MONTGOMERY COUNTY GOVERNMENT **Code No. 005083**
ROCKVILLE, MARYLAND **Grade 18**
CLASS SPECIFICATION

HVAC MECHANIC I*
(Heating, Ventilation and Air Conditioning)

DEFINITION OF CLASS:
This is journey level work involving the installation, operation, modification, repair, troubleshooting and testing of new and existing heating, ventilation and air conditioning (HVAC) systems and associated equipment. Contacts generally are with shop employees within and outside the HVAC trade, but on occasion may include contractors, energy management personnel or agency employees responsible for facility maintenance for the purpose of providing and receiving instructions and information. An incumbent offers limited direct service or assistance to the public.

An employee in this class is responsible for the performance of skilled and hazardous HVAC work and instructing apprentice employees in the knowledge and skills of the HVAC trade. Work assignments are received through lead mechanics and emanate from work orders, sketches, specifications, mechanical drawings, models and oral instructions. Completed work is occasionally checked to see that it meets accepted trade standards. Guidelines are normally available however, they may not be completely applicable to specific work situations and the employee must exercise ingenuity and resourcefulness to modify and/or adopt different procedures and approaches in completing the work. The employee is expected to independently plan and lay out the work within established guidelines, either working alone or as part of a crew, including selection of proper tools, equipment, parts and materials. The complexity of the work involves the analysis required to determine the nature of HVAC system failure or malfunction (electrical, mechanical, etc.) and make cost-effective repair or replacement. The work effort contributes to the safe and effective operation of HVAC systems in County facilities and the safety and comfort of facility users. Work is performed from ladders, scaffolding, platforms and on roofs, and requires the employee to stand, stoop, bend, kneel, climb, lift and work in tiring, uncomfortable and awkward positions. Work is generally dirty, dusty and greasy and may expose the employee to sudden temperature changes when working on equipment. The nature of the work involves routine exposure to caustic chemicals, electrical hazards, contaminated water or animal waste. An employee is required to respond to after-hours emergency service calls and may be placed on stand-by duty during severe weather or other urgent conditions.

EXAMPLES OF DUTIES: (Illustrative Only)
- Installs, modifies, maintains and repairs air conditioning, ventilating, and heating equipment and related systems.
- Conducts routine operational checks and inspections of air conditioning, ventilating and heating equipment, noting and correcting malfunctions of operation. Reports on defective or obsolete equipment so that replacement can be planned.
- Records information pertinent in establishing maximum performance of the equipment for the highest efficiency and conservation of energy for the facilities served.

- Installs and modifies distribution systems such as sheet metal ducts and other types of conduits, including controls and instrumentation.
- Tunes and adjusts systems to meet required specifications.
- Removes, calibrates, overhauls, and replaces associated instruments and controls in the air conditioning, ventilating and heating systems.
- Repairs, replaces and overhauls compressors, pumps, chemical feeders, valves, traps, boilers, burners, monitors and other safety devices.
- Installs, maintains and repairs refrigeration equipment which includes refrigerators, freezers, and drinking fountains.
- Plans and lays out the placement, pitch, elevation, pressure reduction, expansion, and operation of various piping systems and equipment.
- Makes various types of joints using hard and soft silver solder, welds, caulks, rolls, and other techniques.
- Conducts water treatment tests and combustion checks and adjusts controls and feeders for optimum performance.
- Reads and interprets plans and specifications.
- Performs demolition work in the removal of air conditioning, heating and related components.
- Instructs apprentice employees in the skills of the trade.
- Drives to and from work sites.
- Performs related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES:
- Knowledge of the standard practices, methods, tools, and materials common to the HVAC trade.
- Knowledge of the building and fire codes related to work performed in the HVAC trade.
- Knowledge of the occupational hazards and safety precautions of the trade.
- Skill in the use of hand tools and test equipment associated with the trade.
- Ability to use and maintain all hand and power tools used in the related trades.
- Ability to rig and handle all materials necessary to accomplish a job assignment.
- Ability to work standby shifts or to respond to after-hours emergency service calls.
- Ability to wear and use personal protective clothing and equipment for protection when exposed to dust, fumes, chemicals and other irritants to eyes, nose, ears, skin and respiratory system.
- Ability to conduct failure analysis, modify equipment and make recommendations both in equipment changes and preventive maintenance.
- Ability to work from mechanical drawings, specifications, sketches, and work orders and prepare material lists and specifications.
- Ability to understand and carry out oral and written instructions.
- Ability to complete necessary training and examination requirements for journey level license issued by the State of Maryland.
- Applicant must pass a County administered test of recognition of colors commonly used in the HVAC trade.

MINIMUM QUALIFICATIONS:
Experience: Completion of a recognized apprentice HVAC program.
Education: Graduation from high school or High School Certificate of completion recognized in the State of Maryland.
Equivalency: None.

Physical Ability:

- Ability to occasionally lift items that weigh as much as one hundred (100) pounds or more and to frequently carry items that weigh up to fifty (50) pounds.
- Ability to perform work inside and outside year round from scaffolding, ladders, platforms, and roofs and to work overhead or in stretched, cramped and awkward or tiring and uncomfortable positions.

PROBATIONARY PERIOD:
Individuals appointed to 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.

LICENSE:

- Possession and maintenance at all times of valid Class "C" (or equivalent) driver's license from the applicant's state of residence.
- Possession of a Journey level HVAC license issued by the State of Maryland.
- Possession of Environmental Protection Agency Universal Recovery and Recycling certification.

MEDICAL EXAM PROTOCOL: Core II Exam.

Class Established: August 1962
Revised: April 1968
November 1970
May 1971
July 1974
December 1984
April 1989
Classification Study: May 1991 (M)
May 1994
December 2001
Classification Study: October 2002 (M)
April 2010
August 2013