

Analysis of Changes for the 6th Edition (2017) Florida Codes

Changes to the Florida Building Code, Mechanical

This *Analysis of Changes for the 6th Edition (2017) of the Florida Codes* is intended to provide a comprehensive comparison of the provisions in the *5th Edition (2014) Florida Building Code, Mechanical (FBCFM)* and the *6th Edition (2017) Florida Building Code, Mechanical*. The *2012 International Mechanical Code* was the base code for the *5th Edition (2014) FBCM*. The *2015 International Mechanical Code* is the base code for the *6th Edition (2017) FBCM*. As a result of changing the base code and Florida-specific amendments, certain provisions and criteria of the code have changed. This *Analysis* will serve a useful tool to facilitate the transition to the new code.

This *Analysis* is arranged so that comparable provisions in the two codes can be easily located. The left two columns contain section numbers and a brief overview of the corresponding requirements from the *5th Edition (2014) FBCM*. The next two columns contain section numbers and a brief overview of the corresponding requirements in the *6th Edition (2017) FBCM*. The far right column contains a brief analysis or comment on the differences between the provisions.

This *Analysis* is not intended to replace or interpret the provisions contained in either the *5th Edition (2014)* or the *6th Edition (2017) FBCM*. This information simply points out the differences. The *Analysis* is not designed to be used without the aid of the representative code books, as all the details pertaining to a specific section may or may not be provided. However, this *Analysis* will provide an easy means for identifying differences in the two codes, as well as enabling the user to locate issue specific provisions in the *6th Edition (2017) FBCM* by means of a numbered section cross reference.

This *Analysis* provides a cross-reference for the majority of the sections that changed in the *6th Edition (2017) FBCM*. In some cases, sections were grouped together due to substantial differences. This grouping enables the extent of the differences to be more readily identified.

Notable changes deemed to be the most significant or to have the greatest impact have been highlighted in **yellow**.

Note: Seismic loading and snow loading provisions in the code are no longer reserved (deleted) in the *6th Edition (2017) FBCM*, even though they do not apply in the State of Florida. While there are changes to some of these sections and provisions, they are not shown here in this *Analysis* because they do not apply to construction in the State of Florida.

5 th Edition (2014) FBCM		6 th Edition (2017) FBCM		Analysis
Section	Requirement	Section	Requirement	
Chapter 2: Definitions				
202	Definitions: Air, Makeup	202	Definitions: Air, Makeup	Definition revised to clarify the origin and composition of makeup air for consistency with ASHRAE 62.1
-	-	202	Definitions: Air, Outdoor	New definition of outdoor air added for consistency with the use of the term in ASHRAE 62.1.
-	-	202	Definitions: Air, Transfer	New definition of transfer air added for consistency with the use of the term in ASHRAE 62.1. Defined as air moved from one indoor space to another.
202	Definitions: Conditioned Space	202	Definitions: Conditioned Space	Definition revised for consistency with ASHRAE 62.1 and the FBCEC. New language clarifies that a conditioned space is within the building thermal envelope and also provides conditions for spaces that are indirectly heated or cooled.
-	-	202	Definitions: Discrete Products	New definition describing products that are non-continuous, individual, distinct pieces such as, but not limited to, electrical, plumbing and mechanical products and duct straps, duct fittings, duct registers, and pipe hangers.
-	-	202	Definitions: Ductless Mini-split System	New definition of ductless mini-split systems added to the code.
-	-	202	Definitions: Exfiltration	New definition added describing exfiltration as the uncontrolled outward leakage of air from conditioned spaces.
202	Definitions: Extra-Heavy-Duty Cooking Appliance	202	Definitions: Extra-Heavy-Duty Cooking Appliance	Definition revised to clarify that such appliances are those that use open flame combustion of solid fuel at any time.
202	Definitions: Flammability Classification	202	Definitions: Flammability Classification	Definition revised for consistency with ASHRAE 34 and ASHRAE 15.
-	-	202	Definitions: Flexible Air Connector	New definition of flexible air connector added to distinguish from flexible ducts.
202	Definitions: Heavy-Duty Cooking Appliance	202	Definitions: Heavy-Duty Cooking Appliance	Definition revised to include smokers and smoker ovens within this category of

				appliance.
-	-	202	Definitions: Infiltration	New definition added describing infiltration as the uncontrolled inward leakage of air from conditioned spaces.
202	Definitions: Mechanical Joint	202	Definitions: Mechanical Joint	Definition revised to add heat fusion as a type of mechanical joint.
-	-	202	Definitions: Occupational Exposure Limit (OEL)	New definition added for occupational exposure limit as this term is used to determine the toxicity classification of a refrigerant.
202	Definitions: Toxicity Classification	202	Definitions: Toxicity Classification	Definition revised for clarity.
Chapter 3: General Regulations				
301.16.1	Coastal high-hazard areas	301.16.1	Coastal high-hazard areas and coastal A zones	Adds coastal A zones to this section which prohibits mechanical systems and equipment from being mounted on or penetrate break-away walls.
303.3	Prohibited locations	303.3	Prohibited locations	Revises Exception 2 to remove the terms confined space and unusually tight construction as they are no longer valid terms within the codes.
303.5	Indoor locations	303.5	Indoor locations	Section revised for consistency with the FBCFG. The volume rules for 12 times and 16 times the appliance volume, along with the concept of "rooms large in comparison with the appliance" were deleted from the FBCFG.
304.11	Guards	304.11	Guards	Section revised to address expanding list of equipment, assemblies, systems, devices and items that are now commonly being placed on roof tops and elevated walking surfaces that require routine maintenance. A new exception to providing guards has been added where permanent fall arrest/restraint anchorage connector devices complying with ANSI/ASSE Z 359.1 are installed for use during the entire lifetime of the roof covering.
305.4	Interval of support	305.4	Interval of support	Section revised to permit piping to be supported in accordance with ANSI/MSS

				SP-58.
Table 305.4	Piping Support Spacing	Table 305.4	Piping Support Spacing	Table revised to add support dimensions for polyethylene of raised temperature (PE-RT).
306.1	Access	306.1	Access	Section revised to include controls devices, heat exchangers and HVAC system components that utilize energy as equipment requiring access for inspection, service, repair and replacement.
307.2	Evaporators and cooling coils	307.2	Evaporators and cooling coils	New exception added to address chilled beam technology.
307.2.2	Drain pipe materials and sizes	307.2.2	Drain pipe materials and sizes	Deletes polybutylene and adds polypropylene as acceptable components of the condensate disposal system.
-	-	307.2.4.1	Ductless mini-split system traps	New section requiring ductless mini-split systems that produce condensate to be provided with an inline check valve in the drain line or a trap.
307.2.5	Pipe insulation	-	-	Section deleted.
-	-	307.2.5	Drain line maintenance	New section requiring condensate drain lines to be configured to permit clearing of blockages and performance of maintenance without requiring the drain line to be cut.
-	-	307.3	Condensate pumps	New section requiring appliances and equipment to be prevented from operating when the condensate pump fails.
Chapter 4: Ventilation				
401.2	Ventilation required	401.2	Ventilation required	New language requires ambulatory care facilities and Group I-2 occupancies to be ventilated by mechanical means in accordance with new Section 407.
403.1	Ventilation system	403.1	Ventilation system	Revised to permit mechanical ventilation air requirements for Group R-2, R-3, and R-4 occupancies three stories or less in height above grade plane to be provided by an exhaust system, supply system, or combination thereof.
403.2	Outdoor air required	403.2	Outdoor air required	Section revised and new provisions added to align the mechanical ventilation requirements for R-2, R-3, and R-4 buildings of three stories or less above grade plane
403.2.1	Recirculation of air	403.2.1	Recirculation of air	
-	-	403.3	Outdoor air and local exhaust airflow rates	

-	-	403.3.1	Other buildings intended to be occupied	with the latest requirements of ASHRAE 62.2, while retaining common elements with the FBCR mechanical ventilation requirements in Section M1507. Such buildings more closely match the scope of ASHRAE 62.2 than ASHRAE 62.1.
-	-	403.3.2	Group R-2, R-3 and R-4 occupancies, three stories and less	
-	-	403.3.2.1	Outdoor air for dwelling units	
-	-	403.3.2.2	Outdoor air for other spaces	
-	-	403.3.2.3	Local exhaust	
-	-	Table 403.3.2.3	Minimum Required Local Exhaust Rates for Groups R-2, R-3 and R-4 Occupancies	
403.4	Exhaust ventilation	403.3.1.2	Exhaust ventilation	New language added requiring that outdoor air introduced into a space by exhaust system is to be considered as contributing to the outdoor air flow required by Table 403.3.1.1
Table 403.3	Minimum Ventilation Rates	Table 403.3.1.1	Minimum Ventilation Rates	Ventilation rates for hospitals, nursing and convalescent homes have been deleted deferring to new Section 407. Entries for separate garages for each dwelling unit have been deleted since one- and two-family dwellings are exempt from mechanical ventilation of garages. Notes b and g have been revised to permit recirculation of air that is contained completely within spaces identified in Table 403.3. Note h has been revised to provide additional guidance and clarity for nail salons.
Table 403.3.1.2	Zone Air Distribution Effectiveness	Table 403.3.1.1.1.2	Zone Air Distribution Effectiveness	Definition of makeup air in Note e has been deleted as it is inconsistent with the definition in ASHRAE 62.1.
404.1	Enclosed parking garages	404.1	Enclosed parking garages	Intermittent operation of enclosed parking garage ventilation systems using approved motion detectors is no longer permitted.
-	-	407	Ambulatory Care Facilities and Group I-2 Occupancies	New section requiring mechanical ventilation for ambulatory care facilities and Group I-2 occupancies to be in accordance with this code and ASHRAE 170.
Chapter 5: Exhaust Systems				
501.3	Exhaust discharge	501.3	Exhaust discharge	New exception added for listed and labeled

				domestic ductless range hoods from discharging air to the outdoors. Subjective and unenforceable language has been removed.
501.3.1.1	Exhaust discharge	-	-	Section deleted and the language prohibiting air from being exhausted on walkways has been relocated to Section 501.3.
501.4	Pressure equalization	501.4	Pressure equalization	Language prohibiting the use of the calculated building infiltration rate to satisfy the requirements of this section has been deleted.
502.14	Motor vehicle operation	502.14	Motor vehicle operation	New language requires source capture systems to be engineered by a registered design professional or be factory-built equipment designed and sized for the purpose.
-	-	502.20	Manicure and pedicure stations	New section applicable to exhaust systems for manicure and pedicure stations.
⋮	⋮	504.5	Dryer exhaust duct power ventilators	New section requiring domestic dryer exhaust duct power ventilators to be listed and labeled to UL 705.
504.6.2	Duct installation	504.8.2	Duct installation	New language permits ducts to be joined with screws or similar fasteners provide they protrude no more than 1/8-inch into the inside of the duct.
504.6.5	Length identification	504.8.5	Length identification	Section revised to require identification of the exhaust duct equivalent length where the equivalent length exceeds 35 feet.
504.6.7	Protection required	504.7	Protection required	Section renumbered and relocated so the protection requirements apply to commercial installations as well as domestic installations.
⋮	⋮	504.8.4.3	Dryer exhaust duct power ventilator length	New section limiting the length of dryer exhaust duct power ventilator in accordance with the manufacturer's installation instructions.
505.1	Domestic systems	505.1	Domestic systems	Revised to require domestic hoods and appliances equipped with downdraft exhaust to discharge to the outdoors where such

				hoods and appliances are provided not just in dwelling units. Exception has been revised to apply to all occupancies except Groups I-1 and I-2.
-	-	505.3	Common exhaust systems for domestic kitchens located in multistory structures	New section provided specific criteria for common multistory duct systems designed and installed to convey exhaust from multiple domestic kitchen exhaust systems.
-	-	505.4	Other than Group R	New section mandating that where domestic cooking appliances are utilized for domestic purposes in occupancies other than Group R, such appliances are to be provided with domestic range hoods.
506.3.7.1	Grease reservoirs	506.3.7.1	Grease duct reservoirs	Grease reservoirs changed to grease "duct" reservoirs. Criteria revised for clarity.
506.3.8	Grease duct cleanouts and openings	506.3.8	Grease duct cleanouts and openings	Requires sections of grease ducts that are inaccessible from the hood or discharge openings to be provided with cleanout openings spaced not more than 20 feet apart and not more than 10 feet from changes in direction greater than 45 degrees.
506.3.11	Grease duct enclosures	506.3.11	Grease duct enclosures	New language requires in-line fans located inside the building to be enclosed as required for the grease duct. Section revised to specifically prohibit the use of fire and smoke dampers in grease ducts.
506.3.11.1	Shaft enclosure	506.3.11.1	Shaft enclosure	Sections revised to combine common requirements in the first section, clearly delineate which requirements apply to each of the three construction options and to clarify the wording to accurately reflect how these products are tested, listed and labeled.
506.3.11.2	Field-applied grease duct enclosure	506.3.11.2	Field-applied grease duct enclosure	
506.3.11.3	Factory-built grease duct enclosure assemblies	506.3.11.3	Factory-built grease duct enclosure assemblies	
-	-	506.5.1.2	In-line fan location	New section specifying how and where an in-line fan is to be located when it's connected to enclosed duct system.
506.5.3	Exhaust fan mounting	506.5.3	Exhaust fan mounting	Section revised to clarify that Type II hoods do not require hinges.
507.1	General (commercial kitchen	507.1	General (commercial kitchen hoods)	All of Section 507 has been reorganized and

	hoods)			regrouped to improve clarity. Revised to clarify that the exhaust fan interlock is to prevent appliance operation when the exhaust fan is not on instead of preventing operation of the exhaust fan when appliance is not on. New language has been added that if a Type I hood is installed, even where the code requires only a Type II hood, that they should be installed in accordance with all of the materials and requirements that are required for a Type I hood installation.
507.2	Where required	-	-	Relocated to Section 507.1. All of Section 507 has been reorganized and regrouped to improve clarity.
507.2.1	Type I hoods	507.2	Type I hoods	All of Section 507 has been reorganized and regrouped to improve clarity. Requirement that Type I hoods be installed over light-duty cooking appliances that produce grease or Smoke has been deleted.
507.2.1.1	Operation	507.1.1	Operation	Revised to clarify that the exhaust fan interlock is to prevent appliance operation when the exhaust fan is not on instead of preventing operation of the exhaust fan when appliance is not on.
-	-	507.1.1.1	Multiple hoods utilizing a single exhaust system	New section requiring where heat or radiant energy sensors are used in hood systems consisting of multiple hoods served by a single exhaust system, such sensors have to be provided in each hood.
507.2.3	Domestic cooking appliances used for commercial purposes	507.1.2	Domestic cooking appliances used for commercial purposes	New language added clarifying that domestic cooking appliances used for domestic purposes are to comply with Section 505.
507.11.1	Criteria	507.2.8.1	Criteria	Section revised to address grease filters that are not to be cleaned, but are to be disposed of when loaded with grease, and replaced with new filters.
-	-	508.1.2	Air balance	New section requiring design plans for a facility with a commercial kitchen ventilation system to include a schedule or diagram

				indicating the design outdoor air balance.
510.4	Independent systems	510.4	Independent systems	Provisions relocated to new Section 510.5 for clarity.
-	-	510.5	Incompatible materials and common shafts.	New section created from Section 510.4 to improve clarity. New exception added for hazardous exhaust ductwork originating in different fire areas and manifolded together. Exception 7 has been revised to clarify that redundant exhaust fans are required in each hazardous exhaust duct system.
-	-	510.7.1.1	Shaft penetrations	New section addressing hazardous exhaust ducts penetrating fire-resistance-rated shafts.
510.8	Duct construction	510.9	Duct construction	Section editorially reorganized.
513	Smoke control systems	513	Smoke control systems	Section 513 has been revised for consistency with changes to Section 909 in the FBCB. See changes to Section 909 in the Analysis of Changes for the 6 th Edition (2017) FBCB.
514.2	Prohibited applications (energy recovery ventilation systems)	514.2	Prohibited applications (energy recovery ventilation systems)	New exception added that exempts ERV equipment that recovers sensible heat only utilizing coil-type and fixed- plate heat exchangers from the requirements of this section.
Chapter 6: Duct Systems				
-	-	601.5	Return air openings	New section relocated from Section 918.6. Section reorganized for clarity and outdated language has been deleted.
602.1	General (plenums)	602.1	General (plenums)	Section revised to clarify that air systems have to be ducted from the boundary of the fire area served directly to the air handling equipment.
602.2	Construction (plenums)	602.2	Construction (plenums)	Section revised to require that plenum enclosure construction exposed to the airflow has to comply with the noncombustibility tests of Section 703.5 in the FBCB.
-	-	602.2.1.5	Discrete plumbing and mechanical products in plenums	New section requiring discrete electrical, plumbing and mechanical products and appurtenances that are located in a plenum

				and have exposed combustible material, are to be listed and labeled for such use in accordance with UL 2043.
-	-	602.2.1.7	Plastic plumbing pipe and tube	New section requiring a minimum flame spread index and smoke-developed rating for plastic piping and tubing.
603.1.1	Space provided	-	-	Section deleted.
603.2	Duct sizing	603.2	Duct sizing	Revised to permit ducts to be sized in accordance with the appliance manufacturer's installation instructions.
Table 603.4	Duct Construction Minimum Sheet Metal Thickness for Single Dwelling Units	Table 603.4	Duct Construction Minimum Sheet Metal Thickness for Single Dwelling Units	Table has been revised to recognize 30 gauge sheet metal as being appropriate for round ducts 14 inches or less diameter in single dwelling units. Consistent with the 2007 FBCM.
-	-	603.4.2	Duct lap	New section addressing minimum lapping requirements for ducts.
603.7	Rigid duct penetrations	603.7	Rigid duct penetrations	Section revised to permit the use of rigid foil-faced fiberglass for ducts in a private garage that penetrate a wall or ceiling that separates a dwelling from a private garage.
603.9	Joints, seams and connections	603.9	Joints, seams and connections	Section revised to clarify that "closure systems" are tapes and mastic. The exception has been revised to state that snap-lock and button-lock do not qualify for the exception to additional closure systems.
603.10	Supports	603.10	Supports	Section revised to delete the maximum 12 foot interval for duct support.
605.1	General (air filters)	605.1	General (air filters)	Section revised to require filters for outdoor air and makeup air in addition to return air.
606.2	Where required (smoke detection systems control)	606.2	Where required (smoke detection systems control)	Exception has been deleted.
606.2.1	Return air systems	606.2.1	Recirculation of dangerous quantities of smoke	New section requiring a smoke detector to be installed on the supply side of the air-handling systems. Exception revised to apply to smoke detectors in the supply side instead of the return air side.
606.2.2	Common supply and return air systems	606.2.2	Common supply systems	Section revised to apply only to supply air systems.
606.3	Installation	606.3	Installation	New language added stating that smoke

				detectors are not required for fan units whose sole function is to remove air from the inside of the building to the outside of the building.
606.4.1	Supervision	606.4.1	Supervision	New language added requiring that facilities that are required to be monitored by a supervising station, duct smoke detectors only have to report a supervisory signal, not as a fire alarm.
-	-	607.1.1	Ducts between shafts	New section clarifying that a shaft enclosure is not required for ducts transitioning horizontally between shafts provided that the duct penetration into each associated shaft is protected with dampers complying with this section.
607.3.1	Damper testing	607.3.1	Damper testing	Revised to permit the use of ceiling radiation dampers labeled for use in dynamic systems in heating, ventilating and air-conditioned systems designed to operate with fans on during a fire. New specifications added for corridor dampers.
-	-	607.3.2.4	Corridor damper ratings	New section specifying minimum ratings for corridor dampers
607.3.3.2	Smoke damper actuation	607.3.3.2	Smoke damper actuation	Section revised and updated.
607.5	Where required	607.5	Where required	Section revised to add ceiling radiation and corridor dampers to the scope of this section.
607.5.4	Corridors/smoke barriers	607.5.4	Corridors/smoke barriers	New language added requiring the use of corridor dampers and ceiling radiation dampers for the specified conditions. New exception to required smoke dampers is added for smoke barriers in Group I-2 Condition 2.
607.5.4.1	Smoke damper	607.5.4.1	Smoke damper	Section revised by deleting redundant text and simply referring to Section 607.3.3.2 for smoke damper actuation.
607.6.2.1	Ceiling radiation dampers	607.6.2.1	Ceiling radiation dampers	New language adds an additional condition (duct and air transfer openings protected with a duct outlet protection system tested as part of a fire-resistance-rated assembly)

				for which ceiling radiation dampers are not required.
607.6.3	Nonfire-resistance-rated floor assemblies	607.6.3	Nonfire-resistance-rated floor assemblies	Section revised to clarify that Method 3 is applicable only to noncombustible floor assemblies.
Chapter 7: Combustion air				
-	-	701.2	Dampened openings	New section added requiring combustion air openings provided with dampers to be interlocked with the firing cycle of the appliance served. Manual dampers are not permitted to be installed in combustion air ducts. Ducts without dampers that pass through rated construction are required to be enclosed within a shaft.
Chapter 8: Chimneys and vents				
-	-	802.9	Door swing	New section limiting the location of vent terminals to locations such that doors cannot swing within 12 inches horizontally of the vent terminals. Door stops and closures are not permitted to be used to obtain this clearance.
Chapter 9: Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment				
901.4	Fireplace accessories	902.2	Fireplace accessories	Section relocated to Section 902.2
-	-	903.4	Gasketed fireplace doors	New section prohibiting the use of gasketed fireplace doors on factory-built fireplaces unless the fireplace system has been specifically tested, listed and labeled for such use in accordance with UL 127
908.5	Water supply	908.5	Water supply	Section revised to clarify that if that if the quality of water can be achieved then alternate sources shall be permitted.
-	-	908.8	Cooling towers	New provisions have been added for open circuit and closed circuit type cooling towers.
		908.8.1	Conductivity or flow-based control of cycles of concentration	
		908.8.2	Drift eliminators	
917.2	Prohibited location (cooking appliances)	-	-	Section deleted.
918.2	Minimum duct size (forced-air warm-air furnaces)	-	-	Section deleted.

918.3	Heat pumps	918.2	Heat pumps	Section revised by deleting outdated language that is inconsistent with current practices.
918.6	Prohibited locations	601.5	Return air openings	Relocated to Section 601.5. Section reorganized for clarity and outdated language has been deleted.
-	-	918.6	Outdoor and return air openings	New section referencing 401.4 for outdoor intake openings and Section 601.5 for return air openings.
918.8	Return air limitation	-	-	Section deleted and incorporated into new Section 601.5.
923.1	General (small ceramic kilns)	923.1	General (small ceramic kilns)	Scope of section revised to remove the limit of a maximum interior volume of 20 cubic feet for kilns.
928.1	General (evaporative cooling equipment)	928.1	General (evaporative cooling equipment)	Section revised to clarify that if that if the quality of water can be achieved then alternate sources shall be permitted.
Chapter 10: Boilers, Water Heaters and Pressure Vessels				
1003.1	General (pressure vessels)	1003.1	General (pressure vessels)	Section updated for consistency with ASME Boiler and Pressure Vessel Code.
1003.3	Welding	1003.3	Welding	Section revised to require welding on pressure vessels to be performed by an R-Stamp holder in accordance with the <i>National Board Inspection Code, Part 3</i> or in accordance with an <i>approved</i> standard.
1004.1	Standards (boilers)	1004.1	Standards (boilers)	Standards for boilers have been updated.
1007.1	General (boiler low-water cutoff)	1007.1	General (boiler low-water cutoff)	New exception to the low-water cutoff control for coil-type and water-tube-type boilers that require forced circulation of water through the boiler and that are protected with a flow sensing control.
1007.2	Operation	1007.2	Operation	Revised to require the low-water cutoff controls and flow sensing controls to automatically stop the combustion operation when water circulation stops.
1008.1	General (bottom blowoff valve)	1008.1	General (bottom blowoff valve)	Section revised to clarify the valve type. Also revised to require tow bottom blowoff valves where the maximum allowable working pressure of the boiler exceeds 100 psig.

1009.2	Closed-type expansion tanks	1009.2	Closed-type expansion tanks	Section revised for consistency with <i>ASME Boiler & Pressure Vessel Codes</i> .
-	-	Table 1009.2	Closed-type Expansion Tank Sizing	New table added from the ASME Boiler & Pressure Vessel Codes providing minimum tank sizes where all the necessary information is not known.
1011.1	Tests	1011.1	Tests	Section revised for consistency with <i>ASME Boiler & Pressure Vessel Codes</i> .
Chapter 11: Refrigeration				
1101.10	Locking access port caps	1101.10	Locking access port caps	New exception added for refrigerant circuit access ports on equipment installed in controlled areas such as on roof tops with locked and alarmed access hatches or doors.
-	-	1102.3	Access port protection	New section added addressing securing refrigerant access ports whenever intrusive access to the refrigeration or air conditioning units are necessary for adding or recovering refrigerant.
Table 1103.1	Refrigerant Classification, Amount and OEL	Table 1103.1	Refrigerant Classification, Amount and OEL	R-407F, R-417B, R-439A, R-440A, R-441A, R-442A, R-511A, R-512A, and R-1234ze(E) refrigerant classifications added to the table.
1104.1	General (system application requirements)	1104.1	General (system application requirements)	Language pertaining to refrigerant blends with dual classifications is being deleted since the industry no longer assigns dual classifications to refrigerant blends has been deleted.
1105.9	Emergency pressure control system	1105.9	Emergency pressure control system	Section revised to only apply to permanently installed refrigeration systems.
1106.3	Ammonia room ventilation	1106.3	Ammonia room ventilation	Editorial and section reference correction.
1106.5.2	Ventilation system	1106.5.2	Ventilation system	Section revised to permit the use of an approved tamper-resistant cover for the on-only control of the machinery room ventilation fans.
1107.1	General (refrigerant piping)	1107.1	General (refrigerant piping)	Section revised to require the design of refrigerant piping to be in accordance with ASME B31.5.
Chapter 12: Hydronic Piping				
Table 1202.4	Hydronic Pipe	Table 1202.4	Hydronic Pipe	Polyethylene (PE) pipe, tubing and fittings (for ground source heat pump loop systems)

				have been removed from Table 1202.4 and relocated to new Section 1210 and Table 1210.4. Polybutylene (PB) plastic pipe and tubing complying with ASTM D3309 has been deleted. Brass pipe and tubing applicable standards have been relocated to the copper-alloy material.
Table 1202.5	Hydronic Pipe Fittings	Table 1202.5	Hydronic Pipe Fittings	New standards have been added to reflect the materials currently being used for hydronic systems in the industry. Brass pipe and tubing applicable standards have been relocated to the copper-alloy material.
1203.15	Polyethylene plastic pipe and tubing for ground source heat pump loop systems	-	-	Section deleted and provisions relocated to new Section 1210.
1203.15.1	Heat-fusion joints	-	-	Section deleted and provisions relocated to new Section 1210.
1203.15.2	Electrofusion joints	-	-	Section deleted and provisions relocated to new Section 1210.
1203.15.3	Stab-type insert fittings	-	-	Section deleted and provisions relocated to new Section 1210.
1208.1.1	Ground source heat pump loop systems	-	-	Section deleted and provisions relocated to new Section 1210.
1209.3.2	Copper tubing joints	1209.3.2	Copper tubing joints	Section revised to refer to Section 1203.3.1 for copper tubing.
-	-	1209.3.4	Polyethylene of raised temperature (PE-RT)	New section requiring PE-RT to be installed in continuous lengths or to be joined with applicable fittings listed in Table 1202.5
-	-	1210	Plastic pipe ground-source heat pump loop systems	New section providing criteria for plastic pipe ground-source heat pump loop systems.
Chapter 13: Fuel Oil Piping and Storage				
Table 1302.3	Fuel Oil Piping	Table 1302.3	Fuel Oil Piping	Brass pipe and tubing applicable standards have been relocated to the copper-alloy material. ASME B16.51 has been added to the table for copper and copper-alloy pipe.
1303.3.2	Mechanical joints	1303.3.2	Mechanical joints	Section revised to require press connect joints to conform to one of the standards listed in Table 1302.3.
1303.7	Copper or copper-alloy tubing	1303.7	Copper or copper-alloy tubing	Section revised to permit the use of press

				connect joints to conform to one of the standards listed in Table 1302.3 for joints between copper or copper-alloy tubing or fittings.
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