



**Date:** February 17, 2021  
**To:** Civil Service Commission  
**From:** Sheree Valdoria, Personnel Analyst  
**Subject:** **REQUEST TO APPROVE REVISED CLASSIFICATION SPECIFICATION – ELECTRICAL ENGINEER**

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On February 2, 2021, correspondence was received from Fred Verdugo, Interim Director of Human Resources, requesting the Civil Service Commission approval for the revised classification specification of Electrical Engineer. Staff has reviewed this request and recommends approval in accordance with Article XI, Section 1101(d) of the City Charter.

**Facts for Consideration:**

- The classification of Electrical Engineer is currently used by the Harbor Department and was adopted/approved in June 1978.
- The classification specification was updated to match the most recent changes to the bulletin.
  - **Example of Duties Section:** Updated duties to match changes to the bulletin.
  - **Minimum Qualifications Section:** Added this section on the class specification and matched the requirements that were on the previous bulletin.
  - **Knowledge, Skills and Abilities Section:** Added this section to the classification specification after the Minimum Qualifications Section.
- Civil Service staff has been in communication with the Harbor and Human Resources Department along with the Association of Engineering Employees regarding the proposed changes to the Electrical Engineer classification specification. All parties have been notified that this request is on today's agenda.
- A representative from the Harbor and Human Resources Departments will be present to respond to any questions from the Civil Service Commission.

Date: February 2, 2021

To: Civil Service Commission

From: Fred Verdugo, Interim Director of Human Resources For: 

Subject: **CLASSIFICATION SPECIFICATION UPDATE – ELECTRICAL ENGINEER**

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Attached for your consideration is an update to the Electrical Engineer Classification Specification. The classification specification was updated to maintain consistency with recent Civil Service job bulletins including adding minimum qualifications to the classification specification. Knowledge, skills and abilities statements were also added to the classification specification.

Human Resources staff worked with Civil Service and the Harbor Department to complete the meet and confer process. Having completed the meet and confer obligation with the pertinent association, we are now requesting that the Commission adopt the Electrical Engineer classification specification changes as outlined for your review and approval.

Should you have any questions regarding this item, please contact Khristina Coston, Human Resources Officer at (562) 570-6440.

**Attachments**

Electrical Engineer Class Specification.

FB:DA:KC:GM

cc: Dana Anderson, Interim Deputy Director  
Khristina Coston, Human Resources Officer

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**TITLE:** **ELECTRICAL ENGINEER**

**DEFINITION:** Under direction, performs responsible supervisory and specialized professional work in electrical engineering.

**EXAMPLES OF DUTIES:**

- Designs, develops and evaluates interior and exterior electrical power distribution systems including lighting, fire detection and suppression, communication, security, computer, mechanical control, railroad signalization, fiber optic infrastructure systems, local and wide area networks, container crane power and control systems, refrigerated container unit power outlets and remote monitoring systems, and container terminal switchgear.
- Develops and evaluates task requirements and technical standards for work to be performed by outside consultants.
- Coordinates electrical service requirements with utility companies.
- Estimates electrical construction costs and recommends energy saving improvements.
- Inspects both in-progress and completed work.
- Applies electrical codes and standards to the design of city electrical facilities.
- May assist in the selection, training, work assignment, and evaluation of subordinates.
- Prepares standards for world application of shore to ship power and controls ("cold ironing"), designs photovoltaic systems, develops procedures and requirements to restore electrical power system to port terminals within a short time after a disaster.
- Performs other related duties as required.

**MINIMUM QUALIFICATIONS:**

- Current registration as a professional Electrical Engineer in the State of California.
- Four years of paid (full-time equivalent) experience with primary responsibility for preparation or review and approval of standards, designs, and cost estimates of electrical engineering projects, which must have been gained after graduation from an accredited four year college or university with a degree in Electrical Engineering or after passing the Engineering-in-Training (EIT) examination in the field of Engineering.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

- Thorough knowledge of electrical engineering theories, principles, methods, techniques, tools and equipment used in the design, construction, testing, calibration, maintenance and repair of industrial electrical and electronic equipment and devices.
- Working knowledge of general construction practices.
- Knowledge of National Electrical Codes (NEC), City ordinances, standards, and regulations pertaining to the work.
- Knowledge of project management methods and practices for planning, budgeting, scheduling, monitoring performance and evaluating results.
- Ability to provide field solutions to electrical construction problems and ensure contractor compliance with plans and specifications.
- Ability to work with division staff, consultants, and local agencies.

Willingness to work weekends, evenings, overtime, and holidays as needed.

A valid motor vehicle operator's license.

**HISTORY:**

Approval/Adoption Dates: 06/19/78

Revised/Approved: XX/XX/XXXX