

2026 Advanced Building Code 9th Edition - Mechanical Significant Code Changes – Internet Course #1417.0

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Objective

The objective of this course is to review the significant revisions to the 9th Edition update to the *2026 Florida Building Code, Mechanical* as compared to the 8th Edition *2023 Florida Building Code, Mechanical*. The course explains the purpose of each significant revision and discusses its impact on the design, specification, installation, and enforcement of mechanical systems. Emphasis is placed on changes that affect mechanical engineers, design professionals, and mechanical contractors.

This is an advanced code course intended to fulfill the 1-hour Advanced Florida Building Code course requirement for engineers who practice engineering that is related to building design or systems. This course covers the most significant changes in the *2026 Florida Building Code, Mechanical* and is designed for mechanical engineers and contractors. The deadline to complete this course in Florida is December 31, 2026, or at least before any plans are signed and sealed using the 9th Edition of the code.

Introduction

The effective date is December 31, 2026, for the 9th Edition of the *Florida Building Code*. This code is based on the latest changes to the 2024 International Mechanical Code® with customized amendments adopted statewide. This course focuses on revisions that are expected to have the greatest impact on engineering design and mechanical system installation. Editorial revisions, formatting changes, and other modifications that do not substantially affect code application are not discussed. Reference the original text to ensure that the appropriate context is used during design.

The mechanical code references other texts as well. Review the referenced materials that have been updated for this edition.

Note: Code excerpts listed throughout this course in red are quoted directly from the *2023 Florida Building Code, Mechanical (8th Edition)*. Those listed in blue are quoted directly from the *2026 Florida Building Code, Mechanical (9th Edition)*.

Changes to Chapter 2 – Definitions

Ambulatory Care Facility

2023 Requirement

No definition was provided.

2026 Requirement

A new definition has been added for Ambulatory Care Facility.

Ambulatory Care Facility. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided or staff has accepted responsibility for care recipients already incapable.

Why the Change?

The increasing use of outpatient medical facilities created the need for a consistent definition throughout the code. Requirements for ambulatory care facilities was already part of the code (for example, see ventilation requirements in section 407); this just defines what constitutes an ambulatory care facility.

Impact on Design Engineers

Mechanical engineers designing HVAC systems for outpatient medical facilities should verify whether the project meets the definition of an ambulatory care facility, because additional ventilation and life safety provisions may apply through other referenced codes.

Impact on Mechanical Contractors

Although the definition does not directly affect installation practices, contractors should recognize that projects classified as ambulatory care facilities may include more stringent construction and inspection requirements.

Grease Duct

2023 Requirement

No definition was provided.

2026 Requirement

Grease Duct. A duct serving a Type I hood, or cooking appliances equipped with integral down-draft exhaust systems that produce grease to convey grease-laden air from the hood, or cooking appliance directly to the outdoors.

Why the Change?

The definition clarifies that grease ducts include both traditional Type I hood exhaust systems and cooking appliances equipped with integral downdraft exhaust systems that produce grease-laden vapors. This improves consistency in applying commercial kitchen exhaust requirements.

Impact on Design Engineers

Design engineers should ensure that grease-producing appliances, including those with integral exhaust systems, are evaluated under the grease duct requirements. This affects duct materials, clearances, fire protection, and exhaust system design.

Impact on Mechanical Contractors

Contractors should verify that exhaust systems serving grease-producing appliances comply with grease duct construction and installation requirements, regardless of whether the appliance uses a conventional hood or an integral exhaust system.

Refrigerant Designation

2023 Requirement

No definition was provided.

2026 Requirement

Refrigerant Designation. The unique identifying alphanumeric value or refrigerant number assigned to an individual refrigerant and published in *ASHRAE Standard 34*.

Why the Change?

The addition of this definition formally recognizes the refrigerant numbering system established by *ASHRAE Standard 34*. This improves consistency throughout the code as additional refrigerants enter the marketplace.

Impact on Design Engineers

Engineers should specify refrigerants using their ASHRAE designations to avoid confusion and ensure compatibility with equipment, safety classifications, and code requirements.

Impact on Mechanical Contractors

Contractors should verify that installed equipment and refrigerants match the refrigerant designation specified on the approved construction documents.

Refrigerant Safety Group Classification

2023 Requirement

Refrigerant Safety Group Classification. The alphabetical/numerical designation that indicates both the toxicity and flammability classifications of refrigerants.

Flammability. See Flammability classification (Refrigerant).

Toxicity. See Toxicity classification (Refrigerant).

2026 Requirement

Refrigerant Safety Group Classification. The alphabetical/numerical designation that indicates both the toxicity and flammability classifications of refrigerants in accordance with *ASHRAE 34*.

Flammability classification (refrigerant). The alphanumeric designation used to identify the flammability of refrigerants.

Class 1. Indicates a refrigerant with no flame propagation.

Class 2. Indicates a refrigerant with low flammability.

Class 2L. Indicates a refrigerant with low flammability and low burning velocity.

Class 3. Indicates a refrigerant with high flammability.

Toxicity classification (refrigerant). An alphabetical designation used to identify the toxicity of refrigerants.

Class A indicates a refrigerant with low toxicity.

Class B indicates a refrigerant with high toxicity.

Why the Change?

The revised definition consolidates the previous flammability and toxicity classifications into a single refrigerant safety group classification consistent with *ASHRAE Standard 34*. This simplifies terminology while recognizing the increasing use of alternative refrigerants with varying safety characteristics.

Impact on Design Engineers

Mechanical engineers should evaluate refrigerant safety group classifications during equipment selection, as these classifications affect allowable refrigerant quantities, machinery room requirements, ventilation, and leak detection provisions.

Impact on Mechanical Contractors

Contractors should verify that the installed refrigerant matches the approved design documents and understand that refrigerant safety group classifications may affect installation methods, equipment labeling, and inspection requirements.

Changes to Chapter 3 - General Regulations

301.16 Flood hazard

2023 Requirement versus 2026 Requirement

The section in red has been unchanged from the 8th edition. The section in blue is the new verbiage from the 9th edition.

[BS] 301.16 Flood hazard. For structures located in flood hazard areas, mechanical systems, equipment and appliances shall be located at or above the elevation required by Section 1612 of the *Florida Building Code, Building* for utilities and attendant equipment.

Exceptions:

1. Unless part of substantial improvement, replacement of exterior equipment and exterior appliances that are damaged by flood shall meet one of the following:
 - 1.1 Be elevated to or above the same height above grade as the first floor of the building, or 4 feet (1219 mm) above grade, whichever is higher.
 - 1.2 For nonresidential buildings and nonresidential portions of buildings, be elevated in accordance with Exception 1.1 or located in an enclosure that is dry floodproofed to 4 feet (1219 mm) above grade, or the same height above grade as the first floor of the building, whichever is higher, in accordance with the dry floodproofing requirements of ASCE 24 for attendant utilities and equipment.
2. Mechanical systems, equipment and appliances are permitted to be located below the elevation required by Section 1612 of the *Florida Building Code, Building* for utilities and attendant equipment provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to such elevation.

Why the Change?

The new exception recognizes the practical difficulty of replacing flood-damaged exterior

mechanical equipment while maintaining the full elevation requirements that apply to new construction. It provides a specific pathway for replacing damaged equipment without automatically requiring the entire replacement to meet the same elevation criteria applicable to new or substantially improved construction.

The provision also recognizes that nonresidential buildings may use dry floodproofed enclosures as an alternative means of protecting replacement mechanical equipment.

Impact on Design Engineers

Engineers involved in the replacement of flood-damaged mechanical equipment should determine whether the work constitutes a substantial improvement or repair of substantial damage. If it does not, the new exception may provide additional flexibility in locating replacement equipment.

The engineer should document the applicable flood elevation, required equipment elevation, and, where applicable, the design of a dry floodproofed enclosure. The distinction between “replacement work” and “substantial improvement” or “substantial damage” is important because the exception does not provide the same flexibility in those circumstances.

Impact on Mechanical Contractors

Contractors replacing flood-damaged exterior equipment should not assume that replacement equipment can simply be installed at its original location. The approved construction documents should establish the required elevation and whether the project is using the new exception.

For non-residential projects using a dry floodproofed enclosure, the contractor should coordinate the mechanical installation with the floodproofing requirements and ensure that penetrations and equipment installations do not compromise the enclosure.

306.5 – Equipment and Appliances on Roofs or Elevated Structures

2023 Requirement

Section 306.5 established requirements for permanent ladders used to access mechanical equipment located on roofs or elevated structures. Below are the 2023 requirements for permanent ladders that were modified in the 2026 version.

1. The side railing shall extend above the parapet or roof edge not less than 30 inches (762 mm).
2. Ladders shall have rung spacing not to exceed 14 inches (356 mm) on center. The uppermost rung shall be not greater than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
3. Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.
4. There shall be not less than 18 inches (457 mm) between rails.

2026 Requirement

The permanent ladder dimensions and standards have been revised to comply with OSHA requirements. In addition, a **top landing is now required**. The landing must be clear and unobstructed, located on the exit side of the roof hatch, and provide a minimum depth of 30 inches with a width equal to the width of the hatch.

Below are the modified requirements for permanent ladders. The changes are underlined for clarity.

1. The side railing shall extend above the parapet or roof edge or landing platform not less than 42 inches (1067 mm).
2. Ladders shall have rung spacing not less than 10 inches (254 mm) and not to exceed 14 inches (356 mm) on center. The uppermost rung shall be not greater than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
3. Ladders shall have a toe spacing not less than 7 inches (178 mm) and not more than 12 inches (305 mm) deep.
4. There shall be not less than 16 inches (406 mm) between rails.
- ...
11. Top landing required. The ladder shall be provided with a clear and unobstructed landing on the exit side of the roof hatch having a minimum space of 30 inches (762 mm) deep and be of the same width as the hatch.

Why the Change?

The revision improves coordination between the Mechanical Code's equipment-access requirements and workplace safety requirements. Roof-mounted mechanical equipment frequently requires personnel to use ladders and roof hatches to perform inspection, maintenance, and repair.

Adding a defined landing at the roof hatch provides a safer transition between the ladder and roof access point.

Impact on Design Engineers

Mechanical engineers should work closely with the architect to ensure that roof access is considered part of the equipment layout rather than treating the ladder and hatch as afterthoughts. Equipment locations should be coordinated with:

- permanent ladder locations;
- roof hatches;
- required landing areas;
- service clearances;
- walking surfaces; and

- safe routes to mechanical equipment.

The revised requirements may affect equipment placement and the amount of roof area needed around access points.

Impact on Mechanical Contractors

Contractors should verify that permanent ladders and roof access installations conform to the revised requirements and that the required landing is not obstructed by equipment, piping, ductwork, curbs, or other construction.

Field installation of mechanical equipment should not compromise the required access path or landing.

307.2.2 – Drain Pipe Materials and Sizes

2023 Requirement

Section 307.2.2 established requirements for materials and sizing of drain piping conveying condensate from cooling coils and evaporators. There is no insulation requirement listed in this section.

2026 Requirement

New language requires drain piping conveying condensate from cooling coils and evaporators to be insulated to a minimum of **R-3 when located inside an unconditioned space**.

Why the Change?

Condensate piping located in unconditioned spaces can be exposed to temperature and humidity conditions that promote condensation on the exterior of the drain piping. Insulating the piping reduces the potential for condensation, associated moisture damage, and slip and fall risk.

The provision is particularly relevant to installations where condensate piping travels through hot, humid attics or other unconditioned portions of a building.

Impact on Design Engineers

Mechanical engineers should identify portions of condensate drainage systems that pass through unconditioned spaces and specify the required minimum R-3 insulation.

The requirement should be incorporated into construction documents rather than left solely to field interpretation.

Impact on Mechanical Contractors

Contractors should provide the required minimum R-3 insulation on applicable condensate drain piping located within unconditioned spaces.

Attention should be given to attic installations, where condensate piping is frequently routed through unconditioned areas. Insulation should be installed continuously and in a manner that does not interfere with required drainage slope or create unintended points for moisture accumulation.

When condensate piping leaves a conditioned space and enters an unconditioned space, verify whether the piping falls within the new insulation requirement, and provide **minimum R-3 insulation**, where required.

Changes to Chapter 4 – Ventilation

Table 403.3.1.1 – Minimum Ventilation Rates

2023 Requirement versus 2026 Requirement

See the partial revised table on the following pages. Only the rows with changed information are included. The data in red has been unchanged from the 8th edition. The information in blue is revised in the 9th edition.

OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY #/1000 FT ² ^a	PEOPLE OUTDOOR AIRFLOW RATE IN BREATHING ZONE, R_p CFM/PERSON	AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE, R_a CFM/FT ² ^a	EXHAUST AIRFLOW RATE CFM/FT ² ^a
Animal facilities				
Animal exam room (veterinary office)	20	10	0.12	—
Animal imaging (MRI/CT/PET)	20	10	0.18	0.9
Animal operating rooms	20	10	0.18	3.00
Animal postoperative recovery room	20	10	0.18	1.50
Animal preparation rooms	20	10	0.18	1.50
Animal procedure room	20	10	0.18	2.25
Animal surgery scrub	20	10	0.18	1.50
Large-animal holding room	20	10	0.18	2.25
Necropsy	20	10	0.18	2.25
Small-animal cage room (static	20	10	0.18	2.25

cages)				
Small-animal-cage room (ventilated cages)	20	10	0.18	1.50
Food and beverage service				
Break rooms	25	5	0.06	—
Coffee stations	20	5	0.06	—
Corridors	—	—	0.06	—
Occupiable storage rooms for liquids or gels	2	5	0.12	—
Hotels, motels, resorts and dormitories				
Laundry rooms, central	10	5	0.12	—
Laundry rooms within dwelling units	10	5	0.12	—
Offices				
Break rooms	50	5	0.12	—
Occupiable storage rooms for dry materials	2	5	0.06	—
Outpatient healthcare facilities^{h, j}				
Birthing room	15	10	0.18	—
Class I imaging room	5	5	0.12	—
Dental operatory ^k	20	10	0.18	—
General examination room	20	7.5	0.12	—
Other dental treatment areas	5	5	0.06	—
Physical therapy exercise area	7	20	0.18	—
Physical therapy individual room	20	10	0.06	—
Physical therapeutic pool area	—	—	0.48	—
Prosthetics and orthotics room	20	10	0.18	—
Psychiatric consultation room	20	5	0.06	—
Psychiatric examination room	20	5	0.06	—
Psychiatric group room	50	5	0.06	—
Psychiatric seclusion room	5	10	0.06	—
Speech therapy room	20	5	0.06	—
Urgent care examination room	20	7.5	0.12	—

Urgent care observation room	20	5	0.06	—
Urgent care treatment room	20	7.5	0.18	—
Urgent care triage room	20	10	0.18	—
Public spaces				
Room with adult changing station	—	—	—	50/70°
Specialty shops				
Banks or lobbies	15	7.5	0.06	—
Storage				
Refrigerated warehouses/freezers (< 50°F)	—	10	—	—
Workrooms				
Manufacturing where hazardous materials are not used	7	10	0.18	—
Manufacturing where hazar[d]ous materials are used (excludes heavy industrial and chemical processes)	7	10	0.18	—
Workrooms				
Sorting, packing, light assembly	7	7.5	0.12	—
Telephone closets	—	—	0.00	—

For SI: 1 cubic foot per minute = 0.0004719 m³/s, 1 ton = 908 kg, 1 cubic foot per minute per square foot = 0.00508 m³/s · m², °C = [(°F) – 32]/1.8, 1 square foot = 0.0929 m².

a. Based upon net *occupiable floor area*.

b. Mechanical exhaust required and the recirculation of air from such spaces is prohibited. Recirculation of air that is contained completely within such spaces shall not be prohibited (see Section 403.2.1, Item 3).

c. Spaces unheated or maintained below 50°F are not covered by these requirements unless the occupancy is continuous.

d. Ventilation systems in enclosed parking garages shall comply with Section 404.

e. Rates are per water closet, **urinal or adult changing station**. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted only where the exhaust system is designed to operate continuously while occupied.

f. Rates are per room unless otherwise indicated. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted only where the exhaust system is designed to operate continuously while occupied.

g. Mechanical exhaust is required and recirculation from such spaces is prohibited. For occupancies other than science laboratories, where there is a wheel-type energy recovery ventilation (ERV) unit in the exhaust system design, the volume of air leaked from the exhaust airstream into the outdoor airstream within the ERV shall be less than 10 percent of the outdoor air volume. Recirculation of air that is contained completely within such spaces shall not be prohibited (see Section 403.2.1, Items 2 and 4).

h. For nail salons, each manicure and pedicure station shall be provided with a *source capture system* capable of exhausting not less than 50 cfm per station. Exhaust inlets shall be located in accordance with Section 502.20. Where one or more required source capture systems operate continuously during occupancy, the exhaust rate from such systems shall be permitted to be applied to the exhaust flow rate required by Table 403.3.1.1 for the nail salon.

i. Outpatient facilities to which the rates apply are freestanding birth centers, urgent care centers, neighborhood clinics and physicians' offices, Class 1 imaging facilities, outpatient psychiatric facilities, outpatient rehabilitation facilities, and outpatient dental facilities.

j. The requirements of this table provide for acceptable IAQ. The requirements of this table do not address the airborne transmission or airborne viruses, bacteria, and other infectious contagions.

- k. These rates are intended only for outpatient dental clinics where the amount of nitrous oxide is limited. They are not intended for dental operatories in institutional buildings where nitrous oxide is piped.
- l. The occupiable floor area in warehouses shall not include the floor area of self-storage units, floor areas under rack storage, or designated palletized storage floor areas.

Why the Change?

The ventilation-rate requirements are periodically revised to reflect changes in occupancy classifications, ventilation research, referenced standards, and evolving HVAC system design practices. They also clarify ventilation requirements for spaces not previously defined.

The goal is to establish minimum ventilation quantities that are appropriate for the use of each space.

Impact on Design Engineers

This is a **design calculation change**, not merely a terminology change.

Engineers should review:

1. the occupancy classification;
2. the applicable ventilation rate;
3. the occupant-based component;
4. the area-based component;
5. the system ventilation efficiency;
6. applicable exceptions; and
7. any interaction with other ventilation requirements.

The engineer should also document the ventilation calculation sufficiently so that the plan reviewer can determine how the required outdoor-air quantity was established.

Impact on Mechanical Contractors

Contractors should use the outdoor-air quantities shown on the approved plans. Any field change affecting outdoor-air quantity, balancing, or ventilation controls should be coordinated with the design professional.

Changes to Chapter 5 – Exhaust Systems

501.3.1 Location of Exhaust Outlets

2023 Requirement

Section 501.3.1 established minimum separation distances between exhaust outlets and elements such as property lines, operable openings, exterior walls, roofs, and outdoor-air intake openings. The required separation depended on the type of exhaust being discharged.

2026 Requirement

The text below in red did not change between the 2023 and 2026 version. The text in blue shows the changed terminology.

The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

• • •

3. For all *environmental air* exhaust: 3 feet (914 mm) from property lines; 3 feet (914 mm) from operable openings, except where the exhaust opening is located not less than 1 foot (305 mm) above the gravity air intake opening into buildings for all occupancies other than Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious. Separation is not required between intake air openings and living space *exhaust air* openings of an individual *dwelling unit* or *sleeping unit* where factory-built intake/exhaust combination termination fitting is used to separate the air streams in accordance with the fan manufacturer's instructions.

• • •

Why the Change?

Exhaust discharge requirements are intended to prevent contaminated, hazardous, objectionable, or moisture-laden air from creating a nuisance or being drawn back into the building. As exhaust-system configurations and building layouts become more complex, the code must clearly distinguish between the requirements applicable to different types of exhaust.

The underlying design principle remains important: **exhaust air must be discharged where it will not adversely affect the building, adjacent properties, occupants, or outdoor-air intakes.**

Impact on Design Engineers

This change relaxes the requirement for exhaust openings located near gravity air intakes. However, engineers should still carefully review exhaust-termination locations during design rather than treating them as a final coordination detail.

For each exhaust system, the engineer should evaluate:

- the type of air being exhausted;
- the applicable minimum separation distances;
- nearby operable doors and windows;
- outdoor-air intakes;
- property lines;
- roofs and building surfaces;

- the direction of discharge; and
- the possibility of exhaust air being re-entrained into the ventilation system.

This is particularly important on projects with multiple rooftop units, closely spaced exhaust outlets and outdoor-air intakes, or constrained urban sites.

Impact on Mechanical Contractors

Mechanical contractors should continue to install exhaust outlets at the locations and elevations shown on the approved plans and should verify required separations before final installation.

507.1.3 Type II Hood Exhaust

2023 Requirement

Where vented fuel-burning *appliances* are located in the same room or space as the hood, provisions shall be made to prevent the hood system from interfering with normal operation of the *appliance vents*.

The 2023 provision addressed the interaction between a hood exhaust system and **vented fuel-burning appliances located in the same room or space**. The requirement was to provide measures that prevented operation of the hood from interfering with the normal operation of the appliance vent.

2026 Requirement

Appliances equipped with draft hoods or atmospheric burners shall not be located in the same room or space containing a Type I or Type II hood except where the appliance is located in a sealed enclosure equipped with a self-closing device with combustion air obtained from the outdoors or from other spaces in the building in accordance with Chapter 7 or the *Florida Building Code, Fuel Gas*.

Why the Change?

The 2026 provision prescriptively addresses the potential interaction between cooking exhaust systems and atmospheric or draft-hood-equipped appliances. Rather than vaguely requiring the designer to provide measures that prevent the hood from interfering with the appliance vent, the 2026 code generally prohibits appliances equipped with draft hoods or atmospheric burners from being in the same room or space as either a Type I or Type II hood if they are not installed as described.

Impact on Design Engineers

This change can have a significant effect on mechanical design and equipment layout. Under the 2023 provision, a designer could locate a vented fuel-burning appliance in the same room as the hood provided that the hood system was designed so that it did not interfere with

normal appliance vent operation.

Under the 2026 provision, the designer has less flexibility in how to prevent interference. If the appliance has a draft hood or atmospheric burner, the engineer must either:

1. locate the appliance in a different room or space from the Type I or Type II hood; or
2. design a compliant sealed enclosure meeting the exception.

This should be considered during the early equipment layout stage. If the equipment type and therefore venting system is modified later in the process and therefore requires equipment to be moved, it could affect:

- gas piping;
- combustion-air provisions;
- exhaust ductwork;
- hood location;
- equipment clearances;
- room layouts; and
- coordination with architectural and electrical systems.

The engineer should also verify the appliance characteristics. The new provision specifically applies to appliances equipped with draft hoods or atmospheric burners; therefore, the type of combustion system is important in determining whether the restriction applies.

Impact on Mechanical Contractors

Mechanical contractors should not assume that an existing arrangement permitted under the 2023 code can be reproduced on a project governed by the 2026 code.

When installing a Type I or Type II hood in a room containing fuel-burning appliances, the contractor should verify whether the appliance is equipped with a draft hood or atmospheric burner.

If it is, the contractor should confirm that either:

- the appliance is located outside the room or space containing the hood; or
- the approved plans provide the required sealed enclosure and combustion-air arrangement.

A contractor should not create openings in, alter, or omit components of the sealed enclosure without coordination with the design professional. Similarly, relocating the appliance or hood in the field could change whether the installation complies with this provision.

Changes to Chapter 6 – Duct Systems

602.3 – Materials Within Plenums

Formerly Section 602.2.1

2023 Requirement

Except as required by Sections 602.2.1.1 through 602.2.1.7, materials within *plenums* shall be noncombustible or shall be *listed* and *labeled* as having a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E84 or UL 723.

Exceptions:

1. Rigid and flexible ducts and connectors shall conform to Section 603.
2. Duct coverings, linings, tape and connectors shall conform to Sections 603 and 604.
3. This section shall not apply to materials exposed within *plenums* in one- and two-family dwellings.
4. This section shall not apply to smoke detectors.
5. Combustible materials fully enclosed within one of the following:
 - 5.1. Continuous noncombustible raceways or enclosures.
 - 5.2. Approved gypsum board assemblies.
 - 5.3. Materials *listed* and *labeled* for installation within a *plenum*.
6. Materials in Group H, Division 5 fabrication areas and the areas above and below the fabrication area that share a common air recirculation path with the fabrication area.

Section 602.2.1 required materials within plenums to be noncombustible, or to be listed and labeled with a flame-spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E84 or UL 723.

The section included exceptions for ducts and connectors, duct coverings and linings, smoke detectors, certain enclosed combustible materials, and materials associated with Group H, Division 5 fabrication areas.

2026 Requirement

Materials within *plenums* shall be noncombustible or shall be in compliance with the applicable requirements in Sections 602.3.1 through 602.3.10.

Exception: This section shall not apply to the following:

1. Materials exposed within *plenums* in one- and two-family *dwellings*.
2. Combustible materials fully enclosed within one of the following:
 - 2.1. Continuous noncombustible raceways or enclosures.
 - 2.2. *Approved* gypsum board assemblies.
 - 2.3. Materials *listed* and *labeled* for installation within a *plenum* and *listed* for the application.
3. Materials in Group H, Division 5 fabrication areas and the areas above and below the fabrication area that share a common air recirculation path with the fabrication area.
4. PVC pipes and fittings for the removal of condensate in air handler closets used as

plenums in the dwelling units of R-2 and R-3 occupancies are acceptable when complying with all the following conditions:

- 4.1. Acceptance is limited to schedule 40 PVC pipe and fittings of 3/4 inch or 1 inch nominal diameter.
- 4.2. Acceptance is limited to a total pipe length of 48 inches (1219 mm) or less.
- 4.3. PVC pipes and fittings shall comply with ASTM standards referred to in Sections 1202.4 and 1202.5.

Section 602.3 retains the basic requirement that materials within plenums be noncombustible, but instead of establishing the flame-spread and smoke-developed index criteria directly in Section 602.3, it requires materials to comply with the applicable provisions of Sections 602.3.1 through 602.3.10.

The exceptions have also been reorganized. In addition, the 2026 code adds a new exception specifically permitting limited use of Schedule 40 PVC pipe and fittings for condensate removal in air-handler closets used as plenums in dwelling units of R-2 and R-3 occupancies.

The new PVC allowance is limited to:

- 3/4-inch or 1-inch nominal diameter Schedule 40 PVC;
- a total pipe length of 48 inches or less; and
- PVC pipe and fittings complying with the applicable ASTM standards referenced in Sections 1202.4 and 1202.5.

Why the Change?

The 2026 code reorganizes the plenum material requirements so that the specific requirements for different materials and applications are addressed in Sections 602.3.1 through 602.3.10 rather than relying on the general flame-spread and smoke-developed index requirements contained in the 2023 provision.

For mechanical designers, the most noticeable change is the new, limited allowance for PVC condensate piping. **PVC is not generally permitted within plenums simply because this exception was added.** Instead, the code identifies a specific residential application where PVC may be used and establishes limits on the pipe size and length.

This provides a clearly defined option for condensate drainage associated with air handlers located in plenum closets while maintaining restrictions on the amount and type of PVC permitted within the plenum.

Impact on Design Engineers

This change is particularly relevant to engineers designing residential HVAC systems where the air-handler closet itself functions as a plenum.

Under the 2026 code, the engineer may specify Schedule 40 PVC for condensate removal within an applicable air-handler closet, but only when all conditions of Exception 4 are satisfied.

The engineer should verify:

1. The space is an air-handler closet used as a plenum.
2. The dwelling unit is within an R-2 or R-3 occupancy.
3. The piping is Schedule 40 PVC.
4. The nominal pipe diameter is limited to 3/4 inch or 1 inch.
5. The total pipe length within the applicable plenum does not exceed 48 inches.
6. The pipe and fittings comply with the ASTM standards referenced by the code.

This means that the exception should not be interpreted as permission to route an unrestricted length of PVC condensate piping through a plenum.

For engineers, the change also means that the detailed requirements in Sections 602.3.1 through 602.3.10 should be reviewed when selecting materials that will be located within plenums. The material selection should be coordinated with the specific application rather than relying solely on the general flame-spread and smoke-developed index criteria found in the 2023 provision.

Impact on Mechanical Contractors

Mechanical contractors working on residential projects should recognize the limitations of the new PVC exception.

For an applicable air-handler closet plenum, a contractor may encounter 3/4-inch or 1-inch Schedule 40 PVC condensate piping that is permitted under the new exception. However, the contractor should verify that the installation complies with all three limitations on size, length, and applicable ASTM standards.

For example, the exception does not permit a contractor to substitute 1-inch PVC for a larger specified pipe simply because PVC is now permitted in the plenum. Nor does it permit an unlimited length of PVC condensate piping within the plenum.

Contractors should also be careful when field-routing condensate piping. A change in routing that increases the amount of PVC located within the plenum beyond the permitted 48-inch total length could cause the installation to fall outside the exception.

Changes to Chapter 11 – Refrigeration

1101.8 – Changing refrigerant

Formerly Change in refrigerant type

2023 Requirement

1101.8 Change in refrigerant type.

The type of refrigerant in refrigeration systems having a refrigerant circuit containing more than 220 pounds (99.8 kg) of Group A1 or 30 pounds (13.6 kg) of any other group refrigerant shall not be changed without prior notification to the code official and compliance with the applicable code provisions for the new refrigerant type.

2026 Requirement

1101.8 Changing refrigerant.

Changes of refrigerant in an existing system to a refrigerant with a different refrigerant designation shall only be allowed where in accordance with the following:

1. The owner or the owner's authorized agent shall be notified prior to making a change of refrigerant, and the change of refrigerant shall not be made where the owner objects to the change.
2. The change in refrigerant shall be in accordance with one of the following.
 - 2.1. Written instructions of the original equipment manufacturer.
 - 2.2. An evaluation of the system by a registered design professional or by an approved agency that validates safety and suitability of the replacement refrigerant.
 - 2.3. Approved by the code official.
3. Where the replacement refrigerant is classified into the same safety group, requirements that were applicable to the existing system shall continue to apply.
4. Where the replacement refrigerant is classified into a different safety group, the system shall comply with the requirements of this standard for a new installation, and the change of refrigerant shall require code official approval.

Why the Change?

The previous language focused mainly on larger systems and required only prior notification to the code official plus compliance with provisions for the new refrigerant. The 2026 update replaces that with a more structured, safety-oriented process that applies whenever the refrigerant designation changes.

Impact on Design Engineers

Professional engineers may be asked to evaluate system suitability, safety, and compliance for a new refrigerant when a change is proposed.

When the new refrigerant is in a *different* safety group, the system must meet new installations requirements. This often means reviewing or redesigning for charge limits, ventilation, leak detection/mitigation, materials compatibility, labeling, and other Chapter 11 / *ASHRAE 15* provisions.

Coordination with owners and manufacturers is emphasized, so design professionals will often help owners understand implications and options.

Overall, design engineers shift from occasional involvement (mainly larger systems) to a more central role in validating or designing refrigerant changes, especially during the A2L transition.

Impact on Mechanical Contractors

Since mandatory owner notification and consent is required, contractors cannot proceed if the owner objects. This adds a communication and documentation step before any refrigerant swap.

Compliance must follow one of three paths: OEM written instructions, evaluation by a registered design professional or approved agency, or direct code-official approval. Just dropping in a different refrigerant is no longer acceptable without one of these.

Changes to Chapter 15 – Referenced Standards

In general, the approved versions of the referenced standards have been updated. Pay particular attention to the following ASHRAE changes.

15—2022	Safety Standard for Refrigeration Systems including all addenda published until July 31, 2024 1101.6, 1105.8, 1108.1
34—2022	Designation Classification of Refrigerants 202, 1102.2.1, 1103.1
62.1—2022	Ventilation for Acceptable Indoor Air Quality 403.3.1.1.2.3.2
170—2021	Ventilation of Health Care Facilities 407

Also review the changes to the NFPA versions. See below.

2—23	Hydrogen Technologies Code 502.16.1
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30A—24	Code for Motor Fuel-dispensing Facilities and Repair Garages 304.6
37—21	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines 915.1, 915.2
58—24	Liquefied Petroleum Gas Code 502.9.10
70—23	National Electrical Code (NEC) as published September 1, 2022 301.10, 306.3.1, 306.4.1, 306.5.2, 511.1.1, 513.12.2, 602.2.1.1, 927.2, 1104.2.2, 1106.3, 1106.4
72—22	National Fire Alarm and Signaling Code 606.3
80—22	Standard for Fire Doors and Other Opening Protectives 607.4.1.2
85—23	Boiler and Combustion Systems Hazards Code 1004.1
90A—24	Standard for the Installation of Air- Conditioning and Ventilating Systems 606.2.1
92—21	Standard for Smoke Control Systems 513.7, 513.8
96—24	Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations 507.1
99—24	Health Care Facilities Code 407.1
105—22	Standard for Smoke Door Assemblies and Other Opening Protectives

211—24	607.4.1.2 Standard for Chimneys, Fireplaces, Vents and Solid Fuel-burning Appliances 806.1
262—23	Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-handling Spaces 602.2.1.1
286—24	Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth 602.2.1.6
704—22	Standard System for Identification of the Hazards of Materials for Emergency Response 502.8.4, Table 1103.1, 510.1

References to codes in plans and specifications need to be consistent with the current Building Code.

Conclusion

While the objective of this course was to review the significant code changes in the 9th Edition (2026) update to the *Florida Building Code, Mechanical* as compared to the 8th Edition 2023 *Florida Building Code, Mechanical*, it does not include all changes. Reference the current code and the current referenced standards in implementing the code.

Portions of this course were developed with the assistance of OpenAI's ChatGPT (GPT-5.5) and Grok (xAI), which was used to help organize code changes, compare code editions, improve readability, and draft explanatory text.

References

International Code Council, Inc. (2023). *2023 FLORIDA BUILDING CODE, MECHANICAL, EIGHTH EDITION | ICC DIGITAL CODES*. Iccsafe.org. <https://codes.iccsafe.org/content/FLMC2023P1>

International Code Council (ICC). (2026). *2026 Florida Building Code, Mechanical 9th Edition*. Iccsafe.Org. <https://codes.iccsafe.org/content/FLMC2026V1.0>

2026 Advanced Building Code – Mechanical Significant Code Changes - Internet - Quiz

Updated: 9/14/2026

- 1. When will/did the 9th Edition of the Florida Building Code become effective?**
 - a. January 1, 2026
 - b. June 1, 2026
 - c. December 31, 2026
 - d. December 31, 2027
- 2. Which of the following were newly defined in the 9th Edition?**
 - a. Air Conditioning
 - b. Boiler
 - c. Ambulatory Care Facility
 - d. Bathroom
- 3. True or False? Refrigerant Safety Group Classification indicates both the toxicity and flammability classifications of refrigerants.**
 - a. True
 - b. False
- 4. How far above the roof edge or parapet should a side railing on a ladder extend, at a minimum?**
 - a. 16 inches
 - b. 18 inches
 - c. 30 inches
 - d. 36 inches
 - e. 42 inches
- 5. What minimum insulation is required for condensate piping in an unconditioned space?**
 - a. No insulation is required.
 - b. R-1
 - c. R-3
 - d. R-5
- 6. What is the minimum ventilation rate required for an animal operating room?**
 - a. 30 air changes per hour
 - b. 7.5 cfm/person and .06 cfm/sqft.
 - c. 10 cfm/person and 0.18 cfm/sqft.
 - d. None of the above

- 7. True or False? Telephone closets require 2 air changes per hour of ventilation air.**
- a. True
 - b. False
- 8. For environmental air exhaust, what is the minimum distance above a gravity air intake opening that the exhaust opening may be?**
- a. 1 foot
 - b. 2 feet
 - c. 3 feet
 - d. 6 feet
- 9. True or False? Appliances with atmospheric burners may be installed in the same room with a Type II hood under all circumstances.**
- a. True
 - b. False
- 10. Refrigerant changes require notification to the owner.**
- a. True
 - b. False
- 11. Which version of ASHRAE Standard 62.1 is referenced in the 9th edition of the Florida Building Code - Mechanical?**
- a. 2015
 - b. 2020
 - c. 2022
 - d. 2025