

## **RADIO TECHNICIAN - EMERGENCY SERVICES**

**DISTINGUISHING FEATURES OF THE CLASS:** This position has responsibility for the installation, repairs, maintenance, servicing, and modifications of communication equipment including but not limited to: analog, digital and simulcast radio base stations, voting receiver systems, portable and mobile radios, pagers, microwave and multiplex equipment, data networks, emergency dispatch console systems, control equipment, recording equipment, monitoring and sound distribution systems, base station antennas and transmission lines. The work is performed under the direct supervision of a higher-level employee with leeway allowed for the use of independent judgment in planning and carrying out assignments. Supervision is not a responsibility of this class. Does related work as required.

### **TYPICAL WORK ACTIVITIES:**

Installs, repairs, maintains, services and modifies various types of communications equipment;

Tests, troubleshoots, and optimizes transmitting and receiving equipment in accordance with Federal Communications Commission (FCC) rules and regulations, manufacturer's diagrams and specification;

Rebuilds or recommends the modification of equipment to improve systems or meet specific requirements;

Uses a wide variety of hand tools, electrical measuring instruments, and computer configuration software;

Tests equipment for factors such as power output, frequency, sensitivity, noise level, and audio quality using oscilloscopes, service monitors, wattmeters, ammeters, voltmeters, and other radio test equipment;

Installs, repairs, and maintains data transport and network equipment including wireline, wireless, fiber, Ethernet, DS1/T1, channel banks, multiplexers, routers, protection switches, and power backup systems;

Performs technical and FCC performance checks of portables, mobiles, base stations, console equipment, voting receivers, and communication equipment;

Responds to emergency service requests, incidents and problems (on call status) to maintain critical communication networks as needed;

Serves on an on-call basis to respond to communications equipment problems and resolve them.

### **FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

**RADIO TECHNCIAN-EMERGENCY SERVICES-cont'd**

Thorough knowledge of the installation, repair and maintenance of communications equipment;  
Good knowledge of the principles of electrical/electronic theory and maintenance;  
Good knowledge of state and federal rules, codes, regulation, and standards governing radio communication operations and installation;  
Ability to prepare and maintain accurate and detailed records of services performed including labor time, material used and other pertinent data;  
Ability to read and understand complex schematic diagrams, blueprints, wiring diagrams, and technical service manuals;  
Ability to use RF related mathematics to diagnose equipment operation parameters;  
Ability to maintain and update configuration documents, schematics, documentation databases and work logs;  
Ability to effectively and safely use, and maintain test and repair equipment and tools;  
Ability to use various computer systems and applications;  
Ability to establish and maintain effective working relationships with other county departments, local municipalities, outside organizations, vendors and coworkers;  
Ability to understand and carry out verbal and written instructions;  
Ability to communicate effectively both orally and in writing;  
Ability to sit, stand, kneel, or walk for long periods of time,  
Ability to concentrate for long periods of time;  
Willingness to work hours other than those scheduled when needed;  
Dependable;  
Detail oriented.

**MINIMUM QUALIFICATIONS:**

A) Graduation from high school or possession of an equivalency diploma and two years of experience in the construction, installation, testing and repair of FM land mobile, microwave, and electronic communications equipment; OR

B) Graduation from high school or possession of an equivalency diplomas and possession of a valid APCO Two-way radio Technician Certificate, or NABER Two-Way Radio Technician Certificate, or NARTE Two-Way Radio Certificate, or an FCC Amateur Radio License, Technician Class or higher.