

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as the conclusively demonstrate that he has the ability to perform the duties of the position for which he is being considered.

Selective Certification:

Specialized knowledges, skills and abilities may be required to perform the duties of some positions. In such positions, applicants may be restricted to those who possess the pertinent experience and/or training required to perform the duties of the position.

Departments requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

Physical Requirements:

Applicants must be physically able to perform, efficiently and effectively, the essential duties of the position which typically require the ability to read without strain printed material the size and typewritten characters, glasses permitted, and the ability to hear the conversational voice, with or without a hearing aid, or the ability to compensate satisfactorily. Disabilities in these or other areas will not automatically result in disqualification. Those applicants who demonstrate that they are capable of performing the essential functions of that position will not be disqualified under this section.

Any condition which would cause applicants to be a hazard to themselves or others is cause for disqualification.

Any disqualification under this section will be made only after a review of all pertinent information including the result of the medical examination, and requires the approval of the Director of Human Resources.

Mental/Emotional Requirements:

All applicants must possess emotional and mental stability appropriate to the job duties and responsibilities and working conditions.

This is an amendment to the minimum qualification specifications for the classes, ENGINEER I - VII, to clarify supervisory aptitude, effective April 16, 2013.

This is an amendment to the minimum qualification specifications for the classes, ENGINEER I - VII, to update the supervisory experience requirement, effective February 16, 2009.

This is an amendment to the minimum qualification specifications for the classes, ENGINEER I - VII, to include the mental/emotional requirement, effective April 16, 2005.

This is an amendment to the minimum qualification specifications for the classes ENGINEER I, II, III, IV, V, VI, VII, to clarify the education requirement of a Bachelor's degree from an accredited four (4) year college or university, effective December 15, 2003.

This class is adopted from the State of Hawaii, relative to the transfer of classification and compensation jurisdiction to the Hawaii Health Systems Corporation, effective July 1, 1998, pursuant to Act 262, Session laws of Hawaii, 1996.

This is an amendment to the minimum qualification specifications for the classes ENGINEER I, II, III, IV, V, VI, VII approved on December 27, 1968 due to incorporation of managerial level in EMCP in accordance with ACT 254, SLH 1980.

DATE APPROVED: April 16, 2013

PAUL TSUKIYAMA
Director of Human Resources