2000 to 2012 K-tag Crosswalk matrix for ambulatory care facilities

2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
							General note about Ambulatory care. Most of the changes to The ICC regarding Ambulatory care over the past 15 years were engineered to be conceptually consistent with the CMS approach. However, since the approach of a use that exists in between Group I-2 and Group B was evolving through the 2000s the result is a mix of existing building that would not meet the minimum CMS standards for ambulatory care. This is a well-known situation. If one of these facilities that were built to the ICC codes in the early 2000/s were to seek Medicare reimbursement, there could be serious challenges, some of which are insurmountable for most small facilities. As such, it was difficult to design a minimum existing standard for AHC that would accommodate these older facilities. The result was to create an appendix in the IFC that could be used for CMS equivalency if needed.
NA	NA	NA	K100	2	General Requirements – Other List in the REMARKS section, any LSC Section 20.1 and 20.1 General Requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567.		This is a "catch-all". Until we either do a much more comprehensive review of 101, or we start seeing what gets cited out of this section, it tough to determine if there is a gap. I would argue this needs to be monitored closely, however but we could present this as substantially equivalent.
NA	NA	NA	K111	2	Building Rehabilitation	IEBC **[A] 101.2 Scope.** **IEBC SECTION 301 ADMINISTRATION** **IEBC 301.1 General.** **IEBC 301.2 Repairs.** **IEBC 301.3 Alteration, change of occupancy, addition or relocation.** **IEBC *301.3.1 Prescriptive compliance method.*** **IEBC *301.3.2 Work area compliance method.*** **IEBC *301.3.3 Performance compliance method.*** **IFC SECTION 1101 GENERAL** **IFC 1101.1 Scope.** **IFC 1101.2 Intent.**	Minimal work required. This is essentially a scoping document instructing surveyors to acknowledge the existing requirements (IFC), renovation scoping requirements (IEBC) and new construction requirements (IBC). Conceptually both code families are consistent. We should review and monitor the approaches. Update IEBC to address the implications of adding ambulatory care use ion an existing building, consistent with CMS Approaches. Compare with Appendix K in IFC.
						IFC APPENDIX K CONSTRUCTION REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES **IFC SECTION K101 GENERAL** **IFC K101.1 Scope.** **IFC K101.2 Intent.**	
					Repair, Renovation, Modification, or Reconstruction Any building undergoing repair, renovation, modification, or reconstruction complies with both of the following: • Requirements of Chapter 21 • Requirements of the applicable Sections 43.3,43.4, 43.5, and 43.6 20.1.1.4.3, 21.1.1.4.3, 4.6.7, 43.1.2.1	**IEBC 202 Definitions** **REPAIR.** **[A] ALTERATION.** **IEBC 401.1 Scope. (Repair)** **IEBC 501.1 Scope. (Prescriptive method)** **IEBC 701.1 Scope. (**Level 1 *alterations)*** **IEBC 801.1 Scope. (**Level 2 *alterations)*** **IEBC 901.1 Scope. (**Level 3 *alterations)*** **IFC 1101.1 Scope.** **IFC 1101.2 Intent.** **IFC SECTION 1105 CONSTRUCTION REQUIREMENTS FOR EXISTING GROUP I-2** **IFC 1105.1 General.**	Should consider adding language for new and existing ambulatory care uses.
					Change of Use or Change of Occupancy Any building undergoing change of use or change of occupancy classification complies with the requirements of Section 43.7, unless permitted by 20.1.1.4.2 or 21.1.1.4.2 20.1.1.4.2, 21.1.1.4.2, 43.1.2.2 (43.7)	**IEBC 202 Definitions** **[A] CHANGE OF OCCUPANCY.** **IEBC 501.1 Scope. (Prescriptive method)** **IEBC 1001.1 Scope.** (*change of occupancy)* IEBC **SECTION 1002 SPECIAL USE AND OCCUPANCY** IEBC **1002.1 Compliance with the building code.**	No work needed.
					Additions Any building undergoing an addition shall comply with the requirements of Section 43.8. If the building has a common wall with a nonconforming building, the common wall is a fire barrier having at least a 2-hour fire resistance rating constructed of materials as required for the addition. 20.1.1.4.1, 21.1.1.4.1, 4.6.5, 4.6.7, 43.1.2.3 (43.8)	**IEBC 202 Definitions** **ADDITION.** **IEBC 501.1 Scope. (Prescriptive method)** **IEBC 502.1 General.** **IEBC 1101.1 Scope.** (*addition)*	Some work needed. This portion of the KTAG is worded in a challenging way. Conceptually, the Ktag tries to acknowledge that non-compliant buildings (ie other occupancies) that are not compliant with the bare minimum requirements for the occupancy (IFC chapter 11requirements) are separated from a new healthcare occupancy with a two hour separation. The building code works the same way – if you have portion of the building that does not comply with ambulatory care, you will either get a separate occupancy, a tenant separation with 423 or a non-separated mixed use. With non-separated mixed uses, it's more difficult to state. We added a section into 2018 IBC 508 to deal with some of the opening protection issues foe Group I – not ambulatory healthcare. This needs to be added into the chapter 11 IFC.
K114	8	Ambulatory health care occupancies are separated from other tenants and occupancies by fire barriers with at least a 1 hour fir resistance rating. Doors in such barriers are solid bonded core wood of 1 3/4 inches or equivalent and are equipped with a positive latch and closing device. Vision panels, if provided in fire barriers or doors shall be of fixed fire window assemblies in accordance with 8.2.3.2.2. 20.3.7.1, 21.3.7.1	K131	3	Multiple Occupancies – Sections of Ambulatory Health Care Facilities Multiple occupancies shall be in accordance with 6.1.14.	**IBC SECTION 508 MIXED USE AND OCCUPANCY** **IBC 508.1 General.**	*(Note: See the rest of Section 508 for additional criteria for separated and non-separated occupancies and accessory occupancies)*
					Sections of ambulatory health care facilities shall be permitted to be classified as other occupancies, provided they meet both of the following: • The occupancy is not intended to serve ambulatory health care occupants for treatment or customary access • They are separated from the ambulatory health care occupancy by a 1-hour fire resistance rating	**IBC SECTION 302 OCCUPANCY CLASSIFICATION AND USE DESIGNATION** **IBC 302.1 Occupancy classification.** **IBC 302.2 Use designation.** **IBC TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)**	Some work needed. This KTAG is also worded in a challenging way. THE IBC would trigger application of the AHC requirements in IBC423 whenever the definition of Ambulatory Healthcare is meet. The KTAG asks us to c heck for occupant use and "customary use" neither one of these are indicators of a greater risk.
					Ambulatory health care facilities shall be separated from other tenants and occupancies and shall meet all of the following: • Walls have not less than 1-hour fire resistance rating and extend from floor slab to roof slab • Doors are constructed of not less than 1¾ in. thick, solid-bonded wood core or equivalent and is equipped with positive latches. • Doors are self-closing and are kept in the closed position, except when in use. • Windows in the barriers are of fixed fire window assemblies per 8.3.	**G124-15 (AS) IBC 422.2 Separation.** **IBC Section 707 FIRE BARRIERS** **IBC 707.5 Continuity** **IBC 707.6 Openings** **IBC 716.5 Fire door and shutter assemblies** **IBC 716.6 Fire-protection-rated glazing** **IFC K102.1 Separation.**	
					Per regulation, ASCs are classified as Ambulatory Health Care Occupancies, regardless of the number of patients served.20.1.3.2, 21.1.3.3, 20.3.7.1, 21.3.7.1,42 CFR 416.44	**IBC 202 Definitions** **24-HOUR BASIS.** **G124-15 (AS) AMBULATORY CARE FACILITY.** **CLINIC, OUTPATIENT.** IBC SECTION 304 BUSINESS GROUP B **IBC 304.1 Business**	No work needed, this is the concept used by ICC.
K12, K13	2	K12: Buildings two or more stories in height and of Type II(000),III (200), V (000) construction are equipped throughout with a supervised approved automatic sprinkler system in accordance with section 9.7. 20.1.6.3, 21.1.6.3 Number of stories in the building _____ K13:	K161	4	Building Construction Type and Height Building construction type and stories meet Table 20.1.6.1 or Table 21.1.6.1, respectively Construction Type 1. I (442), I (332), II (222), II (111), III (211), IV (2HH), V (111) - Any number of stories, non-sprinklered or sprinklered 2. II (000), III (200), V (000) - One story non-sprinklered, any number of stories sprinklered Any level below the level of exit discharge shall be separated by Type II (111), Type III (211), or Type V (111) construction unless both of the following are met:	**IBC CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS** **IBC Section 504 BUILDING HEIGHT AND NUMBER OF STORIES** **IBC Section 506 BUILDING AREA** **IBC Section 509 INCIDENTAL USES** **IBC Section 414 HAZARDOUS MATERIALS** **IBC Section 415 GROUPS H-1, H-2, H03, H-4 AND H-5**	No work needed- these building types are very similar.

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		Construction Type _____			1. Such levels are under the control of the ambulatory health care occupancy. 2. Hazardous spaces are protected per section 8.7. Sprinklered stories must be sprinklered throughout by an approved, supervised automatic system in accordance with section 9.7. (See 20.3.5 or 21.3.5, respectively Give a brief description, in REMARKS, of the construction, the number of stories, including basements, floors on which patients are located, location of smoke or fir barriers and dates of approval. Complete sketch or attach small floor plan of the building as appropriate. 20.1.6.1, 20.1.6.2, 21.1.6.1, 21.1.6.2	**IBC Section 903.2.6 Group I (sprinklers required)** **IFC 1105.2 Construction.** **IFC TABLE 1105.2 FLOOR LEVEL LIMITATIONS FOR GROUP I-2 CONDITION 2**	
NA	NA	NA	K163	4	Interior Nonbearing Wall Construction Interior nonbearing walls in Type I or II construction are constructed of noncombustible or limited-combustible materials. Interior nonbearing walls required to have a minimum 2-hour fire resistance rating are fire-retardant-treated wood enclosed within noncombustible or limited- combustible materials, provided they are not used as shaft enclosures. 20.1.6.3, 20.1.6.4, 21.1.6.3, 21.1.6.4	IBC CHAPTER 6 TYPES OF CONSTRUCTION IBC SECTION 602 CONSTRUCTION CLASSIFICATIONS IBC 602.2 Types I and II IBC COMBUSTIBLE MATERIALS IN TYPES I AND II CONSTRUCTION	Some work needed. ' Not sure why they are referencing a 2 hour wall in this location
NA	NA	NA	K200	5	Means of Egress Requirements – Other List in the REMARKS section any LSC Section 20.2 and 21.2 Means of Egress Requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. 20.2, 21.2	IBC MEANS OF EGRESS	This is a "catch-all". Until we either do a much more comprehensive review of 101, or we start seeing what gets cited out of this section, it tough to determine if there is a gap. I would argue this needs to be monitored closely, however but we could present this as substantially equivalent because the ICC family goes into much more detail about the arrangement of the means of egress.
K72	2	Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. No furnishing, decorations, or other objects shall obstruct exits, assess thereto, egress there from, or visibility thereof in accordance with 7.7.2, 38.2.7, 39.2.7, 21.1.2.7, 20.1.2.7.	K211	5	Means of Egress – General Aisles, passageways, corridors, exit discharges, exit locations, and accesses are in accordance with Chapter 7, and the means of egress is continuously maintained free of all obstructions to full instant use in case of emergency, unless modified by 20/21.2.2 through 20/21.2.11. 20.2.1, 21.2.1, 7.1.10.1	**IBC [F] 1002.1 Maintenance.** **IBC 1003.3 Protruding objects** **IBC SECTION 1005 MEANS OF EGRESS SIZING** **IBC SECTION 1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS** **IBC SECTION 1007 EXIT AND EXIT ACCESS DOORWAY CONFIGURATION** **IBC SECTION 1018 AISLES** **IBC SECTION 1020 CORRIDORS** **IBC SECTION 1024 EXIT PASSAGEWAYS** **IBC SECTION 1028 EXIT DISCHARGE** **IFC SECTION 1031 MAINTENANCE OF THE MEANS OF EGRESS** **IFC 1031.1 General.** IFC **1031.2 Reliability** **IFC 1105.5 Means of egress**	No work needed. This show is in section 1031 in the fire code.
NA	NA	NA	K222	5	Egress Doors Special locking arrangements are in accordance with section 7.2.1.6	**IBC 407.4.1.1 Locking devices.** **IFC 1031.2.1 Security devices and egress locks.**	No w2ork needed. This is already covered in the building code
					DELAYED-EGRESS LOCKING ARRANGEMENTS Approved, listed delayed-egress locking systems installed in accordance with 7.2.1.6.1 shall be permitted on door assemblies serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system or an approved, supervised automatic sprinkler system.	**(E66 AMPC1, E68 AM/AMPC1, E69 AS) IBC 1010.1.9.8 Delayed egress.** **(E66 AMPC1, E68 AM/AMPC1, E69 AS) IBC 1010.1.9.8.1 Delayed egress locking system.**	This is essentially covered by the building code.
					ACCESS-CONTROLLED EGRESS LOCKING ARRANGEMENTS Access-Controlled Egress Door assemblies installed in accordance with 7.2.1.6.2 shall be permitted.	**IBC 10101.1.9.7 Controlled egress doors in Groups I-1 and I-2.**	This needs review to see if should apply to ambulatory
					ELEVATOR LOBBY EXIT ACCESS LOCKING ARRANGEMENTS Elevator lobby exit access door locking in accordance with 7.2.1.6.3 shall be permitted on door assemblies in buildings protected throughout by an approved, supervised automatic fire detection system and an approved, supervised automatic sprinkler system. 20.2.2.2, 21.2.2.2, 7.2.1.6.1 through 7.2.1.6.3	**G202-15 (AS) IBC 3006.4 Means of egress.** **IFC 1031.2.1 Security devices and egress locks.**	No work needed Concept is similar
NA	NA	NA	K223	6	Doors with Self-Closing Devices Doors required to be self-closing are permitted to be held open by a release device complying with 7.2.1.8.2 that automatically closes all such doors throughout the smoke compartment, entire facility, and all stair enclosure doors upon activation of: • Required manual fire alarm system, and • Local smoke detectors designed to detect smoke passing through the • opening or a required smoke detection system; and • Automatic sprinkler system, if installed; and • Loss of power 20.2.2.4, 20.2.2.5, 21.2.2.4, 21.2.2.5	FS95-15(AS) G202-15 (AS) IBC 716.2.6.6 Smoke activated doors. **F253-16 (AS) IFC 1105.5.2 Group I-2 occupancies.**.	Review Significant work was done to align these two. Not sure why we are not listing loss of power, although that may be implied.
K40, K43	3	K40: Exit access doors and exit doors used by health care occupants are of the swinging type and are at least 32-inchs in clear width. An exception is provided for existing 34-inch doors in existing occupancies. 20.2.3.3, 21.2.3.3 K43: Special locking arrangements on exterior doors comply with 7.2.1.6. 20.2.2.2, 21.2.2.2	K231	6	Means of Egress Capacity The capacity of required means of egress is in accordance with 7.3. 20.2.3.1, 21.2.3.1, 38.2.3, 39.2.3	**IBC 1010.1.1 Size of doors** **IBC 1011.2 Width can capacity (stairways)** **IBC 1012.5.1 Width and capacity (ramps)** **IBC 1018.5 Aisles in other than assembly spaces and Groups B and M.** **IBC 1020.2 Width and capacity. (corridors)** **IBC 1024.2 Width (exit passageways)** **IBC 1028.2 Exit discharge width or capacity.**	Review obviously there are some strong correlations between the two in concept. The specific should be compared more carefully. This KTAG is a great expansion of scope from the old one.
K39	4	Corridors for exit access are at least 44 inches wide. 20.2.3.2,21.2.3.2	K232	6	Aisle, Corridor or Ramp Width The clear width of any corridor or passageway required for egress shall be not less than 44 inches wide. Where a corridor is 6 feet wide, projections of not more than 6 inches from the corridor wall above the handrail height are permitted for alcohol-based hand rub dispensers. 20.2.3.2, 20.2.3.3, 21.2.3.2, 21.2.3.3	**IFC K104.2 Corridor and aisle width.** IBC **407.4.3 Projections in nursing home corridors.** **(E1-15-AM) IBC 1003.3.3 Horizontal projections.** **(E1-15-AM) IBC 1003.4 ~~Floor~~ Slip-resistant surface.** **IBC 1018.5 Aisles in other than assembly spaces and Groups B and M.** **IBC [BE] 1020.2 Width and capacity.** **(E106-15 AS) IBC TABLE 1020.2 MINIMUM CORRIDOR WIDTH** **IBC 1020.3 Obstruction.** **IBC 1024.2 Width and capacity.** IFC **1031.3 Obstructions.** **IFC 1104.15 Width of ramps.** **IFC 1105.5.3 Ramps.** **IFC 1105.5.4 Corridor width.** **IFC 1105.5.7 Aisles.**	Some work needed. Significant work achieved with regard to obstructions and equipment used in hospitals. Clear width in ambulatory care needs review. The approach is simi9lar, however the allowed projection of 6" is greater in the KTAGs. CMS acknowledges that the ADA may be more restrictive.

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NA	NA	NA	K233	6	Clear Width of Exit and Exit Access Doors 2012 EXISTING Doors in the means of egress from diagnostic or treatment areas, such as x-ray, surgical, or physical therapy, shall provide a clear width of not less than 32", unless the doors are existing 34" wide doors. 21.2.3.4	**F244-16 (AM) IFC 1104.7.1 Group I-2.** **F244-16 (AM) IFC 1104.7.2 Ambulatory Care.** **IFC 1105.5.1 ~~1105.5.~~** **F243-16 (AM) IFC K104.1 Size of doors.** **F243-16 (AM) IFC K104.1 Size of doors.**	Work needed. Number in the IFC Appendix K and this KTAG are different, should be reviewed in detail. Note the scope of KTAG only applies to a specific set of doors.
NA	NA	NA	K233	6	Clear Width of Exit and Exit Access Doors 2012 NEW Doors in the means of egress from diagnostic or treatment areas, such as x-ray, surgical, or physical therapy, shall provide a clear width of not less than 32". 20.2.3.4,	**(E47-15 AM, E49-15 AM) IBC 1010.1.1 Size of doors.**	Work needed – Same issue as above, although the IBC does not specifically call out a door width for these doors.
K32, K42	2	K32: At least two exits, located remote from each other are provided for each floor or fire section of the building. 20.2.4.1, 21.2.4.1, 7.5.1.4 K42: Rooms or suites of rooms of more than 2,500 sq. ft. have at least two exit access doors located remote from each other. 20.2.4.2, 21.2.4.2	K241	7	Number of Exits – Story and Compartment 2012 EXISTING Single means of egress is allowed from a mezzanine or balcony if one of the following exist: 1. Common path of travel is under 100 ft. if in a sprinklered building 2. Common path of travel 75 ft. if in a non-sprinklered building 3. Common path of travel is not limited if occupant load is under 30 Not less than 2 exits, as described in 38.2.2, are remotely located for each fire section or patient care area of the building and are accessible from each smoke compartment. Patient care suites larger than 2500 square feet have 2 exits remotely located from each other. Egress from smoke compartments, if installed, shall be permitted through adjacent compartments provided the egress does not return through the compartment of fire origin. 21.2.3.1 through 21.2.3.5, 7.4.1.1, 7.4.1.3 through 7.4.1.6	**IFC 1104.20 Common path of egress travel.** **IFC 1105.5.6 Separation of exit access doors.** **IFC 1105.6 Smoke compartments.** **IFC 1105.6.1 Design.** **IFC 1105.6.1.1 Refuge areas.** **IFC 1105.7 Group I-2 care suites.** **IFC K102.2.7-Independent egress.** **IEBC 503.12 Refuge areas.** **IEBC *503.12.1 Smoke compartments.*** **IEBC *503.12.2 Ambulatory care.*** IEBC **802.3 Smoke compartments.** **IEBC** 804.4.1.2 Group I-2.	Needs significant work. This is not addressed in appendix K, therefore would default back to the requirements at the time of construction
K32, K42	2	K32: At least two exits, located remote from each other are provided for each floor or fire section of the building. 20.2.4.1, 21.2.4.1, 7.5.1.4 K42: Rooms or suites of rooms of more than 2,500 sq. ft. have at least two exit access doors located remote from each other. 20.2.4.2, 21.2.4.2	K241	7	Number of Exits – Story and Compartment 2012 NEW Meets the requirements of section 7.4. Not less than 2 exits, as described in 38.2.2, are remotely located for each fire section or patient care area of the building and are accessible from each smoke compartment. Patient care suites larger than 2500 square feet have 2 exits remotely located from each other. Egress from smoke compartments, if installed, shall be permitted through adjacent compartments provided the egress does not return through the compartment of fire origin. 20.2.4.1 through 20.2.4.5, 7.4	**IBC SECTION 422 AMBULATORY CARE FACIILITIES** **IBC 422.1 General.** **G124-15 (AS) IBC 422.2 Separation.** **IBC 422.3 Smoke compartments.** **IBC 422.3.1 Means of egress.** **IBC 422.3.2 Refuge area.** **IBC 422.3.3 Independent egress.**	Work needed – Same issue as above, although the IBC does not specifically call out a door width for these doors.
K37	2	Dead-end corridors in existing occupancies do not exceed 50 ft. Dead-end corridors in new occupancies do not exceed 20 ft. In new occupancies with an approved automatic sprinkler system, dead-end corridors may increase to 50 ft. 20.2.5, 21.2.5, 38.2.5, 39.2.5.	K251	7	Dead-End Corridors and Common Path of Travel 2012 EXISTING Dead end corridors shall not exceed 50 feet. Common path of travel is no more 75 feet, and no more than 100 feet on a sprinklered story. Common path of travel is not limited in single tenant space with an occupant load not exceeding 30 persons. 21.2.5, 39.2.5.2	**IFC 1104.18 Dead end corridors.** **IFC TABLE 1104.18 COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)** **IFC 1104.20 Common path of egress travel.** **IFC 1105.5.5 Dead-end corridors.** IEBC **804.6 Dead-end corridors.**	Needs significant work. This is not addressed in appendix K, therefore would default back to the requirements at the time of construction
K37	2	Dead-end corridors in existing occupancies do not exceed 50 ft. Dead-end corridors in new occupancies do not exceed 20 ft. In new occupancies with an approved automatic sprinkler system, dead-end corridors may increase to 50 ft. 20.2.5, 21.2.5, 38.2.5, 39.2.5.	K251	8	Dead-End Corridors and Common Path of Travel 2012 NEW Dead-end corridors are no more than 50 feet in sprinklered buildings, and no more than 20 feet in non-sprinklered buildings. Common path of travel is no more 75 feet, and no more than 100 feet in sprinklered buildings or single tenant space with an occupant load not exceeding 30 persons. 20.2.5, 38.2.5.2, 38.2.5.3	**(E16-15 AM, E17-15 AS) IBC 1006.2.1 Egress based on occupant load and common path of egress travel distance.** **(E17-15 AS, G133-15 AM) IBC TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY** **(E107-15 AS) IBC 1020.4 Dead ends.**	No work needed – requirements for new construction are similar.
K36	2	Travel distance between any room door required as exit access and an exit does not exceed 100 ft. The travel distance between any point in a room and an exit does not exceed 150 ft. (Note: In approved automatic sprinklered buildings, the travel distances may be increased by 50 ft.). 20.2.6.2, 21.2.6.2	K261	8	Travel Distance to Exits Travel distance between any point in a room and an exit is not more than 150 feet or 200 feet in sprinklered buildings. 20.2.6, 21.2.6	**IBC SECTION 1017 EXIT ACCESS TRAVEL DISTANCE** **IBC 1017.1 General.** **IBC 1017.2 Limitations.** **(E23-15 AS, G133-15 AM) IBC TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE[a]** **IBC 407.4.2 Distance of travel.** **IFC 1104.19 Exit access travel distance.** IFC Table 1104.18 COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)	Needs work Appendix K has no mention – defaults to code at time of construction and chapter 11.
K112	2	At least 50 percent of the required exit capacity from upper floors discharges directly to the exterior of the building in accordance with section 7.7.2, 38.2.7, 39.2.7, 20.1.2.7, 21.1.2.7	K271	8	Discharge from Exits Exit discharge is arranged in accordance with 7.7, provides a level walking surface meeting the provisions of 7.1.7 with respect to changes in elevation and shall be maintained free of obstructions. Additionally, the exit discharge shall be a hard packed all-weather travel surface in accordance with CMS Survey and Certification Letter 05-38. 20.2.7, 21.2.7, 38.2.7, 39.2.7, 7.7	**IBC 1003.4 Floor surface.** **IBC 1003.5 Elevation change.** **IBC 1003.6 Means of egress continuity.** **IBC 1028.5 Access to a public way.**	Needs work. The concepts are similar enough to be consistent. Should review the all-weather surface concepts, Section 1003.6 generally addresses the concept, but is not as specific as the CMS S&C letter.
K113	2	Exit access, exits, and exit discharges are provided with illumination in accordance with section 7.8. 20.2.8, 21.2.8.	K281	8	Illumination of Means of Egress Illumination of means of egress, including exit discharge, is arranged in accordance with 7.8 and shall be either continuously in operation or capable of automatic operation without manual intervention. 20.2.8, 21.2.8, 7.8	**IBC SECTION 1008 MEANS OF EGRESS ILLUMINATION** **IBC 1008.1 Means of egress illumination.** **IBC 1008.2 Illumination required.** **IBC 1008.2.1 Illumination level under normal power.** **(E32-AMPC1, E33-15 AM) IBC 1008.2.2 Group I-2.** **(E33-15 AM) IBC 1008.2.3 Exit Discharge.** **IBC 1008.3 Emergency power for illumination.** **IBC 1008.3.1 General.** **IBC 1008.3.2 Buildings.** **IBC 1008.3.3 Rooms and spaces.** **IEBC 805.7 Means-of-egress lighting.** **IEBC *805.7.1 Artificial lighting required.*** **IEBC *805.7.2 Supplemental requirements for means-ofegress lighting.*** **IEBC 905.2 Means-of-egress lighting.** **IFC 1104.5 Illumination emergency power.**	Review only – should be pretty close
K46	2	Emergency illumination of at least 1½ hour duration is provided in accordance with section 7.9. 20.2.9.1, 21.2.9.1	K291	8	EmergencyLighting Emergency lighting of at least 1½-hour duration is provided automatically in accordance with 7.9. 20.2.9.1, 21.2.9.1, 7.9	**IBC 1008.3.4 Duration.** **F242-16 (AS) IFC 1104.5.1 Emergency power duration and installation.**	No work needed.
K105	6	Where general anesthesia or life support equipment is used, an essential electric system is provided in accordance with NFPA 99. 20.2.9.2, 21.2.9.2 Indicate type	K292	8	Life Support Means of Egress 2012 NEW (INDICATE N/A FOR EXISTING) Where general anesthesia or life-support equipment is used, each ambulatory health care facility shall be provided with an essential electric system in accordance with NFPA 99. (Indicate N/A if life support equipment is for emergency purposes only.) 20.2.9.2	**F76-16 (AM) IFC <u>1203.4.1 Group I-2.</u>** **IFC 1105.10 Essential electrical systems.** **F255-16 (AS) IFC 1105.10.1 Where required.** **IFC 1105.10.2 Installation and duration.**	Needs significant work. While described for group I-2, the IBC does not address AHCs.
K47	3	Exit and directional signs are displayed in marked in accordance with section 7.10 with continuous illumination served by the Emergency lighting system. 20.2.10, 21.2.10	K293	9	Exit Signage Exit and directional signs are displayed in accordance with 7.10 with continuous illumination also served by the emergency lighting system. 20.2.10, 21.2.10, 7.10	**IBC 1013.3 Illumination.** **IBC 1013.5 Internally illuminated exit signs.** **IBC 1013.6 Externally illuminated exit signs.** **(E90-15 AS) IBC 1013.6.3 Power source.**	REVIEW ONLY This is another area where there is broad agreement.

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2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
						IEBC 805.8 Exit signs. **IEBC *805.8.1 Work areas.*** **IEBC *805.8.2 Supplemental requirements for exit signs.*** **IEBC 905.3 Exit signs.** **IFC 1104.3 Exit sign illumination.** **IFC 1104.4 Power source.** **E148-15 (AS) IFC [BE] 1031.4 Exit signs.**	
NA	NA	NA	K300	9	Protection – Other List in the REMARKS section any LSC Section 20.3 and 21.3 Protection requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567.		This is a catch all.
K20, K21	4	K20: Vertical openings such as stairways, elevator shaftways, escalators, and building service shaftways are enclosed in accordance with section 8.2.5. (Note: Some exceptions are permitted in 38.3.1.) 8.2.5.2, 38.3.1, 39.3.1 20.3.1, 21.2.1 K21 :Any door with a required fire protection rating, such as stairways, exit passageways, horizontal exits, smoke barriers, or hazardous areas enclosures, if held open, is arranged to close automatically all such doors throughout the smoke compartment or entire facility by the actuation of the fire alarm system or automatic sprinkler system. 7.2.1.8.2, 20.2.2.3, 21.2.2.3	K311	10	Vertical Openings – Enclosure 2012 EXISTING Vertical openings shall be enclosed or protected per 8.6, unless one of the following conditions exist: 1. Unenclosed vertical openings per 8.6.9.1 are permitted 2. Unenclosed openings which do not serve as a required means of egress are permitted 3. Exit access stairs may be unenclosed if they meet the following conditions: Two stories or less throughout by a supervised sprinkler system per 9.7.1.1(1) b. Total travel distance to outside does not exceed 100 feet. Two stories or less story does not exceed 15 people b. Building is sprinkler protected throughout per 9.7.1.1(1) c. Building contains an automatic smoke detection system per 9.6 d. Activation of the sprinkler system or smoke detection system notifies all occupants of the building e. Total travel distance to outside does not exceed 100 feet. Floors that are below the street level and are used for storage or any use other than a business occupancy, shall not have any unprotected openings to the business occupancy floors. 21.3.1, 39.3.1.1, 39.3.1.2	**IEBC EB16-15 (AS) 501.2 Fire resistance ratings.** **IEBC *802.2* Vertical openings.** **IEBC *802.2.1 Existing vertical openings.*** **IEBC *802.2.2 Supplemental shaft and floor opening enclosure requirements.*** **IEBC *802.2.3 Supplemental stairway enclosure requirements.*** **IEBC 903.1 Existing shafts and vertical openings.** **IFC 1103.4 Vertical openings.** **IFC 1103.4.1 Group I-2 and I-3 occupancies.**	Needs work CMS rules and the ICC differ in subtle but significant ways. Much work was done to resolve these issues for hospitals. This should be reviewed for ambulatory care facilities.'
K20, K21	4	K20: Vertical openings such as stairways, elevator shaftways, escalators, and building service shaftways are enclosed in accordance with section 8.2.5. (Note: Some exceptions are permitted in 38.3.1.) 8.2.5.2, 38.3.1, 39.3.1 20.3.1, 21.2.1 K21 : Any door with a required fire protection rating, such as stairways, exit passageways, horizontal exits, smoke barriers, or hazardous areas enclosures, if held open, is arranged to close automatically all such doors throughout the smoke compartment or entire facility by the actuation of the fire alarm system or automatic sprinkler system. 7.2.1.8.2, 20.2.2.3, 21.2.2.3	K311	11	Vertical Openings – Enclosure 2012 NEW Vertical openings shall be enclosed or protected per 8.6, unless one of the following conditions exist: 1. Unenclosed vertical openings per 8.6.9.1 are permitted 2. Exit access stairs may be unenclosed if they meet the 2 conditions a. Building is sprinkler protected throughout b. Total travel distance to outside does not exceed 100 feet. Floors that are below the street level and are used for storage or any use other than a business occupancy, shall not have any unprotected openings to the business occupancy floors. 20.3.1, 38.3.1.1, 38.3.1.2	**IBC SECTION 712 VERTICAL OPENINGS** **IBC SECTION 713 SHAFT OPENINGS**	This needs review. Appendix K does not address vertical opening, so this defaults back to Chapter 11. While there was significant wok made on Group I-2 in the last cycle, we should review for Ambulatory Health Care.
K29	4	Hazardous areas separated from other parts of the building by fire barriers have at least one hour fire resistance rating or such areas are enclosed with smoke partitions and doors and the area is provided with an automatic sprinkler system. High hazard areas are provided with both fire barriers and sprinkler systems. 8.4, 38.3.2, 39.3.2	K321	11	Hazardous Areas – Enclosure Hazardous areas must meet one of the following: - Contain 1 hour rated enclosure when non-sprinklered - Sprinkler protected with smoke resistive separation - Severe Hazard locations contain sprinkler protection and 1-hour separation with 3/4 hour rated self-closing doors 20.3.2, 21.3.2, 38.3.2, 38.3.2.2, 39.3.2.1, 39.3.2.2, 8.7 -	**IBC SECTION 509 INCIDENTAL USES** **IBC TABLE 509 INCIDENTAL USES** **IFC 1105.3 Incidental uses in existing Group I-2** **IFC 1105.3.1 Occupancy classification.** **IFC 1105.3.2 Area limitations.** **IFC 1105.3.3 Separation and protection.** **IFC 1105.3.3.1 Separation.** **IFC 1105.3.3.2 Protection.** **IFC 1105.3.3.2.1 Protection limitation.** **IFC TABLE 1105.3 INCIDENTAL USES IN EXISTING GROUP I-2 OCCUPANCIES** IFC **SECTION K103 INCIDENTAL USES IN EXISTING AMBULATORY CARE FACILITIES** **IFC K103.1 General.** IFC **TABLE K103.1 INCIDENTAL USES IN EXISTING AMBULATORY CARE FACILITIES** **IFC K103.2 Occupancy classification.** **IFC K103.3 Area limitations.** **IFC K103.4 Separation and protection.** **IFC K103.4.1 Separation.** **IFC K103.4.2 Protection.** **IFC K103.4.2.1 Protection limitation.** IEBC **902.2 Boiler and furnace equipment rooms.**	
K31, K131, K132, K133, K134, K135, K136		K31: Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered a severe hazard shall be protected in accordance with NFPA 99. (Laboratories that are not considered to be a severe hazard shall meet the provision of K29. 101. 20.3.2.1, 21.3.2.1, Chapter 10 (NFPA 99) K131: Emergency procedures established for controlling chemical spills shall be in accordance with NFPA 99. 10-2.1.3.2 (NFPA 99) K132: Continuing safety education and supervision shall be provided, incidents shall be reviewed monthly, and procedures reviewed annually shall be in accordance with NFPA 99. 10-2.1.4.2 (NFPA 99) K133: Fume hoods shall be in accordance with NFPA 99. 5-4.3, 5-6.2 (NFPA 99) K134: Emergency Shower: Where the eyes or body of any person can be exposed to injurious corrosive materials, suitable fixed facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. Fixed eye baths shall be designed and installed to avoid injurious water pressure shall be in accordance with NFPA 99. 10-6 (NFPA 99) K135: Flammable and combustible liquids used from and stored in approved containers shall be in accordance with NFPA 30, Flammable and Combustible Liquids Code, and NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals. Storage cabinets for flammable and combustible liquids shall be constructed in accordance with NFPA 30, Flammable and Combustible Liquids Code 4-3 10-7 2 1 (NFPA 99)	K322	11	Laboratories Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered a severe hazard are protected by 1-hour fire resistance- rated separation, automatic sprinkler system, and are in accordance with 8.7 and with NFPA 99. Laboratories not considered a severe hazard are protected as hazardous areas (see K321). Laboratories using chemicals are in accordance with NFPA 45. Gas appliances are of appropriate design and installed in accordance with NFPA 54. Shutoff valves are marked to identify material they control. Devices requiring medical grade oxygen from the piped distribution system meet the requirements under 11.4.2.2 (NFPA 99). 20.3.2.2,21.3.2.2 9.3.1.2, 11.4.3.2, 15.4 (NFPA 99)	**IFC TABLE 1105.3 INCIDENTAL USES IN EXISTING GROUP I-2 OCCUPANCIES** **IFC 5003.8 Construction requirements.** **IFC 5003.8.1 Buildings.** **IFC 5003.8.2 Required detached buildings.** **F340-16 (AS) IFC 5003.8.3 Control areas.** **IFC 5003.8.3.1 Construction requirements.** **F354-16 (AS) IFC 5003.8.3.2 Percentage of maximum allowable quantities.** **IFC 5003.8.3.3 Number.** **F355-16 (AS) IFC 5003.8.3.4 Fire-resistance-rating requirements.** **IFC 5003.9 General safety precautions.** **IFC 5003.9.1 Personnel training and written procedures.** **IFC 5003.9.1.1 Fire department liaison.** **IFC 5003.9.2 Security.** **IFC 5704.3 Container and portable tank storage.** **IFC 5704.3.1 Design, construction and capacity of containers and portable tanks.** **IFC 5704.3.1.1 Approved containers.** **IFC 5704.3.2 Liquid storage cabinets.** **IFC 5704.3.2.1 Design and construction of storage cabinets.** **IFC 5704.3.2.1.1 Materials.** **IFC 5704.3.2.1.2 Labeling.** **IFC 5704.3.2.1.3 Doors.** **IFC 5704.3.2.1.4 Bottom.** **IFC 5704.3.2.2 Capacity.** **IMC SECTION 510 HAZARDOUS EXHAUST SYSTEMS** **IMC 510.1 General.** **IMC 510.2 Where required.** **IPC SECTION 411 EMERGENCY SHOWERS AND EYEWASH STATIONS** **IPC 411.1 Approval.** **IPC 411.2 Waste connection.** **P63-15 AM IPC 411.3 Water supply.**	Review. This KTAG is essentially covered in the ICC by the concept of incidental uses, hazardous materials and permit amounts. NFPA 99 moved away from prescribing laboratory requirements and left regulation to NFPA 45. We should review these and compare 2018 ICC changes for lab areas. The basic labs are consistent, with ICC possibly being more stringent. Larger educational or production labs may adequately be addressed in 2018. Unclear if it covers all teaching and production context that might be seen in a hospital. Gas appliance language is very specific and needs to be reviewed.

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2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
K78	5	Anesthetizing locations shall be protected in accordance with NFPA 99, Standard for Health Care Facilities and NFPA 101. (a) Shutoff valves are located outside each anesthetizing location and arranged so that shutting off one room or location will not affect others. (b) Relative humidity is maintained equal to or greater than 35%. 4-3.1.2.3(n) and 5-4.1.1 (NFPA 99), 20.3.2.2, 21.3.2.2	K323	12	Anesthetizing Locations Areas designated for administration of general anesthesia (i.e., inhalation anesthetics) are in accordance with 8.7 and NFPA 99. Zone valves are located immediately outside each anesthetizing location for medical gas or vacuum; readily accessible in an emergency; and arranged so shutting off any one anesthetizing location will not affect others. Area alarm panels are provided to monitor all medical gas, medical-surgical vacuum, and piped WAGD systems. Panels are at locations that provide for surveillance indicate medical gas pressure decreases of 20% and vacuum decreases of 12 in. gauge HgV, and provide visual and audible indication. Alarm sensors are installed either on the source side of individual room zone valve box assemblies or on the patient/use side of each of the individual zone box valve assemblies. The EES critical branch supplies power for task illumination, fixed equipment, select receptacles, and select power circuits, and EES equipment system supplies power to ventilation system. Heating, cooling, and ventilation are in accordance with ASHRAE 170. Medical supply and equipment manufacturer's instructions for use are considered before reducing humidity levels to those allowed by ASHRAE, per S&C 13-58. 20.3.2.3, 21.3.2.3, NFPA 99 5.1.4.8.7, 5.1.4.8.7.2, 5.1.9.3.4, 6.4.2.2.4.2	IFC **5306.5 Medical gas systems.**.	The reference to NFPA 99 is adequate for this k-tag, and needs to be maintained.
NA	NA	NA	K324	12	Cooking Facilities Commercial cooking equipment shall be installed per NFPA 96 unless used for food warming or limited cooking. 20.3.2.4, 20.3.2.5, 21.3.2.4, 21.3.2.5, 9.2.3	**M30-15 (AM) IMC 507.1 General.** **F178-16 (AS), F179-16 (AS) IFC 904.13 Domestic cooking systems in Group I-2 Condition 1.**	This IMC section more clearly defines the difference in commercial cooking and ranges, and adequately covers the Hospital requirements for ADL kitchens, and cooking education. The IFC section was added to satisfy nursing home requirements, to allow open cooking serving multiple resident rooms.
K211	5	Where Alcohol Based Hand Rub (ABHR) dispensers are installed: The corridor is at least 6 feet wide The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) The dispensers shall have a minimum spacing of 4 ft. from each other Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. Dispensers are not installed over or adjacent to an ignition source. If the floor is carpeted, the building is fully sprinklered. 18.3.2.7, CFR 416.44, 19.3.2.7	K325	13	Alcohol Based Hand Rub Dispenser (ABHR) ABHRs are protected in accordance with 8.7.3.1, unless all conditions are met: • Corridor is at least 6 feet wide • Maximum individual dispenser capacity is 0.32 gal. (0.53 gal. in suites) of fluid and 18 oz. of Level 1 aerosols • Dispensers shall have a minimum of 4-foot horizontal spacing • Not more than an aggregate of 10 gallons of fluid or 135 oz. aerosol are used in a single smoke compartment outside a storage cabinet, excluding one individual dispenser per room • Storage in a single smoke compartment greater than 5 gallons complies with NFPA 30 • Dispensers are not installed within 1 inch of an ignition source • If floor is carpeted, the building is fully sprinkler protected • ABHR does not exceed 95% alcohol • Operation of the dispenser shall comply with Section 18.3.2.6(11) or 19.3.2.6(11) • ABHR is protected against inappropriate access 20.3.2.6, 21.3.2.6, 8.7.3.1, CFR 416.44	IFC **5705.5 Alcohol-based hand rubs classified as Class I or II liquids.** **IFC 5705.5.1 Corridor installations.**	These requirements were found to match up to those in the Fire Code. No changes were needed.
K14	7	Interior finish on walls and ceilings of exits and enclosed exit access corridors have a flame spread rating of Class A or B. Offices have Class A, B or C.. Interior finishes existing before December 17, 2010 that are applied directly to wall and ceilings with a thickness of less than 1/28 inch shall be permitted to remain in use without flame spread rating documentation. 10.2.3, 38.3.3.2, 39.3.3.2, NFPA TIA 00-2	K331	13	Interior Wall and Ceiling Finish Interior wall and ceiling finishes in exits and exit access corridors shall have a flame spread rating of Class A or Class B. The reduction in class of interior finish for a sprinkler system as prescribed in 10.2.8.1 is permitted. All other areas may be class C rated material. Indicate flame spread rating(s) walls. 20.3.3, 21.3.3, 38.3.3, 39.3.3, 10.2	IFC **803.3 Interior finish requirements based on occupancy.** IFC **TABLE 803.3 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY** **IFC 1031.6 Finishes, furnishings and decorations.** **IEBC 802.4 Interior finish.** **IEBC *802.4.1 Supplemental interior finish requirements.*** **IEBC 903.3 Interior finish.**	This is also covered in IFC table 803.3. Interior finishes remains a big issue with the I-2, Condition 1 (nursing home) group. More and more facilities are taking a consumer based approach, and need to be more upgraded and more like a home-environment, or higher end hotel.
NA	NA	NA	K332	13	Interior Floor Finish 2012 NEW (Indicate N/A for 2012 EXISTING) Interior floor finish in exit enclosures must meet 10.2 and be Class I or Class II. All other areas must meet 10.2.7.1 or 10.2.7.2. Indicate rating(s) for floors 20.3.3, 21.3.3, 38.3.3, 39.3.3, 10.2	**IFC 804.3 New interior floor finish.** **F125-16 (AS) IFC 804.3.1 Classification.** **IFC 804.3.3.2 Minimum critical radiant flux.**	Same comment as in K331.
K51	7	A manual fire alarm system, not a pre-signal type, is provided in accordance with 9.6 to automatically warn the building occupants. Fire alarm system has initiation, notification and control functions. The fire alarm system is arranged to automatically transmit an alarm to summon the fire department. 20.3.4.1, 21.3.4.1	K341	14	Fire Alarm - Installation A fire alarm system is installed with systems and components approved for the purpose in accordance with NFPA 70, National Electric Code, and NFPA 72, National Fire Alarm Code to provide effective warning of fire in any part of the building. In areas not continuously occupied, detection is installed at each fire alarm control unit. In new occupancy, detection is also installed at notification appliance circuit power extenders, and supervising station transmitting equipment. Fire alarm system wiring or other transmission paths are monitored for integrity. 20.3.4.2.1, 21.3.4.1, 9.6	**G112-15 (AS) IBC [F] 407.8 Fire alarm system.** **IBC [F] 422.5 Fire alarm systems.** **F204-16 (AS) IFC 907.4.2.1 Location.** **IFC 907.6.2 Power supply.** **IFC 907.6.6 Monitoring.** **IFC 907.6.6.1 Automatic telephone-dialing devices.** **IFC 907.6.6.2 Termination of monitoring service.** **IFC 907.8.5 Inspection, testing and maintenance.** **IFC 1103.7 Fire alarm systems.** **IFC 1103.7.2 Group I-1.** **IFC 1103.7.3 Group I-2.** **IFC 1105.9 Group I-2 automatic fire alarm system.** **IFC K102.4 Automatic fire alarm system.** IEBC 803.4.1.3 Group I-2 IEBC ***904.2.1 Manual fire alarm systems.***	Generally, meets requirement. However, the IFC does not cover a new provision in 9.6.1.8.1 of the 2012 LSC to address areas that are not continuously occupied. It also effects where the notification reaches. This is important in hospitals at mechanical rooms, storage areas, and OR core areas.
NA	NA	NA	K342	14	Fire Alarm - Initiation Initiation of the fire alarm system is by manual means and by any required sprinkler system alarm, detection device, or detection system. Manual alarm boxes are provided in the path of egress near each required exit and 200' travel distance is not exceeded. 20.3.4.2, 21.3.4.2, 9.6.2		For new, this is now addressed in the IBC, per a change in the 2012 code.
NA	NA	NA	K343	14	Fire Alarm – Notification 2012 EXISTING A positive alarm sequence in accordance with 9.6.3.4 is permitted. Occupant notification is provided automatically, without delay, in accordance with 9.6.3. Fire department notification is accomplished automatically per 9.6.4. Smoke detection devices or systems equipped with reconfirmation features shall not be required to automatically notify the fire department, unless the alarm condition is reconfirmed within 120 seconds (2 minutes) 21.3.4.3 through 21.3.4.3.2.2, 9.6.3, 9.6.4		This also addresses the Silent Mode issue, which we have covered in the 2012 cycle.
NA	NA	NA	K343	14	Fire Alarm – Notification 2012 NEW A positive alarm sequence in accordance with 9.6.3.4 is permitted. Occupant notification is provided automatically, without delay, in accordance with 9.6.3. Fire department notification is accomplished automatically per 9.6.4. 20.3.4.3 through 20.3.4.3.2.1, 9.6.3, 9.6.4	**G112-15 (AS) IBC [F] 407.9 Automatic fire detection.** **IFC 907.2.6.2 Group I-2.** **IFC 907.5.2 Alarm notification appliances.** **IFC 907.5.2.1 Audible alarms.** **IFC 907.5.2.2 Emergency voice/alarm communication systems.** **IFC 907.5.2.2.1 Manual override.** **IFC 907.5.2.2.2 Live voice messages.** **IFC 907.5.2.2.3 Alternate uses.** **IFC 907.5.2.3 Visible alarms.** **IFC 907.5.2.3.1 Public use areas and common use areas.**	This requirement is adequately addressed in the IBC, but the expansion of spaces for I-2, Condition 1 (nursing homes) differs slightly from hospitals. Federal requirements particularly allow food prep areas, where nursing home residents can cook, but this is unlikely in a hospital. These requirements were successfully added in the 2012 cycle.
NA	NA	NA	K344	14	Fire Alarm – Control Functions	**IFC 907.5.2.2.5 Emergency power.**	Also look at K51

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2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
					The fire alarm automatically activates required control functions and is provided with an alternative power supply in accordance with NFPA 72. 20.3.4.4,21.3.4.4		
NA	NA	NA	K345	15	Fire Alarm Systems – Testing and Maintenance A fire alarm system is tested and maintained in accordance with an approved program complying with the requirements of NFPA 70, National Electric Code, and NFPA 72, National Fire Alarm and Signaling Code. Records of system acceptance, maintenance and testing are readily available. 9.6.1.3,9.6.1.5	**IFC 907.6.5 Access.**	This requirement matches well, but the word "periodic" is likely to evolve in the future for I-2.
NA	NA	NA	K346	15	Fire Alarm – Out of Service Fire alarms that are out of service for 4 -hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service. 9.6.1.6	**IFC 901.7 Systems out of service.**	Action needs to be taken on this topic. The question of 'immediately' in the IFC, and the 4-hour period over 24 hours in the LSC needs to be resolved.
NA	NA	NA	K351	15	Sprinkler System – Installation Sprinkler systems (if installed) are installed per NFPA 13. Where more than 2 sprinklers are installed in a single area for protection, waterflow devices shall be provided to sound the building fire alarm system or to notify a constantly attended location such as a PBX, security office, or emergency room. 20.3.5.1, 20.3.5.2, 21.3.5.1, 21.3.5.2, 9.7.1.2, 9.7, NFPA 13	**G112-15 (AS) IBC [F] 407.7 Automatic sprinkler system.** **IBC [F] 422.4 Automatic sprinkler systems.** **IFC 903.3 Installation requirements.** **IFC 903.3.1 Standards.** **IFC 903.3.1.1 NFPA 13 sprinkler systems.** **IFC 1103.5 Sprinkler systems.** **IFC 1103.5.2 Group I-2.** **IFC 1103.5.3 Group I-2 Condition 2.** **IFC 1105.8 Group I-2 automatic sprinkler system.** IFC **F406-(AS) K102.3 Automatic sprinkler system.** **F406-(AS) IFC K02.3.1 Type IIB, IIIB and VB construction .**	Action needs to be taken on this topic. Monitoring of this requirement is crucial to track in future code cycles. This is a key new federal requirement, and must remain aligned in the codes to be effective.
NA	NA	NA	K353	15	Sprinkler System – Maintenance and Testing Automatic sprinkler and standpipe systems are inspected, tested, and maintained in accordance with NFPA 25, Standard for the Inspection, Testing, and Maintaining of Water-based Fire Protection Systems. Records of system design, maintenance, inspection and testing are maintained in a secure location and readily available. a) Date sprinkler system last checked b) Who provided system test c) Water system supply source Provide in REMARKS information on coverage for any non-required or partial automatic sprinkler system. 9.7.5, 9.7.7, 9.7.8, and NFPA 25	**IFC 903.5 Testing and maintenance.** **IFC 901.4 Installation.**	This provision is adequately aligned.
NA	NA	NA	K354	16	Sprinkler System – Out of Service Where the sprinkler system is impaired, the extent and duration of the impairment has been determined, areas or buildings involved are inspected and risks are determined, recommendations are submitted to management or designated representative, and the fire department and other authorities having jurisdiction have been notified. Where the sprinkler system is out of service for more than 10 hours in a 24-hour period, the building or portion of the building affected are evacuated or an approved fire watch is provided until the sprinkler system has been returned to service. 9.7.5, 15.5.2 (NFPA 25)	**IFC 901.7 Systems out of service.**	Action needs to be taken on this topic. Current federal standards allow for the syste to be out for 10 hours (or one shift) before formal notification. Work needs to be done to align.
K64	8	Portable fire extinguishers are provided. 20.3.5.2, 21.3.5.2	K355	16	Portable Fire Extinguishers Portable fire extinguishers are selected, installed, inspected, and maintained in accordance with NFPA 10, Standard for Portable Fire Extinguishers. 20.3.5.3, 21.3.5.3, 9.7.4.1, NFPA 10	**F176-16 (AS)** IFC **906.1 Where required.** IFC **906.2 General requirements.** IFC **906.2.1 Certification of service personnel for portable fire extinguishers.**	Placement of fire extinguishers is well alighed, particulary with the reference to NFPA 10. However, as noted in exception 3 of 906.1, there will potentially be emerging exceptions coming as a result of trade-offs with other conditions (one could consider this exception a trade-off for food prep in open corridors in I-2, Condition 1. These aspects need to be monitored.
K17	8	Corridors in new occupancies used for exit access are separated from use areas by partitions with a fire resistance rating of at least one hour. Doors have at least one 20 minute fire protection rating and are equipped with a positive latch and closing device. Vision panels, if provided, in partitions or doors therein are not to exceed 20 inches and install at or below half distance from floor to room ceiling. 8.2.3, 20.3.6, 38.3.6 (Indicate N/A for existing occupancies, open floor areas with available exits, corridors in a space occupied by a single tenant, and buildings provided with complete automatic sprinkler systems.)	K362	16	Corridors – Construction of Corridor Walls 2012 NEW (Indicate N/A for 2013 EXISTING) Where access to exits is provided by corridors, such corridors shall be separated from use areas by a minimum 1-hour fire barrier constructed per section 8.3, unless one of the following exists: 1. Where exits are available from an open floor area 2. Where the entire space is a single tenant 3. Where the building is protected throughout by an approved automatic sprinkler system installed per 9.7.1.1(1) If the walls have a fire resistance rating, give the rating 20.3.6.1,38.3.6.1, 38.3.6.2	**IBC SECTION 407 GROUP I-2** IBC **407.1 General.** IBC **407.2 Corridors continuity and separation.** ***G104-15 (AS)*** IBC ***407.2.1 Waiting and similar areas.*** IBC ***407.2.2 Care providers' stations.*** IBC ***407.2.3 Psychiatric treatment areas.*** IBC ***407.2.4 Gift shops.*** IBC ***407.2.5 Nursing home housing units.*** ***G105-15 (AS)*** IBC ***407.2.6 Nursing home cooking facilities.*** IBC **407.3 Corridor wall construction.** **IBC 1020 Corridors** **IFC 1104.17 Corridor construction.** **IFC 1105.4 Corridor construction.** **IFC 1105.4.1 Materials.** **IFC 1105.4.2 Fire-resistance rating.** **F252-16 (AM) IFC 1105.4.3 Corridor wall continuity.**	Action needs to be taken on this topic. This is one of the larger issues dealing with corridors, and maintaining effective operations. We need to build the case to align the concept that the lay-in acoustic tile ceiling is effective for smoke control. The fire code has this in the retroactive requirements. Work is needed to bring it into the IBC.
NA	NA	NA	K364	17	Corridor – Openings 2012 NEW (Indicate N/A for 2012 EXISTING) Corridor – Openings Transfer grilles are not used in corridor walls or doors. Auxiliary spaces that do not contain flammable or combustible materials are permitted to have louvers or be undercut. In other than smoke compartments containing patient sleeping rooms, miscellaneous openings are permitted in vision panels or doors, provided the openings per room do not exceed 20 in^2 and are at or below half the distance from floor to ceiling. In sprinklered rooms, the openings per room do not exceed 80 in^2. Vision panels in corridor walls or doors shall be fixed window assemblies in approved frames. (In fully sprinklered smoke compartments, there are no restrictions in the area and fire resistance of glass and frames.) 18.3.6.5.1, 19.3.6.5.2, 8.3	**FS74-15 (AS) IBC 407.3.1 Corridor doors.** **IEBC *804.5.2 Transoms.*** **IFC 1105.4.4 Openings in corridor walls.** **IFC 1105.4.4.1 Windows.** **IFC 1105.4.4.2 Doors.** **IFC 1105.4.4.2.1 Louvers.** **IFC 1105.4.4.2.2 Corridor doors.** **IFC 1105.4.4.2.3 Dutch doors.** **IFC 1105.4.4.2.4 Self- or automatic-closing doors.** **IFC 1105.4.4.3 Openings in corridor walls and doors.** **IFC 1105.4.5 Penetrations.** **IFC 1105.4.6 Joints.** **IFC 1105.4.7 Ducts and air transfer openings.**	See above regarding Chapter 11 requirements.

2000 to 2012 K-tag Crosswalk matrix for ambulatory care facilities

2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
K115	8	Ambulatory health care facilities are divided into at least two smoke compartments with smoke barriers having at least 1 hour fi resistance rating. Doors in smoke barriers are equipped with positive latches. Doors shall be constructed of not less than 13/4 inch thick solid bonded core wood or equivalent. Vision panels are provided and are of fixed wire glass limited to 1,296 sq. inch per panel. (Indicate N/A for facilities of less than 5,000 sq. ft. with an approved smoke detection system, and less than 10,000 sq. ft. with an approved supervised sprinkler system in accordance with 9.7.) 20.3.7.2, 20.3.7.3, 20.3.7.4, 20.3.7.6, 21.3.7.3, 21.3.7.2, 21.3.7.4, 21.3.7.6	K371	17	Subdivision of Building Spaces - Smoke Compartments Smoke compartments do not exceed 25,000 square feet in size. Every story shall be divided into not less than 2 smoke compartments unless one of the following conditions occur: - Facility is less than 5,000 square feet protected by an approved smoke detection system - Facility is less than 10,000 square feet protected by an approved, supervised sprinkler system per 9.7 - Adjoining occupancy is used as a smoke compartment if all of the following are met: a. Separating wall is 1-hour fire resistive rated b. Doors in the 1 hour rated wall at 1 3/4" thick c. Doors in the 1 hour rated wall are self-closing d. Windows in the 1 hour rated wall are fixed fire window assemblies per 8.3 e. The ambulatory health care facility is less than 22,500 square feet f. Access from the ambulatory health care facility is unrestricted to another occupancy 20.3.7.2, 21.3.7.2	**G107-15 (AS) IBC 407.5 Smoke barriers.** **G107-15 (AS) (G109-15 AMPC1) IBC *407.5.1 Smoke compartment size.*** **G107-15 (AS) IBC *407.5.2 Exit access travel distance.*** **G107-15 (AS) IBC *407.5.3 Refuge area.*** **G107-15 (AS) G111-15 (AS) IBC *407.5.4 Independent egress.*** **IFC 1105.6.2 Smoke barriers.** **F254-16 (AS) IFC 1105.6.3 Opening protectives.** **IFC 1105.6.4 Penetrations.** **IFC 1105.6.5 Joints.** **IFC 1105.6.6 Duct and air transfer openings.** **IEBC 802.3 Smoke compartments.** **IEBC** 804.10.1.1 Group I-2. **IFC K102.2 Smoke compartments.** **IFC K102.2.1 Refuge area.** **F405-16(AS) IFC K102.2.2 Smoke barriers.** **F405-16(AS) IFC K102.2.3 Opening protectives.** **F405-16(AS) IFC K102.2.4 Penetrations.** **F405-16(AS) IFC K102.2.5 Joints.** **F405-16(AS) IFC K102.2.6 Duct and air transfer openings.** 2015 IEBC **805.10.1.3 Ambulatory care.**	Action needs to be taken on this topic. This is a critical piece of the future construction in healthcare. Strides are being made to align federal requirements to this. Next steps will include: Taking into account any provisions passed with the LSC Working with the occupant load for I-2. Due to space requirements and equipment, we need to increase the square footage per occupant to match contemporary standards. This will take a lot of collaboration and interface with fire and building officials to make sure we get things right.
NA	NA	NA	K372	18	Subdivision of Building Spaces – Smoke Barrier Construction 2012 EXISTING Smoke barriers shall be constructed to a ½-hour fire resistance rating per 8.5. Smoke barriers shall be permitted to terminate at an atrium wall. Smoke dampers are not required in duct penetrations in fully ducted HVAC systems where an approved sprinkler system is installed for smoke compartments adjacent to the smoke barrier. 21.3.7.5, 21.3.7.6, 8.5	**IFC 1105.6.2 Smoke barriers.** **IFC 1105.6.6 Duct and air transfer openings.**	Action needs to be taken on this topic. It is important to make sure we monitor the retroactive requirements of Chapter 11, especially when it comes to smoke barriers, a key component of the Defend-In-Place concept.
NA	NA	NA	K372	18	Subdivision of Building Spaces – Smoke Barrier Construction 2012 NEW Smoke barriers shall be constructed to provide at least a 1-hour fire resistance rating and constructed in accordance with 8.5. Smoke barriers shall be permitted to terminate at an atrium wall. Smoke dampers are not required in duct penetrations of fully ducted HVAC systems 20.3.7.5, 20.3.7.6, 8.5	**G107-15 (AS) IBC *407.5.5 Horizontal assemblies.*** **IBC SECTION 709 SMOKE BARRIERS** **IBC 709.1 General.** **IBC 709.2 Materials.** **IBC 709.3 Fire-resistance rating.** **IBC 709.4 Continuity.** ***IBC 709.4.1 Smoke-barrier walls separating smoke compartments.*** ***IBC 709.4.2 Smoke-barrier walls enclosing areas of refuge or elevator lobbies.*** **IBC 709.8 Ducts and air transfer openings.** ***IBC 717.5.5 Smoke barriers.*** **IFC 909.5.3.2 Ducts and air transfer openings.**	Action needs to be taken on this topic. Smoke dampers in smoke barriers remains a controversial issue, although not required in federal standards since the early 1990s. great strides have been made between the interested industry groups to focus these requirements on the science, so it is critical the healthcare industry stay at the table to engage on this issue.
NA	NA	NA	K374	18	Subdivision of Building Spaces – Smoke Barrier Doors 2012 EXISTING Smoke barrier doors shall be a minimum of 1 3/4" thick, solid-bonded wood core or equivalent with self-closing or automatic-closing devices in accordance with 21.2.2.4. Latching hardware is not required. Doors are not required to swing in the direction of egress travel 21.3.7.9, 21.3.7.10	**F254-16 (AS) IFC 1105.6.3 Opening protectives.**	
NA	NA	NA	K374	18	Subdivision of Building Spaces – Smoke Barrier Doors 2012 NEW Smoke barrier doors shall be a minimum of 1 3/4" thick, solid-bonded wood core or equivalent with self-closing or automatic-closing devices in accordance with 21.2.2.4. Latching hardware is not required. Doors are required to swing in the direction of egress travel. Rabbets, bevels, or astragals are at meeting edges, and stops are at the head and sides of door frames. Center mullions are prohibited in smoke barrier door openings 20.3.7.9, 20.3.7.10, 20.3.7.13, 20.3.7.14	**G112-15 (AS) IBC 407.6 Automatic closing doors.** **IFC 909.5.3 Opening protection.** **F217-16 PART I (AS) IFC 909.5.3.1 Group I-1 Condition 2, Group I-2 and ambulatory care facilities.**	Action needs to be taken on this topic. Door issues become very complicated in the hospital setting, and are key to proper operatins. Although there is alignment on these now, they continually evolve and need maintenance in the future.
NA	NA	NA	K379	19	Smoke Barrier Door Glazing 2012 NEW (Indicate N/A for 2012 EXISTING) Cross-corridor swinging doors or cross corridor horizontal-sliding doors, contain a vision panel consisting of fire-rated glazing in approved frames in each door. Vision panels in any other door in the smoke barrier, if provided, shall be fire-rated glazing in approved frames. 20.3.7.11, 20.3.7.12, 21.3.7.7, 8.3	IBC 716.2.5.3 Glazing in door assemblies in corridors and smoke barriers. ***FS82-15 (AS)*** IBC ***716.2.5.4 Fire door frames with transom lights and sidelights.***	Action needs to be taken on this topic. The requirement was IF glass was in the door. Now, windows are required, so action is needed.
NA	NA	NA	K400	19	Special Provisions – Other List in the REMARKS section any LSC Section 20.4 and 21.4 Special Provisions requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567.		
K116	8	Buildings over 75 ft. in height housing ambulatory health care facilities are provided with a complete approved automatic sprinkler system shall be in accordance with 11.8.2.	K421	19	High-Rise Buildings 2012 EXISTING High-rise buildings are protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.1.1(1), or an engineered life safety system complying with 39.4.2.1(2). 21.4, 39.4.2	**IBC 803.2 Automatic sprinkler systems.** **IBC *803.2.1 High-rise buildings.*** **IBC** 803.2.1.1 Supplemental automatic sprinkler system requirements. **IBC *803.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2.*** **IBC** 803.2.2.1 Mixed uses. **F406-(AS) IFC K102.3.2 High rise buildings**	Action needs to be taken on this topic. Although adequately addressed, this item needs to be tracked in terms of implementation based on CMS adoption of the 2012 LSC. It will inform future code changes.
K116	8	Buildings over 75 ft. in height housing ambulatory health care facilities are provided with a complete approved automatic sprinkler system shall be in accordance with 11.8.2.	K421	19	High-Rise Buildings 2012 NEW High-rise buildings comply with section 11.8. 20.4, 38.4.2	IBC SECTION 403 HIGH-RISE BUILDINGS	Most hospitals in urban areas are high-rises. All of these requirements must be monitored to ensure the concept of defend-in-place for patients is adequately recognized.
NA	NA	NA	K500	19	Building Services – Other List in the REMARKS section any LSC Section 20.5 and 21.5 Building Services requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on		

2000 to 2012 K-tag Crosswalk matrix for ambulatory care facilities

2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
					Form CMS-2567.		
K117	9	Utilities shall comply with section 9.1. (See K147 for electrical wiring and equipment requirements) 20.5.1, 21.5.1, 9.1	K511	19	Utilities – Gas and Electric Equipment using gas or related gas piping complies with NFPA 54, National Fuel Gas Code, electrical wiring and equipment complies with NFPA 70, National Electric Code. Existing installations can continue in service provided no hazard to life. 20.5.1, 21.5.1, 21.5.1.2, 9.1.1, 9.1.2	**IBC 2701.1 Scope.** IEBC **302.3 Additional codes.** IFGC CHAPTER 4 GAS PIPING INSTALLATION	Action needs to be taken on this topic. The k-tag is largely a pointer to the relevant NFPA chapters. Work is needed to align the pointers. Gas: NFPA 54 Electrical: NFPA 70, National Electric Code (OK) Emergency Generators and Standby power: NFPA 110 Stored Electrical: NFPA 111
K67	9	Heating, ventilating, and air-conditioning shall comply with the manufacturer's specifications and section 9.2. 20,5.2.1, 21.5.2.1	K521	20	HVAC Heating, ventilation, and air conditioning shall comply with 9.2 and shall be installed in accordance with the manufacturer's specifications. 20.5.2.1, 21.5.2.1, 9.2	**IFC SECTION 603 FUEL-FIRED APPLIANCES** **F70-16 (AM) IFC 603.1 Installation.** **IFC 603.1.1 Manufacturer's instructions.**	Action needs to be taken on this topic. The k-tag is largely a pointer to the relevant NFPA chapters. Work is needed to align the pointers. HVAC ductwork and related equipment: NFPA 90A or 90B Ventillating or Heat-Producing equipment: NFPA 211 chimneys, fireplaces, vents and solid fuel burning appliances NFPA 31 Oil Buring Equipment NFPA 54 Fuel gas Code NFPA 70 – NEC NFPA 96: Commercial Cooking Also, this K-tag is where NFPA 45 is referenced for laboratories using chemicals. Lots of work to be done with the multidisciplinary teams with code changes in the 2018 Cycle. Having the Ad-Hoc for Healthcare Committee is key participation
NA	NA	NA	K522	20	HVAC – Any Heating Device Any heating device, other than a central heating plant, is designed and installed so combustible materials cannot be ignited by device, and has a safety features to stop fuel and shut down equipment if there is excessive temperature or ignition failure. If fuel fired, the device also: • is chimney or vent connected • takes air for combustion from outside • combustion system separate from occupied area atmosphere 20.5.2.2, 20.5.2.2.1, 21.5.2.2, 21.5.2.2.1	**IMC CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT**	No comment, all cross referenced with NFPA applicable documents.
NA	NA	NA	K523	20	HVAC – Suspended Unit Heaters Suspended unit heaters are permitted provided the following are met: • Not located in means of egress or in patient rooms • Located high enough to be out of reach of people in the area • Has the safety features to stop fuel and shut down equipment if there is excessive temperature or ignition failure 20.5.2.2.2, 21.5.2.2.2 •	**IMC SECTION 920 UNIT HEATERS** **IMC 920.1 General.** **IMC 920.2 Support.** **IMC 920.3 Ductwork.**	Language needed either in IBC s. 422 or IMC specific to patient care areas.
K118	9	Elevators, dumbwaiters, and vertical conveyors shall comply with section 9.4. 20.5.3, 21.5.3	K531	20	Elevators 2012 EXISTING Elevators comply with the provision of 9.4. Elevators are inspected and tested as specified in ASME A17.1, Safety Code for Elevators and Escalators. Firefighter's Service is operated monthly with a written record. Existing elevators conform to ASME/ANSI A17.3, Safety Code for Existing Elevators and Escalators. All existing elevators, having a travel distance of 25 ft. or more above or below the level that best serves the needs of emergency personnel for firefighting purposes, conform with Firefighter's Service Requirements of ASME/ANSI A17.3. (Includes firefighter's service Phase I key recall and smoke detector automatic recall, firefighter's service Phase II emergency in-car key operation, machine room smoke detectors, and elevator lobby smoke detectors.) 21.5.3, 9.4.2, 9.4.3	**G194-15 (AM) G195-15 (AM) IBC 3001.3 Referenced standards.** **G194-15 (AM) IBC TABLE 3001.3 ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTS** ***IEBC 902.1.2 Elevators.*** **IFC SECTION 606 ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS** **IFC 606.1 Emergency operation.** **IFC 606.2 Standby power.** **IFC 606.2.1 Manual transfer.** **IFC 606..2.2 One elevator.** **IFC 606.2.3 Two or more elevators.** **F235-16 (AS) IFC 1103.3 Existing elevators.** **F236-16 (AS) IFC 1103.3.1** **F217-16 PART I (AS) IFC 1103.3.2 Elevator emergency operation.** **IFC K104.3.2 Elevator emergency operation.**	Language aligned with ASME A17.3
K118	9	Elevators, dumbwaiters, and vertical conveyors shall comply with section 9.4. 20.5.3, 21.5.3	K531	21	Elevators 2012 NEW Elevators comply with the provision of 9.4. Elevators are inspected and tested as specified in ASME A17.1, Safety Code for Elevators and Escalators. Firefighter's Service is operated monthly with a written record. New elevators conform to ASME/ANSI A17.1, Safety Code for Elevators and Escalators, including Firefighter's Service Requirements. (Includes firefighter's Phase I key recall and smoke detector automatic recall, firefighter's service Phase II emergency in-car key operation, machine room smoke detectors, and elevator lobby smoke detectors.) 20.5.3, 9.4.2, 9.4.3	**G194-15 (AM) G195-15 (AM) IBC 3001.3 Referenced standards.** **G194-15 (AM) IBC TABLE 3001.3 ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTS** **IFC SECTION 606 ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS** **IFC K104.3 Existing elevators.**	Take a look at the reason behind the proposed change which will not align with NFPA 101 specific to ASME A17.1/CSA B44.
K118	9	Elevators, dumbwaiters, and vertical conveyors shall comply with section 9.4. 20.5.3, 21.5.3	K532	21	Escalators, Dumbwaiters, and Moving Walks Escalators, dumbwaiters, and moving walks comply with the provisions of 9.4. All existing escalators, dumbwaiters, and moving walks conform to the requirements of ASME/ANSI A17.3, Safety Code for Existing Elevators and Escalators. (Includes escalator emergency stop buttons and automatic skirt obstruction stop. For power dumbwaiters, includes hoistway door locking to keep doors closed except for floor where car is being loaded or unloaded.) 20.5.3, 21.5.3, 9.4	**IBC SECTION 3004 CONVEYING SYSTEMS** **IBC 3004.1 General.** **IFC K104.3.1 Elevators, escalators, dumbwaiters and moving walks.** **IFC K104.3.2 Elevator emergency operation.**	IBC references standards in s. 3001.2 which may be redundant with ASME/ANSI A17.3...
K71	9	Rubbish chutes, incinerators, and laundry chutes shall comply with section 9.5. 20.5.4, 21.5.4	K541	22	Rubbish Chutes, Incinerators, and Laundry Chutes 2012 EXISTING Rubbish chutes are installed per section 9.5 - Walls, partitions, and inlet openings meet the requirements of 8.3 - Doors of chutes open to a room designed exclusively for accessing the chute opening - Room used for accessing the chute opening(s) are separated from other spaces per 8.7 - Chutes shall be permitted to open into rooms not exceeding 400 cubic feet in size if the room is sprinkler protected and the room is not used for storage. OR Existing installations having properly enclosed and maintained chute openings shall be permitted to have inlets open to a corridor or normally occupied space 21.5.4, 9.5, NFPA 82	**IEBC *904.1.2 Rubbish and linen chutes.*** **IFC 1103.4.9 Waste and linen chutes.** **IFC 1103.4.9.1 Enclosure.** **IFC 1103.4.9.2 Chute intakes.** **IFC 1103.4.9.2.1 Chute intake direct from corridor.** **IFC 1103.4.9.2.2 Chute intake via a chute-intake room.** **IFC 1103.4.9.3 Automatic sprinkler system.** **IFC 1103.4.9.4 Chute discharge rooms.** **IFC 1103.4.9.5 Chute discharge protection.** **IFC 1103.4.10 Flue-fed incinerators.** **F407-16 (AS) IFC K102.5 Waste and linen chutes** **IFC K102.5.1 Enclosures.** **IFC K102.5.2 Chute intakes.** **IFC K102.5.2.1 Chute intake direct from corridor.** **IFC K102.5.2.2 Chute intake via a chute-intake room.** **IFC K102.5.3 Automatic sprinkler system.** **IFC K102.5.4 Chute discharge rooms.** **IFC K102.5.5 Chute discharge protection.**	More alignment required specific to "fire barrier" construction and opening protection as well as fire protection sprinkler and separation criteria.

2000 to 2012 K-tag Crosswalk matrix for ambulatory care facilities

2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
K71	9	Rubbish chutes, incinerators, and laundry chutes shall comply with section 9.5. 20.5.4, 21.5.4	K541	22	Rubbish Chutes, Incinerators, and Laundry Chutes 2012 NEW Rubbish chutes are installed per section 9.5 - Walls, partitions, and inlet openings meet the requirements of 8.3 - Doors of chutes open to a room designed exclusively for accessing the chute opening - Room used for accessing the chute opening(s) are separated from other spaces per 8.7 - Chutes shall be permitted to open into rooms not exceeding 400 cubic feet in size if the room is sprinkler protected and the room is not used for storage. - Maintenance and installation are per NFPA 82 20.5.4, 9.5, NFPA 82	**FS50-15 (AS) FS51-15 (AS) IBC 713.13 Waste and linen chutes and incinerator rooms.** ***FS52-15 (AS)* IBC *713.13.1 Waste and linen.*** **IBC *713.13.2 Materials.*** **IBC *713.13.3 Chute access rooms.*** **IBC *713.13.4 Chute discharge room.*** **IBC *713.13.5 Incinerator room.*** **IBC *713.13.6 Automatic sprinkler system.*** **IFC 903.2.11.2 Rubbish and linen chutes.**	More alignment required specific to "fire barrier" construction and opening protection as well as fire protection sprinkler and separation criteria.
NA	NA	NA	K700	23	Operating Features – Other List in the REMARKS section any LSC Section 20.7 and 21.7 Operating Features requirements that are not addressed by the provided K-tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included in Form CMS-2567.		
K48	9	There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. 20.7.1.1, 21.7.1.1	K711	23	Evacuation and Relocation Plan There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. Employees are periodically instructed and kept informed with their duties under the plan, and a copy of the plan is readily available with telephone operator or with security. The plan addresses the basic response required of staff per 20/21.7.2.1.2 and provides for all of the fire safety plan components per 20/21.7.2.2. 20.7.1.1 through 20.7.1.3, 20.7.1.8 through 20.7.2.3.3 21.7.1.1 through 20.7.1.3, 21.7.1.8 through 20.7.2.3.3	**(G22-15 AMPC1coordination) IBC [F] 1002.2 Fire safety and evacuation plans.** **IFC 403.8 Group I occupancies.** **IFC 403.8.1 Group I-1 occupancies.** **IFC 403.8.1.1 Fire safety and evacuation plan.** **IFC 403.8.1.1.1 Fire evacuation plan.** **IFC 403.8.1.1.2 Fire safety plans.** **IFC 403.8.1.2 Employee training.** **IFC 403.8.1.3 Resident training.** **IFC 403.8.1.4 Drill frequency.** **IFC 403.8.1.5 Drill times.** **IFC 403.8.1.6 Resident participation in drills.** **IFC 403.8.1.7 Emergency evacuation drill deferral.** **IFC 403.8.2 Group I-2 occupancies.** **IFC 403.8.2.1 Fire evacuation plans.** **IFC 403.8.2.2 Fire safety plans.** **IFC 403.8.2.3 Emergency evacuation drills.**	IBC – IFC currently only addresses the "I" institutional focus and not the ambulatory care facility focus…this should be reviewed.
K50	9	Fire drills are held at unexpected times under varying conditions, at least quarterly on each shift. The staff is familiar with procedures and is aware that drills are part of established routine. 20.7.1.2, 21.7.1.2	K712	23	Fire Drills Fire drills include the transmission of a fire alarm signal and simulation of emergency fire conditions. Fire drills are held at unexpected times under varying conditions, at least quarterly on each shift. The staff is familiar with procedures and is aware that drills are part of established routine. Responsibility for planning and conducting drills is assigned only to competent persons who are qualified to exercise leadership. Where drills are conducted between 9:00 PM and 6:00 AM, a coded announcement may be used instead of audible alarms. 20.7.1.4 through 20.7.14.7	**IFC 403.8.2.3 Emergency evacuation drills.** **IFC 405.3 Leadership.** **IFC 405.4 Time.** **IFC 406.1 General.**	Fire drill alignment is necessary regarding review and revision suggestions.
K66	9	Smoking regulations are adopted, and include the posting of "NO SMOKING" signs or with the international symbol for no smoking in any room, ward, or compartment where flammable liquids, combustible gases or oxygen are used or stored, and in any other hazardous location. 20.7.4, 21.7.4	K741	24	Smoking Regulations Smoking regulations shall be adopted and shall include not less than the following provisions: (1) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such area shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking. (2) In health care occupancies where smoking is prohibited and signs are prominently placed at all major entrances, secondary signs with language that prohibits smoking shall not be required. (3) Smoking by patients classified as not responsible shall be prohibited. (4) The requirement of 18.7.4(3) shall not apply where the patient is under direct supervision. (5) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted. (6) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted 20.7.4, 21.7.4	**IFC SECTION 310 SMOKING** IFC **310.1 General.** IFC **310.2 Prohibited areas.** IFC **310.3 "No Smoking" signs.** IFC **310.4 Removal of signs prohibited.** IFC **310.5 Compliance with "No Smoking" signs.** IFC **310.6 Ash trays.** IFC **310.7 Burning objects.** IFC **310.8 Hazardous environmental conditions.**	Health care occupancy provisions are lacking and should be provided.
K74	N/A	N/A	K751	24	Draperies, Curtains, and Loosely Hanging Fabrics Draperies, curtains including cubicle curtains and loosely hanging fabric or films shall be in accordance with 10.3.1. Excluding curtains and draperies: at showers and baths; on windows in patient sleeping room located in sprinklered compartments; and in non-patient sleeping rooms in sprinklered compartments where individual drapery or curtain panels do not exceed 48 square feet or total area does not exceed 20% of the wall. 20.7.5.1 through 20.7.5.3, 21.7.5.1 through 21.7.5.3	**F130-16 (AS)** IFC **807.6 Occupancy-based requirements.** **F130-16 (AS)** IFC **807.6.3 Groups I-1 and I-2.** **F130-16 (AS)** IFC **807.6.3.1 Group I-1 and I-2 Condition 1 within units.** **F130-16 (AS)** IFC **807.6.3.2 In Group I-1 and I-2 Condition 1 for areas other than within units.** **F130-16 (AS)** IFC **807.6.3.3 In Group I-2 Condition 2.** **F130-16 (AS)** IFC **807.6.3.4 Other areas in Groups I-1 and I-2.**	Revisions required specific to the inclusion of the "B" occupancy ambulatory care facility.
NA	NA	NA	K752	25	Upholstered Furniture and Mattresses Newly introduced upholstered furniture meets Class I or char length, and heat release criteria in accordance with 10.3.2.1 and 10.3.3, unless the building is fully sprinklered. Newly introduced mattresses shall meet char length and heat release criteria in accordance with 10.3.2.2 and 10.3.4, unless the building is fully sprinklered. Upholstered furniture and mattresses belonging to nursing home residents do not have to meet these requirements as all nursing homes are required to be fully sprinklered. Newly introduced upholstered furniture and mattresses means purchased on or after the LSC final rule effective date. 20.7.5.2, 20.7.5.3, 21.7.5.2, 21.7.5.3	**F127-16 (AM)** IFC **805.2 Group I-2 and Group B ambulatory care facilities.** IFC **805.2.1 Upholstered furniture.** **F127-16 (AM)** IFC **805.2.1.1 Ignition by cigarettes.** **F126-16 (AS)** IFC **805.2.1.2 Heat release rate.** IFC **805.2.1.3 Identification.** IFC **805.2.2 Mattresses.** IFC **805.2.2.1 Ignition by cigarettes.** **F126-16 (AS)** IFC **805.2.2.2 Heat release rate.** IFC **805.2.2.3 Identification.** IEBC ***904.1.3 Upholstered furniture or mattresses.***	Code references aligned. Revisions includes Group B ambulatory care facilities.
K73	N/A	K73: Combustible decorations shall be prohibited unless they are flame-retardant or in such limited quantity that hazard of fire development or spread is not present. 20.7.7.4, 21.7.5.4	K753	25	Combustible Decorations Combustible decorations shall be prohibited unless one of the following is met: • Flame retardant or treated with approved fire-retardant coating that is listed and labeled for product. • Decorations meet NFPA 701 • Decorations exhibit heat release less than 100 kilowatts in accordance with NFPA 289. • Decorations, such as photographs, paintings and other art are attached to the walls, ceilings and non-fire-rated doors in accordance with 18.7.5.6 or 19.7.5.6. • The decorations in existing occupancies are in such limited quantities that a hazard of fire is not present. 20.7.5.4, 21.7.5.4	**IFC SECTION 807 DECORATIVE MATERIALS OTHER THAN NATURAL DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS** **F130-16 (AS)** IFC **807.1 General.** IFC **807.2 Limitations.** **F130-16 (AS)** IFC **807.6.3 Groups I-1 and I-2.** **F130-16 (AS)** IFC **807.6.3.1 Group I-1 and I-2 Condition 1 within units.** **F130-16 (AS)** IFC **807.6.3.2 In Group I-1 and I-2 Condition 1 for areas other than within units.** **F130-16 (AS)** IFC **807.6.3.3 In Group I-2 Condition 2.** **F130-16 (AS)** IFC **807.6.3.4 Other areas in Groups I-1 and I-2.**	No reference to Group B Ambulatory Care…
K75	N/A	N/A	K754	25	Soiled Linen and Trash Containers Soiled linen or trash collection receptacles shall not exceed 32 gallons in capacity. The average density of container capacity in a room or space shall not exceed 0.5 gallons/square feet. A total container capacity of 32 gallons shall not be exceeded within any 64 square feet area. Mobile soiled linen or trash collection receptacles with capacities greater than 32 gallons shall be located in a room protected as a hazardous area when not attended.	**IFC SECTION 808 FURNISHINGS OTHER THAN UPHOLSTERED FURNITURE AND MATTRESSES OR DECORATIVE MATERIALS IN NEW AND EXISTING BUILDINGS** **F137-16 (AM)** IFC **808.1 Wastebaskets and linen containers in Group I-1, I-2 and I-3 occupancies and Group B ambulatory care facilities.** **F138-16 (AM)** IFC **808.1 Wastebaskets and linen containers in Group I-1, I-2 and I-3 occupancies.** IFC **808.1.1 Capacity density.** IFC **808.1.2 Recycling clean waste containers.**	Aligned including reference to ambulatory care…

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					20.7.5.5,21.7.5.5		
NA	NA	NA	K771	26	Engineered Smoke Control Systems When installed, engineered smoke control systems are tested in accordance with established engineering principles. Test documentation is maintained on the premises 20.7.7.1 through 20.7.7.3, 21.7.7.1 through 21.7.7.3	**IFC SECTION 909 SMOKE CONTROL SYSTEMS**	IBC and IFC greater detail where NFPA only references established engineer standard.
K70	9	Portable space heating devices are prohibited except portable space heating devices shall be permitted to be used in nonsleeping staff and employee areas where the heating elements of such devices do not exceed 212o F (100oC). 20.7.8, 21.7.8	K781	26	Portable Space Heaters Portable space heating devices shall be prohibited in all health care occupancies. Except, when used in nonsleeping staff and employee areas where the heating elements do not exceed 212 degrees Fahrenheit (100 degrees Celsius) 20.7.8, 21.7.8	**F73-16 (AMPC1)** IFC ~~**605.10**~~ **604.10 Portable, electric space heaters.** IFC **605.10.1 Listed and labeled.** IFC **605.10.2 Power supply.** IFC **605.10.3 Extension cords.** IFC **605.10.4 Prohibited areas.** **F73-16 (AMPC1)** IFC **604.10.5Group I-2 occupancies and ambulatory care facilities.**	Aligned.
NA	NA	NA	K791	26	Construction, Repair, and Improvement Operations Construction, repair, and improvement operations shall comply with 4.6.10. Any means of egress in any area undergoing construction, repair, or improvements shall be inspected daily to ensure its ability to be used instantly in case of emergency and compliance with NFPA 241 20.7.9.1, 20.7.9.2, 21.7.9.1, 21.7.9.2	**IBC CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION**	Review IBC ch 33 in accordance with NFPA 241
NA	NA	NA	K900	26	Health Care Facilities Code - Other List in the REMARKS section, any NFPA 99 requirements (excluding Chapter 7, 8, 12, and 13) that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Health Care Facilities Code or NFPA standard citation, should be included on Form CMS-2567.		
K145	25	The Type I EES is divided into the critical branch, life safety branch and the emergency system and Type II EES is divided into the emergency and critical systems in accordance with 3- 4.2.2.2, 3-5.2.2 (NFPA 99)	K901	26	Fundamentals – Building System Categories Building systems are designed to meet Category 1 through 4 requirements as detailed in NFPA 99. Categories are determined by a formal and documented risk assessment procedure performed by qualified personnel. Chapter 4 (NFPA 99)	**IFC 1105.10 Essential electrical systems.** **F255-16 (AS) IFC 1105.10.1 Where required.** **IFC 1105.10.2 Installation and duration.** **G112-15 (AS)IBC 407.11 Electrical systems.** **G125-15 (AS) IBC 422.6 Electrical systems.** **IBC *[F] 2702.1.7 Group I-2 occupancies.*** **G125-15 (AS) IBC [F] 2702.2.1 Ambulatory care facilities.** **IBC *[F] 2702.2.7 Group I-2 occupancies.***	Straight forward reference to NFPA 99 through IBC s. 422 may be acceptable as stated… Some editorial in the proposed language change but nothing at our level to worry about.
K130	N/A	N/A	K902	26	Gas and Vacuum Piped Systems – Other List in the REMARKS section, any NFPA 99 Chapter 5 Gas and Vacuum Systems requirements that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. Chapter 5 (NFPA 99)		
NA	NA	NA	K903	27	Gas and Vacuum Piped Systems – Categories Medical gas, medical air, surgical vacuum, WAGD, and air supply systems in which failure is likely to cause major injury or death are designated Category 1. Systems in which failure is likely to cause minor injury to patients are designated Category 2. Systems in which failure is not likely to cause injury, but can cause discomfort is designated Category 3. Deep sedation and general anesthesia are not administered when using a Category 3 medical gas system. 5.1.1.1, 5.2.1, 5.3.1.1, 5.3.1.5 (NFPA 99)	**IPC [A] 101.2 Scope.** IPC 202 Definitions **MEDICAL GAS SYSTEM.** **IPC SECTION 1202 MEDICAL GASES** **IPC [F] 1202.1 Nonflammable medical gases.** IEBC **1010.5 Group I-2.**	Include cross reference in IBC 422 and IFC
K140	24	Medical gas warning systems shall be in accordance with NFPA 99, Standard for Health Care Facilities. (a) Master alarm panels are in two separate locations and have audible and visible signals. (b) There are high/low alarms for +/- 20% operating pressure. This section shall be in accordance with NFPA 99, 4-3.1.2.2 (c) Where a level 2 gas system is used, one alarm panel that complies with 4-3.1.2.2(b)3a,b,c,d and with 4-3.1.2.2(c)2,5 shall be permitted. 4-4.1 (NFPA 99) exception No. 4. 4-3.1.2.2 (NFPA 99)	K904	27	Gas and Vacuum Piped Systems – Warning Systems All master, area, and local alarm systems used for medical gas and vacuum systems comply with appropriate Category warning system requirements, as applicable. 5.1.9, 5.2.9, 5.3.6.2.2 (NFPA 99)	IFC **5306.5 Medical gas systems.**	Direct reference to NFPA 99…
NA	NA	NA	K905	27	Gas and Vacuum Piped Systems – Central Supply System Identification and Labeling Containers, cylinders and tanks are designed, fabricated, tested, and marked in accordance with 5.1.3.1.1 through 5.1.3.1.7. Locations containing only oxygen or medical air have doors labeled with "Medical Gases, NO Smoking or Open Flame". Locations containing other gases have doors labeled "Positive Pressure Gases, NO Smoking or Open Flame, Room May Have Insufficient Oxygen, Open Door and Allow Room to Ventilate Before Opening. 5.1.3.1, 5.2.3.1, 5.3.10 (NFPA 99)	**IFC 1103.10 Medical gases.** **IFC 5303.4.3 Piping systems.**	No NFPA 99 cross reference…
K77	5	Piped in medical gas systems comply with NFPA 99.	K906	28	Gas and Vacuum Piped Systems – Central Supply System Operations Adaptors or conversion fittings are prohibited. Cylinders are handled in accordance with 11.6.2. Only cylinders, reusable shipping containers, and their accessories are stored in rooms containing central supply systems or cylinders. No flammable materials are stored with cylinders. Cryogenic liquid storage units intended to supply the facility are not used to transfill. Cylinders are kept away from sources of heat. Valve protection caps are secured in place, if supplied, unless cylinder is in use. Cylinders are not stored in tightly closed spaces. Cylinders in use and storage are prevented from exceeding 130°F, and nitrous oxide and carbon dioxide cylinders are prevented from reaching temperatures lower than manufacture recommendations or 20°F. Full or empty cylinders, when not connected, are stored in locations complying with 5.1.3.3.2 through 5.1.3.3.3, and are not stored in enclosures containing motor-driven machinery, unless for instrument air reserve headers. 5.1.3.2, 5.1.3.3.17, 5.1.3.3.1.8, 5.1.3.3.4, 5.2.3.2, 5.2.3.3, 5.3.6.20.4, 5.6.20.5, 5.3.6.20.7, 5.3.6.20.8, 5.3.6.20.9 (NFPA 99)	**IFC 5303.1 Containers, cylinders and tanks.** **IFC 5303.2 Design and construction.**	No NFPA 99 cross reference…
NA	NA	NA	K907	28	Gas and Vacuum Piped Systems – Maintenance Program Medical gas, vacuum, WAGD, or support gas systems have documented maintenance programs. The program includes an inventory of all source systems, control valves, alarms, manufactured assemblies, and outlets. Inspection and maintenance schedules are established through risk assessment considering manufacturer recommendations. Inspection procedures and testing methods are established through risk assessment. Persons maintaining systems are qualified as demonstrated by training and certification or credentialing to the requirements of AASE 6030 or 6040. 5.1.14.2.1, 5.1.14.2.2, 5.1.15, 5.2.14, 5.3.13.4.2 (NFPA 99)	IFC **5306.5 Medical gas systems.**	Maintenance based on NFPA 99.
NA	NA	NA	K908	28	Gas and Vacuum Piped Systems – Inspection and Testing Operations The gas and vacuum systems are inspected and tested as part of a maintenance	IFC **5306.5 Medical gas systems.**	

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					program and include the required elements. Records of the inspections and testing are maintained as required. 5.1.14.2.3, 8.5.2, 5.2.13, 5.3.13, 5.3.13.4 (NFPA 99)		
K141	24	Medical gas storage areas shall have a precautionary sign, readable from a distance of 5 ft., that is conspicuously displayed on each door or gate of the storage room or enclosure. The sign shall include the following wording as a minimum: CAUTION, OXIDIZING GAS(ES) STORED WITHIN, NO SMOKING. 18.3.2.4, 19.3.2.4, 8-3.1.11.3 (NFPA 99)	K909	29	Gas and Vacuum Piped Systems – Information and Warning Signs Piping is labeled by stencil or adhesive markers identifying the gas or vacuum system, including the name of system or chemical symbol, color code (Table 5.1.11), and operating pressure if other than standard. Labels are at intervals not more than 20 ft., are in every room, at both sides of wall penetrations, and on every story traversed by riser. Piping is not painted. Shutoff valves are identified with the name or chemical symbol of the gas or vacuum system, room or area served, and caution to not use the valve except in emergency. 5.1.14.3, 5.1.11.1, 5.1.11.2, 5.2.11, 5.3.13.3, 5.3.11 (NFPA 99)	**IFC 5303.4.3 Piping systems.** **IFC CHAPTER 63 OXIDIZERS, OXIDIZING GASES AND OXIDIZING CRYOGENIC FLUIDS** IFC **6303.1.3 Ignition source control.** **IFC 5003.7.1 Smoking.**	IFC Chapter 63 portions are not applicable to the context of this K-tag.
NA	NA	NA	K910	29	Gas and Vacuum Piped Systems – Modifications Whenever modifications are made that breach the pipeline, any necessary installer and verification test specified in 5.1.2 is conducted on the downstream portion of the medical gas piping system. Permanent records of all tests required by system verification tests are maintained. 5.1.14.4.1, 5.1.14.4.6, 5.2.13, 5.3.13.4.3 (NFPA 99)	IFGC **SECTION 406 INSPECTION, TESTING AND PURGING**	I don't think the fuel gas code is applicable here – this is in regards to medical gases. I believe the medical gases reference in the IFC to be per NFPA 99 would be applicable here.
K147	7	Electrical wiring and equipment shall be in accordance with NFPA 70, National Electrical Code. 9-1.2 (NFPA 99), 20.5.1, 21.5.1	K911	29	Electrical Systems – Other List in the REMARKS section, any NFPA 99 Chapter 6 Electrical Systems requirements that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. Chapter 6 (NFPA 99)	**IFC 1105.10 Essential electrical systems.** **F255-16 (AS) IFC 1105.10.1 Where required.** **IFC 1105.10.2 Installation and duration.** **IFC 1203.1.3 Installation.** **IFC 1203.1.8 Group I-2 occupancies.** **IFC 1203.2.7 Group I-2 occupancies.** **F76-16 (AM) IFC 1203.4.1 Group I-2.** **G112-15 (AS) IBC ~~407.10~~ 407.11 Electrical systems.** IBC ***[F] 2702.1.7 Group I-2 occupancies.*** ***IBC [F] 2702.2.7 Group I-2 occupancies.***	Although these references do apply they only cover the Essential Electrical Systems and a change in occupancy. This is only part of the K-tag requirement since it is referring to the entire electrical system for new and renovated facilities. We may need to do something to properly expand these requirements to include the entire electrical system covered in NFPA 99.
NA	NA	NA	K912	29	Electrical Systems – Receptacles Power receptacles have at least one, separate, highly dependable grounding pole capable of maintaining low-contact resistance with its mating plug. In pediatric locations, receptacles in patient rooms, bathrooms, play rooms, and activity rooms, other than nurseries, are listed tamper-resistant or employ a listed cover. If used in patient care room, ground-fault circuit interrupters (GFCI) are listed. 6.3.2.2.6.2 (F), 6.3.2.4.2 (NFPA 99)	**IEBC 407.1.4 Group I-2 receptacles.**	This section of the IEBC doesn't totally cover the requirements since it applies to only repairs – this needs to cover new and renovations as well. We may need to do something to properly expand these requirements to include all receptacles covered by NFPA 99.
NA	NA	NA	K913	30	Electrical Systems – Wet Procedure Locations Operating rooms are considered wet procedure locations, unless otherwise determined by a risk assessment conducted by the facility governing body. Operating rooms defined as wet locations are protected by either isolated power or ground-fault circuit interrupters. A written record of the risk assessment is maintained and available for inspection. 6.3.2.2.8.4, 6.3.2.2.8.7, 6.4.4.2	**IFC 1203.4 Maintenance.** **F76-16 (AM) IFC 1203.4.1 Group I-2.**	These references in the IFC do not cover the context of the K-tag. We will need to look at doing something to address this.
K144	25	Generators inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99 an NFPA 110. 3-4.4.1 and 8-4.2 (NFPA 99), Chapter 6 (NFPA 110)	K914	30	Electrical Systems – Maintenance and Testing Hospital-grade receptacles at patient bed locations and where deep sedation or general anesthesia is administered, are tested after initial installation, replacement or servicing. Additional testing is performed at intervals defined by documented performance data. Receptacles not listed as hospital-grade at these locations are tested at intervals not exceeding 12 months. Line isolation monitors (LIM), if installed, are tested at intervals **of** 1 month by actuating the LIM test switch per 6.3.2.6.3.6, which activates both visual and audible alarm. For, LIM circuits with automated self-testing, this manual test is performed at intervals **12** months. LIM circuits are tested per 6.3.3.3.2 after any repair or renovation to the electric distribution system. Records are maintained of required tests and associated repairs or modifications, containing date, room or area tested, and results. 6.3.4 (NFPA 99)	**IFC 1203.4 Maintenance.** **F76-16 (AM) IFC 1203.4.1 Group I-2.** **IFC 1203.1.9 Maintenance.** **IFC 1203.5 Operational inspection and testing.** **F76-16 (AM) IFC 1203.5.1 Group I-2.**	These references in the IFC do not cover the context of the K-tag. We will need to look at doing something to address this
K106, K146	25, 26	K106: Hospitals and inpatient hospices with life support equipment have an Type I Essential Electric System, and nursing homes have a Type II ESS that are powered by a generator with a transfer switch and separate power supply in accordance with NFPA 99. 12-3.3.2, 13-3.3.2.1, 16-3.3.2 (NFPA 99) K146: The nursing home/hospice with no life support equipment shall have an alternate source of power separate and independent from the normal source that will be effective for minimum of 1 1/2 hour after loss of the normal source 3-6. (NFPA 99)	K915	30	Electrical Systems – Essential Electric System Categories Critical care rooms (Category 1) in which electrical system failure is likely to cause major injury or death of patients, including all rooms where electric life support equipment is required, are served by a Type 1 EES. General care rooms (Category 2) in which electrical system failure is likely to cause minor injury to patients (Category 2) are served by a Type 1 or Type 2 EES. Basic care rooms (Category 3) in which electrical system failure is not likely to cause injury to patients and rooms other than patient care rooms are not required to be served by an EES. Type 3 EES life safety branch has an alternate source of power that will be effective for 1 1/2 hours. 3.3.138, 6.3.2.2.10, 6.6.2.2.2, 6.6.3.1.1 (NFPA 99), TIA 12-3	**IFC 1203.4 Maintenance.** **F76-16 (AM) IFC 1203.4.1 Group I-2.** **G125-16 (AS) IFC 1203.2.1 Ambulatory care facilities.** **G125-15 (AS) IBC 422.6 Electrical systems.** **G125-15 (AS) IBC [F] 2702.2.1 Ambulatory care facilities.**	Ned to add the two IFC Sections on essential electrical systems as noted in other column.
NA	NA	NA	K916	31	Electrical Systems – Essential Electric System Alarm Annunciator A remote annunciator that is storage battery powered is provided to operate outside of the generating room in a location readily observed by operating personnel. The annunciator is hard-wired to indicate alarm conditions of the emergency power source. A centralized computer system (e.g., building information system) is not to be substituted for the alarm annunciator. 6.4.1.1.17, 6.4.1.1.17.5 (NFPA 99)	**IFC 1206.2.10 Storage batteries and equipment.** **IFC 1206.2.10.3 Energy management system.**	These references in the IFC do not cover the context of the K-tag. We will need to look at doing something to address this
NA	NA	NA	K917	31	Electrical Systems – Essential Electric System Receptacles Electrical receptacles or cover plates supplied from the life safety and critical branches have a distinctive color or marking. 6.4.2.2.6, 6.5.2.2.4.2, 6.6.2.2.3.2 (NFPA 99)		
NA	NA	NA	K918	31	Electrical Systems – Essential Electric System Maintenance and Testing The generator or other alternate power source and associated equipment is capable of supplying service within 10-seconds. If the 10-second criterion is not met during the monthly test, a process shall be provided to annually confirm this capability for the life safety and critical branches. Maintenance and testing of the generator and transfer switches are performed in accordance with NFPA 110. Generator sets are inspected weekly, exercised under load 30 minutes 12 times a year in 20-40 day intervals, and exercised once every 36 months for 4 continuous hours. Scheduled test under load conditions include a complete simulated cold start and automatic or manual transfer of all EES loads, and are conducted by competent personnel. Maintenance and testing of stored energy power sources (Type 3 EES) are in accordance with NFPA 111. Main and feeder circuit breakers are inspected annually, and a program for periodically exercising the components is established according to manufacturer requirements. Written records of maintenance and testing are maintained and readily	**IFC 1203.4 Maintenance.** **F76-16 (AM) IFC 1203.4.1 Group I-2.**	

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					available. EES electrical panels and circuits are marked and readily identifiable. Minimizing the possibility of damage of the emergency power source is a design consideration for new installations. 6.4.4, 6.5.4, 6.6.4 (NFPA 99), NFPA 110, NFPA 111, 700.10 (NFPA 70)		
NA	NA	NA	K919	32	Electrical Equipment – Other List in the REMARKS section, any NFPA 99 Chapter 10, Electrical Equipment, requirements that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. Chapter 10 (NFPA 99)		We will need to discuss if something to address this type of K-tag (general purpose) is needed.
NA	NA	NA	K920	32	Electrical Equipment – Power Cords and Extension Cords Power strips in a patient care vicinity are only used for components of movable patient-care-related electrical equipment (PCREE) assembles that have been assembled by qualified personnel and meet the conditions of 10.2.3.6. Power strips in the patient care vicinity may not be used for non-PCREE (e.g., personal electronics), except in long-term care resident rooms that do not use PCREE. Power strips for PCREE meet UL 1363A or UL 60601-1. Power strips for non- PCREE in the patient care rooms (outside of vicinity) meet UL 1363. In non-patient care rooms, power strips meet other UL standards. All power strips are used with general precautions. Extension cords are not used as a substitute for fixed wiring of a structure. Extension cords used temporarily are removed immediately upon completion of the purpose for which it was installed and meets the conditions of 10.2.4. 10.2.3.6 (NFPA 99), 10.2.4 (NFPA 99), 400-8 (NFPA 70), 590.3(D) (NFPA 70), TIA 12-5	**F82-16 (AS) IFC 604.5 Extension cords.**	This references in the IFC does not cover the context of the K-tag. We will need to look at doing something to address this
NA	NA	NA	K921	33	Electrical Equipment – Testing and Maintenance Requirements The physical integrity, resistance, leakage current, and touch current tests for fixed and portable patient-care related electrical equipment (PCREE) is performed as required in 10.3. Testing intervals are established with policies and protocols. All PCREE used in patient care rooms is tested in accordance with 10.3.5.4 or 10.3.6 before being put into service and after any repair or modification. Any system consisting of several electrical appliances demonstrates compliance with NFPA 99 as a complete system. Service manuals, instructions, and procedures provided by the manufacture include information as required by 10.5.3.1.1 and are considered in the development of a program for electrical equipment maintenance. Electrical equipment instructions and maintenance manuals are readily available, and safety labels and condensed operating instructions on the appliance are legible. A record of electrical equipment tests, repairs, and modifications is maintained for a period of time to demonstrate compliance in accordance with the facility's policy. Personnel responsible for the testing, maintenance and use of electrical appliances receive continuingtrained. 10.3, 10.5.2.1, 10.5.2.1.2, 10.5.2.5, 10.5.3, 10.5.6, 10.5.8	**F83-16 (AS) IFC 604.7 Equipment and fixtures**	Although close this references in the IFC does not really cover the context of the K-tag. We will need to look at doing something to address this
NA	NA	NA	K922	33	Gas Equipment – Other List in the REMARKS section, any NFPA 99 Chapter 11 Gas Equipment requirements that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. Chapter 11 (NFPA 99)	**IMC [F] 502.9 Hazardous materials—requirements for specific materials.** **IMC [F] 502.9.1 Compressed gases—medical gas systems.** **IFC COMBUSTIBLE GAS DETECTOR.** **IFC COMPRESSED GAS.** **IFC COMPRESSED GAS CONTAINER.** **IFC COMPRESSED GAS SYSTEM.**	Chapter 11 of NFPA 99 is really about cylinders and their use in healthcare facilities. These references in the IMC & IFC do not cover the context of the K-tag. We will need to discuss if something to address this type of K-tag (general purpose) is needed.
K76	24	K76: Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Standard for Health Care Facilities. (a) Oxygen storage locations of greater than 3,000 cu. ft.. are enclosed by a one-hour separation. (b) Locations for supply systems of greater than 3,000 cu. ft.. are vented to the outside. 4-3.1.1.2 (NFPA 99), 8-3.1.11.1 (NFPA 99), 18.3.2.4, 19.3.2.4	K923	34	Gas Equipment – Cylinder and Container Storage ≥ 3,000 cubic feet Storage locations are designed, constructed, and ventilated in accordance with 5.1.3.3.2 and 5.1.3.3.3. > 300 but <3,000 cubic feet Storage locations are outdoors in an enclosure or within an enclosed interior space of non- or limited- combustible construction, with door (or gates outdoors) that can be secured. Oxidizing gases are not stored with flammables, and are separated from combustibles by 20 feet (5 feet if sprinklered) or enclosed in a cabinet of noncombustible construction having a minimum 1/2 hr. fire protection rating. ≤ 300 cubic feet In a single smoke compartment, individual cylinders available for immediate use in patient care areas with an aggregate volume of300 cubic feet are not required to be stored in an enclosure. Cylinders must be handled with precautions as specified in 11.6.2 A precautionary sign readable from 5 feet is on each door or gate of a cylinder storage room, where the sign includes the wording as a minimum "CAUTION: OXIDIZING GAS(ES) STORED WITHIN NO SMOKING". Storage is planned so cylinders are used in order of which they are received from the supplier. Empty cylinders are segregated from full cylinders. When facility	**IFC 1103.10 Medical gases.** **IFC 5303.16 Vaults.** **IFC 5303.16.2 Design and construction.** IFC SECTION 5306 MEDICAL GASES **F367-16 (AS) IFC 5306.1 General.** **IFC 5306.2 Interior supply location.** **IFC 5306.2.1 One-hour exterior rooms.** **F368-16 (AS) IFC 5306.2.2 One-hour interior room.** **IFC 5306.2.3 Gas cabinets.** **IFC 5306.3 Exterior supply locations.** **IBC (G127-15 AMPC1) SECTION 427 MEDICAL GAS SYSTEMS** IBC **427.1 General.** IBC **427.2 Interior supply location.** IBC **427.2.1 One-hour exterior room**. IBC **427.2.2 One-hour interior room**. IBC **427.2.3 Gas cabinets**.	IFC Sections 5306.2 through 5306.4 and IBC 427.1 through 427.2.3 are very close in context of the K-tag. We will need to look at improving the proper application to the quantities of cubic feet allowed within the standard
NA	NA	NA	K924	34	Gas Equipment – Testing and Maintenance Requirements Anesthesia apparatus are tested at the final path to patient after any adjustment, modification or repair. Before the apparatus is returned to service, each connection is checked to verify proper gas and an oxygen analyzer is used to verify oxygen concentration. Defective equipment is immediately removed from service. Areas designated for servicing of oxygen equipment are clean and free of oil, grease, or other flammables. Manufacturer service manuals are used to maintain equipment and a scheduled maintenance program is followed. 11.4.1.3, 11.5.1.3, 11.6.2.5, 11.6.2.6 (NFPA 99)	**IFC 5306.5 Medical gas systems.**	This references in the IFC does not cover the context of the K-tag since an apparatus is not the same as a system (NFPA 99 Chapter 5 vs Chapter 11). We will need to look at doing something to address this
NA	NA	NA	K925	35	Gas Equipment – Respiratory Therapy Sources of Ignition Smoking materials are removed from patients receiving respiratory therapy. When a nasal cannula is delivering oxygen outside of a patient's room, no sources of ignition are within in the site of intentional expulsion (1-foot). When other oxygen deliver equipment is used or oxygen is delivered inside a patient's room, no source of ignition are within the area are of administration (15-feet). Solid fuel-burning appliances is not in the area of administration. Nonmedical appliances with hot surfaces or sparking mechanisms are not within oxygen-delivery equipment or site of intentional expulsion. 11.5.1.1, TIA 12-6 (NFPA 99)	**IFGC [M] APPLIANCE.** **IFGC 303.3 Prohibited locations.** **IFC 6303.1.3 Ignition source control.** **IFC 5003.7.1 Smoking.**	These references in the IFGC do not cover the context of the K-tag. We will need to look at doing something to address this
NA	NA	NA	K926	35	Gas Equipment – Qualifications and Training of Personnel Personnel concerned with the application, maintenance and handling of medical gases and cylinders are trained on the risk. Facilities provide continuing education, including safety guidelines and usage requirements. Equipment is serviced only by personnel trained in the maintenance and operation of equipment. 11.5.2.1 (NFPA 99)	**IFC 5303.7.6 Heating.**	This references in the IFC does not cover the context of the K-tag. We will need to look at doing something to address this

2000 to 2012 K-tag Crosswalk matrix for ambulatory care facilities

2000 Tag #	2000 Page#	2000 Language	2012 Tag #	2012 Page#	2012 Language	2018 IBC/IFC Section	Commentary
K143	25	Transferring of liquid oxygen from one container to another shall be accomplished at a location specifically designated for the transferring that is as follows: (a) separated from any portion of a facility wherein patients are housed, examined, or treated by a separation of a fire barrier of hour fire-resistive construction; and (b) the area that is mechanically ventilated, sprinklered, and has ceramic or concrete flooring; and (c) in an area that is posted with signs indicating that transferring is occurring, and that smoking in the immediate area is not permitted in accordance with NFPA 99 and Compressed Gas Association. 8-6.2.5.2 (NFPA 99)	K927	35	Gas Equipment – Transfilling Cylinders Transfilling of oxygen from one cylinder to another is in accordance with CGA P-2.5, Transfilling of High Pressure Gaseous Oxygen Used for Respiration. Transfilling of any gas from one cylinder to another is prohibited in patient care rooms. Transfilling to liquid oxygen containers or to portable containers over 50 psi comply with conditions under 11.5.2.3.1 (NFPA 99). Transfilling to liquid oxygen containers or to portable containers under 50 psi comply with conditions under 11.5.2.3.2 (NFPA 99). 11.5.2.2 (NFPA 99)	**IFC 5306.4 Transfilling.** **IFC 5306.5 Medical gas systems.**	
NA	NA	NA	K928	36	Gas Equipment – Labeling Equipment and Cylinders Equipment listed for use in oxygen-enriched atmospheres are so labeled. Oxygen metering equipment and pressure reducing regulators are labeled "OXYGEN- USE NO OIL". Flowmeters, pressure reducing regulators, and oxygen-dispensing apparatus are clearly and permanently labeled designating the gases for which they are intended. Oxygen-metering equipment, pressure reducing regulators, humidifiers, and nebulizers are labeled with name of manufacturer or supplier. Cylinders and containers are labeled in accordance with CGA C-7. Color coding is not utilized as the primary method of determining cylinder or container contents. All labeling is durable and withstands cleaning or disinfecting. 11.5.3.1 (NFPA 99)	**IFC 5303.1 Containers, cylinders and tanks.** **IFC 5303.4 Marking.** **IFC 5303.4.1 Stationary compressed gas containers, cylinders and tanks.** **IFC 5303.4.2 Portable containers, cylinders and tanks.**	These references in the IFC cover a portion of the context of the K-tag. We will need to look at doing something to address the other requirements such as labeling of equipment and apparatuses and the signage
NA	NA	NA	K929	36	Gas Equipment – Precautions for Handling Oxygen Cylinders and Manifolds Handling of oxygen cylinders and manifolds is based on CGA G-4, Oxygen. Oxygen cylinders, containers, and associated equipment are protected from contact with oil and grease, from contamination, protected from damage, and handled with care in accordance with precautions provided under 11.6.2.1 through 11.6.2.4 (NFPA 99) 11.6.2 (NFPA 99)	**IFC 5303.5 Security.** **IFC 5303.5.1 Security of areas.** **IFC 5303.5.2 Physical protection.** **IFC 5303.5.3 Securing compressed gas containers, cylinders and tanks.**	These references in the IFC do address a portion of the context of the K-tag. We will need to look at doing something to address the issues not addressed such as protection from contact with oil or grease, protection from contamination, and proper handling
NA	NA	NA	K930	36	Gas Equipment – Liquid Oxygen Equipment The storage and use of liquid oxygen in base reservoir containers and portable containers comply with sections 11.7.2 through 11.7.4 (NFPA 99). 11.7 (NFPA 99)	**IFC CHAPTER 63 OXIDIZERS, OXIDIZING GASES AND OXIDIZING CRYOGENIC FLUIDS** **IFC SECTION 6301 GENERAL** **IFC 6301.1 Scope.**	These references in the IFC do not cover the context of the K-tag. We will need to look at doing something to address this
K142	25	All occupancies containing hyperbaric facilities shall comply with NFPA 99, Standard for Health Care Facilities, Chapter 19.	K931	36	HyperbaricFacilities All occupancies containing hyperbaric facilities comply with construction, equipment, administration, and maintenance requirements of NFPA 99. Chapter 14 (NFPA 99)	**IFC SECTION 609 HYPERBARIC FACILITIES** **IFC 609.1 General.** **IFC 609.2 Records.** IBC SECTION 425 HYPERBARIC FACILITIES **IBC 425.1 Hyperbaric facilities.**	
NA	NA	NA	K932	36	Features of Fire Protection – Other List in the REMARKS section, any NFPA 99 Chapter 15 Features of Fire Protection requirements that are not addressed by the provided K-Tags, but are deficient. This information, along with the applicable Life Safety Code or NFPA standard citation, should be included on Form CMS-2567. Chapter 15 (NFPA 99)	**F33-16 (AS) IFC 404.2.3 Lockdown plans.** **F33-16 (AS) IFC 404.2.3.1 Lockdown plan contents.** **F33-16 (AS) IFC 404.2.3.2 Drills.**	Chapter 15 of NFPA 99 is about fire protection systems within healthcare facilities. These references in the IFC do not cover the context of the K-tag. We will need to discuss if something to address this type of K-tag (general purpose) is needed
NA	NA	NA	K933	37	Features of Fire Protection – Fire Loss Prevention in Operating Rooms Periodic evaluations are made of hazards that could be encountered during surgical procedures, and fire prevention procedures are established. When flammable germicides or antiseptics are employed during surgeries utilizing electrosurgery, cautery or lasers: • packaging is non-flammable • applicators are in unit doses • Preoperative "time-out" is conducted prior the initiation of any surgical procedure to verify: o application site is dry prior to draping and use of surgical equipment o pooling of solution has not occurred or has been corrected o solution-soaked materials have been removed from the OR prior to draping and use of surgical devices o policies and procedures are established outlining safety precautions related to the use of flammable germicide or antiseptic use. Procedures are established for operating room emergencies including alarm activation, evacuation, equipment shutdown, and control operations. Emergency procedures include the control of chemical spills, and extinguishment of drapery, clothing and equipment fires. Training is provided to new OR personnel (including surgeons), continuing education is provided, incidents are reviewed monthly, and procedures are reviewed annually. 15.13 (NFPA 99)		We will need to look at doing something to address this
K130	NA	NA	N/A	N/A	Previous miscellaneous "catch all" tag, which was replaced by topic specific miscellaneous tags		