



**SOUTHERN NEVADA
PROPOSED AMENDMENTS**

TO THE

2012 INTERNATIONAL BUILDING CODE

**FIRE AND LIFE SAFETY COMMITTEE
SEPTEMBER 25, 2012**

PREFACE

This document was developed by the Southern Nevada Building Officials' Fire and Life Safety Committee and presents recommended amendments to the 2012 *International Building Code* (IBC) as published by the International Code Council (ICC). The scope of this review includes Chapters 7, 8, 9, 14, 15, 26 and Appendix H.

Participation in the 2012 Fire and Life Safety Committee was open to all interested parties. However, voting on amendment proposals was limited to one vote each for the seven Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, Pahrump, Mesquite), the Clark County School District, and three industry representatives. All Fire and Life Safety Committee proceedings were conducted in accordance with Robert's Rules of Order.

The recommended amendments contained herein are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternates have been approved and their use authorized by the Building Official. This document may be copied and used in whole or in part without permission or approval from the organizations listed on the cover page.

TABLE OF CONTENTS

Contents	Page
Section 703.4 - FLS12-044.....	3
Section 709.4 - FLS12-009.....	6
Section 713.13.3 - FLS12-010	8
Section 713.13.4 - FLS12-011	10
Section 713.14.1- FLS-045.....	11
Section 716.5.9 - FLS12-014	12
Section 718.3.2 & 718.4.2 - FLS12-015	14
Section 718.5 - FLS12-016.....	16
Section 803.11.2 - FLS12-002	18
Section 803.13.1- FLS-003.....	19
Section 806.1- FLS-004.....	20
Section 903.2 - FLS12-018.....	21
Section 903.2.3 - FLS12-019	24
Section 903.2.9 - FLS12-020	25
Section 903.3 - FLS12-021.....	27
Section 903.4 - FLS12-022.....	28
Section 905.3.1- FLS-024.....	30
Section 905.8 - FLS12-029.....	32
Section 905.9 - FLS12-030.....	33
Section 906 - FLS12-032	34
Section 907.1.2 - FLS12-033	36
Section 907.2 - FLS12-054.....	38
Section 907.2.7.1 - FLS12-034.....	40
Section 907.2.9.1 - FLS12-035.....	41
Section 907.2.9.1.1 - FLS12-036.....	43
Section 907.2.13 - FLS12-037	44
Section 907.2.13.1.1 - FLS12-038	46
Section 907.3 - FLS12-039.....	48
Section 907.4 - FLS12-040.....	49
Section 907.5 - FLS12-041.....	50
Section 907.6 - FLS12-042.....	52
Section 909.5.2 - FLS12-055	53
Section 909.16 - FLS12-046	55
Section 909.17 - FLS12-056	58

Section 909.18.8.3 - FLS12-058.....	60
Section 909.18.10 - FLS12-057.....	62
Section 909.20.4 - FLS12-053.....	63
Section 909.20.5.1 - FLS12-047.....	65
Section 910.3.2.2 - FLS12-048.....	66
Section 910.3.5 - FLS12-049.....	67
Section 911.1.3 - FLS12-050.....	68
Section 911.1.5- FLS12-051.....	70
Section 916 - FLS12-052.....	733
Section 1509.7.3 - FLS12-017.....	755
Section 2606.7.4 & 2606.7.5 - FLS12-005.....	766
Section 2611- FLS12-006.....	78
Section 2612 - FLS12-007.....	833
Appendix H - FLS12-008.....	877

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-044

COMMITTEE: Fire and Life Safety

CODE SECTION: 703.4

PROPOSER: Allyn Vaughn

PROPOSAL: *Allow sprinklers and non-rated glazing as an opening protective.*

REVISE AS FOLLOWS: *Add exception to Section 703.4 as follows:*

Exception: A fire barrier, fire partition or smoke barrier may use non-rated glass and automatic sprinklers to achieve up to a 1-hour fire-resistance rating when all of the following are provided:

1. Automatic sprinklers are provided along both sides of the glazing and/or doors, or on the room side only if there is not a walkway on one side. The sprinklers shall be located between 4 inches and 12 inches (102 mm and 305 mm) away from the glass and at intervals along the glass not greater than 6 feet (1829 mm). The sprinkler system shall be designed so that the entire surface of the glass is wet upon activation of the sprinklers system without obstruction;
 - 1.1. The glass wall shall be installed in a gasketed frame in a manner that the framing system deflects without breaking (loading) the glass before the sprinkler system operates; and
 - 1.2. Where glass doors are provided in the glass wall, they shall be either self-closing or automatic-closing; and
 - 1.3. The sprinklers used to protect the glass wall and/or doors along the fire barrier, fire partition or smoke barrier are served by systems separate from the sprinklers protecting the room or space. The system shall be dedicated to those sprinklers used to protect the fire barrier, fire partition or smoke barrier
 - 1.4. The fire barrier, fire partition or smoke barrier does not exceed a 1-hour fire-resistance rating.

JUSTIFICATION: This change recognizes some of the unique designs or systems not specifically anticipated by code found here in Southern Nevada. While the charging section indicates that Alternate Methods of Construction may still be considered, this exception recognizes that closely spaced sprinklers served by dedicated zones, independent of the floor systems, provides a level of protection equal to and greater than that allowed by code. The application of sprinklers to protect 1-hour rated assemblies is still allowed by code for Atriums in Section 404.6 and the wording for this level of protection is taken from that section. The exception also exceeds code by requiring these sprinklers to be on separate systems from the floor or room system, thereby maintaining the level of protection even when work is being done on the overhead

systems in the space. This exception would not apply to fire barriers, fire partitions or smoke barriers with a fire-resistance rating great than 1-hour.

The original proposal to add this section in the 2012 code was submitted to clarify the intent of the code to not allow automatic sprinklers (cooling flow) as part of the testing of the assembly under ASTM E119 and UL 263. The committee originally approved the proposal as submitted stating that passive and active fire protection should not be used together specific to ASTM E119 and UL 263 testing. The original justification and the committee response agreed that the use of both active and passive protection as part of an assembly can be reviewed and approved under Section 104.11 for Alternate Methods.

Section 703.4 as adopted was revised during public comment to incorporate the reference to Section 104.10 and Section 104.11 since it was part of the justification and part of the response from committee for approving the change. The primary purpose of the revision was to clearly indicate that although the code for passive protection does not recognize cooling effect in the testing of assemblies, the use of cooling effects (automatic sprinklers) can be used for rated assemblies when approved through Alternate Means.

This proposal is consistent with the ICC Committee's original intent when approving the revised amendment. Although the code recognizes the application of Requests for Alternate Methods of Construction in this section, the use of sprinklers to protect glazing in rated walls has been an accepted practice in Southern Nevada for many years, and has even been part of previous code sections covering occupancy separations for Assembly and Retail occupancies. This proposal does not change the provisions of the code but recognizes that if sprinklers are provided in this manner, a Request for Alternate method is not required for all applications. This should cut down the requests and processing time for projects in the future.

COST IMPACT: There should be no specific cost impacts associated with this change as it provides for an alternate approach to meeting code requirements. It will also reduce costs associated with processing Alternate Methods of Construction.

COMMITTEE ACTION: As amended

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AA	AA	AA	AA	NP	AA	AA	AA	AA	AA	AA

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-009 – R1

COMMITTEE: Fire and Life Safety

CODE SECTION: 709.4

PROPONENT: Stephen Cullen – Revised Allyn Vaughn

PROPOSAL: *Not require a smoke barrier to extend from exterior wall to exterior wall.*

REVISE AS FOLLOWS: *Revise Section 709.4 to read as follows:*

709.4 Continuity. *Smoke barriers* shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceilings, and interstitial structural and mechanical spaces. The supporting construction shall be protected to afford the required *fire-resistance rating* of the wall or floor supported in buildings of other than Type IIB, IIIB or VB construction.

Exceptions:

1. Smoke-barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke-barrier walls.
2. *Smoke barriers* used for elevator lobbies in accordance with Section 405.4.3, 3007.4-7.2 or 3008.4-7.2 are not required to extend from outside wall to outside wall.
3. *Smoke barriers* used for areas of refuge in accordance with Section 1007.6.2 are not required to extend from outside wall to outside wall.
4. *Smoke barriers* used for smoke control zone boundaries in accordance with Section 909.5 are not required to extend from outside wall to outside wall.

JUSTIFICATION: This amendment is needed to address unique designs not anticipated by code as smoke control systems are still employed in Southern Nevada. With the need to provide smoke control systems within many of the facilities found in Southern Nevada, requiring smoke barrier walls to be continuous from outside wall to outside wall is impractical. Many smoke control system employ passive smoke barriers as well as pressurization method zones that are wholly within a building where the smoke boundary walls do not intersect with the outside walls. The use of an outside wall is not required to make the system functional and provides no additional benefit. This change is also consistent with the last two code cycles where this requirement was removed from the code. This amendment also addresses a code correlation in correcting the referenced sections in Exception No. 2.

COST IMPACT: No cost increase and may be a cost savings over the base code. As this has been adopted in the past, locally there will be no cost change.

COMMITTEE ACTION: As amended

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AA	AA	AA	NP	NP	AA	AA	AA	AA	AA	AA

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-010 –R1

COMMITTEE: Fire and Life Safety

CODE SECTION: 713.13.3

PROPONENT: Lanny Ray

PROPOSAL: *Provide a minimum size for access rooms to for refuse and laundry chutes.*

REVISE AS FOLLOWS: *Revise Section 713.13.3 as follows:*

713.13.3 Refuse, recycling and laundry chute access rooms. Access openings for refuse, recycling and laundry chutes shall be located in rooms or compartments enclosed by not less than 1-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with 711, or both. Openings into the access rooms shall be protected by opening protectives having a fire protection rating of not less than $\frac{3}{4}$ hour. Doors shall be self- or automatic-closing upon the detection of smoke in accordance with Section 716.5.9.3. The room or compartment shall be sized to allow the access door to the room or compartment to close and latch with the access panel to the refuse or laundry chute in any position.

JUSTIFICATION: This amendment is proposed to address a unique design that is not anticipated by the Code.

All access openings and termination points must be treated as shaft enclosure penetrations requiring opening protectives. Refuse and laundry access openings are prohibited by Section 714.1 from being located in corridors or exits. While a corridor is a very convenient location for access to these chutes, in order to do so from a corridor, an intervening room with an additional fire-rated opening protective provides redundancy that is justified by fire experience. Misapplication of this section is often seen in Southern Nevada when laundry or refuse chutes are provided for use by the public (typically residents or guests) with a design of a small compartment sandwiched between the fire-rated access opening of the refuse or laundry chute shaft and the rated door opening into a corridor or exit. A compartment constructed in this manner provides the likelihood of both the refuse or laundry chute opening protectives and the compartment opening protective being blocked open by debris or laundry leaving the corridor or exit unprotected.

This code amendment provides a minimum size for the compartment (essentially an accessible “alcove”). The minimum depth of the compartment (alcove) is required to be large enough to allow the automatic closing door to close when the access opening protective into the refuse or laundry chute shaft is in any position. This reduces the possibility of both the shaft opening protective and the compartment access opening protective from being simultaneously blocked open by debris or laundry. This amendment provides the fire/life safety protection the code intends and requires and may reduce construction costs.

The Fire Life Safety committee members discussed the issue of accessibility to refuse or laundry chutes that are provided for use by residents and guests. It was agreed that Chapter 11 would

require the compartment access door, the compartment (alcove) and the chute access opening to be accessible. The committee's also agreed that in order for an alcove (compartment) to be accessible, the alcove compartment access door would be have to be automatic closing in order to meet the accessibility requirements of an alcove as required in ICC/ANSI A117.1-2003.

COST IMPACT: This proposed amendment clarifies the intent of the code as it is currently written and will reduce costly change orders. Also, this is a continuing amendment from previous code cycles so locally there is no cost difference.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-011 – R1

COMMITTEE: Fire and Life Safety

CODE SECTION: 713.13.4

PROPOSER: Lanny Ray

PROPOSAL: *Clarify rating requirements for refuse and laundry termination rooms.*

REVISE AS FOLLOWS: *Revise Section 713.13.4 to read as follows:*

713.13.4 Termination room. Refuse, recycling and laundry chutes shall discharge into an enclosed room separated from the remainder of the building by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Construction shall be a minimum of 1-hour, but not less than the fire-resistance rating of the shaft enclosure. Openings into the termination room shall be protected by opening protectives having a fire protection rating equal to the protection required for the shaft enclosure. Doors shall be self- or automatic-closing upon the detection of smoke in accordance with Section 716.5.9.3. Refuse chutes shall not terminate in an incinerator room. Refuse, recycling and laundry rooms that are not provided with chutes need only comply with Table 509.

JUSTIFICATION: This amendment is proposed to clarify the intent of the Code. In this application the termination room serves as an extension of the shaft. As such, the termination room must be protected to the same level of protection as the shaft. The added wording was adapted from Items 1 and 2 of Section 713.11 for clarification and consistency. Due to the extent of major construction in the Las Vegas Valley, this subject may come up here more than other portions of the US. Additionally the Las Vegas Valley features several residential high-rises which require use of refuse, recycling and laundry chutes.

COST IMPACT: This proposed amendment clarifies the intent of the code as it is currently written, would reduce the floor area used in achieving compliance with the intent and requirements of the code and would likely reduce the cost of construction.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-045

COMMITTEE: Fire and Life Safety

CODE SECTION: 713.14.1 Exception 4 – 4.3

PROPONENT: Allyn Vaughn

PROPOSAL: *Modify high-rise buildings height from 75 feet to 55 feet.*

REVISE AS FOLLOWS: *Revise Section 713.14.1 to read as follows:*

4.3 Elevators serving floor levels over ~~75 feet (22 860 mm)~~ 55 feet (16 764 mm) above the lowest level of fire department vehicle access in high-rise buildings.

JUSTIFICATION:

This change is necessary to be consistent with State code for high-rise buildings as the exception is not allowed to be applied to elevators that serve floors above high-rise heights.

COST IMPACT: None as this is consistent with State requirements.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-014

COMMITTEE: Fire and Life Safety

CODE SECTION: 716.5.9

PROPONENT: Stephen Cullen

PROPOSAL: *Require doors in firewalls to be automatic-closing, allow other fire rated walls to remain automatic or self-closing and other doors to be without closers.*

REVISE AS FOLLOWS: *Revise Section 716.5.9 to read as follows:*

716.5.9 Door closing. *Fire doors in fire walls shall be automatic-closing in accordance with this section. Fire doors in other than fire walls shall be self- or automatic-closing in accordance with this section. Self-closing chute intake doors shall not fail in a “door open” position in the event of a closer failure.*

Exceptions:

1. *Fire doors located in common walls separating sleeping units in Group R-1 and between dwelling units of transient nature in Group R-2 shall be permitted without automatic- or self-closing devices.*
2. *The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation.*

JUSTIFICATION: This amendment is intended to provide consistency in interpretation and application of this code requirement. This amendment has been adopted for a number of code cycles.

This proposal results in two needed changes. First, the proposed amendment to Section 716.5.9 is intended to provide greater assurance that the integrity of fire walls will be maintained during normal operations. Fire walls are given tremendous credit in the IBC, as they can be used to define separate buildings. The rationale for affording such credit to fire walls is based on the IBC requirement that fire walls must have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall. During the development of the Southern Nevada amendments to the 2006 IBC, the local fire departments indicated that they had routinely found self-closing doors in fire walls blocked open, which effectively negates the protection afforded by the fire wall. The proposed amendment would prohibit the use of self-closing fire doors in fire walls. By requiring all fire doors in fire walls to be automatic-closing, there is no need for the users to block (or wedge) open the fire doors because they can be magnetically held-open as needed and released upon smoke detector or fire alarm activation. By doing all that is possible to maintain the integrity of the firewall, the intent of the IBC firewall provisions are upheld.

The second change is intended to address vacation timeshare properties and condominium units that are often designed similarly to hotels and motels, including connecting doors between adjacent units. Section 310.1 defines the various occupancy groups under Group R. Hotels, boarding houses and motels are the only uses defined as Group R-1. However, hotels, motels and boarding houses that are non-transient are also classified as Group R-2. Vacation timeshare properties and condominium hotels are defined as Group R-2 but no distinction is given for transient or non-transient use for these types of facilities. In addition, transient is now defined in Section 310.2 as the occupancy of a dwelling unit or sleeping unit for not more than 30 days.

Many of the vacation timeshare properties and condominiums are given the R-2 classification due to their dwelling unit status. However, their use is typically classified as transient as most of them do not allow guests to stay any longer than 30 days. Zoning regulations also prohibit the length of stay to less than 30 days in many cases. They function similar to motels and hotels, which allows the interconnecting doors to be exempt from self or automatic closing devices.

The intent of this section is to allow hotel, motel and boarding house guest rooms to function as one overall unit when rented out together. Vacation timeshare and condominium hotel units function in the same manner. They can be rented as separate rooms, with the interconnected doors locked, or as one overall unit when rented together. This is typical of a transient stay facility. To prevent certain R occupancies from this feature impacts the function of the space. When a vacation timeshare or condominium unit is rented for transient stay and connecting rooms are occupied by the same group, these doors do not require closing devices and the requirement for them can be defeated by being propped open.

COST IMPACT: Any cost impact will be minimal as the automatic closers on doors in firewalls may increase costs, however, not requiring closers on dwelling/sleeping unit connector doors will be a cost savings.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-015

COMMITTEE: Fire & Life Safety

CODE SECTION: 718.3.2 & 718.4.2

PROPOSER: Stephen DiGiovanni, CCFD

PROPOSAL: *Protect concealed combustible spaces in accordance with NFPA 13, not per NFPA 13R.*

REVISE AS FOLLOWS: *Revise Section 718.3.2 and 718.4.2 to read as follows:*

718.3.2 Groups R-1, R-2, R-3 and R-4. Draftstopping shall be provided in floor/ceiling spaces in Group R-1 buildings, in Group R-2 buildings with three or more dwelling units, in Group R-3 buildings with two dwelling units and in Group R-4 buildings. Draftstopping shall be located above and in line with the dwelling unit and sleeping unit separations.

Exceptions:

1. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2, provided that automatic sprinklers systems in accordance with Section 903.3.1.1 are also installed in the combustible concealed spaces where the draftstopping is being omitted.

718.4.2 Groups R-1 and R-2. Draftstopping shall be provided in attics, mansards, overhangs or other concealed roof spaces of Group R-2 buildings with three or more dwelling units and in all Group R-1 buildings. Draftstopping shall be installed above, and in line with, sleeping unit and dwelling unit separation walls that do not extend to the underside of the roof sheathing above.

Exceptions:

1. Where corridor walls provide a sleeping unit or dwelling unit separation, draftstopping shall only be required above one of the corridor walls.
2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. In occupancies in Group R-2 that do not exceed four stories in height, the attic space shall be subdivided by draftstops into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units, whichever is smaller.

4. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2, provided that automatic sprinklers systems in accordance with Section 903.3.1.1 are also installed in the combustible concealed spaces where the Draftstopping is being omitted.

JUSTIFICATION: This amendment is proposed for code correlation and to provide consistency in regional interpretation and application of the codes.

Justification adapted from accepted proposal for the 2009 IBC amendments: The requirement to have an NFPA 13R sprinkler system protect combustible concealed spaces contradicts the intent of a 13R system. The NFPA 13R code specifically excludes the installation of sprinklers in combustible concealed spaces. Section 6.6.6 of NFPA 13R, 2010 edition (the edition referenced by the 2012 IBC), reads as follows:

“6.6.6 Sprinklers shall not be required in attics, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to and containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, *Safety Code for Elevators and Escalators*, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel-fired equipment.”

Because NFPA 13R specifically does not include within its scope the installation of sprinklers in concealed spaces, there are no criteria within NFPA 13R that are suitable for the protection of concealed spaces.

NFPA 13, on the other hand, sets forth requirements for protecting concealed combustible spaces. As such, NFPA 13 has suitable design criteria for protection of concealed combustible spaces. Specifically, NFPA 13 provides “Section 8.16.1 Concealed Spaces” (too lengthy to retype). This section sets forth the concealed spaces where sprinklers are required, methods to mitigate sprinklers in concealed spaces (such as the insulation fill referred to in other FLS amendments), the density criteria for the sprinklers, provisions for localized protection of combustibles, and sprinkler head listing requirements for protection of spaces that are short in the vertical direction.

Because NFPA 13R does not have design criteria for the protection of combustible concealed spaces, it is not appropriate to refer to that standard for protection of concealed combustible spaces. This amendment seeks to require that protection of concealed combustible spaces be provided in an appropriate manner, using the only recognized reference sprinkler code that provides criteria for protection of concealed combustible spaces.

COST IMPACT: minimal cost to continue draftstopping.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-016 –R1

COMMITTEE: Fire and Life Safety

CODE SECTION: 718.5

PROPONENT: Bryan Douglass

PROPOSAL: *Correlate the IBC and UPC code amendments and fire sprinkler standards.*

REVISE AS FOLLOWS: *Revise Section 718.5 to read as follows:*

718.5 Combustible materials in concealed spaces in Type I or II construction.
Combustible materials shall not be permitted in concealed spaces of buildings of Type I or II construction.

Exceptions:

1. Combustible materials in accordance with Section 603.
2. Combustible materials exposed within plenums complying with ~~Section 602 of the International Mechanical Code.~~
3. Class A interior finish materials classified in accordance with Section 803 where the concealed space is protected with fire sprinklers as required by the Fire Code when fire sprinklers are required in the building by another section in this code.
4. ~~Combustible piping within partitions or shaft enclosures installed in accordance with the provisions of this code.~~
5. ~~Combustible piping within concealed spaces installed in accordance with the International Mechanical Code and the International Plumbing Code.~~
- ~~4.6.~~ Combustible insulation and covering on pipe and tubing, installed in concealed spaces other than plenums, complying with Section 720.7.
5. CPVC fire sprinkler system piping listed and labeled for fire protection use. Piping shall have a peak optical density not greater than 0.50, an average optical density of not greater than 0.15, and a flame spread of not greater than 5 feet when tested in accordance with UL 1887.

JUSTIFICATION: This amendment is proposed for code correlation and for consistency in regional interpretation and application of the codes.

Exception 3 is proposed to be modified to address two separate concerns. The base-code exception allows Class A interior finish to be exposed in concealed spaces. The primary concern is that combustible voids in a sprinklered building are frequently required to be sprinkler protected in accordance with the Fire Code, and as required by amended Section 803.11.2. Local fire codes have been modified to severely restrict the combustibility of finishes creating concealed combustible spaces. By coordinating the requirement for sprinkler protection with the Fire Code, designers will be more apt to select appropriate materials that are compliant with both building and fire codes. In addition, there are concerns about plastics. The exception is modified such that plastics simply classified as a Class A interior finish would not be allowed to be exposed in

concealed spaces. Please note that the amendment to exception 3 does not preclude the use of plastic pipe used for building services, as those uses of plastic are maintained in the other exceptions.

Exception No. 4 should be deleted for coordination with IBC Section 603.1.2 and the anticipated Southern Nevada amendments to the 2012 edition of the Uniform Plumbing Code (UPC). The 2012 UPC is expected to continue to include the disallowance of combustible piping in buildings of Type I or II construction.

Exception No. 5 should be deleted for coordination with IBC Section 603.1.2 and the anticipated Southern Nevada amendments to the 2012 UPC and the 2012 edition of the Uniform Mechanical Code (UMC). The Southern Nevada amendments to the 2012 UPC and UMC is expected to continue to include the disallowance of combustible piping in buildings of Type I or II construction.

A separate amendment to Section 603.1.2 is expected to be submitted and reviewed by the General Committee (carry-over from 2009 amendments). The amendment will specifically allow CPVC sprinkler system piping in buildings of Types I and II construction. However, the UMC only allows CPVC sprinkler piping within plenum areas. Further, although fire sprinkler systems are outside the scope of the UPC, previous local amendments to the UPC have prohibited combustible piping in general in buildings of Types I and II construction which may create confusion about where CPVC sprinkler piping is actually permitted to be installed. Therefore, the proposed new Exception No. 5 is necessary to clarify that the use of CPVC fire sprinkler system piping is also permitted within concealed spaces in buildings of Types I and II construction. CPVC sprinkler system piping is often installed inside wall cavities (through notches in the studs), so proposed new Exception No. 5 would make it clear that CPVC sprinkler piping is also allowed in such spaces. The peak optical density, average optical density, and flame spread criteria included in proposed new Exception No. 5 is identical to the criteria identified in the UMC requirements for combustibles within plenums.

COST IMPACT: There may be increased costs over the base code; however, there will be no cost change from previously adopted codes as this is a continuing amendment. These requirements would also be enforced by the plumbing code amendments.

COMMITTEE ACTION: As amended

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AA	AA	AA	NP	NP	AA	AA	AA	AA	AA	AA

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-002

COMMITTEE: Fire and Life Safety

CODE SECTION: 803.11.2

PROPOSER: Steve Cullen

PROPOSAL: *Clarify protection of combustible voids.*

REVISE AS FOLLOWS: *Revise Section 803.11.2 to read as follows:*

803.11.2 Set-out construction. Where walls and ceilings are required to be of fire-resistance-rated or noncombustible construction and walls are set out or ceilings are dropped distances greater than specified in Section 803.11.1, ~~Class A finish~~ noncombustible materials, in accordance with Section ~~703.5~~ 803.1.1 or 803.1.2, shall be used.

Exceptions:

1. Where *interior finish* materials are protected on both sides by an *automatic sprinkler system* in accordance with Section 903.3.1.1 ~~or 903.3.1.2~~.
2. Where *interior finish* materials are attached to noncombustible backing or furring strips installed as specified in Section 803.11.1.1.
3. The combustible void is filled with fiberglass or noncombustible insulation.

The remainder of the section remains unchanged.

JUSTIFICATION: This amendment is intended to clarify the intent of the code and create more consistent interpretation. To reduce the potential of this being overlooked by building department staff. This has been over looked a few times by plancheck staff and caught during fire department inspections, resulting in costly change orders. This correlates with the SN Fire Code. NFPA 13R does not include guidance for protecting combustible voids, therefore deleting 903.3.1.2 clarifies this requirement and is consistent with other FLS Committee Amendments.

COST IMPACT: Although this amendment will increase costs over the base code, costs locally will not increase as the same amendment has been adopted for many code cycles.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-003

COMMITTEE: Fire and Life Safety

CODE SECTION: 803.13.1

PROPONENT: Steve Cullen

PROPOSAL: *Eliminate combustible core and frames for Site-Fabricated Stretch Systems in non-combustible buildings:*

REVISE AS FOLLOWS: *Add a new Section 803.13.1 as follows:*

803.13.1 Site-fabricated stretch ceiling systems. Where used as a dropped ceiling, the following shall apply:

1. In Types I and II construction, frames shall be of non-combustible materials.
2. Where automatic sprinkler protection in accordance with Section 903.3.1.1 or 903.3.1.2 is required beneath the panel, core materials shall be of non-combustible materials.

JUSTIFICATION: This amendment is intended to clarify the intent of the code and create more consistent interpretation. The use of site fabricated stretch systems needs to be regulated when used as ceilings in order to ensure the function and operation of the automatic sprinkler system. When panels are of such size as to require sprinkler protection beneath the panel and thus require the panel to be used as a heat collection source, core materials and frames need to be of non-combustible materials in order to allow the sprinklers to operate. As currently written, the core material could be of any material, such as cotton, and not withstand the heat necessary to allow sprinklers to operate. The requirement for non-combustible frames is to specifically correlate these systems to the requirements of Section 803.11.2 which otherwise may not be enforceable since these systems have their own section.

COST IMPACT: Although this amendment will increase costs over the base code, costs locally will not increase as the same amendment has been adopted in previous code cycles.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-004

COMMITTEE: Fire and Life Safety

CODE SECTION: 806.1

PROPONENT: Steve Cullen

PROPOSAL: *Clarify construction requirements of fabric partitions.*

REVISE AS FOLLOWS: *Revise the fourth paragraph of Section 806.1 to read as follows:*

In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 806.2 and NFPA 701 or shall be noncombustible. In other than Group B and M occupancies, fabric partitions shall be in accordance with the type of construction required for the building.

JUSTIFICATION: This amendment is intended to clarify the intent of the code and create more consistent interpretation. Designers frequently want to use draperies as room dividers. The code intends room dividers to be considered interior non-bearing partitions. There are also two instances in 806 where fabric partitions are specifically allowed in Group B and M occupancies. As a partition, there is rarely any disagreement on the type of construction required by code. In addition, NFPA 701 uses a Bunsen burner as the ignition source and if a larger ignition source can be expected, the hazard may be far in excess of what Section 806 expects. This revision is only expected to clarify intent.

COST IMPACT: As clarification of intent, there is no cost impact.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2009

AMENDMENT NO.: FLS12 - 018

COMMITTEE: IBC Fire and Life Safety

CODE SECTION: 903.2

PROPONENT: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *Require sprinklers at 5,000 SF for any occupancy, however, allow the sprinkler tradeoffs to remain in effect.*

REVISE AS FOLLOWS: *Revise Section 903.2 to read as follows:*

903.2 Where required. Approved automatic sprinkler systems shall be provided throughout all new buildings and structures exceeding 5,000 sq ft (464 m²) in building area, regardless of occupancy type. Additionally, automatic sprinkler systems shall be provided in locations described in Section 903.2.1 through 903.2.12.

For the application of Table 601 Footnote d, a required system shall be a sprinkler system that is required due to the occupancy-specific requirements of Section 903.2.1 through 903.2.12.

Exceptions:

1. Open parking garages with a maximum of 50,000 sq ft per floor level and a maximum height of 55 ft to the highest covered floor level.
2. Normally unoccupied Group U occupancies used for agricultural or livestock purposes.

~~**Exception:** Spaces or area in telecommunications buildings used exclusively for telecommunication equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with section 707 of the *International Building Code* or not less than 2-hour horizontal assemblies constructed in accordance with Section 712 of the *International Building Code*, or both.~~

If any fire area in a building or structure is provided with fire sprinklers, whether required or not, all fire areas in the building or structure shall be provided with fire sprinklers.

Exceptions:

1. Where a building is subdivided into separate buildings, each having a total building area of less than 5,000 sq ft (464 m²), by 4-hour rated fire walls with no openings constructed in accordance with the IBC.

2. Special hazard areas that require sprinklers for certain uses, such as medical gas rooms, may be fire sprinklered without requiring additional fire sprinklers, when approved by the code official.

Where an addition to any existing non-sprinklered building or structure expands the total area to greater than 5,000 square feet (464 m²), the entire building, including the existing portions, shall be provided with fire sprinklers.

Exceptions

1. Group R-3 occupancies with fire flow in accordance with Appendix B.
2. For occupancies other than group R-3 occupancies described in exception 1, where the area of the addition does not exceed 25% of the original building area at the time of construction and the area of the addition does not exceed 5,000 square feet (464 m²).

JUSTIFICATION: This is a current amendment to the 2009 IBC. This proposal is made for correlation with the amendments made to the IFC. First, the amendment calls for sprinkler protection throughout all buildings that exceed 5,000 square feet. Based on research, 5000 square foot structures are about as large as a single fire attack crew is expected to handle. This is the most common existing trigger point for fire sprinkler protection in the valley, and is necessary to ensure that all occupancies have a sprinkler trigger requirement

This change to the exception is to clear up confusion about telecommunication buildings. There is confusion on the definitions of telecommunications equipment. This exception is intended for a very specific type of building. However, the term “telecommunications building” is not defined in the code, leading to the confusion. By deleting the exception, the confusion will be eliminated. Whenever a dedicated telecommunication building, as described in NFPA 76, *Recommended Practice for the Fire Protection of Telecommunication Facilities*, is submitted, at that point the AHJ can look at the specific requirements of that submittal and decide if the deletion of fire sprinklers is warranted.

Additional requirements are added to this section to indicate that partially sprinklered buildings are not permitted. In order to sprinkler a portion of a building, separate buildings need to be created with 4-hour fire walls without openings. This is due to the fact that NFPA 13 foresees fully sprinklered buildings. Further requirements are made for additions made to existing buildings. This is necessary to specify that once sprinklers are triggered, the sprinkler requirement applies throughout the building. Again, this is due to NFPA 13 philosophy. Exceptions are provided for R-3 occupancies with sufficient fire flow, and for small additions

COST IMPACT: This proposal increases costs over what is required by base code by requiring sprinklers in more occupancies than anticipated by the base code. For several jurisdictions, this amendment is in conformance with their current requirements, so the increase in costs is negligible or none. For other jurisdictions, this code will require additional structures to provide fire sprinklers.

COMMITTEE ACTION: As amended.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AA	AA	AA	NP	NP	AA	AA	AA	AA	AA	AA

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Does not concur

Justification is not strong enough. The language of this proposed amendment does not exactly match the existing amendment to this section. The second paragraph under Section 903.2(i.e. “For the application of Table 601 Footnote d, a required system shall be a sprinkler system that is required due to the occupancy-specific requirements of Section 903.2.1 through 903.2.12.”) is new language. Exception #1 for open parking garages is revised to be more restrictive than the existing amendment.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-019

COMMITTEE: Fire & Life Safety

CODE SECTION: 903.2.3

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Match Group E occupancy fire sprinklers requirements with state fire marshal.*

REVISE AS FOLLOWS: *Revise Section 903.2.3 to read as follows:*

[F] 903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies where one of the following conditions exists as follows:

1. The Group E fire areas have an occupant load of 50 or more ~~Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.~~
2. Any portion of the Group E fire areas is below the lowest level of exit discharge. ~~Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.~~
3. Rooms used for kindergarten, first or second-grade pupils or for child care purposes, are located above or below the first story.
4. Daycare facilities used for child care between the hours of 12:00 a.m. and 6:00 a.m.

Exception: *An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.*

JUSTIFICATION: This proposal is made for correlation with the amendments made to the 2009 IFC. These requirements are long-standing in this valley, and have been adopted in both the Building Code and the Fire Code for several code cycles. The intent of this code amendment is to provide additional protection for children, especially in younger grade levels and in overnight day care facilities.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, sprinklers currently required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-020

COMMITTEE: Fire & Life Safety

CODE SECTION: 903.2.9

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Require fire sprinklers in self-storage facilities at 2,500 square feet or greater.*

REVISE AS FOLLOWS: *Revise Section 903.2.9 to read as follows:*

[F] 903.2.9 Group S-1. *An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:*

- 1. A Group S-1 fire area exceeds 12,000 square feet (1115 m²).*
- 2. A Group S-1 fire area is located more than three stories above grade plane.*
- 3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2,230 m²).*
- 4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).*
- 5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).*
- 6. A Group S-1 fire area used for self-storage where the fire area exceeds 2,500 square feet (232 m²).*

JUSTIFICATION: This proposal is made to correlate the IBC with the IFC adoption. This is an existing amendment from the last code cycle. The purpose of this amendment is to establish the trigger for installation of sprinklers in self-storage (commonly referred to as mini-storage) facilities. Note, the term “self-storage” has been added to the list of Group S-1 occupancies by the IBC General Committee, so that term is used here for consistency. The reason to require the lower trigger is due to the lack of enforcement by fire inspectors in self-storage facilities. All other facilities are required to provide access to fire inspectors, who then can regulate the uses within the facility in order to ensure code compliance. However, this enforcement is not possible in self-storage facilities. As such, these facilities are seen as having potentially higher hazards than other occupancies, and therefore requires a higher degree of protection. This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: Compared to base code, an increased cost due to installation of sprinklers in self-storage occupancies, only affects costs for those between 2,500 and 5,000 sf, since there is another proposal that sets forth a trigger of 5,000 sf for all occupancies. Compared to current adopted codes there will be no change in costs.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-021

COMMITTEE: Fire & Life Safety

CODE SECTION: 903.3

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Delete sprinkler system installation requirements from the IBC.*

REVISE AS FOLLOWS: *Revise Section 903.3 to read as follows:*

[F] 903.3 Installation requirements. *Automatic sprinkler systems shall be designed and installed in accordance with the International Fire Code Sections 903.3.1 through 903.3.6.*

All subsections to Section 903.3 are deleted

JUSTIFICATION: This proposal is to have sprinkler design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, sprinkler design requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-022

COMMITTEE: Fire & Life Safety

CODE SECTION: 903.4

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Delete sprinkler supervision and alarm systems requirements from the IBC.*

REVISE AS FOLLOWS: *Revise Section 903.4 to read as follows:*

[F] 903.4 Sprinkler system supervision and alarms. Sprinkler system supervision and alarms are regulated by the International Fire Code. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

- ~~1. Automatic sprinkler systems protecting one- and two-family dwellings.~~
- ~~2. Limited area systems serving fewer than 20 sprinklers.~~
- ~~3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.~~
- ~~4. Jockey pump control valves that are sealed or locked in the open position.~~
- ~~5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.~~
- ~~6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.~~
- ~~7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.~~

All subsections to Section 903.4 are deleted

JUSTIFICATION: This proposal is to have sprinkler monitoring and alarm requirements regulated by the Fire Code. Please note this is a copy of an accepted code amendment from the current code cycle. This amendment aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concur

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-024

COMMITTEE: Fire & Life Safety

CODE SECTION: 905.3.1

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Clarify standpipe requirements.*

REVISE AS FOLLOWS: *Revise Section 905.3.1 to read as follows:*

[F] 905.3.1 Height. Approved Class I ~~III~~-standpipe systems shall be installed throughout buildings where the floor level of the highest *story* is located more than 30 feet (9144 mm) above the lowest level of fire department vehicle access, or where the floor level of the lowest *story* is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

- ~~1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.~~
- ~~2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.~~
- ~~3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.~~
- ~~4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.~~
- ~~5. In determining the lowest level of fire department vehicle access, it shall not be required to consider:~~
 - ~~5.1. Recessed loading docks for four vehicles or less; and~~
 - ~~5.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.~~

JUSTIFICATION: This proposal is to address the required design of standpipe systems in buildings. The proposal is adapted from the previously approved proposal in the current cycle of the IBC, as well as the IFC allowance to maintain the exception to building height regarding loading docks and topography. The proposal correlates the IBC to the current IFC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concur

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-029

COMMITTEE: Fire & Life Safety

CODE SECTION: 905.8

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Delete dry standpipe requirements for from the IBC.*

REVISE AS FOLLOWS: *Revise Section 905.8 to read as follows:*

[F] 905.8 Dry standpipes. Dry standpipes shall be regulated by the *International Fire Code*. ~~not be installed.~~

Exception: ~~Where subject to freezing and in accordance with NFPA 14.~~

JUSTIFICATION: This proposal is to have standpipe system design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-030

COMMITTEE: Fire & Life Safety

CODE SECTION: 905.9

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Delete standpipe valve supervision requirements for from the IBC.*

REVISE AS FOLLOWS: *Revise Section 905.9 to read as follows:*

[[F] 905.9 Valve supervision. Valves controlling water supplies for standpipe systems are regulated by the *International Fire Code*, shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall also be transmitted to the control unit.

Exceptions:

- ~~1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.~~
- ~~2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.~~

JUSTIFICATION: This proposal is to have standpipe system design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-032

COMMITTEE: Fire & Life Safety

CODE SECTION: 906

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Delete portable fire extinguisher location requirements from the IBC.*

REVISE AS FOLLOWS: *Revise Section 906 to read as follows:*

[F] 906.1 General Where required. Portable fire extinguishers are regulated by the *International Fire Code*. ~~shall be installed in the following locations.~~

~~1. In Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.~~

~~**Exception:** In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each *dwelling unit* is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.~~

~~2. Within 30 feet (9144 mm) of commercial cooking equipment.~~

~~3. In areas where flammable or combustible liquids are stored, used or dispensed.~~

~~4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3315.1 of the *International Fire Code*.~~

~~5. Where required by the *International Fire Code* sections indicated in Table 906.1.~~

~~6. Special hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.~~

All subsections to 906 are deleted.

JUSTIFICATION: This proposal is to have fire extinguisher requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None; these requirements are currently required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	NP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-033

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.1.2

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Delete fire alarm system shop drawing requirements from the IBC.*

REVISE AS FOLLOWS: *Revise Section 907.1.2 to read as follows:*

[F] 907.1.2 Fire alarm shop drawings. Fire alarm shop drawings are regulated by the International Fire Code. ~~Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the following:~~

- ~~1. A floor plan that indicates the use of all rooms.~~
- ~~2. Locations of alarm-initiating devices.~~
- ~~3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.~~
- ~~4. Location of fire alarm control unit, transponders and notification power supplies.~~
- ~~5. Annunciators.~~
- ~~6. Power connection.~~
- ~~7. Battery calculations.~~
- ~~8. Conductor type and sizes.~~
- ~~9. Voltage drop calculations.~~
- ~~10. Manufacturers' data sheets indicating model numbers and listing information for equipment, devices and materials.~~
- ~~11. Details of ceiling height and construction.~~
- ~~12. The interface of fire safety control functions.~~
- ~~13. Classification of the supervising station.~~

JUSTIFICATION: This proposal is to have fire alarm system drawing requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-054

COMMITTEE: IBC Fire and Life Safety

CODE SECTION: 907.2

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Set thresholds for installation of fire alarm systems.*

REVISE AS FOLLOWS: *Revise Section 907.2 to read as follows:*

[F] 907.2 Where required—new buildings and structures. An *approved* fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code. A minimum of one manual fire alarm box shall be provided in an *approved* location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

In other than Group H, Group I, and Group R occupancies, where an alteration, addition, or remodel occurs in an existing building that does not contain a fire alarm system, and the alteration, addition or remodel requires a new fire alarm system, the new fire alarm system shall protect the fire area that contains the alteration, addition, or remodel. The remainder of the building outside the fire area containing the alteration, addition or remodel, shall not be required to install a new fire alarm system. For an alteration, addition or remodel that contains a Group H, Group I, or Group R occupancy within an existing building that does not have a fire alarm system, and the alteration, addition, or remodel requires a fire alarm system, then the entire building must be provided with a fire alarm system.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.

JUSTIFICATION: This is a new amendment. The purpose of this amendment is to clarify the scope of fire alarm installation required for existing buildings that are forced to comply with new building fire alarm requirements due to new alterations, additions and remodels, as referenced in Chapter 34.

COST IMPACT: Depending on situation, this code proposal lessens the impacts to industry by possibly avoiding full retrofit of existing buildings due to an alteration, addition, or remodel.

COMMITTEE ACTION: As submitted.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AS	AS	AS	AS	NP	AS	AS	AS	AS	AS	AS

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Does not concur.

Justification is not strong enough in clarifying which SNBO Criterion this proposed addendum falls under. By definition of Fire Area this proposed amendment may require constructing Fire Walls, Fire Barriers or horizontal assemblies between the new addition or remodel area and the existing portion of the building.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-034

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.2.7.1

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Activate alarm notification devices when an M occupancy structure is occupied.*

REVISE AS FOLLOWS: *Delete Section 907.2.7.1.*

[F] 907.2.7.1 Occupant notification. ~~During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a waterflow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/ alarm communication system installed in accordance with Section 907.5.2.2.~~

JUSTIFICATION: This proposal is to delete an option for manual activation of alarms in mercantile occupancies. Please note that the NFPA 72 only permits manual intervention for facilities that have proprietary monitoring. Should a facility, including a mercantile, submit to be a proprietary monitoring site, then that option is available. However, there is no discussion in the building code for requiring proprietary monitoring in allowing this exception. As such, this exception conflicts with NFPA 72, which is the purpose the deletion is proposed.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-035

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.2.9.1

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Require fire alarm systems for buildings with 15 or more dwelling units.*

REVISE AS FOLLOWS: *Revise Section 907.2.9.1 to read as follows:*

[F] 907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where:

1. Any *dwelling unit* or *sleeping unit* is located three or more *stories* above the lowest *level of exit discharge*;
2. Any *dwelling unit* or *sleeping unit* is located more than one *story* below the highest *level of exit discharge* of exits serving the *dwelling unit* or *sleeping unit*; or
3. The building contains 15 or more ~~more than 16~~ *dwelling units* or *sleeping units*.

Exceptions:

1. A fire alarm system is not required in buildings not more than two *stories* in height where all *dwelling units* or *sleeping units* and contiguous *attic* and crawl spaces are separated from each other and public or common areas by at least 1-hour *fire partitions* and each *dwelling unit* or *sleeping unit* has an *exit* directly to a *public way*, *egress court* or *yard*.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler waterflow.
3. A fire alarm system is not required in buildings that do not have interior *corridors* serving *dwelling units* and are protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that *dwelling units* either have a *means of egress* door opening directly to an exterior *exit access* that leads directly to the *exits* or are served by open-ended *corridors* designed in accordance with Section 1026.6, Exception 4.

JUSTIFICATION: This proposal changes the trigger for fire alarm systems in R-2 occupancies to 15 or more dwelling units.

The retrofit code adopted by the State Fire Marshal sets forth a requirements that fire alarm systems are required in existing buildings with 15 or more dwellings units, see NRS 477.130. In order to avoid a situation where a new build does not comply with the retrofit code, this amendment is proposed

This amendment is intended to make the Building Code consistent with State Statutes or agency laws.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-036

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.2.9.1.1

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Require corridor smoke detection for R-2 occupancies the same as R-1 occupancies.*

REVISE AS FOLLOWS: *Add new Section 907.2.9.1.1 to read as follows:*

907.2.9.1.1 Automatic smoke detection system. When a fire alarm system is required, an automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 shall be installed throughout all interior corridors serving sleeping units.

Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress doors opening directly to an exit or to an exterior exit access that leads directly to an exit.

JUSTIFICATION: This is a requirement for R-1 occupancies. Many R-2 occupancies are used as R-1 (transient) facilities, so the same protection should be required for R-2 occupancies..

It is important to provide equal protection in R-2 occupancies due to local uses of R-2 buildings. Many such buildings are designed for non-transient use, but are used in a transient manner. This occurs frequently both in high-rise and low-rise buildings. Often, the building use is changed in the middle of construction or after project completion.

This requirement is also adopted in the current IFC. This amendment provides code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes

COST IMPACT: An increase in cost over the base code, however, no increase in cost as these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As submitted.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AS	AS	AS	NP	NP	AS	AS	AS	AS	AS	AS

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-037

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.2.13

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Delete fire alarm exceptions for in certain high rise buildings.*

REVISE AS FOLLOWS: *Revise Section 907.2.13 to read as follows:*

[F] 907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 907.2.22 and 412.
2. *Open parking garages* in accordance with Section 406.5.
- ~~3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.~~
- ~~3-4. Low-hazard special occupancies in accordance with Section 503.1.1.~~
- ~~5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.~~
- ~~6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.~~

JUSTIFICATION: The current amendment deleted exceptions 3, 5, and 6. It is felt that there's no justification for these exceptions to be allowed. Both assembly and hazard occupancies are considered higher risk occupancy types, and thus the exception from voice evacuation systems is not desirable. Also, specifically for large venues such as A-5 occupancies, NFPA 72 has adopted mass notification requirements to address numerous hazards, in addition to fire hazards. Exception 6 does not fit in this situation. The allowance for notification of staff only is available for all occupancies in other codes, such as NFPA 72. However, voice evacuation systems are adaptable to the notification of staff, so this exception should not be applied.

This requirement is also adopted in the current IFC. This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 038

COMMITTEE: IBC FLS

CODE SECTION: 907.2.13.1.1

PROPOSER: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *Require certain unoccupied locations in high-rise buildings to have smoke detectors.*

REVISE AS FOLLOWS *Revise Section 907.13.1.1 to read as follows:*

[F] 907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.10, smoke detectors shall be located as follows:

1. In each mechanical equipment, ~~electrical, transformer, telephone equipment~~ or similar room which is not provided with sprinkler protection.
2. In each elevator machine room and in elevator lobbies.
3. In each transformer, telephone equipment and information technology equipment room.
4. In each electrical room (i.e., a room designated and dedicated to electrical distribution).

Exception: Mechanical equipment and similar rooms containing electrical equipment necessary for the operation of that equipment, such as motor control centers, variable frequency drives, service disconnect, building automation controls, and other similar electrical equipment are not required to be provided with smoke detection.

JUSTIFICATION: This proposal is made to correlate the IBC with the current IFC. Previous national codes (the UBC and UFC, for instance) have required smoke detectors to be located within electrical and similar type rooms in high-rise buildings. Local fire codes have also required smoke detectors to be installed in these locations. Providing smoke detection within these types of rooms, even when the rooms have been provided with sprinkler protection, offer significant benefits. Early detection of a fire in these rooms could offer the benefit of being able to extinguish the fire and/or shut off power before the sprinkler system could activate. This would minimize the damage both to the building and to the electrical components located within the room.

Furthermore, these rooms, due to the nature of the contents, can be subject to smoldering fires. Smoldering fires are characterized by a large production of smoke accompanied with low heat release rates. These fires can be detected much quicker than by a sprinkler response.

Past history has shown that nuisance alarms have not been an issue when smoke detectors are located within these types of rooms. These rooms where the smoke detectors are to be installed are typically relatively clean environments and are not accessible to the public.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As submitted.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AS	AS	AS	NP	NP	AS	AS	AS	AS	AS	AS

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-039

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.3

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Remove fire alarm safety function from the IBC as these items are more fully regulated by the IFC.*

REVISE AS FOLLOWS: *Revise Section 907.3 to read as follows:*

[F] 907.3 Fire safety functions. Automatic fire detectors utilized for the purpose of performing fire safety functions shall be regulated by the International Fire Code, ~~connected to the building's fire alarm control unit where a fire alarm system is required by Section 907.2. Detectors shall, upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. In buildings not equipped with a fire alarm system, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72.~~

All subsections to 907.3 are deleted.

JUSTIFICATION: This proposal is to have fire alarm design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	NP	AP	NP	NP	NP	AP	AP	AP	AP	NP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-040

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.4

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Remove fire alarm initiating device requirements from the IBC as these items are more fully regulated by the IFC.*

REVISE AS FOLLOWS: *Revise Section 907.4 to read as follows:*

[F] 907.4 Initiating devices. *Fire alarm initiating devices shall be regulated by the International Fire Code. Where manual or automatic alarm initiation is required as part of a fire alarm system, the initiating devices shall be installed in accordance with Sections 907.4.1 through 907.4.3.1.*

All subsection to Section 907.4 are deleted

JUSTIFICATION: This proposal is to have fire alarm design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-041

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.5

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Remove requirements of occupant notification systems from the IBC as these items are more fully regulated by the IFC.*

REVISE AS FOLLOWS: *Revise Section 907.5 to read as follows:*

[F] 907.5 Occupant notification systems. Occupant notification systems are regulated by the International Fire Code. A fire alarm system shall annunciate at the fire alarm control unit and shall initiate occupant notification upon activation, in accordance with Sections 907.5.1 through 907.5.2.3.4. Where a fire alarm system is required by another section of this code, it shall be activated by:

- ~~1. Automatic fire detectors.~~
- ~~2. Automatic sprinkler system waterflow devices.~~
- ~~3. Manual fire alarm boxes.~~
- ~~4. Automatic fire extinguishing systems.~~

Exception: ~~Where notification systems are allowed elsewhere in Section 907 to annunciate at a constantly attended location.~~

All subsections to 907.5 are deleted.

JUSTIFICATION: This proposal is to have fire alarm design requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As submitted.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AS	AS	AS	NP	NP	AS	AS	AS	AS	AS	AS

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-042

COMMITTEE: Fire & Life Safety

CODE SECTION: 907.6

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Remove fire alarm installation requirements from the IBC as these items are more fully regulated by the IFC.*

REVISE AS FOLLOWS: *Revise Section 907.6 to read as follows:*

[F] 907.6 Installation. Fire alarm system installation is regulated by the *International Fire Code*.
~~A fire alarm system shall be installed in accordance with this section and NFPA 72.~~

All subsections to 907.6 are deleted.

JUSTIFICATION: This proposal is to have fire alarm installation requirements regulated by the Fire Code. This aids in code correlation, by limiting the number of amendments that need to be adopted into the IBC.

This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT: None, these requirements currently adopted and required by the Fire Code.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 055

COMMITTEE: Fire and Life Safety

CODE SECTION: 909.5.2

PROPOSER: Lanny Ray

PROPOSAL: *To allow certain doors in smoke barriers to be self-closing.*

REVISE AS FOLLOWS: *Add Section 909.5.2, Exception 6 to read as follows:*

909.5.2 Opening protection. Openings in *smoke barriers* shall be protected by automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by *fire door assemblies* complying with Section 716.5.3.

Exceptions:

1. *Unchanged.*
2. *Unchanged.*
3. *Unchanged.*
4. *Unchanged.*
5. *Unchanged.*
6. Door openings in *smoke barriers* shall be permitted to be protected by *self-closing* fire doors in the following locations:
 - 6.1 Guest rooms.
 - 6.2 Individual dwelling units.
 - 6.3 Mechanical rooms.
 - 6.4 Elevator machine rooms.
 - 6.5 Electrical rooms used exclusively for that purpose.
 - 6.6 Doors typically maintained in a closed position as approved by the Building Official.

JUSTIFICATION: This amendment is proposed to provide consistency in regional interpretation and application of the codes.

Section 909.5.2 requires all doors in a smoke barrier that is incorporated into a smoke control system design to be automatic-closing. Section 3.3.7 of NFPA 80 (2010 edition) defines an “automatic-closing door” as “A door that normally is open but that closes when the automatic-closing device is activated.” Further, IBC Section 716.5.9.3 requires automatic-closing doors installed in smoke barriers to be automatic-closing by the actuation of smoke detectors installed in accordance with Section 907.3 (i.e., smoke detectors connected to the fire alarm system). Therefore, the IBC requires every door in any smoke barrier to have an associated smoke detector that is connected to the fire alarm system.

For buildings with a substantial number of smoke barriers and door openings in those smoke barriers, such as buildings that incorporate smoke control systems, the IBC requirement for all

such door openings to be protected with automatic-closing fire doors results in a significant impact on the fire alarm system, not to mention a significant cost increase for the project. Since the Southern Nevada amendments to the IBC will continue to require smoke control systems in high-rise buildings, this situation will be exacerbated significantly in high-rise buildings in Southern Nevada. The proposed amendment would allow a significant number of normally closed doors in smoke barriers to be self-closing, which will reduce the cost impact associated with the locally-mandated smoke control systems.

The proposed amendment is consistent with the previous Southern Nevada amendments to Section 909.5.2 of the 2000, 2006 and 2009 editions of the IBC, and this allowance has proven to be a reasonable accommodation to owners and designers without negatively impacting life safety.

COST IMPACT: The cost of construction will be decreased as a result of this amendment.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	NP	NP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-046

COMMITTEE: IBC Fire and Life Safety

CODE SECTION: 909.16

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Remove requirements of fire fighter's smoke control panel from the IBC as these items are more fully regulated by the IFC.*

REVISE AS FOLLOWS: *Revise Section 909.16 to read as follows:*

[F] 909.16 Fire-fighter's smoke control panel. The fire-fighter's smoke control panels are regulated by the International Fire Code. ~~A firefighter's smoke control panel for fire department emergency response purposes only shall be provided and shall include manual control or override of automatic control for mechanical smoke control systems. The panel shall be located in a fire command center complying with Section 911 in high-rise buildings or buildings with smoke-protected assembly seating. In all other buildings, the fire fighter's smoke control panel shall be installed in an approved location adjacent to the fire alarm control panel. The fire fighter's smoke control panel shall comply with Sections 909.16.1 through 909.16.3.~~

[F] 909.16.1 Smoke control systems. ~~Fans within the building shall be shown on the fire-fighter's control panel.~~

~~A clear indication of the direction of airflow and the relationship of components shall be displayed. Status indicators shall be provided for all smoke control equipment, annunciated by fan and zone, and by pilot-lamp type indicators as follows:~~

- ~~1. Fans, dampers and other operating equipment in their normal status—WHITE.~~
- ~~2. Fans, dampers and other operating equipment in their off or closed status—RED.~~
- ~~3. Fans, dampers and other operating equipment in their on or open status—GREEN.~~
- ~~4. Fans, dampers and other operating equipment in a fault status—YELLOW/AMBER.~~

[F] 909.16.2 Smoke control panel. ~~The fire-fighter's control panel shall provide control capability over the complete smoke control system equipment within the building as follows:~~

- ~~1. ON-AUTO-OFF control over each individual piece of operating smoke control equipment that can also be controlled from other sources within the building. This includes stairway pressurization fans; smoke exhaust fans; supply, return and exhaust fans; elevator shaft fans and other operating equipment used or intended for smoke control purposes.~~

- ~~2. OPEN-AUTO-CLOSE control over individual dampers relating to smoke control and that are also controlled from other sources within the building.~~
- ~~3. ON-OFF or OPEN-CLOSE control over smoke control and other critical equipment associated with a fire or smoke emergency and that can only be controlled from the fire-fighter's control panel.~~

Exceptions:

- ~~1. Complex systems, where approved, where the controls and indicators are combined to control and indicate all elements of a single smoke zone as a unit.~~
- ~~2. Complex systems, where approved, where the control is accomplished by computer interface using approved, plain English commands.~~

[F] 909.16.3 Control action and priorities. ~~The firefighter's control panel actions shall be as follows:~~

- ~~1. ON-OFF and OPEN-CLOSE control actions shall have the highest priority of any control point within the building. Once issued from the fire-fighter's control panel, no automatic or manual control from any other control point within the building shall contradict the control action. Where automatic means are provided to interrupt normal, nonemergency equipment operation or produce a specific result to safeguard the building or equipment (i.e., duct freezestats, duct smoke detectors, high-temperature cutouts, temperature-actuated linkage and similar devices), such means shall be capable of being overridden by the fire-fighter's control panel. The last control action as indicated by each fire-fighter's control panel switch position shall prevail. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.~~

Exception: ~~Power disconnects required by NFPA 70.~~

- ~~2. Only the AUTO position of each three-position firefighter's control panel switch shall allow automatic or manual control action from other control points within the building. The AUTO position shall be the NORMAL, nonemergency, building control position. Where a fire-fighter's control panel is in the AUTO position, the actual status of the device (on, off, open, closed) shall continue to be indicated by the status indicator described above. When directed by an automatic signal to assume an emergency condition, the NORMAL position shall become the emergency condition for that device or group of devices within the zone. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.~~

JUSTIFICATION: This amendment is intended to address code correlation and to address the uniqueness of this valley with respect to past experience with smoke control systems. Currently, the fire-fighter's panels in this are regulated by the fire departments. Each fire department uses different methodology for the design of smoke control panels. None resemble

the base IBC language. As such, it is easier to refer to the fire code, and to allow each fire department to establish their own regulations for the design of smoke control panels.

COST IMPACT: None, these requirements already exist

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	NP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 056

COMMITTEE: Fire and Life Safety

CODE SECTION: 909.17

PROPOSER: Allyn Vaughn

PROPOSAL: *Require smoke-control systems to configure in 90 seconds.*

REVISE AS FOLLOWS: *Revise Section 909.17 to read as follows:*

909.17 System response time. Smoke-control system activation shall be initiated immediately after receipt of an appropriate automatic or manual activation command. Smoke control systems shall activate individual components (such as *dampers* and fans) in the sequence necessary to prevent physical damage to the fans, *dampers*, ducts and other equipment. For purposes of smoke control, the fire-fighter's smoke control panel response time shall be the same for automatic or manual smoke control action initiated from any other building control point. The total response time, including that necessary for detection, shut-down of operating equipment and smoke control system startup, shall allow for full operational mode to be achieved before the conditions in the space exceed the design smoke condition. ~~The system response time for each component and their sequential relationships shall be detailed in the required rational analysis and~~ Upon receipt of an alarm condition at the fire alarm control panel, fans, dampers and automatic doors shall have achieved their proper operating state and final status shall be indicated at the smoke control panel within 90 seconds. ~~✓ Verification of their installed condition shall be reported in the required final report.~~

JUSTIFICATION: This amendment is necessary to provide consistency in regional interpretation and application of code. This change is also consistent with the current adopted code amendments.

The proposed 90 seconds is to reduce overregulation of smoke dampers. Section 8.1 of UL 555S, which governs smoke dampers, requires them to fully configure (open or close) within 75 seconds. As such, this revision will make it easier to achieve compliance. In addition, when these requirements came into the '94 UBC, the time durations were written around pneumatic dampers, which can configure quicker than motor driven dampers. The additional time (15 seconds for a total of 90 seconds) allows for delays in data transfer and confirmation and is reasonable. This revision does not reduce life safety.

At times, designers have argued that fire department response times should dictate the duration in which the smoke-control system should configure. As specified in the third sentence of 909.17, the time limitation also applies to manual activation from the fire-fighter's control panel. With 90 seconds stipulated in the code, there is no confusion as to what's expected.

COST IMPACT: As this is primarily a programming issue with smoke control systems a cost impact is not anticipated.

COMMITTEE ACTION: Approve as proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	NP	NP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 058

COMMITTEE: Fire and Life Safety

CODE SECTION: 909.18.8.3

PROPOSER: Mark Mecham

PROPOSAL: *Require the engineer of record to observe the smoke control system installation.*

REVISE AS FOLLOWS: *Revise Sections 909.18.8.3 and 909.18.8.3.1 to read as follows:*

909.18.8.3 Reports. A complete report of testing shall be prepared by the special inspector or *special inspection* agency. The report shall include identification of all devices by manufacturer, nameplate data, design values, measured values and identification tag or *mark*. The report shall be reviewed by the responsible *registered design professional* and, when satisfied that the design intent has been achieved, the responsible *registered design professional* shall seal, sign and date the report with a statement as follows:

"I have reviewed this report and by personal knowledge and on-site observation certify that the applicable smoke control system(s) are in substantial compliance with the design intent, and to the best of my understanding complies with requirements of the code."

909.18.8.3.1 Report filing. A copy of the final report shall be filed with the ~~fire~~ responsible code official and an identical copy shall be maintained in an approved location at the building.

JUSTIFICATION: This provision has been brought forward from previous amendments. This provision was in the 1997 UBC Section 905.15.9 and was added to the 2000, 2006 and 2009 editions of the SNBC by amendment.

The amendment is required to provide for regional interpretation and application of the codes. This provision is utilized as an enforcement tool to ensure the responsible registered design professional performs site visit(s) to the jobsite to confirm the applicable system(s) have been installed in accordance with the appropriate approved design. Without this provision in the code, designers may not be as likely to perform site visits, which may result in the incorrect installation and implementation of the intended approved system design.

In order to correlate with varying regional practices, specifying the fire official has been deleted to allow either the building code or fire code official jurisdiction over smoke control systems.

COST IMPACT: Possibly will increase costs over base code practice, but, as a continuation of standard practices within the region, there is no increase in costs to such systems locally.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	NP	NP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 057

COMMITTEE: Fire and Life Safety

CODE SECTION: 909.18.10

PROPOSER: Allyn Vaughn

PROPOSAL: *Add a new Section for theatrical smoke testing.*

REVISE AS FOLLOWS: *Add new Section 909.18.10 to read as follows:*

909.18.10 Alternative testing method. When required by the Code Official, theatrical smoke or other approved tracer gases shall be used during final acceptance testing to visually verify air movement.

JUSTIFICATION: This has been brought forward from previous amendments and is necessary to provide consistency with regional interpretation and application of codes.

Theatrical smoke has frequently revealed smoke control systems not functioning properly, even when other testing methods indicate that the system is operating correctly. The code provides specific performance objectives for pass-fail criteria, but the use of theatrical smoke can allow the commissioning agency and code officials an opportunity to see how the air movement is performing in the smoke control zone. This amendment does not mandate the use of theatrical smoke but allows the Building Official to request such use if deemed necessary.

COST IMPACT: This will increase the cost of commissioning smoke-control systems when deemed necessary.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	NP	NP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-53

COMMITTEE: IBC Fire and Life Safety

CODE SECTION: Section 909.20

PROPOSER: Allyn Vaughn

PROPOSAL: *Revise Section 909.20 to read as follows and delete Section 909.20.4 and replace with new Section 909.20.4*

REVISE AS FOLLOWS:

Revise Section 909.20 to read as follows:

909.20 Smokeproof enclosures. Where required by Section 1022.10, a smokeproof enclosure shall be constructed in accordance with this section. A smokeproof enclosure shall consist of an enclosed interior *exit stairway* that conforms to Section 1022.2 and an open exterior balcony or ~~ventilated~~ pressurized stair and vestibule meeting the requirements of this section. Where access to the roof is required by the *International Fire Code*, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.

Sections 909.20.1 through 909.20.3.3 remain without modification.

Delete Sections 909.20.4 through 909.20.4.4 and replace as follows;

909.20.4 Pressurized stair and vestibule alternative. The provisions of Sections 909.20.4.1 through 909.20.4.3 shall apply to smokeproof enclosures using a pressurized stair and pressurized entrance vestibule.

909.20.4.1 Vestibule doors. The door assembly from the building into the vestibule shall be a fire door assembly complying with Section 716.5. The door assembly from the vestibule to the stairway shall not have less than a 20-minute fire protection rating and meet the requirements for a smoke door assembly in accordance with Section 716.5.3. The door shall be installed in accordance with NFPA 105.

909.20.4.2 Pressure difference. The stair enclosure shall be pressurized to a minimum of 0.05 inch of water gage (12.44 Pa) positive pressure relative to the vestibule with all stairway doors closed under the maximum anticipated stack pressures. The vestibule with doors closed shall have a minimum of 0.05 inch of water gage (12.44 Pa) positive pressure relative to the fire floor. The pressure difference across doors shall not exceed 30 lbs (133-N) maximum force to begin opening the door.

909.20.4.3 Dampered relief opening. A controlled relief vent capable of discharging a minimum of 2,500 cfm (1180 L/s) of air at the design pressure difference shall be located in the upper portion of the pressurized exit enclosure.

JUSTIFICATION: This amendment is intended to allow the use of a pressurized stair and vestibule as one of the options for smokeproof enclosures. As with previous amendments to the code, a pressurized stair and vestibule was one of the methods for providing smokeproof enclosures in lieu of a pressurized stair or mechanical ventilation. This proposal allows the pressurized stair option to remain, but also allows a pressurized stair and vestibule as another option. This proposal is intended to address unique designs in Southern Nevada where high-rise buildings with single stair shafts, combined with outdoor air temperatures create stack effects that warrant the use of this option. Due to potentially excessive stack effect pressures, the stair pressurization alternative outlined in Section 909.20.5 may not be practical. This proposal provides an option to designers when dealing with tall buildings.

As in previous code cycles, this proposal eliminates the mechanical ventilation alternative. This is due largely to the complexity of such option and the additional equipment necessary to achieve the performance results. To provide mechanical ventilation, large supply and exhaust fans, as well as the associated ducts that serve all vestibules simultaneously, will be required. A second option is to provide dampers in each vestibule, one for supply and one for exhaust. All dampers throughout the stair will have to properly configure for the system to function. The complexity of such system can be eliminated by allowing the pressurized stair and vestibule option.

The pressurized stair and vestibule option has been used locally for over 20 years and has a proven track record. This option will also be less expensive to design, construct, commission and maintain than the ventilated vestibule option. It is included in the available options as it can be a viable option for tall stairs using one zone or series of fans. The stair pressurization (w/o vestibule) option is impacted in tall buildings due to the pressure limitations.

COST IMPACT: None, as this would allow an option to be used for smokeproof enclosures that may reduce overall costs depending upon the design approach selected.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-047

COMMITTEE: FLS Committee

CODE SECTION: 909.20.5.1

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Require relief opening for exit enclosures utilizing stair pressurization.*

REVISE AS FOLLOWS: *Add Section 909.20.5.1 to read as follows:*

909.20.5.1 Dampered relief opening. A controlled relief vent capable of discharging a minimum of 2,500 cfm (1180 L/s) of air at the design pressure difference shall be located in the upper portion of the pressurized stair enclosure.

JUSTIFICATION: Due to the unique experience with smoke control systems in this valley, many facilities are provided with stair pressurization with this relief opening. The requirement for a dampered opening cable of 2500 cfm has been a protection feature of the traditional stair/vestibule exit enclosure for many years. The airflow provided by the dampered relief opening is useful as it allows for a safety factor in stair pressurization, which is useful during egress when doors are being opened. Further, if smoke does infiltrate the stair, the dampered relief permits for the exhaust of smoke to the outside. This amendment is a regional interpretation and ensures uniform code application.

COST IMPACT: Essentially none from the last code cycle, as dampered relief openings have been required in all pressurized stairs for many years.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	NP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12 - 048

COMMITTEE: FLS Committee

CODE SECTION: 910.3.2.2

PROPOSER: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *To set the link temperature of smoke vents.*

REVISE AS FOLLOWS: *Revise Section 910.3.2.2 to read as follows:*

910.3.2.2 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at a minimum temperature of 360° F (182° C).

JUSTIFICATION: This amendment is submitted for correlation with the Fire Code. The purpose of this amendment is to specify how to automatically activate vents in sprinklered buildings, as no guidance is provided in the base code. It is important to ensure that vents do not open prior to activation of the sprinklers, as loss of heat can cause a detrimental effect on the effectiveness of the sprinkler system. FM guidelines indicate one of two methods. One method is to specify the minimum temperature of 360° F (182° C), and the other method is to require the link temperature to be one rating higher than the sprinkler temperature. Of the two, the method with the fixed temperature is easier to enforce, so that is the method chosen here. It is worthwhile to note that previous adopted codes required the link rating to be between 350 ° F and 400 ° F; as such, the 360° F used in this proposal is appropriate and in keeping with past practice. To address committee concerns, research was done to confirm that the temperature rating prescribed in this amendment does not violate UL listings. The UL listing code for fusible links is JGIX. The JGIX guide indicates that fusible links are rated up to link temperatures of 575 ° F.

This amendment is intended to provide for consistency in regional interpretation and application of the codes.

COST IMPACT: This proposal would not have a cost impact, since codes require links already.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS-049

COMMITTEE: FLS Committee

CODE SECTION: 910.3.5

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Delete draft curtains from sprinklered buildings.*

REVISE AS FOLLOWS: *Revise Section 910.3.5 to read as follows:*

[F] 910.3.5 Draft curtains. Where required by Table 910.3, draft curtains shall be installed only in non-sprinklered buildings on the underside of the roof in accordance with this section.

~~**Exception:** Where areas of buildings are equipped with ESFR sprinklers, draft curtains shall not be provided within these areas. Draft curtains shall only be provided at the separation between the ESFR sprinklers and the non-ESFR sprinklers.~~

JUSTIFICATION: This amendment is required for correlation with the NFPA codes adopted by the IFC. The purpose of this amendment is to not require draft curtains in buildings protected with fire sprinklers. The basis of this amendment is from Section 12.1.1 of NFPA 13, which reads as follows:

***“12.1.1 Roof Vents and Draft Curtains.** Sprinkler protection criteria are based on the assumption that roof vents and drafts curtains are not being used. (See Section C.6)”*

Since NFPA 13 does not provide sprinkler design criteria that encompass the use of draft curtains, then the requirement for draft curtains needs to be exempted for buildings protected in accordance with NFPA 13.

COST IMPACT: Reduction in cost by avoiding draft curtain construction in sprinklered buildings.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-050

COMMITTEE: FLS Committee

CODE SECTION: 911.1.3

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Revise FCC size requirements.*

REVISE AS FOLLOWS: *Revise Section 911.1.3 to read as follows:*

911.1.3 Size. The room shall be a minimum of 0.015 percent of the total building area of the facility served or 200 square feet (19m²), whichever is greater, with a minimum dimension of 0.7 times the square root of the room area, or 10 feet (3048 mm), whichever is greater.

JUSTIFICATION: This amendment is intended to correlate with the adopted IFC and addresses the large size of the high-rises in this valley, which is unique from facilities around the country. The purpose of this amendment is to provide a means to have larger fire command centers for larger facilities. The effect of this change is that buildings that are greater than 1.33 million square feet in total area will require larger fire command centers than the minimum required size of 200 square feet. For reference, this formula would require a fire command center of 750 square feet for a building that is 5 million square feet, and would require a fire command center of 1,500 square feet for a building that is 10 million square feet. These are not seen as unreasonable sizes in comparison to the building size. There have been problems in the past with fire command centers that are sized too small for the amount of equipment required for the building. Larger buildings will have more equipment due to the amount of elevators, generators, smoke control systems, fire alarm nodes, plans, etc, that are required for larger buildings. Further, the larger buildings will typically also have unusual design features, such as deluge systems, which would require additional control panels in the fire command center. It is important to anticipate these issues and develop requirements for larger rooms to accommodate the equipment required in larger facilities.

COST IMPACT: This code change may be an increase in larger buildings, however, this proposal is similar to the current adoption package, so there is no cost impact associated with this proposal. This amendment may also save the building owner costs in the long run, as the space will be properly sized to accommodate all needed equipment in the room.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concur

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-051

COMMITTEE: FLS Committee

CODE SECTION: 911.1.5

PROPONENT: Stephen DiGiovanni

PROPOSAL: *Revise list of required features in a Fire Command Center.*

REVISE AS FOLLOWS: *Revise Section 911.1.5 to read as follows:*

[F] 911.1.5 Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems, including smoke removal systems where required by Section 403.4.7
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and waterflow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, fire protection systems, fire-fighting equipment and fire department access and the location of *fire walls, fire barriers, fire partitions, smoke barriers* and smoke partitions.
13. An *approved* Building Information Card that contains, but is not limited to, the following information:

13.1. General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend);

13.2. Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, email address;

13.3. Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly);

13.4. *Exit stair* information that includes: number of *exit stairs* in building, each *exit stair* designation and floors served, location where each *exit stair* discharges, *exit stairs* that are pressurized, *exit stairs* provided with emergency lighting, each *exit stair* that allows reentry, *exit stairs* providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks;

13.5. Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service;

13.6. Fire protection system information that includes: locations of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, location of different types of sprinkler systems installed (e.g., dry, wet, pre-action, etc.); and

13.7 Hazardous material information that includes: location of hazardous material, quantity of hazardous material.

14. A new ~~W~~work table with a minimum size of three (3) feet by seven (7) feet capable of holding plans in an open position.

15. Generator supervision devices, manual start and transfer features.

16. Public address system, where specifically required by other sections of this code.

17. Elevator fire recall switch in accordance with ASME A17.1.

18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

19. An approved white board with a minimum size of three (3) feet by four (4) feet capable of easy erasure, with a marking device and an eraser attached.

20. Separate shunt trip switches for normal and emergency power.

JUSTIFICATION: This is mostly an existing amendment. The amendment is necessary to address issues that have arisen over the many years of experience with construction of fire command centers. The majority of the items in this proposal were approved for the last code cycle. The purpose of the new work table amendment has been to address field-built tables being

presented for this purpose and to set a minimum size for the table. The purpose of the white board amendment is to address needs that have arisen to have a means to record current status during incidents and during maintenance of fire protection systems. The separate shunt trips is to address the need to control all power sources, and to do so separately to ensure that correct power sources are deactivated. The amendment for the smoke removal panel is to address the new concept that was first introduced in the 2009 IBC and ensure the panel also occurs in the fire command center. Fire command centers in Southern Nevada serve buildings that are very unique in size complexity and scope.

COST IMPACT: None, as compared to current code, however, may be an increase over base code.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-052

COMMITTEE: FLS Committee

CODE SECTION: 916

PROPOSER: Stephen DiGiovanni

PROPOSAL: *Set requirements for fire riser rooms.*

REVISE AS FOLLOWS: *Add new Section 916 to read as follows:*

Section 916 Fire Riser Rooms

916.1 Where required. A dedicated fire riser room shall be required in accordance with Section 916 of the International Fire Code

916.2 Exterior Access Door. Fire riser rooms shall have an exterior access door with a minimum width of 36 inches (914 mm) and a minimum height of 80 inches (2032 mm)

Exception: For high-rise, terminal, and covered mall buildings, secondary fire risers may be contained in fire riser rooms that are located in dedicated rooms with direct corridor access inside the building without direct access from the exterior

916.3 Protection. Fire riser rooms shall be separated from the rest of the building by 1-hour fire partitions.

916.4 Conditioning. Fire riser rooms shall be conditioned to maintain a minimum temperature of 40° F and a maximum temperature of 100° F. Heating and cooling units shall be permanently wired.

Exception: Where the riser room does not contain a Fire Alarm Control Unit or spare sprinklers heads, the riser room shall not be required to be conditioned for maximum temperature.

916.5 Lighting. Permanently installed artificial lighting with back-up power shall be provided for the riser room.

916.6 Size. The riser room shall have a minimum area of 16 square feet (1.49 m²), with a minimum dimension of 4 feet, for the first sprinkler riser, plus an additional 9 square feet (0.84 m²) for each additional riser contained.

916.7 Clearances for a fire alarm control unit. Where a fire alarm control unit is located in the fire riser room, the unit shall be located so that there is a minimum clearance in accordance with the electrical code.

JUSTIFICATION: This proposal is made for correlation with the amendments to the 2009 IFC. The purpose of this amendment is to provide guidance on the construction of fire riser rooms.

Fire riser rooms are used in the Las Vegas valley to provide easy access to the risers, and to the riser monitoring panel often contained therein. This amendment provides for criteria regarding the access door, the wall and ceiling construction, the mechanical and lighting requirements, and the floor area requirements. These are submitted for inclusion with the IBC amendments as these are items related to building code requirements

COST IMPACT: This proposal increases costs over what is required by base code by requiring additional construction of rooms. For several jurisdictions, this amendment is in conformance with their current requirements, so the increase in costs is negligible or none. For other jurisdictions, this code will require rooms to be constructed where they are not currently required.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	AP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-017

COMMITTEE: IBC Fire and Life Safety

CODE SECTION: 1509.7.3

PROPONENT: Lynn Nielson City of Henderson

PROPOSAL: *Coordinate the requirements of the fire code into the building code.*

REVISE AS FOLLOWS: *Revise Section 1509.7.3 to read as follows:*

1509.7.3 Installation. Rooftop mounted photovoltaic systems shall be installed in accordance with the manufacturer's installation instructions, the *International Fire Code* and NFPA 70.

JUSTIFICATION: This amendment provides code correlation with the installation requirements in the International Fire Code and the National Electrical Code. This amendment enhances customer service and ensures consistent code application.

COST IMPACT: There will be no cost change as these requirements would be enforced by the adopted fire code.

COMMITTEE ACTION: As proposed.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	APO	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-005

COMMITTEE: Fire and Life Safety

CODE SECTION: 2606.7.4 and 2606.7.5

PROPOSER: Steve Cullen

PROPOSAL: *Increase restrictions on plastics installed in ceiling configurations.*

REVISE AS FOLLOWS: *Revise Section 2606.7.4 and Section 2606.7.5 to read as follows:*

2606.7.4 Fire suppression system. In buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, plastic light-diffusing systems shall be protected both above and below unless the sprinkler system has been specifically approved for installation only above the light-diffusing system. Areas of light-diffusing systems that are protected in accordance with this section shall ~~not~~ be limited to a maximum panel area of 100 square feet with a maximum dimension of 15 feet. Adjacent panels shall be separated by at least 8 feet vertical and 4 feet horizontal.

2606.7.5 Electrical luminaires. Light-transmitting plastic panels and light-diffuser panels that are installed in approved electrical luminaires shall comply with the requirements of Chapter 8 unless the light-transmitting plastic panels conform to the requirements of Section 2606.7.2. The area of approved light-transmitting plastic materials that are used in required *exits* or *corridors* shall not exceed the limitations listed in Sections 2606.7.3 and 2606.7.4 as applicable ~~30 percent of the aggregate area of the ceiling in which such panels are installed, unless the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.4.~~

JUSTIFICATION: This amendment is required based on the extent of the unique designs encountered in Southern Nevada. Additionally, this amendment is intended to correlate with the 2006 and 2009 SNBC amendments based on special use and occupancy. During the 2006 and 2009 adoption cycles, the committee felt it was appropriate to restrict the size of panels due to impact on sprinkler operation. We are not aware that these additional restrictions have created a hardship for designers or owners.

Due to the heavily themed environments in the Las Vegas Valley, this issue is expected to apply to the local resorts more than most other jurisdictions throughout the US. Over the past several years designers have been proposing more and more plastics in the major facilities. Light transmitting plastic ceilings have been a subject of debate for several years. Over the past few years, light transmitting plastic walls have become popular. These arrangements have typically been addressed under the requirements of Chapter 8. Recently, more designers are becoming aware of the allowances offered by 2606.7.4.

Section 2606.7.4 is more liberal than Chapter 8, which requires E 84 testing rather than D 635. It also allows unlimited combustible voids as both walls and ceilings. Although E 84 isn't appropriate for testing plastics, it's an 88 kW ignition source rather than a 0.5 kW Bunsen burner and the more heat energy imposed on the target, the more apt it is to ignite and propagate.

2606.7.5 allows substantial quantities of light-transmitting plastics to be used in exits and corridors. Revising these allowances is necessary so that the amount of light-transmitting plastics in protected exit paths does not exceed the limitations specified for less protected spaces.

An additional concern for ceiling applications is the potential for adverse interaction with sprinklers. If a fire originates between four heads, when the heat plume impinges on the plastic material, there is no assurance that sprinklers in the plane of the ceiling will activate prior to the plastic melting. If the plastic degrades from the heat, the heat will enter the void above the ceiling and the sprinklers protecting the void will activate. Sprinklers above the ceiling will then pre-wet the ceiling and the sprinkler piping penetrating the ceiling. This situation may allow the fire to spread on the floor below.

This is a local issue. To allow such installations exceeds the intent of Chapter 8 and can readily create an unsafe condition.

COST IMPACT: None; merely codifies requirements to reduce disagreements for proper sprinkler operation and effectiveness.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-006

COMMITTEE: Fire and Life Safety

CODE SECTION: 2611

PROPOSER: Steve Cullen

PROPOSAL: *Increase size of interior plastic faced signs.*

REVISE AS FOLLOWS: *Revise Section 2611 to read as follows:*

SECTION 2611

LIGHT-TRANSMITTING PLASTIC INTERIOR SIGNS

2611.1 General. Light-transmitting plastic interior wall signs shall be limited as specified in Sections 2611.2 through 2611.5 ~~2611.4. Light-transmitting plastic interior wall signs in covered and open mall buildings shall comply with Section 402.16.~~ Light-transmitting plastic interior signs shall also comply with Section 2606.

Exception: Light-transmitting plastic interior wall signs in covered mall buildings shall comply with Section 402.16.

2611.2 Aggregate area. The aggregate area of signs shall not exceed 20 percent of the wall area.

Exception: Hanging or base supported signs.

2611.3 Separation. Signs shall be separated from each other by at least 4 feet horizontally or 8 feet vertically.

~~2611.4~~ 2611.3 Maximum area. The aggregate area of all light-transmitting plastics in each individual sign shall not exceed 24 square feet (2.23 m²).

Exceptions:

1. Signs are permitted to exceed an aggregate area of 24 square feet of light-transmitting plastics, provided the light-transmitting plastic meets all the following:
 - a. does not exceed 100 square feet,
 - b. is a minimum CC1 material,
 - c. is installed in a building fully protected by automatic sprinklers in accordance with Section 903.3.1.1, and
 - d. is installed in a sign that is listed and labeled in accordance with nationally recognized standards.
2. Signs exceeding the 100 square foot limitation of Exception 1 are permitted provided the sign meets all the following:
 - a. the height does not exceed 10 feet,

- b. the length does not exceed 60 feet.
- c. the area does not exceed 500 square feet.
- d. the light-transmitting plastic is a minimum CC1 material.
- e. is listed and labeled in accordance with nationally recognized standards.
- f. the space in which the sign is installed is protected with an automatic sprinkler system of at least Ordinary Hazard Group 2, and
- g. a Fire Protection Report is provided to substantiate the preceding requirements are met.

2611.5 2611.4 Encasement. ~~Edges and b~~ Backs of wall mounted the signs and non-illuminated portions of all signs regulated by this section shall be fully encased in metal.

JUSTIFICATION: This amendment is required based on the extent of the unique designs encountered in Southern Nevada. Additionally, this amendment has been adopted the past few code cycles. The committee agrees it is appropriate to allow the size of plastic faced signs to be increased provided reasonable mitigating aspects were included. The base code creates undue impact on the interior signs commonly found in Southern Nevada. As far as we know, these allowances have worked to everyone's satisfaction over the past three years.

The justification provided for the previous code cycles is as follows:

1. The intent of this amendment is to codify equivalent levels of protection to allow larger signs.
2. Chapter 26 of the 2009 IBC has been adopted by the NV State Fire Marshal's office. As such, local jurisdiction cannot be less restrictive. The allowances herein that may appear less restrictive are intended to provide clarification to the initial intent of this code requirement. Additional mitigating aspects have also been included.
3. Section 2606.1 specifies that Sections 2606 through 2611, inclusive, govern light-transmitting plastics in buildings. As such, all indications are that the intent of code is to regulate all light transmitting plastic faced signs inside buildings.
4. The charging Section is "**SECTION 2611 LIGHT-TRANSMITTING PLASTIC INTERIOR SIGNS**". This indicates that the section applies to all such signs inside buildings.
5. It makes no sense to only regulate wall mounted signs inside buildings and not pole, and ceiling mounted signs too. Deletion of the reference to "wall" in the first sentence of Section 2611.1 clarifies that Section 2611 applies to all light-transmitting plastic interior signs, including wall-mounted, hanging, and base-supported signs.
6. The original proponent of this section, which is now 2611 of the IBC, intended it to apply to all plastic faced signs, not just wall mounted signs. In addition, the initial development of this requirement did not take into account a listing, or fully sprinklered buildings.

7. The way 2611.1 is written, and according to the original proponent of this section, mall signs are only regulated in Section 402.16. Moving this stipulation into an exception provides clarification.
8. The building code applies to permanent installations. As such, these amendments will not apply to temporary signs for convention shows, or similar applications.
9. The term “aggregate area” in Section 2611.2 has only been inserted into the body of the requirement from the Sub-Section designation. This does not change the requirement.
10. The Exception to Section 2611.2 has been added to clarify that the 20 percent limitation only applies to wall mounted signs. Hanging and base-supported signs will be limited as specified in the amendments and as clarified in the following item.
11. The separation requirements stipulated in 2611.3 eliminate the potential for multiple signs, each less than 24 square feet in area, creating a single fuel package. The intent is to treat multiple signs in close proximity, or possibly multiple pieces/portions of the same sign, as a single fuel package. These separation distances were gleaned from Table 2607.4. This stipulation can be considered to be more conservative than base code and be used as partial justification for the increased sizes in Exceptions 1 and 2 of Section 2611.4.
12. The modification to Section 2611.4 is proposed to eliminate interpretations of what the 24 square feet maximum area applies to. With the proposed modification, the 24 square feet limitation applies to the total area of all light-transmitting plastics in the sign, regardless if the sign has a plastic facing on one or more sides. The intent is to treat the sign as a single fuel package regardless of configuration.
13. The listing reduces potential ignition sources within the sign. As such, the intent of this amendment is to limit the amount of plastic when an ignition source exterior to the sign is present.
14. In both exceptions, a minimum CC1 plastic is required, which limits the burning characteristics of the light-transmitting material.
15. Exception 2 requires a Fire Protection Report to ensure that an Ordinary Hazard Group 2 sprinkler system protects the space in which the sign is installed. In most cases, the FPR will be required for the base building, or the Tenant Improvement. This will allow larger signs to be coordinated with the remainder of the fire protection aspects and will not require a separate submittal to address just the signs.
16. The two Exceptions to Section 2611.4 require additional protection for arrangements that are common to casinos and large assembly spaces in Southern Nevada. Exception 1 limits the light transmitting plastic to 100 sq ft. Exception 2 allows signs up to 500 square feet as long as the length does not exceed 60 feet

and the height does not exceed 10 feet. The sprinklers provide an additional level of protection to help control a fire at the sign, which reduces the hazard posed by the increased amount of plastic in the sign. The two proposed Exceptions are intended to provide designers flexibility by providing codified equivalencies to the 24 square foot limitation.

17. The size limitations in Exceptions 1 and 2 of Section 2611.4 were partially based on Sections 2607 and 2608, along with Table 2607.4. Section 2607 does not allow light-transmitting plastic wall panels to be used in Groups A-1 or A-2 occupancies. As such, light-transmitting plastic wall panels are not allowed to be installed in virtually all casinos. Item 1 of Section 2608.2 has a basic limitation of 16 square feet with a vertical dimension not exceeding 4 feet for a single panel of light-transmitting plastic glazing. Other restrictions are listed in Section 2608.2, but are exempted in sprinklered buildings. The size allowances in Table 2607.4, along with the sprinkler allowances in Section 2607.5, allow a CC2 light-transmitting plastic wall panel up to a maximum of 200 square feet with the required separation distances to an adjacent panel. Since 2611 requires compliance with 2606, at a minimum, a CC2 plastic would be required. Since 2607 is not applicable to A-1 or A-2 occupancies, it may be reasonable to allow light-transmitting plastic interior signs of Class CC2 with the additional mitigating aspects specified in Exceptions 1 and 2.
18. In addition to the preceding item, partial justification for the size limitations listed in Exceptions 1 and 2 have been gleaned from Appendix H. Although the definition of sign in Section H102 appears to only apply to exterior signs, Appendix H can be used for guidance. Section H106 limits approved plastics in internally illuminated signs to 120 square feet. Section H107 appears to apply to externally illuminated plastic faced signs and has a basic limitation of 200 square feet. Therefore, the 120 square foot limitation appears to be the Appendix H reference most applicable to the intent of this amendment. With the additional separation requirements and protection specified in Exceptions 1 and 2, it seems reasonable to allow the increased areas specified.
19. The proposed Exception to Section 2611.5 is a carryover from the recently issued amendments to the 2000 Southern Nevada Building Code Amendments. Under the model IBC language, all light-transmitting plastic interior signs are required to have metal on five sides (edges and backs). However, suspended or base supported multi-faced light-transmitting plastic interior signs are common to Southern Nevada casinos (e.g., slot machine banks). The amendment clarifies that hanging or base supported signs that have metal encasement on the sides only are permitted.
20. This amendment has been discussed with the local sign companies. The listing has been incorporated herein as partial justification to allow the plastic face to exceed 24 square feet. The size limitations listed herein will be sufficient for the majority of signs installed inside the major facilities.

COST IMPACT: This amendment may reduce costs compared to the base IBC.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	-	-	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-007

COMMITTEE: Fire and Life Safety

CODE SECTION: 2612

PROPONENT: Steve Cullen

PROPOSAL: *Limit the amount of combustible plastics on the exterior of a building.*

REVISE AS FOLLOWS: *Revise Section 2612 to read as follows:*

SECTION 2612

FIBER-REINFORCED POLYMER

2612.1 General. The provisions of this section shall govern the requirements and uses of fiber-reinforced polymer in and on buildings and structures.

2612.2 Labeling and identification. Packages and containers of fiber-reinforced polymer and their components delivered to the job site shall bear the *label* of an *approved agency* showing the manufacturer's name, product listing, product identification and information sufficient to determine that the end use will comply with the code requirements.

2612.3 Interior finishes. Fiber-reinforced polymer used as *interior finishes, decorative materials or trim* shall comply with Chapter 8.

2612.3.1 Foam plastic cores. Fiber-reinforced polymer used as interior finish and which contains foam plastic cores shall comply with Chapter 8 and Chapter 26.

2612.4 Light-transmitting materials. Fiber-reinforced polymer used as light-transmitting materials shall comply with Sections 2606 through 2611 as required for the specific application.

2612.5 Exterior use. Fiber-reinforced polymer shall be permitted to be installed on the *exterior walls* of buildings of any type of construction when such polymers meet the requirements of Section 2603.5. Fireblocking shall be installed in accordance with Section 718.

Exceptions:

- ~~1. Compliance with Section 2603.5 is not required when all of the following conditions are met:
 - ~~1.1. The fiber-reinforced polymer shall not exceed an aggregate total of 20 percent of the area of the specific wall to which it is attached, and no single architectural element shall exceed 10 percent of the area of the specific wall to which it is attached, and no contiguous set of architectural elements shall exceed 10 percent of the area of the specific wall to which they are attached.~~
 - ~~1.2. The fiber-reinforced polymer shall have a flame spread index of 25 or less. The flame spread index requirement shall not be required for coatings or paints having~~~~

a thickness of less than 0.036 inch (0.9 mm) that are applied directly to the surface of the fiber-reinforced polymer.

- ~~1.3. Fireblocking complying with Section 718.2.6 shall be installed.~~
- ~~1.4. The fiber-reinforced polymer shall be installed directly to a noncombustible substrate or be separated from the exterior wall by one of the following materials: corrosion-resistant steel having a minimum base metal thickness of 0.016 inch (0.41 mm) at any point, aluminum having a minimum thickness of 0.019 inch (0.5 mm) or other approved noncombustible material.~~
- 2. Compliance with Section 2603.5 is not required when the fiber-reinforced polymer is installed on buildings that are 40 feet (12 190 mm) or less above grade when all of the following conditions are met:
 - ~~2.1. The fiber-reinforced polymer shall meet the requirements of Section 1406.2.~~
 - ~~2.2. Where the fire separation distance is 5 feet (1524 mm) or less, the area of the fiber-reinforced polymer shall not exceed 10 percent of the wall area. Where the fire separation distance is greater than 5 feet (1524 mm), there shall be no limit on the area of the exterior wall coverage using fiber-reinforced polymer.~~
 - ~~2.3. The fiber-reinforced polymer shall have a flame spread index of 200 or less. The flame spread index requirements do not apply to coatings or paints having a thickness of less than 0.036 inch (0.9 mm) that are applied directly to the surface of the fiber-reinforced polymer.~~
 - ~~2.4. Fireblocking complying with Section 718.2.6 shall be installed.~~

JUSTIFICATION: This code section was added to the base code for the first time in the 2009 edition. In adopting that code edition this same amendment limiting the amount of combustible plastics was approved. The number and extent of major resort facilities in the Las Vegas Valley warrant the proposed reductions to the allowances granted by Section 2612. (unique designs)

Section 2612.1 through the base requirements/allowances of 2612.6 and Exception 2 of 2612.6 appear to provide a level of protection consistent with other established allowances (e.g. EIFS under Section 2603.5). However, the first exception to Section 2612.6 allows an unacceptable increase in the amount of combustible materials on exterior facades of any height and any type of construction.

Exception 1 Justification Exception 1 allows up to 20 percent of the respective wall area of any type of construction to be covered with these materials when they have a flame spread index of 25 or less (or up to 10 percent with a flame spread index not exceeding 75). Twenty percent (and even 10 percent) of the respective wall area can constitute one extremely large continuous fuel package that can allow fire on an exterior façade to propagate unchecked.

The test used to determine flame spread (ASTM E 84) is not an appropriate test to ensure plastics provide the level of protection intended by code for the proposed applications. The ignition source used for ASTM E 84 is substantially less than the exposure required for EIFS under Section 2603.5 (which is intended to simulate a fully involved room fire projecting out of a window onto the exterior façade). It has been demonstrated a number of times that polymers only formulated to pass the E 84 test will typically not pass more rigorous tests.

In addition, some polymers create flaming droplets and pool fires on the floor of the E 84 furnace. Installing such materials over locations where exits discharge would not be prudent.

As written, Exception 1 applies to exterior facades of high-rise buildings that may be out of reach of fire department hose lines. A façade fire out of reach of standard fire-fighting operations creates

a hazard to occupants of the building, the building itself and the emergency responders trying to keep it from propagating. This does not reflect the intent of code.

In addition, Section 2612 does not provide guidance to restrict the thickness of these materials. The photo included with the initial proposed code change shows a cornice projecting from an exterior wall at least 5 feet. Although the “area” of polymer to exterior wall may not exceed the 10 or 20 percent limitation, the extent of projection (depth) can create a substantial combustible load on an exterior façade any height above grade and also needs to be limited. Eliminating Exception 1 requires that these materials pass the same test as EIFS, or be limited to buildings not exceeding 40 feet high.

The Report of Public Hearings indicates the one of the reasons the committee supported approval was that “the products are currently widely in use.” The floor discussion indicated that these products have been installed outside of the limitations of the code for years. Just because an application has been installed “illegally” is not a reason to revise the code. These non-compliant installations in no way indicate that these materials provide the level of protection intended by code.

In summary, the amount of combustible materials allowed by Exception 1 on exterior facades of any height and any type of construction creates a potentially unsafe condition to building occupants, increases the risk to property and places unreasonable demands on firefighting personnel.

Exception 2 Justification Exception 2 would allow the use of plastic exteriors for any buildings with a height of 40 feet or less. After a fire separation of 5 feet, the amount of plastic exterior allowed is not limited. This is a new allowance in the building code

The proposal sent to the national committee had no technical justification to support this allowance. The justification that was provided is copied below for reference:

“The second exception recognizes that the FRP can be used on building up to a height of 40 feet in a manner consistent with other combustible exterior wall coverings. Additionally limits with respect to fire separation distance are also provided in a manner similar to that for MCM panels. Further requirements for fireblocking and structural considerations have also been included”

Part of the problem is Section 1406 excludes plastics that comply with Chapter 26. What the justification seems to indicate is that plastics are similar combustibles as other exterior combustible wall coverings. The fact is that no other plastic exterior materials are permitted to be used in this manner.

Plastics burn differently than typical organic materials, such as wood. Plastics tend to melt into liquid droplets which then separate from the fire. This phenomenon was witnessed during the Monte Carlo fire, where flaming droplets of plastic materials spread the fire downward along the building exterior. This type of burning characteristic makes the fire more hazardous, and makes the fire more difficult to fight.

In the charging area of Exception 2, the section indicates that this exception applies to buildings with height of 40 feet or less. However, there are no restrictions on occupancy type, on construction type, or any other factor, when determining where the plastic exteriors are permitted. There are concerns with the types of buildings where this plastic construction will be allowed.

Exception 2.1 indicates a level of exterior wall covering that is dependent on the fire separation distance. At a fire separation distance that exceeds 5 feet, the exception allows the entire face of the exterior wall to be of plastic. This is similar to the new Section 1406.2.2, which allows this same unlimited covering for fire-retardant treated wood. It is not appropriate to treat plastics the same as fire-retardant treated wood. For other combustible exterior materials, Section 1406.2.1 requires passing a NFPA 268 test, with results of that test being used to determine the fire separation distance. Using the less stringent criteria that are proposed for fire-retardant treated wood, and using those criteria for plastic exteriors, is not appropriate.

Exception 2.2 allows the flame spread to be 200. First, this flame spread is greater than what is expected of fire retardant treated wood, and therefore invalidates the use of coverage limitations equal to those used for fire-retardant treated wood. Second, the use of the tunnel test for plastics is not appropriate due to the method of burning exhibited by plastics. Plastics melt, and propagation at the top of the tunnel stops because all of the burning material drops to the bottom of the tunnel. The tunnel test provides invalid results for plastic materials. Allowing plastic materials based on the tunnel test, and especially when the maximum flame spread rating is used, is also not appropriate.

In all, there are concerns about the use of plastic exterior materials as provided in this code exception. The code exception conflicts with the allowances of Section 1406. This code section provides allowances based on portions of Section 1406 (such as same set-back requirements as fire-retardant treated wood) while allowing a material that burns worse than the materials allowed by Section 1406. Due to the type of fires produced, and the minimal protection required by this exception, the Fire Code Committee recommends deletion of Exception 2.

COST IMPACT: This code change proposal will not increase the cost of construction beyond what Section 2612 would otherwise allow.

COMMITTEE ACTION: As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	AP	AP	AP

RESULT: Passed

STEERING COMMITTEE RECOMMENDATIONS: Concurs

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: FLS12-008**COMMITTEE:** Fire and Life Safety**CODE SECTION:** Appendix H**PROPONENT:** Steve Cullen**PROPOSAL:** *Adopt Appendix H***REVISE AS FOLLOWS:** *Adopt Appendix H in its entirety.*

JUSTIFICATION: This amendment is required based on the extent of the unique designs encountered in Southern Nevada. Additionally, over the past several years, exterior facades of the major resorts in Southern Nevada are increasingly incorporating substantial signage. Without specific regulations, these signs may be constructed of virtually any materials compromising the type of construction required for the base building. The 1997 Eldorado Casino fire in Reno and the 2006 Venetian fire in Las Vegas are two known losses that have occurred warranting these requirements. Adoption of Appendix H provides recognized limitations on the extent of combustible signage used on the exterior of these structures.

Appendix H was adopted locally for the first time under the 2006 IBC. The FLS Committee is not aware that these requirements have created any undue hardship on industry or our respective jurisdictions. By adopting this appendix, the application of the codes concerning exterior signs will be more consistent.

COST IMPACT: None – Continuity with current Southern Nevada Amendments**COMMITTEE ACTION:** As proposed

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								1	2	3
AP	AP	AP	NP	NP	AP	AP	AP	O	AP	AP

RESULT: Passed**STEERING COMMITTEE RECOMMENDATIONS:** Concurs