| K-Tag | Stadus | CODE REQUIREMENT | ICC reference | Work group assignment | Analysis | Code Change | ADDITIONAL DISCUSSION NOTES AND COMMENTS FOR DIRECTION |
|---|---|---|---|---|---|---|---|
| K11 | IP | If the building has a common wall with a nonconforming building, the common wall is a fire barrier having at least a two hour fire resistance rating constructed of materials as required for the addition. Communicating openings occur only in corridors and shall be protected by approved self-closing fire doors. 19.1.1.4.1, 19.1.1.4.2 | No direct IFC reference IBC - New only AND IBC is not necessarily equivalent | G: Sharon Myers | The 2-hour fire separation to separate a 'non-conforming building' is exceeded with some types of construction; IBC TABLE 706.4 requires 3-hour fire wall fire-resistance rating unless Type II or V construction (2009 change); separation from H-2 (h-i & h-3) is required to be 4 hr & comply with IBC 415.4 & 415.5) | Possible discussion for existing non-compliant to be separated by no-less than a 2-hr barrier (req for CMS) UNLESS the non-conforming building has occupancy other than H); this would lessen the requirement by one-hour for existing conditions to remain 'as is', but require greater rating if new construction was to 'abutt' and would require compliance with IBC 706.4. INTEGRATION WITH OBC CHAPTER 34 - IEBC & IFC FOR SEPARATION REQUIRED BETWEEN NON-CONFORMING BUILDING - AND COMPLIANCE - OR DETERMINATION OR<br>DEFINING OF 'NON-CONFORMING BUILDING AS "NOT" MEETING THE MINIMUM REQUIREMENTS OF THE TYPE OF CONSTRUCTION (AND SPRINKLERING) FOR HOSPITALS AND TYPE OF CONSTRUCTION AND/OR SPRINKLERING FOR AHCF (ASC); SOME CONSIDERATION/DISCUSSION NEEDS TO BE HAD ON THE REQUIREMENT FOR SEPARATION OF OTHER OCCUPANCY CLASSSIFICATIONS TO THE HOSPITALS AND AHCF AS A 'COMPONENT' OF COMPLIANCE... SEE COMMENTS FROM 2009 IBC IN ANALYSIS (THIS ROW).<br>2-HR SEPARATION REQUIREMENT FOR NEW CONSTRUCTION AND AREAS OF ALTERATIONS (IN IBC 407), IPSSOBILIBY IN CHAPTER 34 AND IEBC AS ALTERNATIVE TO NON-CONFORMING SEPARATION/ADJACENT NON-COMPLIANCE OF THE SAME OCCUPANCY<br>CLASSIFICATION...LANGUAGE TO PROPOSE TO IFC-OCCUPANCY (HOSPITAL-/HCF) SPECFIC CHAPTER OF IFC AND/OR CHAPT11 RETRO? | Discussed at length the need for a 2 hour fire barrier. (J.W. note: The general concept of revisting construction and heights/area discussion is odd to be in the IFC (maintenance code). We generally assume that code were compliant with the construcyction standards of the time. If there was an occupancy change, or a new addition or renovation - the change would be reviewed tot he current code. The IFC has a mechnism for enforcing retroactive requirements on existing building. We do this with sprinklers already. If there is anything identified in the code that needs retroactive restrictions we can do this on a case by case basis in IFC chapter 11)<br>Mixed occupancies would address the same 2 hour fire barrier for I-2 occupancies. Ambulatory care would not and is often next to similar occupancies.<br>Mixed occupancies would address the same 2 hour fire barrier for I-2 occupancies. Ambulatory care would not and is often next to similar occupancies.<br>- Still some confusion on what is considered "nonconforming" – fire safety in general or other types of occupancies. It was assumed that it meant not up to the I-2 compliance level. Ambulatory care facilities have similar requirements NFPA 101.<br>Need to investigate code changes to the following to capture existing conditions.<br>IFC Chapter 11 – retroactive<br>IBC Chapter 34 – Alterations, Additions, Change of occupancy<br>IEBC – Chapters 8,9,10 and 11<br>Sections 422 may need additional language to require |
| K12 | IP | Building construction type and height meets one of the following: 19.1.6.2, 19.1.6.3, 19.1.6.4, 19.3.5.1; | No direct IFC reference IBC - New only AND IBC is not necessarily equivalent | G: Sharon Myers | Compliance for Ambulatory Healthcare w/B Occupancy varies greatly from I-2 limitations. | RESEARCH COMPLETE; DIFFERENCES DOCUMENTED; PROPOSE RETRO-CODE LIMITATIONS (MORE LIBERAL THAN IBC - eq. to NFPA 101 W/Conditions of sprinklers retro to remain at higher existing levels. Full analysis to be provided in WORD documents; related to K-11, K20, K-56 & K-71! | Need some type of minimum construction requirements to apply retroactively. The format and location is to be determined. It could be a table or simply requirements. |
| K103; related to K-12 & K-71 (MYERS) | | Interior walls and partitions in buildings of Type I or Type II construction shall be noncombustible or limited-combustible materials. 19.1.6.3 (Indicate N/A for existing buildings using listed fire retardant treated wood studs within non-load bearing one-hour rated partitions.) | No direct IFC reference IBC - New only | FS: Sharon Myers | Allowances for combustible materials in Type I & II construction are identified in IIBC Section 603, which permits 25 combustible materials permitted and Item #25, the FRTW allowances were greatly expanded in 2009. Needs discussion: higher construction level required by NFPA 101 (IE, interior non-bearing walls only permitted to be be of noncombustible or limited combustible materials) for AHCF...except where walls have 2-hr fire resistance rating - frtw permitted as long the frtw is not utilized for a shaft. IBC has a greater permissibility for the use of FRTW. JOHN Wims add: Generally the codes are very similar in that they limit the use of wood in the non-combustible construction types. They vary a bit with the locations, however the concept is covered. | Needs discussion/ research. Not sure how accepting CMS would be to these allowances. Comments from tha ASHE members is needed.<br>IS IFC APPLICATION NECESSARY FOR CMS SURVEY? EXISTING MATERIALS (?) K-TAG IS A FAULT, K-TAG NON-SENSICAL/ REASSESS<br>HT/AREA ON EVERY SINGLE FIRE SURVEY (RETRO ACTIVE APPLICATION) - ALTERNATIVE COMPLIANCE CHAP 11; IF COMMON-ON EVERY SINGLE K-TAG (CONCEPTUALLY?)<br>Research results: 2009 IBC Table 503 to 2009 NFPA 101 Table 18.1.6.1: New construction (comparable) inconsistency for FOUR listings in Table 18.1.6.1 [Type IB/Type I(332) for 4 and over permitted NFPA and not IBC; Type IIA-B/II(222) for 3 stories and over 4 stories, both permitted by NFPA and not IBC; Type IIB/II(111) 3 stories permitted by NFPA instead of only 2 for IBC.]<br>2009 IBC Table 503 to 2009 NFPA 101, Table 19.1.6.1: Existing allowances and (comparable) inconsistencies w/SPRINKLERED CONSTRUCTION ONLY: Type IIA-B/II(111), 3 stories permitted by NFPA 101 and not permitted in part IBC; Type IIIB/II(000) 2 stories permitted by NFPA 101 and not by IBC; Type IIIA/Type III(211) 2 stories permitted by NFPA and not by IBC ; Type IIIB, 1 story permitted by NFPA and not by IBC; Type IV/Type IV(2HH) 2 stories permitted by NFPA and not by IBC Type VA/Type V(111) 2 stories permitted by NFPA and not by IBC; Type VB/Type V(000) 1 story permitted by NFPA and not by IBC]<br>I THINK THE CODE CHANGE AND ADDITIONAL DISCUSSION COLUMNS FOR THIS KTAG BELONG IN K12. THIS KTAG IS JUST FOR THE USE OF WOOD IN NONCOM CONSTRUCTION. - JW | CMS might be accepting to the allowances since the equivalent is to have more restrive height requirements for existing facilities than the IBC permits; additionally, IFC REQUIRES retroactive sprinklering for all existing hospitals to provide greater level of safety...If we parmit retroactive increases over IBC Table 503 in the building code to a similar retroactive requirements in the fire code, we would need to make sure that they are contingent upon compliance with the requirements of 1103.5 (retro sprinklering)<br>Comments: NEED TO VERIFY TABLE 503 REQUIREMENTS OF THE 2012 IBC & 2012 NFPA 101 tables. The comparisons provided are based on 2009 editions of both NFPA 101 AND IBC. If the 2012 NFPA 101 incorporates a retroactive sprinkler requirement, then 13 out of 16 inconsistencies for non-sprinklered existing buildings would be elminated for the Type 1 through Type II(111) from Table 19.1.6.1. Other than the five inconsistencies cited in the previous "Research results", the Table 19.1.6.1 requirements for Type II(000) through Type V(000) are comparably the same as the requirements of Table 503 in the IBC.<br>There are no height/area allowances or permissibilities for existing construction to remain (as previously approved) currently in the IFC. We NEED TO discuss this concept in more detail and determine if if necessary to insert these limitations into the IFC for consistency w/NFPA/CMS requirements for retroactive limitations for healthcare facilities (and if so, determine how close the types of construction/construction materials are between the two. This may be a very large task to bite off for comparative analysis which may not be necessary to justify any possible code change proposal to IFC; however, this should be discussed for direction from the workgroup/AHC.<br>STATUS: RESEARCH COMPLETE, CONCEPTS AND DIFFERENCES PROVIDED TO THE WORKGROUP; DRAFT LANGUAGE TO INCORPORATE THE CRITICAL RETROACTIVE REQUIREMENTS FOR HEALTHCARE OCCUPANCIES (MAINLY HOSPITALS AND ASC) FOR COMPLIANCE WITH THE LATEST "STANDARDS OF CARE" AS REQUIRED FOR THESE FACILITIES. SEE COMMENT IN 'ADD DIS AND NOTES' THIS ROW AND K-TAG 71 COMMENTS. |
| | | **INTERIOR FINISH** | | | | | |
| K14 | NC | Interior finish for corridors and exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. 19.3.3.1, 19.3.3.2 | IFC 803 | FS: Eugene Jacques | IFC & IBC Allow Class C in I-1 and I-3 in sprinklered buildings in some areas. I-2s are equivalent. These requireements would be retroactive. | No change needed. | |
| K15 | NC | Interior finish for rooms and spaces not used for corridors or exitways, including exposed interior surfaces of buildings such as fixed or movable walls, partitions, columns, and ceilings has a flame spread rating of Class A or Class B. (In fully-sprinklered buildings, flame spread rating of Class A, Class B, or Class C may be continued in use within rooms separated in accordance with 19.3.6 from the access corridors.) 19.3.3.1, 19.3.3.2 | IFC 803 | FS: Eugene Jacques | IFC TABLE 803.3 which allows Class A ans B in non sprinklered I OCCUPANCIES and Class A<B or C in sprinklered I occupancies. IFC allows class C in certain rooms, this is roughly equivalent. This section is retroactive. | No change needed. | |
| K16 | NC | Newly installed interior floor finish complying with 10.2.7 shall be permitted in corridors and exits if Class I. 19.3.3.3 (Indicate N/A for existing interior floor finish.) In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.2, no interior floor finish requirements shall apply | No direct IFC reference IBC - New only | FS: Eugene Jacques | 2012 IFC 804.1 now refers to floor finishes same as IBC | No change needed. | |
| | | **CORRIDOR WALLS AND DOORS** | | | | | |
| K17 | CC | Corridors are separated from use areas by walls constructed with at least 1/2 hour fire resistance rating. In fully sprinklered smoke compartments, partitions are only required to resist the passage of smoke. In non-sprinklered buildings, walls properly extend above the ceiling. (Corridor walls may terminate at the underside of ceilings where specifically permitted by Code. Charting and clerical stations, waiting areas, dining rooms, and activity spaces may be open to corridor under certain conditions specified in the Code. Gift shops may be separated from corridors by non-fire rated walls if the gift shop is fully sprinklered.) 19.3.6.1, 19.3.6.2.1, 19.3.6.5 | IFC 4604.18 | MOE: Ed Altizer | I feel there is considerable difference in the 2012 LSC and the 2012 IFC As an example exception number 2 to 1104.17 could be interpreted to mean the door is not required to resist the passage of smoke. In fact that is what the code says. Exception 4 to 1014.17.1 indicates that opening protection is not required if sprinklered. No real requirements for the sprinkler system except that it is approved. The LSC has minimum requirements for the sprinkler system. The LSC is much more detailed and thorough on corridor requirements. | 1104.17 Corridors. Corridors serving an occupant load<br>greater than 30 and the openings therein shall provide an<br>effective barrier to resist the movement of smoke. Transoms,<br>louvers, doors and other openings shall be kept closed or self-closing.<br>Exceptions:<br>1. Corridors in occupancies other than in Group H,<br>which are equipped throughout with an approved<br>automatic sprinkler system in accordance with Section 903.3.<br>2. Patient room doors in corridors in occupancies in<br>Group I-2 shall not be required to be kept closed or be self-closing where smoke barriers are provided in accordance with the International Building Code.<br><br>1104.17.1 Corridor openings. Openings in corridor walls<br>shall comply with the requirements of the International<br>Building Code.<br>Exceptions:<br>4. Opening protection is not required when the<br>building is equipped throughout with an<br>approved automatic sprinkler system in accordance with Section 903.3. | |
| K18 | IP | Doors protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas shall be substantial doors, such as those constructed of 1 ¾ inch solid-bonded core wood, or capable of resisting fire for at least 20 minutes. Doors in fully sprinklered smoke compartments are only required to resist the passage of smoke. There is no impediment to the closing of the doors. Doors shall be provided with a means suitable for keeping the door closed. Dutch doors meeting 19.3.6.3.6 are permitted. 19.3.6.3 Roller latches are prohibited by CMS regulations in all health care facilities. | IFC 4604.18.1 | MOE: Brad Pollitt/John Williams | There are five components to this KTAG:<br>1. Substantial doors (1.75" solid cors or 20 minute doors) in corridors, unless the smoke compartment is sprinklered. IFC 4604.18.1 exempts any requirements for existing opening protection where there is a sprinkler system. This is essentially the same<br>2. Smoke limiting. Doors in sprinklered smoke compartments are only required to limit the passage of smoke. IFC section 4604.18 would be the section that would require doors to limit the transfer of smoke. However, it exempts this requirement for corridors serving <30 occupants and it also exempts this for group I-2s. THIS IS SIGNIFICANTLY DIFFERENT.<br>3. Positive latching. Do not see that this is addressed.<br>4. Dutch doors. do not see this is addressed.<br>5. Roller latches. Do not see this is addressed. | need a code change - in progress.<br>IFC 1107.14 and 1104.17.1 have some broad exemptions for sprinklered buildings and I-2s. This requirement is not equivalent. A code change is needed in these two sections to address I-2 corridor doors, dutch doors and roller latches. |
| K19 | IP | 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.) 19.3.6.2.3, 19.3.6.3.8, 19.3.6.5 | No direct reference IBC Section 407.3, 407.3.1, IFC Seciton 1104.17.1, 1104.17.1 Exception 2 &4 | FS: Brooks Baker | There are no direct references in IBC for this, however sections 710, 711, 715, 715.4.3 & 715.4.3.2 do contain some similar language. More detailed analysis will be required.<br>The 2012 edition of IFC has moved "Construciton Requirements for Existing Buildings" to Chapter 11. A review of Section 1104.17.1 does not directly address vision panels in corridor walls or doors, however it does require compliance with IBC. The exceptions found in this section do refer to fixed glass both wired (in non-sprinklered buildings) and non-wired (in fully sprinklered buildings). IBC Section 407.3 (corridor wall construction) and 407.3.1 (corridor doors) refer to IBC Sections 710 and 716.5. Both of these sections address openings in corridor walls. | Recommend that IFC Section 1104.17.1 be modified to change the requirement to be in compliance with IBC to the following "meet the requirements of IBC Section 716 and Table 716.3." | |
| K22 | NC | Access to exits shall be marked by approved, readily visible signs in all cases where the exit or way to reach exit is not readily apparent to the occupants. 7.10.1.4 | IFC 1011.1 | MOE: Ed Altizer | There is some difference but in general the IFC language should suffice. However, the LSC accepts existing approved signage in some cases. Generally, that would be a good idea to include.<br>Virginia currently accepts existing signs based on the edition of the code under which the building was constructed unless there is a change of use. | No change based on committee decision. | |
| | | **VERTICAL OPENINGS** | | | | | |
| K20; k-12 & K-56 & k-71relates to retro sprinkler requirements and retro-construction type permissibility. | IP | Stairways, elevator shafts, light and ventilation shafts, chutes, and other vertical openings between floors are enclosed with construction having a fire resistance rating of at least one hour. An atrium may be used in accordance with 8.2.5.6, 19.3.1.1 | IFC 704 (IFC 4603.3); ofc section 1103.4.1 & 1103.5 *(retro-sprinkler). Possibly carry requirements into new healthcare based occupancies retro chapter. | FS: Sharon Myers | IFC (2009) 704.1 Enclosure. Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected as required in Chapter 46. New floor openings in existing buildings shall comply with the International BuildingCode.<br>IFC (2009)704.2 Opening protectives. When openings are required to be protected, opening protectives shall be maintained self-closing or automatic-closing by smoke detection. Existing fusible-link-type automatic door-closing devices are permitted if the fusible link rating does not exceed 135ºF (57ºC).<br>LOW HAZARD OCCUPANCY/USE OF ATRIUM FLOOR(S) ARE REQUIRED TO BE LOW HAZARD LOW FIRE LOAD. RETROACTIVE REQUIREMENT (MINIMUM 1-HOUR - NOT REDUCED BY SPRINKLER IS PRESUMMED); IFC CHAPTER 46 | IFC 2009 4603.3 Vertical openings. Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building, shall be enclosed or protected as specified in Sections 4603.3.1 through 4603.3.7.<br>4603.3.1 Group I occupancies. In Group I occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction. 4603.3.2 Three to five stories. In other than Group I occupancies, interior vertical openings connecting three to five stories shall be protected by either 1-hour fire-resistance- rated construction or an automatic sprinkler system shall be installed throughout the building in accordance with Section 903.3.1.1 or 903.3.1.2.<br>4603.3.3 More than five stories. In other than Group I occupancies, interior vertical openings connecting more than five stories shall be protected by 1-hour fire-resistance-rated construction. Exceptions (same for 4.3.2 & 4.3.3):<br>1. Vertical opening protection is not required for Group R-3 occupancies.<br>2. Vertical opening protection is not required for open parking garages and ramps.<br>3. Vertical opening protection is not required for escalators. [REALLY, REGARDLESS OF OPENING HEIGHT/#OF STORIES? NO COMMENT W/REGARD TO DRAFT CURTAIN OR SUPPRESSION DELUGE?] | Existing language doesn't make sense in that "all occupancies" from three to five stories [what about greater than five...NP?] - and I group that is three to five would also be 1-hr...is language clear enough or convoluted...? Existing fusible link permissibility (old 101 and 80 permits fusible links for doors/shutters...has this info changes in new nfpa 80?<br>2012 IFC LANGUAGE ADDRESSES REQUIREMENTS SECTION 1103.4.1 (REQUIRES 1-HR SEPARATION (SPRINKLER IS RETRO FOR I-2 & SHOULD BE PROPOSED FOR ASC (AHCF)...DISCUSSION NEEDED. LANGUAGE FOR LIMITATION OF ATRIUM FLOOR USES TO ALL LOW HAZARD (LOW FIRE LOAD) USES FOR HEALTHCARE (ALL HEALTHCARE) OCCUPANCIES SHOULD BE SPECIFIED AND MIGHT NEED ADDITIONAL DEFINITION OR LIMITATION STATEMENT FOR 'ATRIUM' USE ALLOWABILITIES. (LIVE TREES IS BEING COVERED, HOWEVER, GIFT SHOPS GREATER THAN 500 SQUARE FEET...DOES 2012 STILL REQUIRE PHYSICAL SEPARATION (SMOKE PARTITION) AS THE CONTENTS WOULD NOT BE CONSIDERED 'LOW FIRE LOAD'?<br>IFC 704 (IFC 4603.3); ofc section 1103.4.4 & 1103.5 *(retro-sprinkler). Possibly carry requirements into new healthcare based occupancies retro chapter. |
| K-20 PART II | IP | SEE ABOVE & CONVENIENCE OPENINGS, NFPA 101 CHAPTER 18: Convenience openings in communicating spaces permitted with conditions to be open to three stories; but is not permitted in I-3 detention occupancies. | CONVENIENCE OPENINGS | NEW LINE: FS - MYERS | IBC Section 707.2.7 provides specific exclusions for I-2 & I-3 Occupancies for floor openings & air transfer openings that comply with seven conditions: not more than 2 stories, not part of means of egress system, not in concealed construction, not open to corridor in Group I and R, not open to corridor in any area non-sprinklered, separated from floor openings and air transfer openings serving other floors by shaft enclosures, openings limited to same smoke compartment. | Language summarized in NFPA 101 2012 article indicates that the requirements for convenience openings for HEALTHCARE OCCUPANCIES has changed and is eliminated.<br>John Williams: This is terminology again, but the is the IBC definition of atrium. In NFPA, a communicating space is different than an atrium. A communicating space per 8.2.5.5 would not be allowed in a hospital, but would be allowed (with restrictions) in a ambulatory care facily. | NOTE: bolded comment in IBC is to draw attention to the allowance of the 'area of the same smoke compartment'. IF an increase in smoke compartment size is considered, this would permit possibly a greater flexibility in open design ('mall style') heathcare facilities by allowing greater square footage on multiple levels in the same 'compartment' or 'suite'. Again, what is the operational need? Is this a "want" that can be possibly obtained under the current code requirements?<br>John Williams comment: The type of convenience opening described in IBC 707.2 (7) could be permitted in a healthcare occupancy per NFPA 101. Since section 8.2.5.5 is not allowed in healthcare, the comparable sections are 8.2.5.7 and 8.2.5.8. This is one of the big differences in the code that we should address. |
| K21 | NC | Any door in an exit passageway, stairway enclosure, horizontal exit, smoke barrier or hazardous area enclosure shall be permitted to be held open only by devices arranged to automatically close all such doors by zone or throughout the facility upon activation of:<br>(a) The required manual fire alarm system**and**<br>(b) Local smoke detectors designed to detect smoke passing through the opening or a required smoke detection system**and**<br>The automatic sprinkler system, if installed<br>19.2.2.2.6, 7.2.1.8.2 | No direct IFC reference/SEE IFC 2012, SECTION 703.2.2<br>IBC - New only; IFC SECTION 716.5.9 & 716.5.9.2<br>(c) | MOE: Brad Pollitt | (Meyers) IBC SECTION 716.5.9 DOOR CLOSING & 716.5.9.2 AUTO CLOSING FIRE DOOR ASSEMBLIES. ALSO: CHUTE INTAKE DOORS IS 716.5.19.1 (THESE ARE IBC); AND THIS APPEARS TO BE COVERED (IN LESS DETAIL) UNDER SECTION IFC 703.2.2 (2012) –HOLD OPEN DEVICE MAINTENANCE REQUIREMENTS). ALSO REQUIRES COMPLIANCE WITH NFPA 80. | IFC is more restrictive than NFPA 101 for fusable links. No one really uses this for new construction. No change recommended. | MYERS: RETRO REQUIREMENTS FOR COMPLIANCE DETERMINATION TO PERMIT ALLOWANCE FOR HOLD OPEN DEVICES ON THREE CONDITIONS: COMPLIANCE WITH 1103.5 (SPRINKLER RETRO) & INTERCONNECTION OF HOD (HOLD OPEN DEVICE) WITH/ AUTO SD (COMPLIANT) AND INTERCONNECTION TO MANUAL ALARM PULLS (COMPLIANT INTERCONNECTION); QUESTION FROM RETROACTIVE REQUIREMENTS FOR IFC MIGHT BE A ZONE/BY/ZONE OR A FLOOR/BY/FLOOR COMPLIANCE REQUIREMENT.<br>(MYERS) IFC (2009)704.2 Opening protectives. When openings are required to be protected, opening protectives shall be maintained self-closing or automatic-closing by smoke detection. Existing fusible-link-type automatic door-closing devices are permitted if the fusible link rating does not exceed 135ºF (57ºC). RETROACTIVE REQUIREMENT (MINIMUM 1-HOUR - NOT REDUCED BY SPRINKLER IS PRESUMMED); IFC CHAPTER 46<br>(Myers) Given the requirement of 704 & 4603 (chapt 11 in 2012), the fire-rating requirement and door release automatic closing would be required. New language on limitations of fusible links (see IFC 704.2) |
| K33 | NC | Exit components (such as stairways) are enclosed with construction having a fire resistance rating of at least one hour, are arranged to provide a continuous path of escape, and provide protection against fire or smoke from other parts of the building. 8.2.5.2, 19.3.1.1 | IFC 4603.3 and 4604.1 | MOE: Tim Paglow | The IFC provides comparable level of protection as identified in 1103.4.1 and 1104.1 of the 2012 ed of IFC. | None needed | |
| | | **SMOKE COMPARTMENTATION AND CONTROL** | | | | | |
| K23 | CC | Smoke barriers shall be provided to form at least two smoke compartments on every sleeping room floor for more than 30 patients. 19.3.7.1, 19.3.7.; | No direct IFC reference IBC - New only | G: Rick Kabelle | Need retroactive requirements in IFC | Use section 407 and 422 for language. | |
| K24 | CC | The smoke compartments shall not exceed 22,500 square feet and the travel distance to and from any point to reach a door in the required smoke barrier shall not exceed 200 feet. 19.3.7.1 | No direct IFC reference IBC - New only | G: Rick Kabelle | Being addressed by topic 3 for new construction. | Use section 407 and 422 for language. | |
| K25 | IP | Smoke barriers shall be constructed to provide at least a ½ hour fire resistance rating and constructed in accordance with 8.3. Smoke barriers shall be permitted to terminate at an atrium wall. Windows shall be protected by fire-rated glazing or by wired glass panels and steel frames. A minimum of two separate compartments shall be provided on each floor. Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems.19.3.7.3, 19.3.7.5, 19.1.6.3, 19.1.6.4 | No direct IFC reference IBC - New only | G: Mike Crowley | This address the minimum requirements for existing smoke barriers. | Add an exception for I-2 occupancies section Chapter 11. Smoke barriers and smoke partitions. Exception 1:Existing smoke barriers in I-2 occupancies shall be constructed to provide at least a ½ hour fire resistance rating and constructed in accordance with Chapter 7 of IFC. Smoke barriers shall be permitted to terminate at an atrium wall. Windows shall be protected by fire-rated glazing or by wired glass panels and steel frames. A minimum of two separate compartments shall be provided on each floor with more than 30 patients. | Proposals to be moved to Chapter 11 since this will make the requirements retroactive. Chapter 7 is focused on maintenance but a pointer to chapter 11 may be necessary. |
| K26 | IP | Space shall be provided on each side of smoke barriers to adequately accommodate those occupants served. 19.3.7.4 | No direct IFC reference IBC - New only | G: Mike Crowley | This address the minimum requirements for existing smoke barriers. | Add a new sentence to section Chapter 11 on smoke barriers. Smoke barriers in exisitng I -2 occupancies must provide area on each side of the smoke barrier to accommodate the patient count at 30 square feet per patient and the other occupant load at 6 square feet per person. | Proposals to be moved to Chapter 11 since this will make the requirements retroactive. Chapter 7 is focused on maintenance but a pointer to chapter 11 may be necessary<br>(MYERS - Reference to the fire plan for documentation; #of patients to be in refuge in any smoke barrier is required to be documented during plan review and maintenance verified by fire official; possible draft of language to clarify the requirements for existing facilities & requirement of this requirement in IFC Chapter 11 for retroactivity? |
| K27 | IP | Door openings in smoke barriers have at least a 20 minute fire protection rating or are at least 13/4 inch thick solid bonded core wood. Non-rated protective plates that do not exceed 48 inches from the bottom of the door are permitted. Horizontal sliding doors comply with 7.2.1.14. Doors shall be self-closing or automatic-closing in accordance with 19.2.2.2.6. Swinging doors are not required to swing with egress and positive latching is not required. 19.3.7.5, 19.3.7.6, 19.3.7.7 | No direct IFC reference IBC - New only | G: Mike Crowley | This address the minimum requirements for existing smoke barriers. | Add an exception for I-2 occupancies section Chapter 11: Smoke barriers and smoke partitions. .Exception 2: Existing I-2 occupancies door openings in smoke barriers have at least a 20 minute fire protection rating or are at least 1-3/4 inch thick solid bonded core wood. Non-rated protective plates that do not exceed 48 inches from the bottom of the door are permitted. Horizontal sliding doors comply with NFPA 80. Doors shall be self-closing or automatic-closing in accordance with NFPA 80. Swinging doors are not required to swing with egress and positive latching is not required. | Proposals to be moved to Chapter 11 since this will make the requirements retroactive. Chapter 7 is focused on maintenance but a pointer to chapter 11 may be necessary |

| K-Tag | Stadus | CODE REQUIREMENT | ICC reference | Work group assignment | Analysis | Code Change | ADDITIONAL DISCUSSION NOTES AND COMMENTS FOR DIRECTION |
|---|---|---|---|---|---|---|---|
| K28 | CC | Door openings in smoke barriers shall provide a minimum clear width of 32 inches (81 cm) for swinging or horizontal doors. Vision panels are of fire-rated glazing or wired glass panels and steel frames. 19.3.7.5, 19.3.7.7 | No direct IFC reference IBC-New only | G: Mike Crowley | This address the minimum requirements for existing smoke barriers. | Add an exception for I-2 section Chapter 11: Exisitng I-2 occupanciess door openings in smoke barriers shall provide a minimum clear width of 32 inches (81 cm) for swinging or horizontal doors. Vision panels of fire-rated glazing or wired glass panels and steel frames are permitted. | Proposals to be moved to Chapter 11 since this will make the requirements retroactive. Chapter 7 is focused on maintenance but a pointer to chapter 11 may be necessary |
| K104 | IP | Penetrations of smoke barriers by ducts are protected in accordance with 8.3.6. | IFC 703.1.2 | G: Mike Crowley | Allow smoke damper requirements for existing configuation that comply with new criteria for smoke damper omission. Permit review is required to delete existing installations. | Add an exception for I -2 section in Chapter 11 : Exisiting I -2 occupancies smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems with automatic sprinkler systems as required for new I-2. Removal of exisitng smoke dampers require Building and Fire Official aproval process. | This is relevant if the exception for fully ducted systems is accepted for the IBC. Some concern that this should not be an exception on its own as it undo the requriements of a more complete system based upon what was initially approved by the IBC. This possible exception should be applicable to new smoke barriers and smoke zones not existing smoke barriers and smoke zones. This may need to wait till after action is taken on the IBC regarding this exception. This may need to wait till after action is taken on the IBC regarding this exception. |
| | | **HAZARDOUS AREA** | | | | | |
| K29 | IP | One hour fire rated construction (with ½ hour fire-rated doors) or an approved automatic fire extinguishing system in accordance with 8.4.1 and/or 19.3.5.4 protects hazardous areas. When the approved automatic fire extinguishing system option is used, the areas shall be separated from other spaces by smoke resisting partitions and doors. Doors shall be self-closing and non-rated or field-applied protective plates that do not exceed 48 inches from the bottom of the door are permitted. 19.3.2.1 | No direct IFC reference IBC-New only | G: Jeff O'Neill | relates to the Incidental Use Table 509 in the IBC. Round 1 code change being developed, both for IBC and potential addition as new chapter 1106 in IFC. Note the fire safety committee is making the proposal that storage rooms over 100 s.f. be required to be 1 hour. The fire safety committee's suggestion is that the fire code allow the code official to determine whether the contents are hazardous/flammable. | Analysis: relates to the Incidental Use Table 509 in the IBC. Round 1 code change being developed, both for IBC and potential addition as new chapter 1106 in IFC | INCIDENTIAL USE AREA TABLE - REQUIREMENTS IN DRAFT; POSSIBLE SEPARATE CHART AVAILABLE FOR IFC INCIDENTIAL USE MINIMUMS (RETRO ACTIVES?) MYERS Code Change: Lateit draft is attached, but working on updates. |
| K30 | NC | Gift shops shall be protected as hazardous areas when used for storage or display of combustibles in quantities considered hazardous. Non-rated walls may separate gift shops that are not considered hazardous, have separate protected storage and that are completely sprinkled. Gift shops may be open to the corridor if they are not considered hazardous, have separate protected storage, are completely sprinklered and do not exceed 500 square feet. 19.3.2.5 | No direct IFC reference | G: Jeff O'Neill | Section 407.2.4 addresses Gift Shops can be open to the corridor if less than 500 square feet, inclusive of their storage rooms. This is consistent with the Life Safety Code paragraph 18.3.6.1, Exception (4), and corresponding paragraph 19.3.6.1, Paragraph (4) in existing. IFC table 1018.1 calls out a reference to IBC section 407.2, and is therefore covered in both I-codes. | Due to consistency of codes, none recommended at this time. | |
| K211 | CC | Where Alcohol Based Hand Rub (ABHR) dispensers are installed:<br>The corridor is at least 6 feet wide<br>The maximum individual fluid dispenser capacity shall be 1.2 liters (2 liters in suites of rooms) The<br>dispensers shall have a minimum spacing of 4 ft from each other<br>Not more than 10 gallons are used in a single smoke compartment outside a storage cabinet. Dispensers<br>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 403.744, 418.100, 460.72, 482.41, 483.70, 483.623, 485.623 | IFC 3404.5 | FS: Jack Chamblee | NFPA 101- 18.3.2.6 (2) (a) states 0.32 gal (1.2 L) is the maximum individual dispenser fluid capacity in rooms, corridors and areas open to the corridor. IFC 5705.5 states the maximum capacity of each dispenser not in a corridor shall be 68 ounces (2L). IFC 5705.5.1.2 states in a corridor the maximum shall be 41 ounces (1.21 L). The IFC language for a non-corridor location for the dispenser allows for a much larger quanitity of fluid than the NFPA.<br>18.3.2.6 (2) (b) states the maximum individual dispenser fluid capacity shall be 0.53 gal (2.0L) for dispensers in a suite of rooms. This is not covered in the IFC.<br>18.3.2.6 (6) states Storage of quanities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30- Flamable and Combustible Liquids Code. IFC 5704.3.5 refers to Table 5003.1.1- Storage. Under the Open-use category- it permits a maximum of 10 gal with a 100% increase to 20 gal if fully sprinklered. | See Round 1, Issue #12 | |
| | | **EXIT AND EXIT ACCESS** | | | | | |
| K32 | NC | Not less than two exits, remote from each other, are provided for each floor or fire section of the building. Only one of these two exits may be a horizontal exit. 19.2.4.1, 19.2.4.2; | No direct IFC reference IBC-New only | MOE: Jonathan Flannery & Henry Kosarzycki | No less than two exits, remote from each other, are provided for each floor or fire section of the building. Only one of these two exits may be a horizontal exit. 18.2.4.1, 18.2.4.2<br><br>Not less than two exits, remote from each other, are provided for each floor or fire section of the building. Only one of these two exits may be a horizontal exit. 19.2.4.1, 19.2.4.2<br><br>**Differences in "I" codes.<br><br>IBC table 1021.1 Occupant load 1-500 – Minimum Number of Exits (per story) – 2.<br>**Table 1021.2 Stories with One Exit..."I" occupancy limited to first story or basement a maximum of 10 occupants and 75 foot travel distance.<br><br>IFC and IBC s. 1025.1 A horizontal exit shall not serve as the only exit fro a portion of a building, and where two or more exits are required, not more than one-half of the total number of exits or total exit width shall be horizontal exits.<br>**Exception: Horizontal exist are permitted to comprise two-thirds of the required exits from any building or floor area for occupancies in Group I-2. | No change needed. | |
| ERS: AHCF, AT LEAST TWO EXITS REMOTE FROM EATCH OTHER ARE PROVIDED FOR EACH FLOOR OR FIRE SECTION OF A BUILDING; SECTIONS 20.2.4.1, 21.2.4.1, 7.5.1.4 | | | | | | | |
| K34 | NC | Stairways and smokeproof towers used as exits are in accordance with 7.2, 19.2.2.3, 19.2.2.4 | IFC 4603.3 | MOE: Jeff Brissette | This analysis is tricky because it could be interpreted to mean the entire egress system for the stairway. The major differences between LSC and IBC are a few items. First, smokeproof enclosures in the IBC are permitted to discharge in a building whereas the LSC requires discharge direct to the exterior. Second, pressure differences are also significant as IBC requires a range of 0.15 to 0.35 and the LSC requires min. 0.05 in sprinklered buildings and min. 0.10 in non-sprinklered buildings. Third, activation of the stair pressurization system per the IBC is by smoke detectors in an approved location and LSC is by smoke detectors within 1/3' of door. | While there are differences, no change is proposed at this time. Change to IFC in 2013. | |
| K35 | NC | Capacity of exits in number of persons per unit of exit width is in accordance with 7.3, 19.2.3.1 | IFC 4604.7 | MOE: Jeff Brissette | The term "per unit of exit width" is no longer in either code. Exit capacity factors are now the same in both the LSC and IBC. The 2012 IBC Section 1005.3.1 exception does not permit I-2's to reduce to 0.15 and 0.2 for doors and stairs, respectively. Thus the two code are identical and no code changes are required. | Capcaity does not typically control in a hospital. | |
| K36 | NC | Travel distance (exit access) to exits are in accordance with 7.6., 19.2.6 | IFC 4604.18.3 | MOE: Jonathan Flannery & Henry Kosarzycki | K-36<br>Travel distance (exit access) to exits is in accordance with 7.6. 18.2.6<br><br>Travel distance (exit access) to exits are in accordance with 7.6. 19.2.5.10<br><br>IBC table 1016.1 Travel distance is 200 feet.<br>IBC s. 1014.2.3 Travel distance within a suite 100 feet.<br>IBC s. 1014.2.4.3 Travel distance within a suite with one intervening room 100 feet.<br>IBC s. 1014.2.4.4 ...for rooms other than patient sleeping rooms locate within a suite...through two intervening rooms...not greater than 50 feet. | No change needed. | |
| K37 | IP | Existing dead-end corridors shall be permitted to be continued to be used if it is impractical and unfeasible to alter them so that exists are accessible in not less than two different directions from all points in aisles, passageways, and corridors. 19.2.5.10 | IFC 4604.18.2 | MOE: Ed Altizer | The IFC has no requirements so existing dead ends may remain. The LSC gives the AHJ the authority to eliminate dead ends if "practical." The 2000 LSC does not have the 30 foot language only as shown in K37. | Revise I-2 requirements in IFC Table 1104.17.2.<br><br>IEBC 805.6 Dead-end corridors. Dead-end corridors in any work area shall not exceed 35 feet (10 670 mm).<br>Exceptions:<br>1. Where dead-end corridors of greater length are permitted by the International Building Code.<br>2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the International Building Code.<br>3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the International Building Code.<br>4. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the | |
| K38 | NC | Exit access is so arranged that exits are readily accessible at all times in accordance with 7.1, 19.2.1 | IFC 1030.2 | MOE: DN/HK/BP | The ICode Reference for K-38 and K-43 is the correct reference for the K-tag requirement it is referenced to. As identified under review and comparison the codes are generally aligned. The concern is in the difference and detail that exists between the general approach of the LSC and the specificity of the I-codes. For example K-38 can be understood as a general concern addressing exit access but the components of access from doors to stairs to width and capacity also contribute to compliance under K-38. There is no conflict in general, I am still looking at all of the components of access as described under 18.2.1 and 7.1 as compared to I-codes. Both K-tag's have a broad application based on the many potential observations of exit access compliance from general to component specific. | No change | |
| K39 | IP/CC | Width of aisles or corridors (clear and unobstructed) serving as exit access shall be at least 4 feet 19.2.3.3 | IFC 4604.7 | MOE: Ed Altizer | This is an interesting section. I ran out of time on this one but I can find no minimum requirements for existing buildings in the IFC except that existing MOE shall comply with the requirements of the code under which it was constructed. If there was not an existing code, the requirements in Chapter 46 (09) or Chapter 11 (12). I guess we can scrap the 09 code which does have some verbiage on how to determine but that is missing from the 12 code. Would need to add here a section dealing with the minimum requirements. The 12 LSC has some significant changes from the 2000 relating to 4 and 6 foot corridors. | Add something under IFC 1104.17 to maintain corridor width<br>see code change from committee for maintained corridor widht. | |

| K-Tag | Stadus | CODE REQUIREMENT | ICC reference | Work group assignment | Analysis | Code Change | ADDITIONAL DISCUSSION NOTES AND COMMENTS FOR DIRECTION |
|---|---|---|---|---|---|---|---|
| K40 | NC | Exit access doors and exit doors used by health care occupants are of the swinging type and are at least 32 inches in clear width. 19.2.3.5 | IFC 4604.8 | MOE: Jeff Brissette | This has been discussed regarding swinging doors. IBC Section 1008.1.2 requires side hinged swinging doors except for critical or intensive care patients rooms within suites of health care facilities or in a space with an occupant load of 10 or less. Power operated doors along with horizontal sliding doors (power operated) are also permitted per 1008.1.4.2 and 1008.1.4.3 | | |
| K41 | NC | All sleeping rooms have a door leading to a corridor providing access to an exit or have a door leading directly to grade. One room may intervene in accordance with 19.2.5.1, 19.2.5.9 | No direct IFC reference IBC - New only | MOE: Jeff Brissette | The IBC and LSC are essentially the same. No code change required. | | |
| K42 | NC | Any room or suite of rooms of more than 1,000 sq. ft. has at least 2 exit access doors remote from each other. 19.2.5.2. | No direct IFC reference IBC - New only | MOE: Jonathon Flannery | Consistent - no change recommended. Possible coordination with suite size changes needed in the future. The IFC does reproduce the Chapter 10 "Means of Egress" that has requirements near identical to the referenced section of NFPA 101. See section 1014.2.2 and 1015.1. However, the sections of the fire code only apply to new construction. To address number of exits from rooms or suites in existing building, we must adjust the scoping language of IFC 1030, Chapter 11 or creat a new area that deals will retroactive requirements for hospitals. | No change needed. | |
| K43 | NC | Patient room doors are arranged such that the patients can open the door from inside without using a key. Special door locking arrangements are permitted in facilities. 19.2.2.2.2 | No direct IFC reference IBC - New only | MOE: Henry Kosarzycki | The ICode Reference for K-38 and K-43 is the correct reference for the K-tag requirement it is referenced to. As identified under review and comparison the codes are generally aligned. The concern is in the difference and detail that exists between the general approach of the LSC and the specificity of the I-codes. For example K-38 can be understood as a general concern addressing exit access but the components of access from doors to stairs to width and capacity also contribute to compliance under K-38. There is no conflict in general, I am still looking at all of the components of access as described under 18.2.1 and 7.1 as compared to I-codes. Both K-tag's have a broad application based on the many potential observations of exit access compliance from general to component specific. | | |
| K44 | IP | Horizontal exits, if used, are in accordance with 7.2.4, 19.2.2.5 | No direct IFC reference IBC - New only | MOE: Ed Altizer | I disagree with the comment that there is no direct IFC reference. 1104.1 Discusses Means Of Egress and by definition Horizontal Exits are allowed as part of a means of egress. If clarity, a new section 1104.1 could be added to state that existing horizontal exits in I-2 facilities shall comply with 1007.2, 1025 (or other appropriate sections. | Put a refernece in 1104.1 to 1025.1<br>1104.1 General. Means of egress in existing buildings shall<br>comply with the minimum egress requirements when specified<br>in Table 1103.1 as further enumerated in Sections 1104.2<br>through 1104.23, and the building code that applied at the<br>time of construction. Where the provisions of this chapter<br>conflict with the building code that applied at the time of construction, the most restrictive provision shall apply. Existing<br>buildings that were not required to comply with a building<br>code at the time of construction shall comply with the minimum<br>egress requirements when specified in Table 1103.1 as<br>further enumerated in Sections 1104.2 through 1104.24. | Add changes for horizontal exits in IFC 1104 with specific criteria for Group I-2.<br>Do not reference 1007 but instead allow for defend in place as alternative to refuge areas. |
| | | **ILLUMINATION AND EMERGENCY POWER** | | | | | |
| K45 | IP/CC | Illumination of means of egress, including exit discharge, is arranged so that failure of any single lighting fixture (bulb) will not leave the area in darkness. 19.2.8, 7.8 | IFC 4604.5 | MOE: Tim Foglow | Completed crosswalk review of section 7.8 of 2009 LSC. | Three additions<br>Occupancy sensors shall be permitted within the means of egress provided they meet the following conditions: 1 they operate as fail safe devices 2 when activated by an occupant the area served is illuminated for a minimum duration of 15 minutes.<br>*Coordination with 1024.5. Add in 1006.2 & 1006.3.1. Having trailing edge requirement? Remains illuminated during evacuation?*<br>*Connection to fire alarm system activation. Two seperate changes.*<br>1006.2 exception In new construction stairwell illumination level shall not be less than 10 footcandle measured at the walking surface.<br>*Coordinate with open exit access stairways and exit stairways.*<br>Add into section 1006.3.1. A failure of any single lighting unit shall not reduces the illumination level to less than 0.2 footcandles. | NFPA 101 10 ft. is general lighting<br>NFPA 101 loss of bulb is general lighting, not emergency lighting |
| K46 | NC | Emergency lighting of at least 1 1/2 hour duration is provided in accordance with 7.9, 19.2.9.1. | IFC 4604.5.1 | MOE: Tim Foglow | Completed crosswalk review of section 7.89of 2009 LSC. | Do we want equipment and battery systems UL listed? Do we want battery systems for recharging to comply with NFPA 70? There are also no provisions in IFC for self testing including computer-based in IFC this is specified in LSC | |
| K47 | IP | Exit and directional signs are displayed in accordance with 7.10 with continuous illumination also served by the emergency lighting system. 19.2.10.1 (Indicate N/A in one story buildings with less than 30 occupants where the line of exit travel is obvious.) | IFC 4604.3 & IFC 4604.4 | MOE: Jeff Brissette | *The IBC and IFC both have the same requirements. NFPA is less restrictive for UL listings of equipment. NFPA 70 is not referenced by IBC/IFC as does NFPA 99. IBC/IFC permit batteries.* | Code change:<br>Add:<br>IBC Section 1011..6.3<br>exception 2: Group I-2 hospital emergency power system shall not be provided by unit batteries only. (needs discussion) | |
| | | | | | | | |
| K48 | NC | There is a written plan for the protection of all patients and for their evacuation in the event of an emergency. 19.7.1.1 | IFC 404 | FS: John Williams | IFC requirement is equivalent, especially since the KTAG is rather generic. This section should also reference Section 408.6 for specific Group I-2 requirements. | No change required to be equivalent; although a code change is being proposed by Fire safety | |
| KS0 | CC | 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. 19.7.1.2 | IFC 405 and 408.6 | FS: John Williams | IFC has equivalent language, except as follows: the requirement for drills under "unexpected times" is a general requirement for all facilities, but is currently exempted for Group I-2 in the IBC. I don't think the exemption would be a substantial barrier to CMS acceptance, but you can never tell. I need to check and see if NFPA 101, 2012 version still requires "unexpected times." | Modify our current change proposal on Fire safety and evacuation plans to read:<br>Section 408.6.4 Emergency Evacuation Drills. Emergency evacuation drills shall comply with Section 405.<br>Exceptions:<br>~~1. Drills are not required to comply with the time requirements of Section 405.4.~~<br>2. The movement of patients to safe areas or to the exterior of the building is not required.<br>3. When emergency evacuation drill are conducted after visiting hours or when patients are residents are expected to be asleep, a coded announcement shall be permitted instead of audible alarms. | |
| | | **FIRE ALARM SYSTEMS** | | | | | |
| KS1 | NC | A fire alarm system with approved component, devices or equipment installed according to NFPA 72, National Fire Alarm Code to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations in patient sleeping areas, may be omitted provided that manual pull stations are within 200 ft of nurse's stations. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be in accordance with NFPA72, and records of maintenance kept readily available. There shall be annunciation of the fire alarm system to an approved central station. 19.3.4, 9.6 | IFC 4603.6.3 (IBC 407.2) | FS: Tom Baldwin | IBC reference is 407.7<br>IFC reference is 901.6 for alarm and 906.2 for written record of testing. | No change is recommended | |
| KS2 | NC | A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with NFPA 70 National Electrical Code and NFPA 72. The system shall have an approved maintenance and testing program complying with applicable requirement of NFPA 70 and 72. 9.6.1.4 | IFC 4603.6.3 (IBC 407.2) | FS: Tom Baldwin | *IBC reference should be 407.7; 907.2.6; 907.5*<br>IFC reference 901.6; 907.8 | No change is recommended | |
| K1S5 | NV | Where a required fire alarm system is out of service for more than 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. 9.6.1.8 | IFC 901.7 | FS: Tom Baldwin | IFC reference 901.7:<br>K-tag sets out of service limits at more than 4 hours in a 24 hour period. IFC text does not provide this threshold. | The IFC is more restrictive and recommend no change. | |
| KS4 | NC | All required smoke detectors, including those activating door hold-open devices, are approved, maintained, inspected and tested in accordance with the manufacturer's specifications. 9.6.1.3 | IFC 901.6 | FS: Tom Baldwin | IFC reference 907.8<br>K-tag requires all smoke detectors to be maintained, inspected and tested in accordance with manufacturer's specifications. However, the IFC reference states in accordance with NFPA 72, a national standard. | The IFC ties requirements to a national standard vs. manufacturer's specifications, therefore, no change is recommended. | |
| KS5 | NC | Every patient sleeping room shall have an outside window or outside door. Except for newborn nurseries and rooms intended for occupancy for less than 24 hours. 19.3.8 | IBC reference 1029.1; IFC reference 1029.1 | FS: Tom Baldwin | IBC reference 1029.1<br>K-tag requires "Every patient sleeping room shall have an outside window or outside door. Except for newborn nurseries and rooms intended for occupancy for less than 24 hours" | K-tag is not valid. No action requested. | |
| | | **AUTOMATIC SPRINKLER SYSTEMS** | | | | | |
| KS6 | NC | Where required by section 19.1.6, Health care facilities shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with section 9.7. Required sprinkler systems are equipped with water flow and tamper switches which are electrically interconnected to the building fire alarm. 19.3.5, NPFA 13 | IFC 4603.4 (2009); IFC 1103.5.2 for I-2 (2012) | FS: Sharon Myers | Alterations of existing facilities have been discussed in multiple AHC meetings. Industry recommendation does not include not sprinklering the entire floor of an alteration in order to take any credit for being sprinklered. | Code Change: Due to consistency of codes, none recommended at this time for I-2 (HOSPITALS). | Requirements for sprinklers in NFPA 101 for existing facilities to be intergrated in full by approximately 2022 (12 YRS FROM 2009). Retroactive in the IFC by that time needs to clearly state the mandatory requirement for all healthcare (hospital occupancies) so that the requirements for healthcare facilities is not 'delete' by state and/or local entitities. commentary and guidebook should indicate the clear cut requirement - and IF CMS or other FED Agency references to the IFC for hospital regulations - the mandatory requirement for retroactive as it is stipulated in the current IFC would apply to all of these facilities. |
| K1S4 | NC | Where a required automatic sprinkler system is out of service for more than 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 system be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service. 9.7.6.1. | IFC 901.7 | FS: Eugene Jacques | IFC requires immediate notification of Fire Dept and Code Enforcement offical where required by Code offical and the evacauation or fire watch | LW - See code change in general committee item #4. This would make the requirement equivalent.<br>EJ-needs discussion | |
| K60 | NC | Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any required sprinkler system waterflow alarms, detection devices, or detection systems. 19.3.4.2, 9.6.2.1 | IFC 904.4 | FS: Eugene Jacques | | appears that no change is needed | |
| K61 | NC | Required automatic sprinkler systems shall have valves supervised so that at least a local alarm will sound when the valves are closed. 9.7.2.1, NFPA 7 | IFC 903.4 | FS: Eugene Jacques | IFC requirs electrically supervised by listed alarm control unit | appears that no change is needed | |
| K62 | NC | Automatic sprinkler systems are continuously maintained in reliable operating condition and are inspected and tested periodically. 19.7.6, 4.6.12, NFPA 13, NFPA 25, 9.7.5 | IFC 901.6 | FS: Eugene Jacques | Refer to NFPA 13 | appears that no change is needed | |
| K63 | NC | Required automatic sprinkler systems have an adequate and reliable water supply which provides continuous and automatic pressure. 9.7.1.1, NFPA 1; | IFC 903.3.5 | FS: Eugene Jacques | Refer to NFPA 13 | appears that no change is needed | |
| K64 | NC | Portable fire extinguishers shall be provided in al health care occupancies in accordance with 9.7.4.1, NFPA 10. 19.3.5.6 | IFC 906.1 | FS: Eugene Jacques | Required | appears that no change is needed | |
| | | **SMOKING REGULATIONS** | | | | | |

| K-Tag | Stadus | CODE REQUIREMENT | ICC reference | Work group assignment | Analysis | Code Change | ADDITIONAL DISCUSSION NOTES AND COMMENTS FOR DIRECTION |
|---|---|---|---|---|---|---|---|
| K66 | CC | Smoking regulations shall be adopted and shall include not less than the following provisions;. 19.7.4 1)<br>Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored 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.<br>2) Smoking by patients classified as not responsible shall be prohibited, except when under direct supervision. 3)<br>Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted. 4) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted. | IFC 310 (General Smoking requirements - not occupancy specific) | FS: Jack Chandler | The IFC 310 does not include the prohibition of non-responsible patients from smoking as outlined in 19.7.4.2. Note: the exception listed in the 2000 version of NFPA 101 -19.7.4.2 referring to the patient may smoke if they are under direct supervision has been deleted in the 2009 NFPA 101 Code. Also, in 19.7.4.2, it allows the deletion of all secondary no smoking signs if the signs are displayed prominently at all major entrances. IFC does not address this in 310.3. | IFC 310.3.1 "No Smoking" signs, in Group I-2 Hospital occupancies where smoking is prohibited are not required in secondary locations of the facility if the signs are displayed at all major entrances into the facility. | |
| | | **BUILDING SERVICE EQUIPMENT** | | | | | |
| K67 | CC | Heating, ventilating, and air conditioning shall comply with 9.2 and shall be installed in accordance with the manufacturer's specifications. 19.5.2.1, 9.2, NFPA 90A, 19.5.2.2 | No direct IFC reference | G: Jeff Bresette | IFGC Section 308.1 provides similar criteria for required clearances to combustible materials and has the same language for installation of appliances in accordance with mfgr specs. Neither the IFGC, nor the IFC, restricts fuel gas appliances (i.e., fireplaces) within Group I-2 occupancies similar to the NFPA (2009) standards. IFGC Section 602.2 has some automatic shut-off language, but not complete. | Proposed change to 2015 IFGC (new section):<br><br>301.16 Safety features.<br>In Group I-2 occupancies, appliances used for heating shall automatically and immediately shut down and stop fuel flow to the appliance either in the event of temperatures exceeding the appliance listing or failure to ignite. | JOHNS NOTE _ need to go back to the 90A and see if there as if there are any HVAC retroactive requirements that need to be dealth with. Do they need to go inot the IFC as a reference to the IMC or do they need to be stand alone requirements.? |
| K68 | CC | Combustion and ventilation air for boiler, incinerator and heater rooms is taken from and discharged to the outside air. 19.5.2.2. | No direct IFC reference | G: Jeff Bresette | Combustion air is not restricted from rooms and is not specifically required to be taken from the exterior of the building. | Proposed change to 2015 IFGC: **304.1 General.** Air for combustion, ventilation and dilution of flue gases for appliances installed in buildings shall be provided by application of one of the methods prescribed in Sections 304.5 through 304.9. Where the requirements of Section 304.5 are not met, outdoor air shall be introduced in accordance with one of the methods prescribed in Sections 304.6 through 304.9. Direct-vent appliances, gas appliances of other than natural draft design and vented gas appliances other than Category I shall be provided with combustion, ventilation and dilution air in accordance with appliance manufacturer's instructions. **Exception:** 1. Type 1 clothes dryers that are provided with makeup air in accordance with Section 614.5. 2. Combustion air for appliances in Group I-2 occupancies shall be taken directly from the exterior of the building. | |
| K69 | NC | Cooking facilities shall be protected in accordance with 9.2.3. 19.3.2.6, NFPA 96 | IFC 609 and 904.2.1 | G: Jeff Bresette | This is currently covered in 2012 IFC Section 609 and 904.11, along with 2012 IMC Sections 506.1, 507.1, 508.1 and 509.1. | No proposed changes for this K-Tag | |
| K70 | NC | Portable space heating devices shall be prohibited in all health care occupancies. Except it shall be permitted to be used in non-sleeping staff and employee areas where the heating elements of such devices do not exceed 212oF (100oC). 19.7.8 | IFC 605.10 | G: Jeff Bresette | The above K-Tag is the same as IFC Section 605.10 except the IFC specifies electric where the above K-Tag does not provide a specific type of heating element. | No proposed changes for this K-Tag. (Myers: are space heating equipment other than electric powered prohibited in other areas of the IFC for healthcare facilities? Clarify/confirm) | JOHN's note: add IFC section 308 (2009 version) that restricts open flame. Between the no portable electrical device and no open flame would essentially accomplish the same. |
| K71 | IP | Rubbish Chutes, Incinerators and Laundry Chutes. 19.5.4, 9.5, 8.4, NFPA 82<br>(1) Any existing linen and trash chute, including pneumatic rubbish and linen systems, that opens directly onto any corridor shall be sealed by fire resistive construction to prevent further use or shall be provided with a fire door assembly having a fire protection rating of 1 hour. (2) Any rubbish chute or linen chute, including pneumatic rubbish and linen systems, shall be provided with automatic extinguishing protection in accordance with 9.7.<br>(3) Any trash chute shall discharge into a trash collection room used for no other purpose and protected in accordance with 8.4.<br>(4) Existing flue-fed incinerators shall be sealed by fire resistive construction to prevent further use. | IFC 903.2.11.2 (Sprinkler requirements only); CHUTE INTAKE DOORS IS IBC 716.5.1.9.1; IFC SECTION 703.2.1 (FOR FIRE BARRIER MAINTENANCE) | FS: Sharon Myers | 708.13.3 (IBC 2009) references only rooms; 1-hour room enclosure w/auto-closing 3/4hr door & 707 & 712 (fire barrier & horiz assembly compliance). IBC Section 708.13.4 requires same 1-hr and prohibits location in incinerator room. (2009) 21.5.4 is applicable for Ambulatory Healthcare Facilities and requires compliance with NFPA 101 Section 9.5. | Suggested concepts to add to fire code for discussion: Language for shaft rating verification if existing and not in a room. (maintenance of rating of minimum of 1-hour (or greater) OR enclosure of existing laundry/refuse shafts within a rated room enclosure where existing shaft rating cannot be verified. Prohibition of the location of the chute terminatio in an incinerator room seems valid to be introduced into the fire code; serious hazard.<br>This would be for hospitals as well as ambulatory care facilities (since NFPA 101 (1999) requires compliance of laundry/rubbish chutes per Section 21.5.4. [BOTH (18/19 & 20/21) REQUIRE COMPLIANCE WITH SECTION 9.5] | I NEED TO DRAFT RETRO LANGUAGE TO DISCONTINUE CHUTES DIRECTLY TO ROOM OF INCINERATOR OR ANY OTHER USE (NFPA LANGUAGE AND ELUDED TO IN IFC, BUT NOT IN IMC/IBC/IFC ALSO, DRAFT LANGUAGE FOR MINIMUM 1-HOUR FIRE RESISTANCE RATING PROVISION IF NOT COMPLIANT (ROOM ENCLOSURE OR SHAFT WALL/DOOR EQUIVALENT). |
| K71, Related to K-21 | IP | Rubbish Chutes, Incinerators and Laundry Chutes. 19.5.4, 9.5, 8.4, NFPA 82<br>(1) Any existing linen and trash chute, including pneumatic rubbish and linen systems, that opens directly onto any corridor shall be sealed by fire resistive construction to prevent further use or shall be provided with a fire door assembly having a fire protection rating of 1 hour. (2) Any rubbish chute or linen chute, including pneumatic rubbish and linen systems, shall be provided with automatic extinguishing protection in accordance with 9.7.<br>(3) Any trash chute shall discharge into a trash collection room used for no other purpose and protected in accordance with 8.4.<br>(4) Existing flue-fed incinerators shall be sealed by fire resistive construction to prevent further use. | IFC 903.2.11.2 (Sprinkler requirements only); CHUTE INTAKE DOORS IS IBC 716.5.1.9.1; IFC SECTION 703.2.1 (FOR FIRE BARRIER MAINTENANCE) | FS: Sharon Myers | 708.13.3 (IBC 2009) references only rooms; 1-hour room enclosure w/auto-closing 3/4hr door & 707 & 712 (fire barrier & horiz assembly compliance). IBC Section 708.13.4 requires same 1-hr and prohibits location in incinerator room. (2009) 21.5.4 is applicable for Ambulatory Healthcare Facilities and requires compliance with NFPA 101 Section 9.5. CHUTE INTAKE DOORS IS IBC 716.5.19..1 | Suggested concepts to add to fire code for discussion: Language for shaft rating verification if existing and not in a room. (maintenance of rating of minimum of 1-hour (or greater) OR enclosure of existing laundry/refuse shafts within a rated room enclosure where existing shaft rating cannot be verified. Prohibition of the location of the chute terminatio in an incinerator room seems valid to be introduced into the fire code; serious hazard.<br>This would be for hospitals as well as ambulatory care facilities (since NFPA 101 (1999) requires compliance of laundry/rubbish chutes per Section 21.5.4. [BOTH (18/19 & 20/21) REQUIRE COMPLIANCE WITH SECTION 9.5] | I NEED TO DRAFT RETRO LANGUAGE TO DISCONTINUE CHUTES DIRECTLY TO ROOM OF INCINERATOR OR ANY OTHER USE (NFPA LANGUAGE AND ELUDED TO IN IFC, BUT NOT IN IMC/IBC/IFC.<br>ALSO, DRAFT LANGUAGE FOR MINIMUM 1-HOUR FIRE RESISTANCE RATING PROVISION IF NOT COMPLIANT (ROOM ENCLOSURE OR SHAFT WALL/DOOR EQUIVALENT). |
| K160 | NC | 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 fire fighting purposes, conform with Firefighter's Service Requirements of ASME/ ANSI A17.3,*Safety Code for Existing Elevators and Escalators.* 19.5.3, 9.4.3.2<br>ANSI A17.1 states 25 ft or more above or below the designated level and defines "designated level" as the main floor or other floor level that best serves the needs of emergency personnel for fire fighting purposes or rescue purposes identified by the building code or fire authority. Depending on floor slab thickness and heights this would generally apply to a three-story building, and almost certainly to a four-story building. Includes firefighters service **phase I** key recall and smoke detector automatic recall, firefighters service **phase II** emergency in-car key operation, machine room smoke detectors, and elevator lobby smoke detectors. 19.5.3, 9.4.3.2 | IFC 4603.2<br>IFC 1103.3 (2012 Edition) | FS: Brooks Baker | Besides IFC 4603.2 addressing this issue, section 607 does as well. IFC does not go in to as much detail as 101, however it does reference the same ASME standard A17.3. Further discussion regarding the level of detail requirements, and analysis of the IFC to see if there are any other references is required.<br>The 2012 Edition of IFC has moved "Construction Requirements for Existing Buildings" to Chapter 11. A review of Section 1103.3 does reference existing elevators with a travel distance of 25 feet or more above or below the main floors shall be provided with emergency operation in accordance with ASME A17.3, however a review of ASME A17.3 revealed no requirements for a firefighters service phase I key or phase II emergency in-car operation, nor does it require having machine room smoke detectors and elevator lobby smoke detectors. Note: IFC Section 607 does require phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1 for NEW ELEVATORS only. | Recommend that IFC 1103.3 be modified to include the requirements for a firefighters service phase I key, a phase II emergency in-car operation, and having smoke detectors located in the elevator machine room and elevator lobby as is required in NFPA 101. | |
| K161 | | All existing escalators, dumbwaiters, and moving walks conform to the requirements of ASME/ ANSI A17.3,*Safety Code for Existing Elevators and Escalators.* 19.5.3, 9.4.2.2 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. | IFC 607.1 | FS: Brooks Baker | In reviewing IFC 607.1, it does not include escalators, dumbwaiters, and moving walks. Recommend that IFC 607.1 be modified to include escalators, dumbwaiters, and moving walks in the code section. | Recommend that IFCE Section 607.1 be modified to include escalators, dumbwaiters, and moving walks and shall comply with the requirement of ASME/ANSI A17.3 Safety Code for Existing Elevators and Escalators including escalator emergency stop buttons, and automatic skirt obstruction stop as well as hoistway door locking to keep doors closed except for hte floor where the car is being loaded and unloaded for dumbwaiters as required in NFPA 101. | |
| | | **FURNISHINGS AND DECORATIONS** | | | | | |
| K72 | NC | 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 furnishings, decorations, or other objects shall obstruct exits, access thereto, egress there from, or visibility thereof shall be in accordance with 7.1.10 | | SAME: Jonathan Flannery & Henry Rauerzycki & John Williams | Means of egress are continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. No furnishings, decorations, or other objects obstruct exits, access to, egress from, or visibility of exits. 7.1.10<br><br>Means of egress are continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. No furnishings, decorations, or other objects obstruct exits, access to, egress from, or visibility of exits. 7.1.10<br><br>IFC and IBC s. 1003.6 ...Obstructions shall not be placed in the require width of a means of egress except projections permitted by this chapter. | No change needed. | |
| K73 | NC | No furnishings or decorations of highly flammable character shall be used. 19.7.5.2, 19.7.5.3, 19.7.5.4 | | FS: Jeff O'Neill | IFC paragraph 805.2 addresses upholstered furniture and mattresses. Paragraph 805.2.1.2 references the same Peak Heat rates of 80kw and 25MJ, with exception for sprinklered facilities. All consistent with noted 2009 NFPA101 paragraphs, including reference to NFPA 701. Decorations are covered in 807.1, along with draperies and cubicle curtains noted in K74. | Due to consistency of codes, none recommended at this time. | |
| K74 | NC | Draperies, curtains, including cubicle curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with provisions of 10.3.1 and NFPA 13 Standard for the Installation of Sprinkler Systems. Except shower curtains shall be in accordance with NFPA 701.<br>-Newly introduced upholstered furniture shall meet the criteria specified when tested in accordance with the methods cited in 10.3.2 (2) and 10.3.1. 18.3.5.3 and NFPA 13.<br>.<br>Newly introduced mattresses shall meet the criteria specified when tested in accordance with the method cited in 10.3.2 (3) and 10.3.4., 19.7.5.3 | IFC 807 | FS: Jeff O'Neill | This K-Tag references the same paragraphs as K73 for all fabric decoration and furniture finish. Reference to NFPA 701 is covered in IFC paragraph 807.1, exception (2). | Due to consistency of codes, none recommended at this time. | |
| K75 | IP | Soiled linen or trash collection receptacles shall not exceed 32 gal capacity. The average density of container capacity in a room or space shall not exceed 1/2 gal/sq. ft. A capacity of 32 gal (121 L) shall not be exceeded within any 64 sq. ft. area. Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal shall be located in a room protected as a hazardous area when not attended. 19.7.5.5 | IFC 304.3 | FS: Jeff O'Neill | K-tag deals with size of receptacles, and ties into volume recommendations being made for soiled utility rooms in the incidental Use Table 509. NFPA 101 calls for soiled utility receptacles shall not exceed 32 gallons, while IFC 304.3.2 sets limit at 40 gallons. Also, NFPA sets a ½ gallon per square foot limit on a room before it is considered in need of rating requirement. | Recommend reducing limit in IFC 304.3.2 to 32 gallon from 40 gallon. Also recommend adding gallon per square foot limit to 304.3.2. | |
| | | **LABORATORIES** | | | | | |
| K31 | IP | 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 severe hazard shall meet the provision of K29.) Laboratories in Health Care occupancies and medical and dental offices shall be in accordance with NFPA 99, Standard for Health Care Facilities 10.5.1 | IFC 5001.5.1 and 5001.5.2 along with 5003.3.1, 5003.4, 5003.9.1 and 407. | G: Bob Davidson | Though the terminology is different the 'severe hazard' concept found in NFPA 99 is analgous to the Maximum Allowable Quantity (MAQ) thresholds for high hazard uses that is applied in the IBC/IFC. | | IFC 5003.1.3 For maximum quantitities per control area. Then you would apply 5001, 5003, 5004 and 5005 along with material specific chapters. If under the MAQ you apply 5001 and 5003 along with material specific chapters. Note that this K-Tag only reviewed the hazardous materials approach but NFPA 45 has other requirements for labs that could be reviewed. This is being dealt with to a certain extent by the FS group. |
| K136 | IP | Procedures for laboratory emergencies shall be developed. Such procedures shall include alarm actuation, evacuation, and equipment shutdown procedures, and provisions for control of emergencies that could occur in the laboratory, including detailed plans for control operations by an emergency control group within the organization or a public fire department in accordance with NFPA 99, 10.2.1.3.1, 19.3.2.1 | Sections 5003.3.1, 5003.4, 5003.9.1 and 407 | G: Bob Davidson | The IFC contains language that generically would require that the prodedures be developed. There could be langauge added to specifically address the I-2 laboratories, but in doing so we raise the question of whether there needs to be specific mention of all other types of laboratories using chemicals. I prefer the generic since going to specific creates teh possibility of missing a laboratory use and the claim it is not required to comply. | | IFC 5001.5.1 and 5001.5.2 along with 5003.3.1, 5003.4, 5003.9.1 and 407. |
| K131 | NC | Emergency procedures shall be established for controlling chemical spills in accordance with NFPA 99. 10.2.1.3.2 | Section 407.4 | G: Bob Davidson | This is generically required in the IFC for all occupancies using hazardous materials. | | Sections 5003.3.1, 5003.4, 5003.9.1 and 407 |
| K132 | IP | 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 | Section 5003.8.1 points to IBC. IBC 414.1.2 points to IMC. IMC covers laboratory ventilation. | G: Bob Davidson | Though training is covered, the referenced section could be enhanced with a requirement for annual refresher training. | | Section 407.4 |
| K133 | IP | Fume hoods shall be in accordance with NFPA 99. 5.4.3, 5.6.2 | No direct IFC reference | G: Bob Davidson | Fume hoods are extensively provided for in the IMC which users of the I-codes are pointed to, however, there has been discussion that the may need to be enhancement of the IMC language to clearly address the biological hazards (see NFPA 99, 6.4.3.1*) and I would suggest language be added addressing radioactive materials (See NFPA 99-2005, 6.4.3.*). | IFC NEEDS TO REF RADIOACTIVE AND HAVE ALL AREAS COVERED FOR HC OCCUPANCIES/RISK IN IMC. | Section 5003.8.1 points to IBC. IBC 414.1.2 points to IMC. IMC covers laboratory ventilation. Need to add provisions to IMC for biological hazards and radioactive hazards. Sharon Myers has some language drafted to be reviewed. MYERS TO RESEARCH/WORK WITH JEFF P/B. DAVIDSON TO COORDINATE WORK |
| K134 | IP | 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 designed and installed to avoid injurious water pressure shall be in accordance with NFPA 99, 10.6. | No direct IFC reference | G: Bob Davidson | This topic would need addition to the IFC. | | No direct IFC reference . This should be required by the IFC and the IPC needs to provide the requriements on how to install. Section 5003.9<br>MYERS TO RESEARCH/WORK WITH JEFF P/B. DAVIDSON TO COORDINATE WORK |

| K-Tag | Stadus | CODE REQUIREMENT | ICC reference | Work group assignment | Analysis | Code Change | ADDITIONAL DISCUSSION NOTES AND COMMENTS FOR DIRECTION |
|---|---|---|---|---|---|---|---|
| K135 | NC | Flammable and combustible liquids shall be used from and stored in approved containers 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 NFPA 99, 4.3, 10.7.2.1. | IFC Sections 5003.8.7, 5003.9.10 and 3404.3 | G: Bob Davidson | Both topics are covered by the IFC. | | IFC Sections 5003.8.7, 5003.9.10 and 3404.3 |
| | | **MEDICAL GASES AND ANESTHETIZING AREAS** | | | | | |
| K76 | IP | Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Standard for Health Care Facilities.<br>(a) Oxygen storage locations of greater than 3,000 cu.ft. are enclosed by a one-hour separation. (b)<br>Locations for supply systems of greater than 3,000 cu.ft. are vented to the outside. NFPA 99, 4.3.1.1.2, 18.3.2.4, 19.3.2.4 | IFC 3006 | G: Jack Chambers | (a) IFC Table 2703.1 (1)- states maximum allowable quanitity per Control Area- for Oxidizing Gas storage is 1,500 cu.ft. and can be increased by 100% if the building is fully sprinklered to 3,000 cu.ft. Walls shall be rated 1- hour. Issue- In a room with less than 3,000 cu. ft. stored- Ventillation is covered in the IFC 3006.2.1. and the minimum vent size is 36 square inches with two separate vents, one located 6" above the floor and one located 6" below the ceiling. The NFPA 99- 4-3.1.1.2 (b) 4 and 4-3.1.1.2 (c) states two vents are required as well however with a minimum free area of 72 square inches located within 12" of the floor and 12" ceiling. | | |
| K77 | IP | Pipeid in medical gas systems comply with NFPA 99, Chapter 4. | IFC 3006.4 | G: John Williams | The requirement is essentially the same. We could narrow the focus down to the applicable chapters of 99 to prevent overapplication of ALL of NFPA 99 during post-occupancy. NFPA 99 will probably have some language about retroactivity - but that seems to be missed often. Point is: If the fire code is going to be applied as a maintenance/retroactive requirement, how do we keep from creating a retroactive requirement everytime NFPA 99 changes the text? | May need a code change - needs more discussion | |
| K78 | IP | Anesthetizing locations shall be protected in accordance with NFPA 99, Standard for Health Care Facilities. (a)<br>Shutoff valves are located outside each anesthetizing location and arranged so that shutting off one room or location will not affect others.<br>(b) Relative humidity is maintained equal to or great than 35% NFPA 99 4.3.1.2.3(n) and 5.4.1.1, 18.3.2.3, 19.3.2.3 | IFC 3006.4 | G: John Williams | These requirements are NFPA 99 which is a direct reference per 3006.4. I do not have a copy of NFPA 99 2012 to verify if the requirements will be the same. | see KTAG 77 | K78: MYERS COMMENT: PER NFPA 99 AND 101 - AREAS FOR ANESTHIZING LOCATIONS ARE REQUIRED TO COMPLY WITH THE SAME PROVISIONS AS NFPA 99 (CHAPTER 13) FOR HOSPITALS. SAME HAZARD/SAME PRECAUTIONS REQUIRED. |
| K140 | IP | (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<br>(c) Where a level 2 gas system is used, one alarm panel that complies with 4.3.1.2.2(b) 3 a, b, c and d and with 4.3.1.2.2(c) 2 and 5 shall be permitted. (4.4.1 exception No. 4). | IFC 3006.4 | G: John Williams | | see KTAG 77 | |
| K141 | IP | Non-smoking and no smoking signs in areas where oxygen is used or stored shall be in accordance with 19.3.2.4, NFPA 99, 8.6.4.2 | IFC 3006.4 **and 2703.1** | G: John Williams | Also section 2703.7.1 would require the prohibition of smoking and would require "no smoking" signage at hazardous material location that exceed the permit amount (504 cubic feet of O2 @NTP) | No code change required | |
| K142 | CC | All occupancies containing hyperbaric facilities shall comply with NFPA 99, Standard for Health Care Facilities, Chapter 19. | IFC 3006.4 sort of - need a new section? | G: John Williams | This is unclear. The medical gas section in the IFC would refer you to NFPA 99 for the med gas requirements, but it doesn't specifically say anything about the hyperbaric requirements. Both need to be referenced. The IBC currently refers to "Chapter 20 of NFPA 99" for hyperbaric chambers in group I-2. Narrowing the scope to Group I-2 is not the best because frequently hyperbaric are used in outpatient facilities, doctor's office, etc. I suggest we make the IBC language more generic, also we add the launguage into the IFC. Not sure where a good spot is. | IBC Change: IBC Section ~~407.9.2~~XX.x Hyberbaric facilities ~~in Group I-2 occupancies~~ shall meet the requirements in Chapter 20 of NFPA 99<br>IFC Change: Section XXX.x Hyperbaric facilities. Hyperbaric facilities shall meet the requirements of Chapter XX in NFPA 99. | |
| K143 | IP | Transferring of oxygen shall be:<br>(a) separated from any portion of a facility wherein patients are housed, examined, or treated by a separation of a fire barrier of 1-hour fire-resistive construction; **and**<br>(b) the area that is mechanically ventilated, sprinklered, and has ceramic or concrete flooring; **and**<br>(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 | No direct IFC reference | G: John Williams | Mutiple issues:<br>1. transfer of compressed oxygen. '09 IFC Section 3005.7 requires compliance with CGA P-1 for transfer of compressed gases from cylinder to cylinder. NFPA 99 requires compliances with CGA P 2.5. Not sure what the difference is. Also, NFPA 99 requires that this not occur in "patient care areas." IFC does not have this restriction.<br>2. Transferring liquid oxygen. NFPA 99 has general reqs. for flooring, ventilation , separation and reference to CGA P-2.6 and P-2.7. Cryogenic oxygen is deatth with in IFC chapter 40 and chapter 32. Chapter 40 talks about transfilling in "home health care" , i.e. Group R and I-1. It does not cover I-2s. Chapter 32 covers general "filling and dispensing" but does not pick up the requirements for CGA 2.6 and 2.7. The requirements for flooring and ventilation are vague as well. | Need code change. | |
| | | **ELECTRICAL** | | | | | |
| K106 | IP | The hospital and all nursing homes and hospices with life support equipment has a Type I Essential Electrical System powered by a generator with a transfer switch and separate power supply. The EES is in accordance with NFPA 99, 3.4.2.2, 3.4.2.1.4 | No direct IFC reference | MOE: Lennon Peake | *The K-TAG requirement is from NFPA 99 which is only referenced for Hyperbaric chambers in IBC Section 407.10 and Compressed Medical Gas in IFC Section 5306.4.* | Proposed code change IBC Section 407.11 Emergency Power. An emergency power system complying with Chapter 27 and NFPA 99, Standard for Health Care Facilities, shall be provided for emergency power loads.<br>IFC Section 604.1.2 Group I-2 Occupancies. Emergency power shall comply with this Section and NFPA 99 Standard for Health Care Facilities. Exception:<br>1. Existing installations shall be maintained in accordance with original approval where system does not pose a distinct hazard to life. | May not need exception. |
| K144 | NC | Generators inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99, 3.4.4.1, NFPA 110, 8.4.2 | No direct IFC reference | MOE: Lennon Peake | *IFC Section 604.3 and 604.4 require inspection, testing, and maintenance of generators to meet NFPA 110 and 111 requirements which appears to meet the K-TAG.* | None required. | |
| K145 | NC | The Type I EES is divided into the critical branch, life safety branch and the emergency system and shall be in accordance with NFPA 99, 3.4.2.2.2 | No direct IFC reference | MOE: Lennon Peake | *The K-TAG requirement is from NFPA 99 which is only referenced for Hyperbaric chambers in IBC Section 407.10 and Compressed Medical Gas in IFC Section 5306.4.* | Proposed code change<br>IBC Section 407.11 Emergency Power. An emergency power system complying with Chapter 27 and NFPA 99, Standard for Health Care Facilities, shall be provided for emergency power loads.<br>IFC Section 604.1.2 Group I-2 Occupancies. Emergency power shall comply with this Section and NFPA 99 Standard for Health Care Facilities.<br>Exception: 1. Existing installations shall be maintained in accordance with original approval where system does not pose a distinct hazard to life. | See K147 |
| K146 | NC | 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 ½ hour after loss of the normal source NFPA 99, 3.6. | No direct IFC reference | MOE: Lennon Peake | *The K-TAG requirement is from NFPA 99 which is only referenced for Hyperbaric chambers in IBC Section 407.10 and Compressed Medical Gas in IFC Section 5306.4.* | Proposed code change<br>IBC Section 407.11 Emergency Power. An emergency power system complying with Chapter 27 and NFPA 99, Standard for Health Care Facilities, shall be provided for emergency power loads.<br>IFC Section 604.1.2 Group I-2 Occupancies. Emergency power shall comply with this Section and NFPA 99 Standard for Health Care Facilities.<br>Exception: 1. Existing installations shall be maintained in accordance with original approval where system does not pose a distinct hazard to life. | See K147 |
| K147 | NC | Electrical wiring and equipment shall be in accordance with NFPA 70, National Electrical Code. 9.1.2 | No direct IFC reference | MOE: Lennon Peake | *IBC Section 2701 requires electrical equipment and wiring to meet NFPA 70.* | Proposed code change<br>IFC Section 605.12 Electrical Systems. Electrical components, equipment and systems shall be maintained in accordance with the provisions on NFPA 70. | What maintenace provisions are you looking to pick up from NFPA 70? Hospitals already have to comply with NFPA 70. Committee decided this was referenced enough already. If specifics are needed, identify what they are. NFPA is an installation standard, not a maintenance. Hazards are already required to be abated. |
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| | | IP - Code change proposal in progress | Fire Safety (26) | 0 | | | |
| | | CC - Code change proposal completed | MOE (26) | 0 | | | |
| | | NC - No change proposed | General (28) | 0 | | | |
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