

**North Carolina Department of Labor
Division of Occupational Safety and Health**

Raleigh, North Carolina

Field Information System

Operational Procedure Notice 80A

Subject: Citing the 1991 Edition of the Life Safety Code (ANSI/NFPA 101)

A. Standard.

This standard adoption is included in 13 NCAC Subchapter F of the North Carolina Administrative Code (13 NCAC 7F.0102), which states: “All places of employment shall be designed, constructed, maintained, and occupied in accordance with the standards set out in the 1991 edition of the Code for Safety to Life from Fire in Building and Structures, ANSI/NFPA 101, which is thereby incorporated by reference. This incorporation shall not include any subsequent editions or amendments to this code. This rule supersedes any standards based on earlier editions of the Life Safety Code.” Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269-9101, or visit their web site at: www.nfpa.org/codes

B. Discussion.

The adoption of the Life Safety Code is intended to provide additional protection for employees and to assist in the inspection process.

There have been many major structural fires in hotels, nightclubs and workplaces that have resulted in tragic loss of lives. For the North Carolina Department of Labor, Occupational Safety and Health Division (OSHNC), the most notable was the Imperial Products fire in Hamlet, NC. Proper consideration of exits, means of egress, and extinguishment systems would have prevented the fatalities, injuries and human suffering; resulting from structural fires.

The Life Safety Code is a consensus standard designed to consider these factors and to protect lives in the event of a fire. OSHNC adopted the Life Safety Code, 1991 NFPA-101, to provide improved employee safety with regard to all aspects of building occupancies and means of egress.

C. Enforcement.

An evaluation of compliance with the 1991 NFPA-101 requirements will be conducted on every comprehensive inspection and where applicable on unprogrammed inspections.

D. Citations.

Citations will be issued to require employers to correct any condition that represents a violation of the 1991 NFPA-101.

Where a violative condition is addressed by both OSHA standards and the 1991 NFPA-101 requirements, 13 NCAC 07F.0102 will be cited referencing the applicable NFPA 101

standard. Additionally, the applicable OSHA standard should be cited within the same citation, in the alternative.

Where an employer has relied upon the interpretation of a qualified local building inspector or qualified Fire Marshall regarding applicable code requirements, and the compliance safety and health officer (CSHO) can verify that the interpretation was provided as stated by the employer, a presumption should be made that the employer did not have knowledge of this specific hazard. If the CSHO believes that the interpretation was incorrect, the CSHO will document the facts of the case and discuss them with their supervisor to determine whether or not to issue a citation.

Citations for violations of the Life Safety Code will be issued by citing 13 NCAC 07F.0102, using a negative tense (see FOM procedures for handwriting SAVES). Additionally, the specific Life Safety Code violation should be included in the SAVE in negative tense. Finally, the applicable section number of the Life Safety Code should be referenced at the end of the SAVE.

For example:

13 NCAC 07F.0102: All places of employment were not designed, constructed, maintained, and occupied in accordance with the standards set out in the 1991 edition of the Code for Safety to Life from Fire in Buildings and structures, ANSI/NFPA 101, which is hereby incorporated by reference. Every required exit, exit access, or exit discharge was not continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. (Ref. NFPA 101-1991 Life Safety Code, 31-1.2.1):

- a) West hallway – storage placed in front of exterior exit door.

Or In the Alternative:

29 CFR 1910.36(d)(1): Every required exit, approach thereto, and way of travel from the exit into the street or open space, was not continuously maintained free of all obstructions or impediments to full instant use in case of fire or other emergency.

- a) West hallway – storage placed in front of exterior exit door.

E. Violation Classification.

A violation of the 1991 NFPA-101 may be classified as serious or other than serious depending on the conditions and circumstances related to the specific situation. Refer to the Field Operations Manual, Chapter IV.

Also, Attachment 1 is a table that equates the 1991 NFPA-101 with existing 1910, Subpart E standards.

F. **Effective Date.**

This OPN is effective on the date of signature. It will remain in effect until revised or canceled by the Director.

Signed on Original
Kevin Beauregard
Assistant Director

Signed on Original
John H. Johnson
Director

1/16/03
Date of Signature

OPN 80A cont'd.

OPN 80A – Attachment 1
Comparison of Subpart E and NFPA 101

Topic	Subpart E	NFPA 101	Difference	Recommended
Definitions	1910.35	Chapter 3, 4, 5	*Approved limit to listed/labeled in Subpart E, expanded in Code *Emergency Evacuation Plan not defined in Code, but incorporated in Chapter 31 *Emergency Escape Route not defined in Code: emphasis on multiple paths of egress	NFPA 101
Application	1910.36(a)	1-2.1, 1-3.5, 1-6.1, 1-6.3, 30-1.32, 30-6.1, 30-6.2	*Code requires documentation that alternative system/method/device is equivalent *Code includes vehicles and vessels used as buildings	NFPA 101
Sufficient Exits	1910.36(b)(1)	2-1	*Subpart E addresses EXITS; Code addresses EXITS AND OTHER SAFEGUARDS	NFPA 101
Arrangement to Prevent Danger	1910.36(b)(2)	2-2	*Code addresses Defend In Place concept	NFPA 101
Number and Location of Exits	1910.36(b)(3)	2-3	*Code references persons with impaired mobility	NFPA 101
Free Access; No Locks	1910.36(b)(4)	2-4	*Code requires accessibility for persons with impaired mobility	NFPA 101
Clearly Visible Exit Routes	1910.36(b)(5)	2-5	None	NFPA 101
Illumination of Exits	1910.36(b)(6)	2-6	*Subpart E addresses illumination if building is equipped; Code requires exit illumination	NFPA 101
Fire Alarm Facilities	1910.36(b)(7)	2-7	None	NFPA 101
At Least 2 Means of Egress	1910.36(b)(8)	2-8	None	NFPA 101
Protection of Vertical Openings	No Correlation	2-9	*Subpart E does not address vertical openings between floors	NFPA 101

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Topic	Subpart E	NFPA 101	Difference	Recommended
Other Provisions for Safety	1910.36(b)(9)	2-10	None	NFPA 101
Occupation of Buildings Under Construction	1910.36(c)(1)	1-7.1	*Subpart E requires "Exit Facilities" to be in place prior to occupancy; Code requires compliance with all Code components (alarms, illumination, ect.) prior to occupancy.	NFPA 101
Continuous Fire protection and exits during repair/renovations	1910.36(c)(2)	1-7.3	None	NFPA 101
Flammable/ Explosive Substances	1910.36(c)(3)	31-1.1.2	None	NFPA 101
Maintenance of Exits Free of Obstructions	1910.36(d)(1)	31-1.2.1	None	NFPA 101
Fire Protection Devices in Continuous Operation	1910.36(d)(2)	1-8.1, 31-1.3.1, 31-1.3.2	*Subpart E requires equipment to be in proper operating condition when provided Code requires it when required by the code.	NFPA 101
Exit Components	1910.37(a)	Chapter 5	*Code provides detailed requirements for all aspects of means of egress.	NFPA 101
1-Hour Fire Rating for Exits for 3 Stories or Less	1910.37(b)(1)	5-1.3.1(a)	None	NFPA 101
2-Hour Fire Rating for Exits for 4 or More Stories	1910.37(b)(2)	5-1.3.1(b)	*Code allows sprinklered apartment buildings and hotels to have 1-hour fire rating	NFPA 101
Self-Closing Fire Door	1910.37(b)(3)	5-1.3.1(c)	None	NFPA 101
Openings in Exit Enclosures	1910.37(b)(4)	5-1.3.1(d) and (e)	*Code allows penetrations/ openings in exit enclosures for duct work and pressurization equipment, sprinkler piping and standpipes, and electrical conduit serving the stairway.	NFPA 101

OPN 80A cont'd.

Topic	Subpart E	NFPA 101	Difference	Recommended
Exit Capacity	1910.37(c)(1)(i)(ii)	Section 5-3	*Subpart E requires a set number of persons per 22-inch width unit; Code uses formula: person using exit divided by no. of exits, multiplied by required inches per person.	NFPA 101
Ramp Widths and Designations	1910.37(c)(1)(iii)	5-2.5.2	*Code requires shallower slopes in deference to persons with impaired mobility.	NFPA 101
Exit width Measurement Units	1910.37(c)(2)	Section 5-3	*See Exit Capacity, above.	NFPA 101
Measurement and Narrowest Point	1910.37(c)(3)	5-3.2, 5-2.1.4.3	*Subpart E allows handrails to extend into required width 5 inches but doors cannot narrow passage during swing. Code allows only 3 1/2 inches but allows door to narrow hallway to 1/2 during swing and 7 inches when fully open.	NFPA 101
Exit Capacity Sufficient for Occupant Load	1910.37(d)(1)	5-3.1.1	None	NFPA 101
Occupant Load Per Floor	1910.37(d)(2)	5-3.1.2	None	NFPA 101
Arrangement of Exits	1910.37(e)	5-5.1.3	*Subpart E requires exits to be remotely located from each other when more than 1 is required per story; Code requires same when more than 1 is required from building or portion.	NFPA 101
Exit Accessible At All Times	1910.37(f)(1)	5-5.1.1, 5-5.1.2	None	NFPA 101
Doors	1910.37(f)(2)	5-2.1.4.1, 5-2.1.4.2	Code recognizes and regulates sliding doors, horizontal and vertical security grilles, and revolving doors in specific occupancies and conditions.	NFPA 101
No Exit through Rooms Subject to Locking	1910.37(f)(3)	5-5.2.1	None	NFPA 101

OPN 80A cont'd.

Topic	Subpart E	NFPA 101	Difference	Recommended
Exits Clearly Recognizable; Nothing May Obscure or Conceal	1910.37(f)(4)	5-5.2.2	None	NFPA 101
No Travel Toward High Hazard Areas	1910.37(f)(5)	5-5.1.7	None	NFPA 101
Minimum Exit Width	1910.37(f)(6)	5-3.4.1	*Subpart E minimum width for means of egress: 28 inches. Code minimum: 36 inches with exception of 28 inches for existing buildings.	NFPA 101
Conformance of Exterior Ways of Exit Access	1910.37(g)(1)	5-5.3.1	None	NFPA 101
Smooth Level Floors and Guards, Exterior Ways of Exit Access	1910.37(g)(2)	5-5.3.7	None	NFPA 101
Roof Protection for Exterior Ways of Exit Access	1910.37(g)(3)	5-5.3.8	*Subpart E allows exception to roof requirement if it serves as normal means of access; Code does not.	NFPA 101
Reasonably Straight Path of Travel; No Obstructions (Exterior Ways of Exit Access)	1910.37(g)(4)	5-5.3.3, 5-5.3.4	None	NFPA 101
Dead-Ends in Exterior Ways of Exit Access	1910.37(g)(5)	5-5.3.5	*Code does not address unenclosed exits served by exterior means of access.	NFPA 101
Exterior Exit Access Projecting Beyond Outside Wall of Building	1910.37(g)(6)	5-5.3.6	None	NFPA 101
Exits Discharge to Street or Public Way	1910.37(h)(1)	5-7.1	None	NFPA 101

OPN 80A cont'd.

Topic	Subpart E	NFPA 101	Difference	Recommended
Clear Direction to Discharge: Stairs Continuing Downward Past Discharge Floor	1910.37(h)(2)	5-7.3	None	NFPA 101
Headroom	1910.37(i)	5-1.5	None	NFPA 101
Changes in Elevation	1910.37(j)	5-1.6	None	NFPA 101
Construction of Means of Egress Free of All Obstructions	1910.37(k)(1)	5-1.7.1	None	NFPA 101
Continuously Maintained Means of Egress Free of All Obstructions	1910.37(k)(2)	5-1.7.3	*Code includes snow and ice as an obstruction.	NFPA 101
Alarms and Devices Installed on Exit Doors	1910.37(k)(3)	5-1.7.2	None	NFPA 101
Furnishings and Decorations	1910.37(l)(1)	31-1.2.2.1, 31-1.2.2.2, 31-1.2.2.3	*Code prevents railings, barriers, and gates from becoming obstructions.	NFPA 101
No Flammable/ Explosive Decorations or Furnishings	1910.37(l)(2)	31-1.4	*Code requires flammability tests, cigarette burn tests, and mattress flammability tests.	NFPA 101
Automatic Sprinkler Systems	1910.37(m)	31-1.3.6	*Code requires evacuation of building or approved fire watch when sprinklers are out of service longer than 4 hours.	NFPA 101
Fire Alarm Signaling Systems	1910.37(n)	7-6.1.4	*Subpart E requires maintenance and testing to requirements of 1910.165(d). Code requires same to NFPA standards 70, 71, 72, 72E, 74, and 1221.	NFPA 101
Fire Retardant Paints	1910.37(o)	6-5.6.2	None	NFPA 101

OPN 80A cont'd.

Topic	Subpart E	NFPA 101	Difference	Recommended
Readily Visible Exit Sign	1910.37(q)(1)	5-10.1.2, 5-10.1.3	None	NFPA 101
NOT AN EXIT	1910.37(q)(2)	5-10.4.2	*Code gives specific design requirements for No Exit Signs, but excepts existing signs.	NFPA 101
Exit Sign Requirements	1910.37(q)(3)	5-10.1.5	None	NFPA 101
Exit Sign Distinctive Color	1910.37(q)(4)	5-10.1.5	None	NFPA 101
Directional Exit Signs	1910.37(q)(5)	5-10.4.1.2	*Code gives specific design standards for Directional Exit Signs, but excepts existing signs.	NFPA 101
Exit Sign Illumination	1910.37(q)(6)	Subsection 5-10.3	*Code does not have specific requirements for external light size.	NFPA 101
Internally Illuminated Exit Signs	1910.37(q)(7)	5-10.3.2, 5-10.3.3	*Subpart E requires internally illuminated exit signs where lights can be dimmed. Code requires 5 foot candles on face of sign, externally or internally, at all times.	NFPA 101
Design Specifications of Exit Signs	1910.37(q)(8)	5-10.2	*Code provides more design specifications for the word Exit on signs.	NFPA 101
Emergency Action Plans and Fire Prevention Plans	1910.38	Chapter 31	*Subpart E requires plans wherever required by an OSHA standard. Code requires written plans for Health Care, Detention and Correctional, and board and care homes; employee evacuation training in all occupancies except industrial and storage; and employee fire extinguisher use training in assembly, detention, mercantile, and business occupancies.	NFPA 101 for scope in all occupancies except 2; Subpart E for Scope in Industrial and Storage Occupancies; Subpart E for Plan Details.

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Sufficient Exits	1910.36(b)(1)	2-1	*Subpart E addresses EXITS; Code addresses EXITS AND OTHER SAFEGUARDS	NFPA 101
Arrangement to Prevent Danger	1910.36(b)(2)	2-2	*Code addresses Defend In Place concept	NFPA 101
Number and Location of Exits	1910.36(b)(3)	2-3	*Code references persons with impaired mobility	NFPA 101
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Illumination of Exits	1910.36(b)(6)	2-6	*Subpart E addresses illumination if building is equipped; Code requires exit illumination	NFPA 101
Fire Alarm Facilities	1910.36(b)(7)	2-7	None	NFPA 101
At Least 2 Means of Egress	1910.36(b)(8)	2-8	None	NFPA 101
Protection of Vertical Openings	No Correlation	2-9	*Subpart E does not address vertical openings between floors	NFPA 101
Other Provisions for Safety	1910.36(b)(9)	2-10	None	NFPA 101
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Continuous Fire protection and exits during repair/renovations	1910.36(c)(2)	1-7.3	None	NFPA 101
Flammable/	1910.36(c)(3)	31-1.1.2	None	NFPA 101

Topic	Subpart E	NFPA 101	Difference	Recommended
Explosive Substances				
Maintenance of Exits Free of Obstructions	1910.36(d)(1)	31-1.2.1	None	NFPA 101
Fire Protection Devices in Continuous Operation	1910.36(d)(2)	1-8.1, 31-1.3.1, 31-1.3.2	*Subpart E requires equipment to be in proper operating condition when provided. Code requires it when required by the code.	NFPA 101
Exit Components	1910.37(a)	Chapter 5	*Code provides detailed requirements for all aspects of means of egress.	NFPA 101
1-Hour Fire Rating for Exits for 3 Stories or Less	1910.37(b)(1)	5-1.3.1(a)	None	NFPA 101
2-Hour Fire Rating for Exits for 4 or More Stories	1910.37(b)(2)	5-1.3.1(b)	*Code allows sprinklered apartment buildings and hotels to have 1-hour fire rating	NFPA 101
Self-Closing Fire Door	1910.37(b)(3)	5-1.3.1(c)	None	NFPA 101
Openings in Exit Enclosures	1910.37(b)(4)	5-1.3.1(d) and (e)	*Code allows penetrations/ openings in exit enclosures for duct work and pressurization equipment, sprinkler piping and standpipes, and electrical conduit serving the stairway.	NFPA 101
Exit Capacity	1910.37(c)(1)(i)(ii)	Section 5-3	*Subpart E requires a set number of persons per 22-inch width unit; Code uses formula: person using exit divided by no. of exits, multiplied by required inches per person.	NFPA 101
Ramp Widths and Designations	1910.37(c)(1)(iii)	5-2.5.2	*Code requires shallower slopes in deference to persons with impaired mobility.	NFPA 101
Exit width Measurement Units	1910.37(c)(2)	Section 5-3	*See Exit Capacity, above.	NFPA 101
Measurement and Narrowest Point	1910.37(c)(3)	5-3.2, 5-2.1.4.3	*Subpart E allows handrails to extend into required width 5 inches but doors cannot narrow passage during swing. Code allows only 3 1/2 inches but allows door to narrow hallway to 1/2 during swing and 7 inches when fully open.	NFPA 101
Exit Capacity Sufficient for Occupant Load	1910.37(d)(1)	5-3.1.1	None	NFPA 101
Occupant Load Per Floor	1910.37(d)(2)	5-3.1.2	None	NFPA 101
Arrangement of Exits	1910.37(e)	5-5.1.3	*Subpart E requires exits to be remotely located from each other when more than 1 is required per story; Code requires same	NFPA 101

Topic	Subpart E	NFPA 101	Difference	Recommended
			when more than 1 is required from building or portion.	
Exit Accessible At All Times	1910.37(f)(1)	5-5.1.1, 5-5.1.2	None	NFPA 101
Doors	1910.37(f)(2)	5-2.1.4.1, 2.1.4.2	5- Code recognizes and regulates sliding doors, horizontal and vertical security grilles, and revolving doors in specific occupancies and conditions.	NFPA 101
No Exit through Rooms Subject to Locking	1910.37(f)(3)	5-5.2.1	None	NFPA 101
Exits Clearly Recognizable; Nothing May Obscure or Conceal	1910.37(f)(4)	5-5.2.2	None	NFPA 101
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Minimum Exit Width	1910.37(f)(6)	5-3.4.1	*Subpart E minimum width for means of egress: 28 inches. Code minimum: 36 inches with exception of 28 inches for existing buildings.	NFPA 101
Conformance of Exterior Ways of Exit Access	1910.37(g)(1)	5-5.3.1	None	NFPA 101
Smooth Level Floors and Guards, Exterior Ways of Exit Access	1910.37(g)(2)	5-5.3.7	None	NFPA 101
Roof Protection for Exterior Ways of Exit Access	1910.37(g)(3)	5-5.3.8	*Subpart E allows exception to roof requirement if it serves as normal means of access; Code does not.	NFPA 101
Reasonably Straight Path of Travel; No Obstructions (Exterior Ways of Exit Access)	1910.37(g)(4)	5-5.3.3, 5-5.3.4	None	NFPA 101
Dead-Ends in Exterior Ways of Exit Access	1910.37(g)(5)	5-5.3.5	*Code does not address unenclosed exits served by exterior means of access.	NFPA 101
Exterior Exit Access Projecting Beyond Outside Wall of Building	1910.37(g)(6)	5-5.3.6	None	NFPA 101
Exits Discharge to Street or Public Way	1910.37(h)(1)	5-7.1	None	NFPA 101
Clear Direction to Discharge:	1910.37(h)(2)	5-7.3	None	NFPA 101

Topic	Subpart E	NFPA 101	Difference	Recommended
Stairs Continuing Downward Past Discharge Floor				
Headroom	1910.37(i)	5-1.5	None	NFPA 101
Changes in Elevation	1910.37(j)	5-1.6	None	NFPA 101
Construction of Means of Egress Free of All Obstructions	1910.37(k)(1)	5-1.7.1	None	NFPA 101
Continuously Maintained Means of Egress Free of All Obstructions	1910.37(k)(2)	5-1.7.3	*Code includes snow and ice as an obstruction.	NFPA 101
Alarms and Devices Installed on Exit Doors	1910.37(k)(3)	5-1.7.2	None	NFPA 101
Furnishings and Decorations	1910.37(l)(1)	31-1.2.2.1, 31-1.2.2.2, 31-1.2.2.3	*Code prevents railings, barriers, and gates from becoming obstructions.	NFPA 101
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Fire Alarm Signaling Systems	1910.37(n)	7-6.1.4	*Subpart E requires maintenance and testing to requirements of 1910.165(d). Code requires same to NFPA standards 70, 71, 72, 72E, 74, and 1221.	NFPA 101
Fire Retardant Paints	1910.37(o)	6-5.6.2	None	NFPA 101
Readily Visible Exit Sign	1910.37(q)(1)	5-10.1.2, 10.1.3	5-	None
NOT AN EXIT	1910.37(q)(2)	5-10.4.2	*Code gives specific design requirements for No Exit Signs, but excepts existing signs.	NFPA 101
Exit Sign Requirements	1910.37(q)(3)	5-10.1.5	None	NFPA 101
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