



**CITY OF LONG BEACH
CLASSIFICATION SPECIFICATION**

TITLE: SENIOR MECHANICAL ENGINEER

DEFINITION: Under direction, directs the work of the Mechanical Engineering Design Section of the Special Projects Division of the Engineering Department.

EXAMPLES OF DUTIES:

- Provides technical and managerial direction to mechanical and electrical engineers and technicians regarding design of and problems relating to: heating, ventilating, refrigeration and air conditioning systems; pumping facilities; instrumentation systems; pneumatic, computerized, electronic, and mechanical control systems; and a variety of building systems;
- Provides technical and managerial direction to subordinates in designing and implementing energy management, energy reduction and corrosion control programs using computer modeling techniques where possible;
- Directs the preparation of engineering economic studies, special studies, reports, and presentations;
- Participates in the work of subordinates;
- Performs other related duties as required.

MINIMUM REQUIREMENTS:

Graduation from a college or university of recognized standing, with major work in mechanical engineering. Six years of mechanical engineering experience, with both supervisory and technical responsibilities that correlate with the duties set forth for this position.

Registration as a Mechanical Engineer in the State of California.

A valid motor vehicle operator license.

DESIRABLE QUALIFICATIONS:

Since the position will require the supervision of both mechanical and electrical projects, a good understanding of electrical engineering would be highly desirable. Also, since the position is supervisory, it requires skills in management technique and financial analysis, any experience or special training in these areas would be of specific benefit. The applicant should have a thorough knowledge of the latest techniques used in air conditioning systems, life safety systems, pumping systems, and energy analysis. Additional knowledge of control systems, telemetering, instrumentation, and electronics would be helpful. Since energy considerations will have an increasing impact on the design of both mechanical and electrical systems, any special expertise in this area will be of great value. Because of the importance and frequent need of making

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presentations to both management and outside agencies, the applicant should be effective in making oral and written presentations.

The variety of corrosion problems that are encountered in mechanical systems requires a fundamental understanding of metallurgy.

Finally, to insure proper coordination with other members of the design team, the applicant should have experience in dealing with both architects and civil engineers on a variety of projects.

HISTORY:

Approval/Adoption Dates: 06/18/76