

**MONTGOMERY COUNTY GOVERNMENT  
ROCKVILLE, MARYLAND  
CLASS SPECIFICATION**

**Code No. 003422  
Grade 20**

**COMMUNICATIONS TECHNICIAN II\***

**DEFINITION OF CLASS:**

This is highly skilled, technical work involving the installation, testing, maintenance, diagnosis and repair of a broad range of complex radio/communications systems and equipment. Contacts are with County personnel for the purpose of giving/receiving information and resolving problems; vendors to arrange for services and equipment, to provide detailed information regarding the work to be performed, and to ensure work performed by contractors complies with contract terms and meets standards; supervisory personnel to obtain advice, receive assignments, and present and discuss recommendations regarding the resolution of system problems; and lower level Technicians to make/review assignments, and provide guidance and training. An incumbent provides limited service or assistance directly to the public.

An employee in this class is responsible for the County's emergency communications system equipment as noted above. The incumbent is also involved in system design in the pre-design phase, assisting with the development of the technical characteristics of the system, providing technical advice, and analyzing the system to ensure that it meets such standards as FCC requirements. Communications systems include VHF and UHF FM radios, state-of-the-art computer controlled radio equipment including transmitter and receiver controllers, communications and data switching systems, pagers, microwave communications systems, base stations, repeater networks, audio systems, and emergency power generating equipment. Employees in this class coordinate communications system work performed by County employees and contractors, and conduct inspections of contractual work in progress and upon completion. The work is performed with latitude for independent action. Work is reviewed by observation of the effectiveness of the systems and equipment performance for which the employee is responsible, and through reports and conferences. Guidelines are general and do not cover all situations.

The employee uses ingenuity and resourcefulness to make modifications to the communications equipment/systems to which assigned. Work planning, organizing and problem solving involves analysis to decide the proper course of action after considering several factors/alternatives. The work involves addressing and resolving conventional problems in accordance with established criteria. The work directly affects the operation of critical Public Safety emergency communications systems, and enables users to access/use these systems effectively. Some work is performed in a shop environment; however, the employee spends a significant amount of time outdoors. The employee is exposed to high voltage, and is required to work on rooftops and atop vehicles. The employee occasionally lifts electronic equipment weighing up to one hundred pounds when installing communication system components. An incumbent may be placed on-call on a rotating basis after normal working hours for emergency response to communications system problems. This class differs from the Communications Technician I class by the necessity to be familiar with all County communications systems, including Police, Fire, Public Works and Transportation, and transit bus systems; and the communications needs of each department. A Communications Technician I may be an expert on one system, but not on the makeup and operation of all systems. Technicians at the II level often take the lead on jobs, and provide guidance and training to Technicians I who are less familiar with a system.

**EXAMPLES OF DUTIES: (Illustrative Only)**

- Installs, tests, adjusts, diagnoses, analyzes, repairs and maintains VHF and UHF FM radios, state-of-the-art computer-controlled radio equipment including transmitter and receiver controllers, communications and data switching systems, pagers, microwave communications systems, base stations, repeater networks, audio systems, and emergency power generating equipment.
- Arranges for contract staff to perform installation, maintenance and repair of various communications system equipment when workload exceeds available staffing, ensures that work is performed within specified time frame, meets user departments' needs and contract terms, and conforms to applicable standards. Reports unsatisfactory contractor performance to the Communications Maintenance Supervisor.
- Advises Communications Maintenance Supervisor regarding Technician I assisting the II on assigned projects, and provides guidance and training to the Technician I on systems and equipment not yet familiar to the lower level Technician.
- Prepares and maintains records documenting work performed on County-owned communication equipment including materials and labor expended; supplies and system component inventory control; and system configuration.
- Provides technical and engineering information/data and recommends design changes or system modifications based on technical knowledge, evaluation of user comments, and periodic review of equipment history records.
- Purchases components for communication systems' maintenance, repair, and improvement; and ensures that adequate supplies of spare/replacement parts and installation materials are available in advance of scheduled work.
- Conducts classes, briefings, and other training sessions on communications topics to keep unit staff abreast of new technology, and to instruct user agency staff in the proper operation of communication systems equipment.
- Services, maintains and repairs diesel and gasoline-powered electrical generators, and electrical and electronic battery charging equipment, utilized in conjunction with communications equipment.
- Performs related duties as required.

**KNOWLEDGE, SKILLS AND ABILITIES:**

- Thorough knowledge of the principles and practices of electrical and electronic disciplines as related to the installation, testing, diagnosis, maintenance and repair of state-of-the-art VHF and UHF FM, mobile radio, microwave, and computer-enhanced trunked communication systems and digital transmission equipment.
- Thorough knowledge of applicable rules and regulations of the Federal Communication Commission.
- Basic knowledge of telephone and computer networking systems.
- Ability to read and interpret complex installation diagrams and manufacturers' specifications related to proper installation.
- Ability to independently solve difficult technical problems concerning communications systems and equipment.
- Ability to provide guidance and training to Communication Technicians I.
- Ability to communicate clearly and effectively, to record documentation concerning methods, approaches, and steps taken, and to explain technical matters to non-technically oriented customers.
- Ability to comprehend and follow highly technical oral and written instructions.
- Ability to establish and maintain effective working relationships with co-workers, user agency staff,

and contractors.

- Ability to perform work on building rooftops and atop tall vehicles.
- Ability to perform work outdoors under all weather conditions.
- Ability to observe strict safety precautions when working in close proximity to high voltage electrical sources, transmitting antennae, when operating power and soldering tools, and on construction sites.
- Ability to lift or assist in lifting heavy system components weighing up to 100 pounds.
- Ability to pass a County administered test of recognition of colors commonly used in wiring in the communications industry.
- Ability to perform work, to respond to problems, and to attend meetings at sites other than a normal office setting.

#### **MINIMUM QUALIFICATIONS:**

**Experience:** Thorough (five (5) years) technical experience (i.e., at the journey level) in the installation, testing, maintenance and repair of radio communications equipment, specifically with experience in VHF and UHF FM mobile radio, emergency/public safety communications systems, computer-enhanced trunked systems, and microwave equipment; and which included parts and supply inventory and records maintenance, two (2) years of which must have been equivalent in level to the work of a Communications Technician I.

**Education:** Possession of an Associate of Arts degree in electrical, electronics or communications engineering/technology; or graduation from a two (2) year electrical, electronics or communications technical training school.

**Equivalency:** An equivalent combination of education and experience may be substituted.

#### **LICENSE:**

- Possession and maintenance at all times of a valid Class "C" (or equivalent) driver's license from the applicant's state of residence.

#### **PROBATIONARY PERIOD:**

Individuals appointed to a position in this class will be required to serve a probationary period of six (6) months, during which time performance will be carefully evaluated. Continuation in this class will be contingent upon successful completion of the probationary period.

#### **MEDICAL EXAM PROTOCOL:** Core Exam.

**Class Established:** May 1979

**Revised:** May 1987

**Corrected:** June 1987

**Revised:** July 1988

**Classification Study:** June 1995 (M)  
March 1997

**Classification Study:** April 2002 (M)  
August 2013  
October 2014

**Formerly Titled:** "Communications Equipment Technician II" and "Communications System Supervisor".