

Analysis of Changes for the 5th Edition (2014) of the Florida Codes

Changes to the Florida Building Code, Mechanical

This *Analysis of Changes for the 5th Edition (2014) of the Florida Codes* is intended to provide a comprehensive comparison of the provisions in the 2010 *Florida Building Code, Mechanical* (FBCFM) and the 5th Edition (2014) of the *Florida Building Code, Mechanical*. The 2009 *International Mechanical Code* was the base code for the 2010 FBCM. The 2012 *International Mechanical Code* is the base code for the 5th Edition (2014) of the 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 2010 FBCM. The next two columns contain section numbers and a brief overview of the corresponding requirements in the 5th Edition (2014) of the 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 2010 FBCM or the 5th Edition (2014) of the 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 5th Edition (2014) of the 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 5th Edition (2014) of the 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 5th Edition (2014) of the FBCM, even though they do not apply in the State of Florida. While they are technically new sections and provisions to the Florida Codes, they are not shown here in this *Analysis* because they do not apply to construction in the State of Florida.

2010 FBCM		5 th Edition of the FBCM		
Section	Requirement	Section	Requirement	Analysis
Chapter 2 Definitions				
202	Definitions: Addition	-	-	Definition deleted.
202	Definitions: Air barrier	-	-	Definition deleted.
202	Definitions: Air-handling unit	202	Definitions: Air-handling Unit	Definition revised to be more general.
202	Definitions: Air porosity	-	-	Definition deleted.
202	Definitions: Attic	-	-	Definition deleted.
202	Definitions: Building	202	Definitions: Building	Definitions revised to simply state any structure occupied or intended for supporting or sheltering any occupancy.
202	Definitions: Clothes dryer	202	Definitions: Clothes dryer	Definition revised to delete descriptions of Type I and Type II clothes dryers as they are only applicable to gas-fired clothes dryers.
202	Definitions: Conditioned space	202	Definitions: Conditioned space	Definition revised to simply state an area, room or space being heated or cooled by any equipment or appliance.
202	Definitions: Design flood elevation	202	Definitions: Design flood elevation	Definition revised to include additional criteria for Zones AO.
202	Definitions: Drawband	-	-	Definition deleted.
202	Definitions: Duct Fitting	-	-	Definition deleted.
202	Definitions: Enclosed support platform	-	-	Definition deleted.
202	Definitions: Environmental air	202	Definitions: Environmental air	Definition revised to include parking garage exhaust as environmental air.
202	Definitions: Existing building	-	-	Definition deleted.
202	Definitions: Flexible non-metal duct	-	-	Definition deleted.
202	Definitions: Gaskets or gasketing	-	-	Definition deleted.
202	Definitions: Integral flange duct collar fitting	-	-	Definition deleted.
202	Definitions: Mastic	-	-	Definition deleted.
202	Definitions: Mastic ribbons	-	-	Definition deleted.
202	Definitions: Mechanical closet	-	-	Definition deleted.
202	Definitions: Mechanical equipment plenum chamber	-	-	Definition deleted.
202	Definitions: Joint, mechanical	202	Mechanical joint	Definitions combined.
	Definitions: Mechanical joint			
202	Definitions: Noncombustible	202	Definitions: Noncombustible	Revised to require specific criteria for testing in

	building materials		materials	<p>accordance with ASTM E 136:</p> <ol style="list-style-type: none"> 1. Recorded temperature cannot rise more than 54° F above furnace temperature. 2. No flaming after first 30 seconds. 3. If weight loss exceeds 50%, recorded temperature of surface and thermocouples cannot rise above furnace temperature and no flaming of the specimen. <p>Criteria that permitted materials with a noncombustible base with surfacing of not more than 1/8 inch thick (gypsum wallboard) has been deleted.</p>
-	-	202	Definitions: Press Joint	New definition of press joint requiring an elastomeric seal or elastomeric seal and corrosion-resistant grip ring.
202	Definitions: Renovation	-	-	Definition deleted.
202	Definitions: Seal or sealing-air duct	-	-	Definition deleted.
-	-	202	Third-party certification agency	New definitions to provide information on how the industry must verify compliance with standards referenced in the code.
-	-	202	Third-party certified	New definitions to provide information on how the industry must verify compliance with standards referenced in the code.
-	-	202	Third-party tested	New definitions to provide information on how the industry must verify compliance with standards referenced in the code.
Chapter 3: General Regulations				
§	§	301.3	Identification	New section requiring each length of pipe and tubing, and each fitting used in a mechanical system to bear the identification of the manufacturer.
-	-	301.4	Plastic pipe, fittings and components	New section requiring plastic pipe, fittings and components to be third-party certified as conforming to NSF 14.
-	-	301.5	Third-party testing and certification	New section requiring piping, tubing, and fittings to be either tested by an approved third-party testing agency or certified by an approved third-party certification agency.

301.4.2	Alternative materials, methods, equipment and appliances	-	-	Section deleted
301.4.3	Required testing	-	-	Section deleted
301.4.3.1	Testing methods	-	-	Section deleted
301.4.3.2	Testing agency	-	-	Section deleted
301.4.3.3	Test reports	-	-	Section deleted
301.4.4	Materials, equipment and appliance reuse	-	-	Section deleted
301.6	Label information	301.9	Label information	Item 4 revised to remove redundant language.
301.12	Wind resistance	301.15	Wind resistance	Language prohibiting the use of wood sleepers has been deleted.
301.13	Flood hazard	301.16	Flood hazard	The term "high-velocity wave action" is changed to "coastal high hazard areas" for consistency with ASCE 24.
301.15	NFPA standards	-	-	Section deleted
302.2	Penetrations of floor/ceiling assemblies and fire-resistance-rated assemblies	302.2	Penetrations of floor/ceiling assemblies and fire-resistance-rated assemblies	Revised to include a specific reference to Chapter 7 of the FBCB.
§	§	304.3	Elevation of ignition source	New section requiring equipment and appliances with an ignition source located in hazardous locations and public garage, private garages, repair garages, automotive motor fuel dispensing facilities and parking garages to be elevated such that the ignition source is not less than 18 inches above the floor. Exception states that elevation of the ignition source is not required for appliances listed as flammable vapor ignition resistant.
304.5	Hydrogen-generating and refueling operations	304.5	Hydrogen-generating and refueling operations	New language requiring hydrogen-generating and refueling appliances to be installed in accordance with their listing and the manufacturer's installation instructions.
304.6	Public garages	304.6	Public garages	Exception revised to also reference Section 304.3.
§	§	304.7	Private garages	New section requiring appliances located in private garages and carports to be installed at least 6 feet above the floor. Exception for appliances protected from motor vehicle impact and installed in accordance with Section 304.3

306.3	Appliances in attics	306.3	Appliances in attics	Maximum passageway length has been increased to 20 feet. Exception permits the passageway length to be 50 feet where it is not less than 6 feet high and 22 inches wide for its entire length. Also, see Energy Code.
306.3.2	Air handling units	-	-	Section deleted.
306.5	Equipment and appliances on roofs or elevated structures	306.5	Equipment and appliances on roofs or elevated structures	Revised for clarity and simplification. Climbing clearances have been added for ladders.
307.2.2	Drain pipe materials and sizes	307.2.2	Drain pipe materials and sizes	Exception permitting the drain outlet size to be acceptable from the equipment to the place of disposal has been deleted.
307.2.3	Auxiliary and secondary drain systems	307.2.3	Auxiliary and secondary drain systems	Revised to recognize a water level detection device as an auxiliary protection method and not just an alternative to a separate overflow drain line.
308.5	Labeled assemblies	308.5	Labeled assemblies	Revised to require reduced clearance protective assemblies to be listed and labeled in accordance with UL 1618.
312.1	Load calculations	312.1	Load calculations	Reference to Sections 403.6 and 503.2 of the FBCEC for heating and cooling system loads has been deleted.
Chapter 4: Ventilation				
401.2	Ventilation required	401.2	Ventilation required	New language describing a building as "too tight" where the air infiltration rate is less than 5 air changes per hour when tested at 0.3 inch w.c. Language permitting compliance with ASHRAE 62.1 in lieu of Section 403.1 through 403.3 has been deleted.
401.4	Intake opening location	401.4	Intake opening location	Item 2 revised to require mechanical and gravity outdoor intake openings to be located at least 25 vertically from any hazardous or noxious contaminant source. Measurement to the street or public way has been appropriately relocated to Item 2 from Item 1.
401.4.1	Intake openings	-	-	Section deleted.
403.1	Ventilation system	403.1	Ventilation system	Reference to Section 503.2.10.6 of the FBCEC has been deleted.
403.3	Outdoor airflow rate	403.3	Outdoor airflow rate	Language excluding Group R-3 (one- and two-family dwellings) from this section has been deleted.

Table 403.3	Minimum Ventilation Rates	Table 403.3	Minimum Ventilation Rates	Table headings reformatted for clarity. Table heading "Default Occupant Density #/1000 ft ² " has been changed to "Occupant Density #/1000 ft ² ". Nail salon stations have been added a specific occupancy classification with an exhaust airflow rate of 50 cfm/ft ² per station. Notes e and f have been revised to remove ambiguity.
404.1	Enclosed parking garages	404.1	Enclosed parking garages	Language requiring an approved automatic detection device capable of detecting a concentration of carbon monoxide of 25 parts per million has been deleted. New language simply requires the system to be arranged to operate automatically by means of carbon monoxide detectors.
-	-	406	Ventilation of uninhabited spaces	New section specifying ventilation requirements for uninhabited spaces such as crawl spaces and attics.
407	Return air intake	-	-	Section deleted.
Chapter 5: Exhaust Systems				
-	-	501.2	Independent system required	New section clarifying that all exhaust systems are independent of other exhaust systems unless specifically stated otherwise by the code.
501.3	Pressure equalization	501.4	Pressure equalization	Reference to the FBCEC has been deleted and replaced with specific criteria mechanical exhaust.
501.4	Ducts	501.5	Ducts	Requirement for exhaust ducts to be of metal has been deleted. Refers to Chapter 6 for duct construction.
-	-	502.4.3	Supervision	New section requiring ventilation that is required in stationary storage battery systems to be supervised.
-	-	502.4.3	Supervision	New section requiring ventilation that is required in valve-regulated lead-acid batteries installed in cabinets to be supervised.
502.8.1	Storage in excess of the maximum allowable quantities	502.8.1	Storage in excess of the maximum allowable quantities	Revised to add a new exception for storage areas and storage buildings for fireworks and explosives complying with the FFPC.
502.9.1	Compressed gases-medical gas	502.9.1	Compressed gases-medical gas	Revised to trigger exhaust requirements for

	systems		systems	rooms for the storage of compressed medical gases based on the permit amounts instead of the maximum allowable exempt quantity per control area.
502.9.11	Silane gas	502.9.11	Silane gas	Revised to require compliance with the FFPC for indoor storage of silane gas in amounts exceeding the maximum allowable quantities per control area.
504.3	Cleanout	504.3	Cleanout	Language permitting the means for the cleanout to include the exhaust duct connection to an individual dryer outlet has been deleted.
504.6.4.1	Specified length (clothes dryer ducts)	504.6.4.1	Specified length (clothes dryer ducts)	The exception for clothes dryer booster fans has been deleted.
504.7	Commercial clothes dryers	504.7	Commercial clothes dryers	Replaces the term "Type II clothes dryers" with "commercial clothes dryers" as "Type II refers to a type of gas-fired clothes dryer.
504.8	Common exhaust systems for clothes dryers located in multistory structures	504.8	Common exhaust systems for clothes dryers located in multistory structures	New criteria added for the construction of common multistory duct systems conveying exhaust from multiple clothes dryers. New language stipulates that the system shall serve on clothes dryers and be independent of other exhaust systems.
505.1	Domestic systems (kitchen exhaust equipment)	505.1	Domestic systems (kitchen exhaust equipment)	Revised to require exhaust from domestic range hoods and domestic appliances equipped with downdraft exhaust to be independent of all other exhaust systems.
		505.2	Makeup air required	Added exception for range hood exhaust capable of exhausting 800 to 400 CFM.
505.3	Installation of microwave ovens	-	-	Section deleted.
505.4	Overhead exhaust hoods, general	-	-	Section deleted.
506.1	General (commercial kitchen exhaust hood ventilation system ducts and exhaust equipment)	506.1	General (commercial kitchen exhaust hood ventilation system ducts and exhaust equipment)	Reference to NFPA 96 for grease hoods and grease hood duct systems has been deleted.
506.3.2	Joints, seams and penetrations of grease ducts	506.3.2	Joints, seams and penetrations of grease ducts	Revised to permit joints, seams and penetrations of grease ducts to be made with a braze.
506.3.2.2	Duct to hood joints	506.3.2.2	Duct to hood joints	Revised to permit duct to hood joints to made with a braze.

506.3.4	Air velocity	506.3.4	Air velocity	The minimum required air velocity for grease duct system serving a Type I hood has been reduced to 500 feet per minute.
506.3.7	Prevention of grease accumulation in grease ducts	506.3.7	Prevention of grease accumulation in grease ducts	Revised to refer to new Section 506.3.7.1 for design and installation of grease reservoirs.
-	-	506.3.7.1	Grease resevoirs	New section specifying construction, design and installation requirements for grease reservoirs.
506.3.8	Grease duct cleanouts and other openings	506.3.8	Grease duct cleanouts and other openings	Section reorganized for clarity. Requirement for a sign to be placed on all access panels has been deleted.
506.3.9	Grease duct horizontal cleanouts	506.3.9	Grease duct horizontal cleanouts	Section reorganized and updated for clarity.
-	-	506.3.10	Underground grease duct installation	New section specifying construction and installation requirements for underground grease duct installations.
506.3.10	Grease duct enclosures	506.3.11	Grease duct enclosures	Revised to apply to Type I hoods that penetrate any wall, floor, or concealed space instead of fire-rated ceilings, walls, and floors. Revised to require the duct enclosure to have a fire-resistance rating of not less than 1 hour. The requirement that the enclosure be separated from the duct by a minimum of 6 inches and a maximum of 12 inches has been deleted.
506.3.10.2	Field-applied grease duct enclosure	506.3.11.2	Field-applied grease duct enclosure	Revised to delete the minimum 1 hour fire resistance rating for the through-penetration firestop system. New language prohibits partial enclosures.
506.3.10.3	Factory-built grease duct assemblies	506.3.11.3	Factory-built grease duct assemblies	Revised to delete the minimum 1 hour fire resistance rating for the through-penetration firestop system.
506.3.12.3	Termination location	506.3.13.3	Termination location	Revised to clarify that the exception applies to exhaust outlets terminating not than 5 feet "horizontally".506.4
506.4	Ducts serving Type II hoods	506.4	Ducts serving Type II hoods	Revised to correlate with change to Section 501.2 clarifying that all exhaust systems are to be independent of all other exhaust systems unless specifically stated otherwise.
507.1	General (commercial kitchen hoods)	507.1	General (commercial kitchen hoods)	Language requiring testing in accordance with UL 710 and UL 710B has been revised to say

				"listed and labeled" in accordance with UL 710 and UL 710B.
507.2	Where required	507.2	Where required	New exception for a required hood for cooking appliances equipped with integral down-draft exhaust systems.
507.2.1	Type I hoods	507.2.1	Type I hoods	New exception for a required Type I hood for electric cooking appliances where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m ³ or less of grease when tested at an exhaust flow rate of 500 cfm in accordance with UL 710B.
507.2.1.1	Operation	507.2.1.1	Operation	New language requiring a method of interlock between an exhaust hood system and appliances equipped with standing pilot burners shall not cause the pilot burners to be extinguished. Additional new language prohibits a method of interlock between an exhaust hood system and cooking appliances from involving or depending upon any component of a fire extinguishing system.
-	-	507.2.1.2	Exhaust flow rate label	New section requiring Type I hoods to bear a label indicating the minimum exhaust flow rate in cfm per liner foot.
507.2.2	Type II hoods	507.2.2	Type II hoods	Revised to delete the term "light duty appliances" and replace with the term "appliances". The applicable exhaust rate is extracted from Table 403.3 and stated within the text of this section for ease of use.
507.7.1	Type I hoods (hood joints, seams and penetrations)	507.7.1	Type I hoods (hood joints, seams and penetrations)	Revised to permit hood joints, seams, and penetrations to be brazed. Exception 3 permitting external hood joints and seams tested and listed in accordance with UL 710 to not be welded has been deleted.
507.10	Hoods penetrating a ceiling	507.10	Hoods penetrating a ceiling	New language indicating the field-applied grease duct enclosure systems are not to be used to satisfy the requirements of this section.
507.11	Grease filters	507.11	Grease filters	Revised to require grease filters for Type I hoods to be listed and labeled in accordance with UL 1046.
507.11.1	Criteria	507.11.1	Criteria	Language requiring listed grease filter to

				conform to UL 1046 has been deleted as it is now covered in Section 507.11.
Table 507.11	Minimum Distance Between the Lowest Edge of Grease Filter and the Cooking Surface or the Heating Surface	Table 507.11	Minimum Distance Between the Lowest Edge of Grease Filter and the Cooking Surface or the Heating Surface	For exposed charcoal and charbroil type cooking appliances, the minimum height above the cooking surface has been changed to 3.5 ft from 4 ft.
-	-	508.1.1	Makeup air temperature	New section requiring the temperature differential between makeup air and air in the conditioned space to not exceed 10°F unless the added heating and cooling loads of the makeup air do not exceed the capacity of the HVAC system.
510.8.1	Duct joints	510.8.1	Duct joints	Language requiring the male end of the duct to be overlapped a minimum of 1 inch and extend in the direction of airflow has been deleted. New language permits the use of joints used in ANSI/SMACNA Round Industrial Duct Construction Standards and ANSI/SMACNA Rectangular Industrial Duct Construction Standards.
511.1	Dust, stock and refuse conveying systems	511.1	Dust, stock and refuse conveying systems	Language requiring dust, stock and refuse conveying systems to also comply with Section 510 and NFPA 91 has been deleted.
511.3	Clearance to combustibles	-	-	Section deleted.
511.4	Wood processing and woodworking facilities	-	-	Section deleted.
513	Smoke and carbon monoxide control systems	513	Smoke control systems	Revised to only apply to smoke control systems. Language limiting the application of this section to only high rise buildings has been deleted.
513.5	Smoke barrier construction	513.5	Smoke barrier construction	Item 2 revised to change “exit enclosures” to “interior exit stairways and ramps and ext passageways”. It 3 revised to add “enclosed exit access stairways and ramps”.
513.12.2	Carbon monoxide control systems	516	Carbon monoxide control systems	Section deleted and relocated to new Section 516.
513.13.1	Materials	513.13.1	Materials	Exception 1 has been revised to require tubing to comply with Section 602.2.1.3.
514.1	General (energy recovery ventilation systems)	514.1	General (energy recovery ventilation systems)	Relocates provisions for heat recovery ventilators from Section 927 to Section 514.1

-	-	514.4	Recirculated air	New section providing limitations for recirculated air.
Chapter 6: Duct Systems				
602.2.1	Materials in plenums	602.2.1	Materials in plenums	Revised to require materials in plenums to be listed and labeled. Exception 5 has been reformatted to clarify that any one of the three options provided are only permitted when the combustible material is fully enclosed. Section 602.2.1.6 has been moved to Exception 6 of Section 602.2.1. Previous exceptions for condensate pump units and loudspeakers for certain conditions have been deleted.
602.2.1.1	Wiring	602.2.1.1	Wiring	Revised for clarification and coordination with NFPA 90A.
602.2.1.5	Foam plastic insulation	602.2.1.5	Foam plastic insulation	Revised to clarify this section applies to foam plastic insulation for interior applications.
602.2.1.5.1	Separation required	602.2.1.5.1	Separation required	Revised to require the foam plastic insulation to have a flame spread index of 75 or less and smoke developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723.
602.2.1.5.2	Approval	602.2.1.5.2	Approval	New language requires foam plastic insulation to have a flame spread index of 25 or less and smoke developed index of 50 or less when tested in accordance with ASTM E 84 or UL 723, and meet the acceptance criteria of Section 803.1.2 of the FBCB when tested in accordance with NFPA 286.
602.2.1.5.3	Covering	602.2.1.5.3	Covering	Revised to require the foam plastic insulation to have a flame spread index of 75 or less and smoke developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723.
602.2.1.6	Semiconductor fabrication areas	-	-	Relocated to Exception 6 of Section 602.2.1.
602.3	Stud cavity and joist space plenums	602.3	Stud cavity and joist space plenums	New language prohibits the use of stud wall cavities in the outside walls of the building envelope as air plenums.
603.1	General	603.1	General	Language requiring all transverse joints, longitudinal seams, and fitting connections to be securely fastened and sealed has been

				deleted. Language applicable to enclosures which for the primary air containment passageways for air distribution systems has been deleted.
Table 603	Duct system construction and installation	-	-	Table deleted.
603.1.1	Mechanical fastening	-	-	Section deleted.
603.1.2	Sealing	-	-	Section deleted.
603.1.4	Production application	-	-	Section deleted.
603.1.5	Surface preparation	-	-	Section deleted.
603.1.6	Approved mechanical attachments	-	-	Section deleted.
603.1.7	Approved closure systems	-	-	Section deleted.
603.1.8	Cavities of the building structure	-	-	Section deleted.
603.2	Duct Sizing	603.2	Duct Sizing	Stipulations for using the ASHRAE Handbook of Fundamentals or other equivalent procedure have been deleted.
603.4	Metallic ducts	603.4	Metallic ducts	Language requiring metallic ducts to be mechanically attached and sealed in accordance with Table 603 has been deleted.
-	-	603.4.1	Minimum fasteners	New section requiring round metallic ducts to be mechanically fastened by means of at least three sheet metal screws or rivets spaced equally around the joint.
603.5	Nonmetallic ducts	603.5	Nonmetallic ducts	Revised to clarify that nonmetallic ducts shall comply with UL 181. Reference to Table 603 has been deleted.
603.5.1	Gypsum ducts	603.5.1	Gypsum ducts	Reference to Table 603 has been deleted.
603.5.2	Building cavities designed for air transport	-	-	Section deleted.
603.6.1	Flexible air ducts	603.6.1	Flexible air ducts	Reference to Table 603 has been deleted.
603.6.2	Flexible air connectors	603.6.2	Flexible air connectors	Reference to Table 603 has been deleted.
603.6.5	Penetrations prohibited	-	-	Section deleted.
603.7	Rigid duct penetrations	603.7	Rigid duct penetrations	Revised to clarify that ducts within the garage that don't penetrate the separation wall do not have to be 26 gage and can have openings.
603.8	Underground ducts	603.8	Underground ducts	Language requiring a minimum slope of 1/8 inch per foot for drainage has been deleted.
603.9	Joints, seams, and connections	603.9	Joints, seams, and connections	Reference to Table 603 has been deleted.

				Specific requirements for joints, seams and connections are now provided in Section 603.9
603.10	Supports	603.10	Supports	Revised to require ducts to be supported at intervals not exceeding 12 feet and in accordance with SMACNA HVAC Duct Construction Standards Metal and Flexible.
-	-	603.17	Air dispersion systems	New section and criteria for air dispersion system systems. Requires such systems to meet UL 2518.
604.1	General (insulation)	604.1	General (insulation)	Reference to Sections 403.2.1 and 503.2.7.1 of the FBCEC have been deleted.
604.3	Coverings and linings	604.3	Coverings and linings	New language requiring coverings and linings to be listed and labeled.
606.1	Controls required (smoke detections systems control)	606.1	Controls required (smoke detections systems control)	Exception for Group R-3 has been deleted.
606.2	Where required	606.2	Where required	Reference to NFPA 90 has been deleted.
606.2.1	Supply air systems	606.2.1	Return air systems	Section revised to apply to return air systems instead of supply air systems.
606.2.2	Common supply, return air and supply air systems	606.2.2	Common supply and return air systems	Revised to only require smoke detectors in the return air system. New exception for smoke detectors in each fan-powered terminal units that do not have an individual design capacity greater than 2000 cfm and will be shut down as prescribed.
606.2.3	Return and supply risers	606.2.3	Return air risers	Revised to apply only to return air systems.
606.3	Installation	606.3	Installation	Revised to delete the supply air system from the systems the smoke detectors are required to monitor.
606.4	Controls operation	606.4	Controls operation	Revised to require that upon activation, smoke detectors are required to shut down all operational capabilities or the air distribution system instead of "shutting down the air distribution system".
607.3.2.2	Smoke damper ratings	607.3.2.2	Smoke damper ratings	Revised to require smoke damper leakage ratings to be Class 1 or Class II for clarity.
607.3.2.3	Combination fire/smoke damper ratings	607.3.2.3	Combination fire/smoke damper ratings	Revised to reference Section 607.3.2.2 for smoke damper ratings.
607.5.3	Fire partitions	607.5.3	Fire partitions	New exception for fire dampers in fire partition walls that are penetrated by ducted HVAC systems meeting the specified criteria.

607.8	Location and installation details	-	-	Section deleted.
Chapter 8: Chimneys and vents				
801.1	Scope	801.1	Scope	Reference to NFPA 211 for chimneys, fireplaces, vents and solid fuel-burning appliances has been deleted.
801.16.1	Residential and low-heat appliances (general)	801.16.1	Residential and low-heat appliances (general)	Revised to require chimney lining systems to be labeled.
801.21	Fans	-	-	Section deleted.
804.3	Mechanical draft systems	804.3	Mechanical draft systems	Revised to require mechanical draft systems to be listed and labeled in accordance with UL 378.
804.3.8	Mechanical draft systems for manually fired appliances and fireplaces	804.3.8	Mechanical draft systems for manually fired appliances and fireplaces	Revised to require the mechanical draft device to be listed and labeled in accordance with UL 378.
-	-	805.3	Factory built chimney offsets	New section prohibiting offsets incorporated in factory-built chimneys from being at an angle of more than 30 degrees from vertical. Limits the number of elbows to 4.
Chapter 9: Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment				
901.4	Fireplace accessories	901.4	Fireplace accessories	Revised to remove fireplace stoves from this section (relocated to new Section 905.3) New language requiring fireplace accessories to comply with UL 907.
903.2	Hearth extensions	903.2	Hearth extensions	New language requiring listed and labeled hearth extensions to comply with UL 1618.
-	-	905.3	Hearth extensions	Ne section for hearth extensions for fireplace stoves relocated from Section 903.2.
908.1	General (cooling towers, evaporative condensers and fluid coolers)	908.1	General (cooling towers, evaporative condensers and fluid coolers)	Language requiring cooling towers used in conjunction with an air-conditioning appliance to be design in accordance with the FBCB and comply with NFPA 214 has been deleted. Ne language requires such towers to comply with UL 1995.
911.2	General (duct furnaces)	911.2	General (duct furnaces)	Revised to require electric duct furnaces to comply with UL 1996.
-	-	912.1	General (infrared radiant heaters)	New section requiring electric infrared radiant heaters to comply with UL 499.
918.6	Prohibited sources (forced-air warm-air furnaces)	918.6	Prohibited sources (forced-air warm-air furnaces)	Section revised to apply to cooling systems as well as heating systems. Item 5 revised to

				remove “mechanical rooms”. New exception 5.2 permits dedicated forced-air systems serving only a garage to obtain return air from the garage.
922	Kerosene and oil-fired stoves	922	Kerosene and oil-fired stoves	Revised to require kerosene and oil-fired stoves to both comply with NFPA 31 and UL 896.
923.1	General (small ceramic kilns)	923.1	General (small ceramic kilns)	New language requires electric kilns to comply with UL 499.
926	Residential radiant heating systems	-	-	Section deleted.
927	Residential electric duct heaters	-	-	Section deleted.
-	-	927	Radiant heating systems	New section specifying installation requirements for radiant heating systems.
928	Vented residential floor furnaces	-	-	Section deleted.
-	-	928	Evaporative cooling equipment	New section specifying installation requirements for evaporative cooling equipment.
929	Vented residential wall furnaces	-	-	Section deleted.
930	Vented residential room heaters	-	-	Section deleted.
932	Heat recovery ventilators	-	-	Section deleted and relocated to Section 514.1.
Chapter 10: Boilers, Water Heaters and Pressure Vessels				
1002.1	General	1002.1	General	Reference to non-potable water heaters and associated standards has been deleted. New language requires Domestic electric water heaters to comply with UL 174 or UL 1453. Commercial electric water heaters are required to comply with UL 1453. Oil-fire water heaters are required to comply with UL 732. Solid-fuel-fired water heaters are required to comply with UL 2523. Thermal solar water heaters are required to comply with Chapter 14 and UL 174 or UL 1453.
1004.1	Standards	1004.1	Standards	Revised to require solid-fuel-fired boilers to be listed and labeled in accordance with UL 2523.
1004.3.1	Top clearance	1004.3.1	Top clearance	Text in Section 1004.3.1 has been converted to a table (Table 1004.3.1) for ease of reading.
Chapter 11: Refrigeration				

1101.10	Locking access port caps	1101.10	Locking access port caps	Revised to permit other means of securing refrigerant circuit access ports located outdoors to prevent unauthorized access.
Table 1103.1	Refrigerant Classification	Table 1103.1	Refrigerant Classification	Revised to add refrigerants R-433B, R-433C, R-438A, and R-1234yf to the table. The classification of R-403A has been changed from A1 to A2. Chemical names of some refrigerants have been updated.
1105.6	Ventilation	1105.6	Ventilation	Language pertaining to ventilation rate has been relocated to new Section 1105.6.3
-	-	1105.6.3	Ventilation rate	New section incorporating part of Section 1105.6 pertaining to ventilation rate. Requires the minimum ventilation rate for ammonia to be 30 air changes per hour, in accordance with IIAR 2.
1106.4	Flammable refrigerants	1106.4	Flammable refrigerants	Revised to clarify that ammonia machinery rooms be proved with ventilation in accordance with Section 1106.3 to qualify for the exception.
1106.5	Remote controls	1106.5	Remote controls	Revised to remove reference to the FFPC.
1106.5.1	Refrigeration system emergency shutoff	1106.5.1	Refrigeration system emergency shutoff	Exception for machinery rooms where only nonflammable refrigerants are used has been deleted.
Chapter 12: Hydronic Piping				
Table 1202.4	Hydronic Pipe	Table 1202.4	Hydronic Pipe	ASTM F 2769 has been added for raised temperature polyethylene (PE-RT)
Table 1202.5	Hydronic Pipe Fittings	Table 1202.5	Hydronic Pipe Fittings	New row added specifically for PEX fittings requiring compliance with ASTM 877, ASTM F 1807, and ASTM F 2159. ASTM F 2735 has been added as an additional standard for plastic fittings.1203.1.1.
1203.1.1	Joints between different piping materials	1203.1.1	Joints between different piping materials	Revised to delete dielectric fittings and only permit adapter fittings.
1203.3.4	Solvent-cemented joints	1203.3.4	Solvent-cemented joints	New exception for CPVC pipe-joint connects indicating a primer is not required for certain conditions.
1203.8	Copper or copper-alloy tubing	1203.8	Copper or copper-alloy tubing	Revised to clarify that press type joints are to be installed in accordance with the manufacturer's instructions.
1203.8.3	Press joints	1203.8.3	Press joints	New section requiring press joints to be

				installed in accordance with the manufacturer's instructions.
Chapter 13: Fuel Oil Piping and Storage				
1306.4	Gauging devices	1306.4	Gauging devices	Revised to require liquid-level indicating gauges to comply with UL 180.
1307.1	Building shutoff	1307.1	Building shutoff	Revised to require valves to comply with UL 842.
Appendix A: Chimney Connector Pass-Throughs				
Figures A-1 through A-4	Illustrations of appliances located in confined spaces	-	-	Figures A-1 through A-4 have been deleted and the title of Appendix A has been revised to only apply to chimney connector pass-throughs.