2009 Changes of the Referenced Standards of the National Fire Protection Association- 101 Compared to the International Building Code- 2009 Referenced Standards

> For the Florida Building Commission And the Fire Code Advisory Council



BCIC LLC 10151 University Blvd. #195 Orlando, FL 32817 407-677-1102

Introduction

The scope of this project is to review the 2009 changes to the IBC and compare them to the 2009 edition of the NFPA – 101 and to review the 2009 changes to the NFPA -101 and compare them to the 2009 IBC to determine if any conflicts exist due to the changes in either of the codes. There were a series of discussions with the Department of Community Affairs regarding what constitutes a conflict for the purposes of this study. Staff directed that a conflict is defined as a construction specification such as a dimension in one code that would prevent compliance with the other code.

Initially three matrixes were created from the changes provided by the Department of Community Affairs. The matrixes created were: 1) 2009 changes to the International Building Code, 2) 2009 changes to NFPA 101 and 3) 2009 changes to the Referenced Standards of the NFPA 101. In determining potential conflicts, staff directed us to screen each code change from the matrix to determine if the change was one that had the potential of providing a conflict as it is defined for this project. When a code change had the potential of a conflict, the corresponding code section from either the IBC or NFPA 101 was added to the matrix as well as the corresponding Florida specific code change (if one applied). These code changes were reviewed to determine if a conflict existed and the result of this review and possible recommendations or comments are provided in the matrix column titled "Recommendation".

The Referenced Standards review was conducted differently than the code change matrixes. The 2009 IBC underwent substantial changes and in some cases significant changes to Referenced Standards, most of which have little use or a corresponding standard in the NFPA 101. Therefore, each Referenced Standard in NFPA 101 was compared to any corresponding Referenced Standard in the IBC. When there were differences, the newest Referenced Standards tended to be in the 2009 IBC.

For the committee's review, the three matrixes related to the review of the 2009 IBC changes and the 2009 NFPA changes are provided with any relevant comments shown in the recommendation column. There were differences in the codes, but there were no indentified conflicts based on the definition of a conflict by the Department.

2009 NFPA Text	2009 International Building Code Text	Recommendation
NFPA 101 2009	IBC 2009	IBC is most recent
ACI 216.1/TMS 0216.1, Standard Method for	ACI 216.1—07 Standard Method for Determining	IBC is most recent
Determining Fire Resistance of Concrete and	Fire Resistance of Concrete and Masonry	
Masonry Construction Assemblies, 1997.	Construction Assemblies	
ANSI A14.3, Safety Requirements for Fixed Ladders,	Not used in IBC	
1992.		
ICC/ANSI A117.1, American National Standard for	Not used in IBC	
2003		
2000.		
BHMA/ANSI A156.19. American National Standard		
for Power Assist and Low Energy Power Operated	Not used in IBC	
Doors, 2002.		
ANSI Z22-3.1, National Fuel Gas Code, 2006.		
ASCE/SFPE 29, Standard Calculation Methods for	ASCE 29/SEI—05 Standard Calculation Methods for	IBC is most recent
StructuralFire Protection, 1999.	Structural Fire Protection.	
ASME A17 1/CSA B44 Safety Code for Elevators	ASME A17 1/CSA B44-2007 Safety Code for	
and Escalators, 2007.	Flevators and Escalators	
ASME A17.3, Safety Code for Existing Elevators and	Not used in IBC	
Escalators, 2005.		

Code Comparison- NFPA to IBC Standards: Page 3 of 10

2009 NFPA Text	2009 International Building Code Text	Recommendation
ANSI/ASSE A1264.1, Safety Requirements for Workplace Floor and Wall Openings, Stairs and Railing Systems, 2007.	Not used in IBC	
ASTM D 1929, Standard Test Method for Determining Ignition Temperatures of Plastic, 2001.	ASRM D 1929—96 (2001)e01 Test Method for Determining Ignition Properties of Plastics	
ASTM D 2859, Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials, 2004.	Not used in IBC	
ASTM D 2898, Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing, 1994 (1999).	ASTM D 2898—04 Test Methods for Accelerated Weathering of Fire-retardant-treated Wood for Fire Testing	IBC is most recent
ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, 2004.	ASTM E 84—07 Test Methods for Surface Burning Characteristics of Building Materials.	IBC is most recent
ASTM E 108, Standard Test Methods for Fire Tests of Roof Coverings, 2004.	ASTM E 108—07a Test Methods for Fire Tests of Roof Coverings	IBC is most recent
ASTM E 119, Standard Test Methods for Fire Tests of Building Construction and Materials, 2007a.	ASTM E 119—07 Test Methods for Fire Tests of Building Construction and Materials	
ASTM E 136, Standard Test Method for Behavior of	ASTM E 136—04 Test Method for Behavior of	

Code Comparison- NFPA to IBC Standards: Page 4 of 10

2009 NFPA Text	2009 International Building Code Text	Recommendation
Materials in a Vertical Tube Furnace at 750 Degrees C, 2004.	Materials in a Vertical Tube Furnace at 750°C	
ASTM E 648, Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2006.	Not used in IBC	
ASTM E 814, Standard Test Method for Fire Tests of Through- Penetration Fire Stops, 2002.	ASTM E 814—06 Test Method of Fire Tests of Through-penetration Firestops	IBC is most recent
ASTM E 1352, Standard Test Method for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies, 2002.	Not used in IBC	
ASTM E 1353, Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture, 2002.	Not used in IBC	
ASTM E 1537, Standard Test Method for Fire Testing of Upholstered Furniture, 2002.	Not used in IBC	
ASTM E 1590, Standard Test Method for Fire Testing of Mattresses, 2002.	Not used in IBC	

2009 NFPA Text	2009 International Building Code Text	Recommendation
ASTM E 1591, Standard Guide for Obtaining Data for Deterministic Fire Models, 2000.	Not used in IBC	
ASTM E 1966, Standard Test Method for Fire- Resistive Joint Systems, 2001.	ASTM E 1966—01 Test Method for Fire-resistant Joint Systems	
ASTM E 2010, Standard Test Method for Positive Pressure Fire Tests of Window Assemblies, 2001.	Not used in IBC	
ASTM E 2073, Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings, 2007.	Not used in IBC	
ASTM E 2074, Standard Test Method for Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies, 2000e1.	Not used in IBC	
ASTM E 2307, Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi- Story Test Apparatus, 2004.	ASTM E 2307—04e01 Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-scale, Multistory Test Apparatus	

2009 NFPA Text	2009 International Building Code Text	Recommendation
ASTM F 851, Standard Test Method for Self-Rising Seat Mechanisms, 2000.	Not used in IBC	
ASTM F 1577, Standard Test Methods for Detention Locks for Swinging Doors, 2001.	Not used in IBC	
ASTM G 155, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non- Metallic Materials,	ASTM G 155—05a Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials .	
FM 4880, Approval Standard for Class I Insulated Wall or Wall and Roof/Ceiling Panels; Plastic Interior Finish Materials; Plastic Exterior Building Panels; Wall/Ceiling Coating Systems; Interior or Exterior Finish Systems, 1994.	FM 4880 (2005) American National Standard for Evaluating Insulated Wall or Wall and Roof/ Ceiling Assemblies, Plastic Interior Finish Materials, Plastic Exterior Building Panels, Wall/Ceiling Coating Systems, Interior and Exterior Finish Systems	IBC is most recent
ANSI/UL 9, Standard for Fire Tests of Window Assemblies, 2000, Revised 2005.	UL 9—2000 Fire Tests of Window Assemblies—with Revisions through April 2005	
ANSI/UL 10B, Standard for Fire Tests of Door Assemblies, 1997, Revised 2001.	UL 10B—97 Fire Tests of Door Assemblies—with Revisions through October 2001. UL 10C—98 Positive Pressure Fire Tests of Door	

Code Comparison- NFPA to IBC Standards: Page 7 of 10

2009 NFPA Text	2009 International Building Code Text	Recommendation
	Assemblies—with Revisions through November 2001	
ANSI/UL 10C, Standard for Positive Pressure Fire Tests of Door Assemblies, 1998, Revised 2001.	UL 263—03 Standard for Fire Test of Building Construction and Materials	
ANSI/UL 263, Standard for Fire Tests of Building Construction and Materials, 2003.		
UL 294, Standard for Access Control System Units, 2004.	Not used in IBC	
ANSI/UL 555, Standard for Fire Dampers, 2006.	UL 555—2006 Fire Dampers	
ANSI/UL 555S, Standard for Smoke Dampers, 2006.	UL 555S—99 Smoke Dampers—with Revisions through July 200	
ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials, 2003, Revised 2005.	UL 723—03 Standard for Test for Surface Burning Characteristics of Building Materials— with Revisions through May 2005	
ANSI/UL 790, Test Methods for Fire Tests of Roof Coverings, 2004.	UL 790—04 Standard Test Methods for Fire Tests of Roof Coverings	

Code Comparison- NFPA to IBC Standards: Page 8 of 10

2009 NFPA Text	2009 International Building Code Text	Recommendation
ANSI/UL 924, Standard for Emergency Lighting and Power Equipment, 2006.	UL 924—06 Standard for Safety Emergency Lighting and Power Equipment	
ANSI/UL 1040, Standard for Fire Test of Insulated Wall Construction, 1996, Revised 2001.	UL 1040—96 Fire Test of Insulated Wall Construction—with Revisions through June 2001	
ANSI/UL 1479, Standard for Fire Tests of Through- Penetration Firestops, 2003, Revised 2007.	UL 1479—03 Fire Tests of Through-penetration Firestops—with Revisions through April 2007.	
ANSI/UL 1715, Standard for Fire Test of Interior Finish Material, 1997, Revised 2004.	UL 1715—97 Fire Test of Interior Finish Material— with Revisions through March 2004.	
ANSI/UL 1784, Standard for Air Leakage Tests for Door Assemblies, 2001, Revised 2004.	UL 1784—01 Air Leakage Tests of Door Assemblies—with Revisions through December 2004	
UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes, 2006.	UL 1975—06 Fire Test of Foamed Plastics Used for Decorative Purposes	
UL 1994, Standard for Luminous Egress Path Marking Systems, 2004, Revised 2005.	UL 1994—04 Standard for Luminous Egress Path	

Code Comparison- NFPA to IBC Standards: Page 9 of 10

2009 NFPA Text	2009 International Building Code Text	Recommendation
ANSI/UL 2079, Standard for Tests for Fire Resistance of Building Joint Systems, 2004, Revised	Marking Systems—with Revisions through February 2005	
2006.	UL 2079—04 Tests for Fire Resistance of Building Joint Systems—with Revisions through March 2006.	
Webster's Third New International Dictionary of the English Language, Unabridged, Merriam-Webster, Inc., Springfield, MA, 2002.	IBC no longer refers to a dictionary	