2009 -2015 IMC Significant Changes Summary

Tier I

- 202 Environmental Air The definition of environmental air has been expanded through the addition of parking garage exhaust.
- 306.1 Access More than just appliances are now required to have access for inspection, service, replacement and repair.
- 307.2.5 Condensate Drain Line Maintenance The code requires that condensate drains be configured or equipped to allow maintenance of the drain without the drain pipe or tubing being cut.
- 307.3 Condensate Pumps in Uninhabitable Spaces Condensate pumps located in uninhabitable spaces and used with condensing fuel-fired appliances and cooling equipment must be connected to the appliance or equipment served by the pump to prevent water damage in the event of pump failure.
- 401.4 Intake Opening Location The minimum clearance between an air intake opening and any public way is now measured from the opening to the lot line, not to the centerline of the public way.
- 401.2, 407.1, Table 403.3.31.1 Ventilation Required Occupancies including hospitals, nursing homes, detoxification facilities and ambulatory care facilities must be ventilated in accordance with a new standard, ASHRAE 170.
- 403.2.1, Table 403.3.1.1 Recirculation of Air The revisions to Section 403.2.1 and notes b and g of Table 403.3.1.1 clarify that recirculation of air within a space is permitted.
- 403.3 Outdoor Air and Local Exhaust Airflow Rates The new text introduces the basic requirements of ASHRAE 62.2 related to mechanical ventilation for Group R-2, R-3 and R-4 buildings three stories or less in height.
- Table 403.3.1.1 Manicure and Pedicure Station Exhaust Rate The revised note h to Table 403.3.1.1 recognizes new Section 502.20 for the design of manicure and pedicure station exhaust systems and also specifies the applicability to both. Note h addresses the relationship between the source capture system exhaust-flow rate and the exhaust-flow rate specified within the table for nail salons.
- 404.1 Intermittent Operation of Mechanical Ventilation Systems for Enclosed Parking Garages

 For enclosed parking garages, the ventilation system must operate continuously or must be
 automatically controlled for intermittent operation utilizing both carbon monoxide and nitrogen
 dioxide detectors. The option to detect vehicle operation or occupant presence has been
 deleted.
- 501.3 Mechanical Exhaust System Discharge The adjective "public" was added to "nuisance" to make this requirement more enforceable. The new exception correlates with Section 505.1, exception 1.
- 502.20 Manicure and Pedicure Station Exhaust System New text specifically covers manicure and pedicure stations and states exhaust requirements in addition to those in Table 403.3.1.1. In previous editions of the code, pedicure stations were not specifically called out, as the text in Table 403.3.1.1 referred only to nail salons generically.
- 504.5, 504.8.4.3 Dryer Exhaust Duct Power Ventilators New text recognizes the use of dryer exhaust duct power ventilators (DEDPVs) for installations that exceed the allowable exhaust duct length for clothes dryers.

- 505.1, 505.4 Domestic Range Hoods The scope of domestic kitchen hoods coverage has been expanded to beyond dwellings units. Domestic hoods are mandated in new Section 505.4.
 506.3.7.1 Grease Duct Reservoirs A grease duct reservoir must now be the full width of the duct in all cases, and the reservoir must be provided with a drain opening.
- 506.3.8 Grease Duct Cleanouts and Other Openings In addition to the reformatting of
 previous criteria for grease duct cleanouts, gasket and sealing materials on grease duct cleanout
 doors must now be rated at a minimum of 1500 degrees Fahrenheit. Also added cleanout
 spacing provisions to be consistent with 506.3.9 for horizontal ducts.
- 506.3.9 Grease Duct Horizontal Cleanouts Criteria for cleanouts serving horizontal grease ducts have been rearranged for ease of use and clarification, and several technical provisions have been added or modified.
- 506.3.10 Underground Grease Duct Installation Grease ducts installed in underground locations are now regulated based upon a number of new provisions.
- 506.3.11 Grease Duct Enclosures The code specifically prohibits the installation of fire and smoke dampers in grease ducts.
- 506.3.11.2 Field Applied Grease Duct Enclosure Field-applied grease duct enclosure systems are now specifically prohibited from being used to reduce clearances to combustibles.
- 506.5.1.2 In-Line Fan Location in Exhaust Ducts Serving Commercial kitchen Hoods New text addresses the enclosure requirements for in-line exhaust fans located in kitchen hood exhaust ducts, in effect treating them the same as ducts.
- 507.1 Type I Hood Installation A requirement has been added for Type I hood installations to comply with all aspects of a Type I exhaust system, whether the Type I hood is required by the code or installed by choice.
- 507.2 Type I or Type II Hood Required A Type I or Type II commercial kitchen hood is not required for appliances with listed integral downdraft exhaust systems.
- 507.2.1. Type I Hoods Type I hoods no longer are required to be installed where complying electric cooking appliances are being used.
- 507.2.1.1 Operation of Type I Hoods A method is now required to keep the pilot burner on a
 gas cooking appliance from being extinguished when the kitchen exhaust fan interlock shuts off
 appliances.
- 507.2.1.2 Exhaust Flow Rate Label for Type I Hoods Manufacturers of listed Type I commercial cooking hoods are now required to provide information on a label attached to the hood specifying the listed minimum exhaust air flow for the hood based upon the cooking appliance duty classification.
- 510.4, 510.5 Hazardous Exhaust Systems Text in previous editions of the code that alluded to
 the recirculation of hazardous exhaust has been deleted. The previous exception was too broad
 in application, so the entire section has been formatted to clarify the scope of the exception.
 Previous item 7 has been revised to prescribe the method for maintaining continuous negative
 pressure.
- 510.7 Fire Suppression Required for Hazardous Exhaust Ducts Automatic fire suppression systems are no longer required in exhaust ducts in semiconductor fabrication facilities.
- 510.7.1.1 Hazardous Exhaust Duct Penetrations of Shafts A pointer to the International Building Code (IBC) provisions for hazardous exhaust duct penetrations of shafts has been added.
- 601.4 Contamination Prevention in Plenums Chimneys and vents are now permitted to pass through a plenum where in compliance with one of three new allowances.
- 601.5 Return Air Openings The often misunderstood provisions in previous editions of the code for return air have been relocated from a section specific to forced-air/warm-air furnaces

- in Chapter 9 to a more generic section in Chapter 6. The provisions have been clarified and streamlined to capture the desired intent.
- 602.1 Plenums Limited to One Fire Area The revision clarifies that a plenum in a fire area cannot be connected to a plenum in an adjoining fire area by means of transfer ducts or openings, regardless of the presence of fire dampers
- 602.2 Plenum Construction Reverts back to old UMC requirement: Depending on the construction type of the building, plenums are no longer allowed to be bounded by the building materials that create the space being used as a plenum.
- 603.17, 202 Air Dispersion Systems Air dispersion systems as defined in Section 202 and recognized in UL 2518 are now permitted to be installed.
- 701.2 Dampered openings Where dampers are installed on combustion air openings, the
 code now requires an interlock with the appliance to prevent operation of the appliance when
 the damper is closed. Manual dampers are prohibited on combustion air openings.
- 805.3 Factory Built Chimney Offsets The maximum offset in a factory-built chimney is now specified and the number of offsets has been limited.
- 928 Evaporative Cooling Equipment –First time in the IMC, requirements for the installation of evaporative coolers have been introduced into the IMC in the new Section 928.
- 1105.6, 1105.6.3 The minimum ventilation rates in an ammonia machinery room must now be in accordance with IIAR2.
- 1106.4 Flammable Refrigerants The ventilation requirements of Section 1106.3 for ammonia machinery rooms are now mandatory in order to be exempted from the Class 1, Division 2 hazardous location requirements of NFPA 70.

Tier 2

- 306.5 Equipment and Appliances on Roofs or Elevated Structures It has been clarified that
 permanent access is required to equipment and appliances on a roof or elevated structure
 higher than 16 feet above grade, and required clearances are now provided to assure access to
 ladders required for access to roofs or elevated structures
- 501.2, 506.4 Independent Exhaust Systems required Those locations where an independent exhaust system is required are now established in a single code provision.
- 504.8.2 Dryer Exhaust Duct Installation Instead of prohibiting all duct fasteners such as screws and rivets, the code now limits the penetration of fasteners where installed.
- 505.1 Domestic Kitchen Exhaust Systems Domestic Kitchen Exhaust ducts are now required to be independent of all other exhaust systems
- 505.3 --- Domestic Kitchen Exhaust Systems in Multistory Buildings New text regulates the
 design and construction of exhaust shafts that serve domestic kitchen exhaust systems in
 multistory buildings.
- 506.5.3 Hinged Up-Blast Fans for Type I Hoods The code now requires that hinged exhaust fans be provided with a means to limit the travel of the fan assembly to prevent injury to personnel and damage to the building and fan.
- 507.1.1 Commercial Kitchen Exhaust Hood System Operation The requirement for automatic activation of the exhaust system has been revised to provide the intended performance requirements and to clarify that an interlock arrangement is an alternative to automatic hood operation.
- 507.1.1.1 Heat Sensors for Multiple Commercial Kitchen Hoods New text prohibits the use of a single sensor mounted in the common ductwork for commercial kitchen hood systems having multiple hoods manifolded together.
- 507.2.2 Type II Hoods A Type II hood is now required to be installed above all appliances that produce projects of combustion but do not produce grease or smoke. An exact exhaust rate is specified for areas where a cooking appliance is being used but a Type II hood is not required.
- 603.4 Duct Construction Minimum Sheet Metal Thickness for Single Dwelling Units The table for duct gages for dwelling units has been replaced with thicknesses consistent with the SMACNA sheet metal construction standard.
- 603.7 Rigid Duct Penetrations In relationship to the required garage/dwelling separation, only those ducts that penetrate a wall or ceiling between the dwelling and the adjacent private garage need comply with Section 603.7.
- 603.9 Duct Joints, Seams and Connections Duct sealant tapes used on sheet-metal ducts must be listed to UL 181B as is required for sealing tapes and mastics for flexible ducts. Snaplock and button-lock seams are no longer exempt from the sealing requirements.
- 802.9 Door Clearance to vent Terminals To prevent damage to the vent, door or surrounding materials, doors are not permitted to swing within 12 inches of an appliance vent terminal.
- 901.4 Fireplace Accessories -- Fireplace accessories must now comply with UL 907, which has been added to Chapter 15.
- 1101.10 Locking Access Port Caps Locking caps are no longer required on refrigerant access ports if the refrigeration equipment is located in a secured location.

<u> Tier 3</u>

• 102.3 – Maintenance – ASHRAE/ACCA/ANSI Standard 180 is now specified for the inspection for maintenance of an HVAC System.

- 304.11 Fall-Arresting Restraint Systems The exception allows for fall-arresting restraint systems to be employed instead of guards on roofs.
- 308.5 Labeled Assemblies Allowable clearance reductions must now be based on listed and labeled reduced-clearance protective assemblies in accordance with UL 1618.
- 404.1 Enclosed Parking Garages The mechanical ventilation systems required in enclosed parking garages are now permitted to be operated automatically by carbon monoxide detectors.
- 507.2.8 Type I Hood Grease Filters The code now recognizes the use of disposable grease filters.
- 508.1.2 Air Balance for Commercial Kitchen Ventilation Systems This new section requires that an air balance schedule be submitted with the design plans for commercial kitchen ventilation systems.
- 514.2 Energy Recovery Ventilation Systems Energy recovery ventilation (ERV) systems of the coil-type heat exchanger (run-around coils) are no longer limited in their application.
- 602.2.1.5 Discrete Plumbing and Mechanical Products in Plenums The code now addresses
 those products that in previous editions of the code did not fall under the category of piping,
 wiring, ductwork, tubing, insulation and other continuous large surface area materials installed
 in plenums. A definition has been added to describe what is meant by discrete products.
- 603.9 Duct Joints, Seams and Connections Unlisted duct tape is no longer permitted as a sealant on nonmetallic ducts.
- 903.4 Gasketed Fireplace Doors Gasketed (sealed) doors are prohibited on factory-built fireplaces except where the fireplaces are listed for use with such doors.