

**CLASS SPECIFICATION**  
**County of Fairfax, Virginia**

**CLASS CODE:** 5342    **TITLE:** SENIOR MECHANICAL INSPECTOR    **GRADE:** S-17

**DEFINITION:**

Under general supervision, performs a variety of difficult and specialized mechanical inspections of heating, ventilation and air conditioning systems, involving the exercise of independent judgment and initiative; provides technical advice to the general public; and performs related work as required.

**DISTINGUISHING CHARACTERISTICS OF THE CLASS:**

This class is distinguished from the Mechanical Inspector class by the ability to independently conduct specialized mechanical inspections. Both classes require journey-level work experience in the installation, operation and maintenance of heating, ventilation and air conditioning systems.

**ILLUSTRATIVE DUTIES:**

Inspects building construction to ensure that installation of mechanical heating, ventilation and air conditioning (HVAC) systems and related components is in compliance with the Virginia Uniform Statewide Building Code (VUSBC), National Mechanical Code, International Mechanical Code, sound engineering and construction practices, and approved plans;  
Checks installation of smoke removal systems and fire dampers;  
Checks all new construction for compliance with the energy conservation requirements and codes;  
Checks operation of ventilation and exhaust systems for proper sizing and operation according to the BOCA National Mechanical Code and approved plan;  
Inspects the installation of commercial cooking appliances and exhaust systems and related fire protection systems;  
Inspects and observes tests for fuel-oil piping, water supply piping and refrigeration piping systems for compliance with VUSBC and national standards;  
Approves or disapproves use of alternate designs or methods based on the review conducted by plan reviewers;  
Inspects buildings to ensure that mechanical installations do not have an adverse impact on buildings' structural and fire safety;  
Enters the results of each inspection into a hand-held computer terminal;  
If an inspection reveals work that is not approved, identifies the sections of the regulations being violated, issues written violation notices to the developer, and takes necessary action to ensure violations are corrected (e.g., testifies to facts in court, recommends "shut down" of the project, and/or assists in securing arrest warrants);  
Inspects developers' field operations for compliance with the Virginia Occupational Safety and Health Act (VOSHA), and resolves all discrepancies through cooperation with the developer (or, if the developer refuses to correct the deficiency, through notification of the violation to the Virginia Department of Labor and Industry for its action);

Prior to issuance of a permit, examines and interprets plans for the installation of mechanical HVAC equipment and systems in all types of buildings, recommending changes in mechanical design when necessary;

Reviews requests from developers for inspections, and schedules inspections;

Investigates citizen complaints against builders concerning construction of single-family homes/commercial buildings and the two-year follow-on warranty period, evaluates their validity, reports investigative findings, and recommends corrective action when necessary;

Meets with homeowners, developers, engineers, contractors and interested citizens to provide information and answer questions about the applicability of County development regulations to field construction;

Interprets applicable codes;

Attends meetings and conferences;

Prepares reports and composes correspondence;

Coordinates final approvals before occupancy with other agencies to ensure that all applicable requirements are met;

Acts as section supervisor in absence of his or her superior.

**REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

Working knowledge of the Virginia Uniform Statewide Building Code, BOCA National Mechanical Code, International Mechanical Code, and other applicable codes and ordinances enforced by the Department of Environmental Management;

Working knowledge of the Virginia Occupational Safety and Health Act (VOSHA);

Knowledge of the energy conservation requirements and codes;

Knowledge of the theories and practices of mechanical heating, ventilation and air conditioning systems, codes and regulations;

Knowledge of materials, methods, and equipment used in mechanical installation and repair;

Knowledge of the operations, installation and maintenance of boilers, heating systems, and commercial cooking/frying equipment, to include fuel-oil piping systems, exhaust systems and related fire protection systems;

Knowledge of the operation, installation and maintenance of refrigeration piping systems, equipment and air conditioning systems;

Knowledge of the operation, installation and maintenance of ventilation and exhaust systems, their proper sizing and operation;

Ability to read and interpret plans and engineering specifications;

Ability to use sound judgment in making independent decisions;

Ability to prepare clear and factual reports;

Ability to use hand-held computers to enter results of inspections conducted;

Ability to work with people and obtain their cooperation, even in difficult situations.

**EMPLOYMENT STANDARDS:**

Any combination of education, experience, and training equivalent to the following:

High school graduation or a G.E.D. issued by a state department of education; PLUS

One year of experience as a mechanical inspector and/or as a supervisor of journey-level positions engaged in installation, operation and maintenance of heating, ventilation, and air conditioning systems; AND

Two years of journey-level experience in the installation, operation and maintenance of heating, ventilation, and air conditioning systems.

**CERTIFICATES AND LICENSES REQUIRED:**

Certification by the Virginia Department of Housing and Community Development as a Mechanical Inspector General within one year of employment.  
Possession of a valid Motor Vehicle Driver's License.

REVISED:    September 20, 2001

REVISED:    April 25, 1997