

**CITY OF LOS ANGELES  
CIVIL SERVICE COMMISSION**



**CLASS SPECIFICATION**  
POSTED JUNE 1999

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**TELEVISION ENGINEER, 7615**

**Summary of Duties:** A Television Engineer performs difficult technical engineering work in the design, installation, maintenance, and repair of television video and audio components and systems; provides technical direction in the planning, construction, maintenance, and operation of television and audio components and systems; assists with the selection and purchase of video and audio equipment in accordance with City purchasing procedures; responsible for the procurement of maintenance supplies and parts; provides training and technical assistance on the proper use of video and audio equipment; and does related work.

**Distinguishing Features:** An employee of this class is responsible for all technical aspects of the operations of Production and Media Services, including, but not limited to, the design, wiring, installation, maintenance, trouble shooting, repair, and on-going testing and calibration of television video, audio, and engineering equipment and systems. An employee in this class is distinguished from the class of Communications Engineer in that they must have knowledges, skills, abilities, and experience needed for performing engineering work on television and video equipment. A Television Engineer serves as the primary staff member to determine the technical resources needed to accomplish a desired objective and present a detailed plan to achieve the objective. A Television Engineer is required to work closely with other City departments and therefore must exercise judgment and tact and possess strong interpersonal skills. The duties and responsibilities of this class requires a high degree of independent thinking, organization, accuracy, thoroughness, resourcefulness, and timeliness. Assignments are received in terms of desired objectives and results are evaluated in terms of desired results.

**Examples of Duties:** A Television Engineer:

- ! Plans, organizes, and conducts the analysis and design of television systems including, all video and audio equipment, computers, and telephone systems;
- ! Designs new system configurations or modifies existing systems, including preparing technical plans, drawings, wiring diagrams, specifications, cable run sheets and system testing procedures;
- ! Provides engineering support for live transmissions, fiber optic link, field productions, editing facilities, computer graphic equipment, Councilphone equipment, studio facilities, playback equipment and the interconnect channel

signal testing;

- ! Prepares video equipment system for cable casting and recording during City Council meetings, other public meetings, and all City department productions including warm-up, setting all video monitors to the proper color balance, robotics camera set-up, system timing and testing of various components in the system;
- ! Repairs, maintains, and services equipment as needed;
- ! Develops procedures for the installation, operation, and testing of television and other communications equipment and facilities;
- ! Maintains necessary schematics, drawings, and manuals to assist in system and component repair, upgrade, and exchange;
- ! Prepares reports on improvements to existing systems and operations;
- ! Reviews and evaluates completed projects to ensure proper operation and conformance with plans and specifications;
- ! Coordinates engineering design services contracted with outside agencies;
- ! Consults with representatives of equipment manufacturers concerning bids, contracts, and procurement of supplies and parts;
- ! Prepares specifications for bids, evaluates bid proposals, and makes recommendations regarding equipment purchases, leases and disposal;
- ! Interacts with representatives of cable television operators in order to properly address issues related to the Citywide interconnected network and Channel signal quality;
- ! Develops maintenance procedures and a schedule for the proper servicing of video and audio equipment and systems;
- ! Develops and implements procedures for determining which repairs are to be completed by staff versus repair work to be performed by outside vendors and contractors;
- ! Ensures that repair work by outside vendors and contractors is performed in accordance with established procedures;
- ! Responds to and resolves emergency calls from Playback Operators during non-scheduled work hours;
- ! Performs inventory control and salvage for various video and audio equipment in accordance with established City procedures;
- ! Ensures that warranty benefits of equipment are fully utilized when needed;
- ! Maintains the equipment manual library;
- ! Develops technical operating procedures for all equipment and systems;
- ! Provides training and technical assistance to staff on the proper use of equipment and systems;

May occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

**Qualifications:** Incumbents must have the following knowledges and abilities:

**A good knowledge of:**

- ! Design, installation, and use of professional video and audio equipment used by broadcast and cable industries;
- ! Fundamental principles and practices of video engineering as applied to the installation, improvement, maintenance and operation of television facilities;
- ! Various television and communications system components, including their purpose and operating characteristics in various conditions;
- ! Principles, practices, and techniques involved in preparing cost and operational comparisons and making recommendations regarding methods or providing new and improved video and audio equipment and systems;
- ! Test equipment, tools, and materials used in the design, development, upgrading, installation, maintenance and repair of television video and audio equipment, components, and systems;
- ! Sources of video and audio engineering information and current and new technological developments;
- ! Safety hazards and precautions involved in working around energized video and audio equipment, components, and systems.

**A working knowledge of:**

- ! Operating policies and licensing requirements of regulatory agencies such as the Federal Communications Commission and State Public Utilities Commission pertaining to municipal communications facilities and operations;
- ! Principles, practices, and procedures involved in the proper layout, installation, and purchase of leased video and audio equipment and systems;
- ! Training techniques and practices.

**A general knowledge of:**

- ! Budgetary and administrative procedures.

**The ability to:**

- ! Design television video and audio systems;
- ! Use test equipment, tools, and materials employed in the design, development, upgrading, installation, maintenance and repair of television video and audio equipment, components, and systems;
- ! Determine from tests and inspections the sources of malfunctions in video and audio equipment and systems and prescribe necessary repairs;
- ! Adapt established practices, procedures, and principles of video engineering to particular problems, conditions, and service needs of telecommunications systems and related equipment;
- ! Read and interpret video and audio equipment specifications;
- ! Establish and maintain a work environment that is conducive to proactive planning, enhances employee morale, and enhances productivity;
- ! Prepare written reports and correspondence;

- ! Prepare and maintain operating records;
- ! Communicate and deal tactfully and effectively with City officials, employees, supervisors, employees from other City departments, contractors, vendors and the public;

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to the disability, and the ability of the hiring department to accommodate the limitation.

**Minimum Requirements:**

1. Three years of engineering experience in a broadcast-quality production facility, including experience working with test equipment, field equipment, linear and non-linear editing equipment, remote control camera systems, computer graphics and fiber optics; and
2. Two years of education from a recognized college or university with successful completion of at least 12 semester or 18 quarter units in electrical engineering or a closely related field.
3. Graduation from a recognized four-year college or university with a degree in electrical engineering or a closely related field may substitute for one year of the required experience.

College course work with an emphasis on video and audio equipment maintenance and repair is especially desired.

**License:** A valid California drivers license may be required for some positions in this class.

**As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties, responsibilities, and required qualifications of any position shall be.**