

2018 NORTHERN NEVADA AMENDMENTS TO THE 2018 INTERNATIONAL FIRE CODE

August 8, 2018

The following participating agencies have reviewed the attached document referenced as the 2018 Northern Nevada Fire Code Amendments and agree with the amendments to the 2018 International Fire Code as stated therein. It is noted that the code amendments must be approved and adopted and codified by the local Authority Having Jurisdiction to become code.

Participating Agencies

**Carson City Fire Department
777 South Stewart Street
Carson City, NV 89701**

**Central Lyon County Fire Protection District
246 Dayton Valley Road, Suite 106
Dayton, NV 89403**

**East Fork Fire Protection District
1694 County Road
Minden, NV 89423**

**Elko City Fire Department
911 West Idaho Street
Elko, NV 89801**

**North Lake Tahoe Fire Protection District
866 Oriole Way
Incline Village, NV 89451**

**North Lyon County Fire Protection District
195 East Main Street
Fernley, NV 89408**

**Reno Fire Department
One East First Street, 4th Floor
Reno, NV 89501**

**Smith Valley Fire Protection District
1 Hardie Lane
Smith, NV 89430**

**Sparks Fire Department
1605 Victorian Avenue
Sparks, NV 89431**

**Storey County Community Development
P.O. Box 526
Virginia City, NV 89440**

**Tahoe Douglas Fire Protection District
193 Elks Point Road
Zephyr Cove, NV 89448**

**Truckee Meadows Fire Protection District
1001 East Ninth Street, Building D, Second Floor
Reno, NV 89520**

Preface

This document comprises proposed amendments to the 2018 Edition of the International Fire Code as published by the International Code Council, Inc, amended by the Participating Agencies listed above, with the support of the Northern Nevada Chapter of the International Code Council. This document is hereafter referenced as the 2018 Northern Nevada Fire Code Amendment and is prepared to be adopted by reference by the local authority having jurisdiction. These provisions are not considered to be or enacted as the code unless the provisions are adopted and codified by the local Authority Having Jurisdiction.

The purpose of the document is to provide a consistent area-wide application to the enforcement of the fire and life safety code sections noted in the International Fire Code, while still acknowledging necessary modifications to the nationally recognized fire and life safety document based upon the local needs of the community.

Notes:

- Deleted language in the base code has been ~~stricken through~~.
- Added language to the code section has been underlined.
- The entire section amended has been shown for context.

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2018 Northern Nevada Fire Code Amendments

Section 102.7 Referenced codes and standards:

Section 102.7 is amended to read:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be ~~these~~ the most current that are listed in Chapter 80, and such codes and standards shall be considered to be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Section 102.7.1 and 102.7.2.

Section 105.6.51 Fire Fighter Air Replenishment Systems:

Section 105.6.51 is added to Section 105.6 Required operational permits, to read:

Section 105.6.51 Fire Fighter Air Replenishment Systems. An operational permit is required to maintain a Fire Fighter Air Replenishment System.

Section 105.6.52 Emergency responder radio coverage system

Section 105.6.51 is added to Section 105.6 Required operational permits, to read as follows:

Section 105.6.52 Emergency responder radio coverage system. An operational permit is required for the operation and maintenance of an emergency radio coverage system and related equipment, as specified in Section 510.

Section 105.7.26 Fire fighter air replenishment systems:

Section 105.7.26 is added to Section 105.7 Required construction permits, to read:

Section 105.7.26 Fire Fighter Air Replenishment Systems. A construction permit is required for installations of or modification to a Fire Fighter Air Replenishment System. The construction permit application shall include documentation of an acceptance and testing plan as specified in Section L103.2.

Section 202 General Definitions:

The following definitions are amended or added in Section 202 General definitions to read:

[BG] HIGH-RISE BUILDING. A building with an occupied floor located more than ~~75~~ 55 feet (~~22806~~ 16 764 mm) above the lowest level of fire department vehicle access.

OCCUPANCY CLASSIFICATION [BG] Institutional Group I-1. Institutional Group I-1 occupancy shall include buildings, structures, or portions thereof for more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care. All portions of a care facility which houses patients or residents which is classified by the State Board of Health as "Category 2," and which has an occupant load of more than 10 residents, is classified as a "I-1" occupancy classification. Buildings of Group I-1 shall be classified as one of the occupancy conditions listed below. This group shall include, but not be limited to, the following:

Alcohol and Drug Centers

Assisted living facilities

Congregate care facilities

Group homes

Halfway houses

Residential board and care facilities

Residential board and custodial care facilities

Social rehabilitation facilities

[BG] Condition 1. This occupancy condition shall include buildings in which all persons receiving custodial care who, without any assistance, are capable of responding to an emergency to complete building evacuation.

[BG] Condition 2. This occupancy shall include buildings in which there are any persons requiring custodial care who require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.

[BG] Six to 16 persons receiving custodial care. A facility housing not fewer than six and not more than 16 persons receiving custodial care shall be classified as group R-4.

[BG] Five or fewer persons receiving custodial care. A facility with five or fewer persons receiving custodial care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.

Occupational Classification [BG] Group I-4, day care facilities. Institutional Group I-4 shall include buildings and structures occupied by more than ~~five~~ six persons of any age who receive custodial care for less than 24 hours by persons other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

Adult day care

Child day care.

[BG] Classification as Group E. A child day care facility that provides care for more than ~~five~~ six but no more than 100 children 21/2 years or less of age, where the rooms in which the children are cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

[BG] Within a place of religious worship. Rooms and spaces within places of religious worship providing such care during religious functions shall be classified as part of the primary occupancy.

[BG] Five Six or fewer occupants receiving care. A facility having ~~five~~ six or fewer persons receiving custodial care shall be classified as part of the primary occupancy.

[BG] Five Six or fewer occupants receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having ~~five~~ six or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

Occupancy Classification [BG] Residential Group R-1. Residential Group R-1 occupancies containing *sleeping units* where the occupants are primarily transient in nature, including:

Boarding houses (transient) with more than 10 occupants

Brothels

Congregate living facilities (transient) with more than 10 occupants

Hotels (transient)

Motels (transient)

OCCUPANCY CLASSIFICATION [BG] Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units

Care facilities that provide accommodations for ~~five~~ six or fewer persons receiving care

Congregate living facilities (nontransient) with 16 or fewer occupants

Boarding houses (nontransient)

Convents

Dormitories

Fraternities and sororities

Monasteries

Congregate living facilities (transient) with 10 or fewer occupants

Boarding houses (transient)

Lodging houses (transient) with five or fewer guestrooms and 10 or fewer occupants.

Unwanted alarm. Any alarm that occurs that is not the result of a potentially hazardous condition.

Section 307.4.3 Portable outdoor fireplaces

Section 307.4.3, of Section 307.4 Location, is amended to read:

307.4.3 Portable outdoor fireplaces. Portable outdoor fireplaces shall be used in accordance with manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

Exception: Portable outdoor fireplaces used in one and two family dwellings.

Section 308.1.6.3 Sky lanterns

Section 308.1.6.3, of Section 308.1.6 Open-flame devices, is amended to read:

308.1.6.3 Sky lanterns. ~~A person shall not release or cause to be released an untethered sky lantern. Sky lanterns are prohibited.~~

Section 319.4.1 Fire protection for cooking equipment

Section 319.4.1, of Section 319.4 Fire protection, is amended to read:

319.4.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with ~~Section~~ Sections 607.2 and 904.12.

Section 320 Natural Gas Meter Protection

Section 320 Natural Gas Meter Protection and Section 320.1 General are added to read as follows:

320 Natural Gas Meter Protection

320.1 General. A protective cover shall be provided over natural gas meter assemblies serving buildings, or portions thereof, located at an elevation of 5,800 feet (1767.48 m) or higher. The protective cover shall be designed to be equal to or greater than the Building Design Load (as determined by the Building Department having jurisdiction). The cover shall be approved by the natural gas supplier, shall be installed over the meter assembly, and securely supported to the ground or diagonally to the building wall. When supported to the ground, the footing of the supports shall extend a minimum of 6-inches (152.4 mm) below finished grade. Pre-cast concrete piers may be used in lieu of poured footings, provided they are placed on stable soil.

Section 403.12.3.2 Training

Section 403.12.3.2, of Section 403.12.3 Crowd managers, is amended to read as follows:

403.12.3.2 Training. Training for crowd managers shall be in compliance with the latest International Code Council or National Fire Protection Associations standards or guidelines approved.

Section 505.1 Address Identification

Section 505.1 is amended to read:

505.1 Address identification. New and existing buildings shall be provided with approved maintained all-weather address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetic letters. Numbers shall not be spelled out. Each character shall be not less ~~than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm)~~ than a nominal height of 6-inches with a minimum ½-inch stroke for residential occupancies and 12-inches with a 1-inch stroke in commercial occupancies, unless otherwise approved by the fire code official. Where required by fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Section 507.3 Fire flow

Section 507.3 is amended to read:

507.3 Fire flow. Fire flow requirements for buildings or portions of building and facilities shall be determined by an *approved* method.

Subject to the approval of the fire authority, if the required fire flow is not available for adequate fire protection, an automatic fire sprinkler system shall be installed throughout the building or buildings. The sprinkler system must meet the requirements of the appropriate N.F.P.A. standard. The provisions of this paragraph do not apply if a fire sprinkler system is otherwise required by this chapter or the adopted codes.

Section 507.5.5 Clear space around hydrants

Section 507.5.5 in Section 507.5 Fire hydrants is amended to read:

507.5.5 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or *approved*. In addition, a minimum clear space of seven and one-half feet (2286 mm) shall be maintained to both sides directly in front of the front pumper connection. In the North Lake Tahoe Fire Protection District and Tahoe Douglas Fire Protection District, a minimum of four feet (1219 mm) shall also be maintained clear to the rear of any fire hydrant. These clearance requirements shall apply to any public or private property.

Section 508.1.6 Required features

Section 508.1.6 of Section 508.1 General is amended to read:

508.1.6 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 the air distribution systems.
6. The fire fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking *interior exit stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department used 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-fighter air-replenishment 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 includes, but is not limited to, all of the following information:
 - 13.1. General building information that includes: 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) and the estimated building population during the day, night, and weekend;
 - 13.2. Building emergency contact information that includes: a list of the building's emergency contacts including, but not limited to, building manager, building engineer and their respective work phone number, cell phone number and e-mail address;
 - 13.3. Building construction information that includes: type of building construction including but not limited to floors, walls, columns and roof assembly;
 - 13.4. *Exit access stairway* and *exit stairway* information that includes: number of *exit access stairways* and *exit stairways* in building; each *exit access stairway* and *exit*

stairway designation and floors served; location where each *exit access stairway* and *exit stairway* discharges, *interior exit stairways* that are pressurized; *exit stairways* that are provided with emergency lighting; each *exit stairway* that allows reentry; *exit stairways* 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 , control rooms, and control spaces; location of sky lobby; and 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 and locations of natural gas service.

13.6. *Fire protection system* information that includes: location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers and location of different types of *automatic sprinkler systems* installed including but not limited to dry, wet, and pre-action;

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

14. Work table.

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/CSA B44.

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

19. HVAC. The central control station shall be provided with heating, cooling, and ventilation (HVAC) systems that are independent of any other building system or area. HVAC for the central control station shall be connected to the emergency power system.

20. Lighting. Lighting shall provide adequate illumination and shall be on emergency service with additional battery backup emergency lighting.

21. Inside Telephone Line. A telephone connected to the premise's telephone exchange shall be provided. A current premise's telephone directory shall be placed next to this telephone.

22. Disconnect. The main switch for disconnecting the utility power and any alternate power sources shall be in the fire command center. Switches shall be covered to prevent utility power feeds and any alternate power sources before entering the building. After the switch is operated, no live electrical panels, conductors, or feeds within the premises shall remain energized excluding the emergency electrical circuits.

Section 510.1 Emergency responder radio coverage in new buildings

Section 510.1 is amended to read:

510.1 Emergency responder radio coverage in new buildings. ~~New buildings shall have approved radio coverage for emergency responders within the building based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.~~ An emergency responder radio coverage system shall be provided throughout buildings when any of the following apply:

1. **High-rise buildings.** Buildings with a floor used for human occupancy located more than 55 feet above the lowest level of fire department vehicle access.
2. **Underground and below grade buildings.** Buildings having a floor level below the finished floor of the lowest level of exit discharge of any level.
3. **Other buildings.** The fire code official is authorized to require a technical opinion and report, in accordance with Section 104.7.2, for buildings whose design, due to location, size, construction type, or other factors, could impede radio coverage as required by Section 510.4.1. The report shall make a recommendation regarding the need for an emergency responder radio coverage system.

Exceptions:

- ~~1. Where approved by the building official and fire official a wired communication system in accordance with Section 907.2.12.2 shall be permitted to be installed and maintained instead of an approved radio coverage system.~~
- ~~2. Where it is determined by the fire code official that the radio coverage is not needed.~~
- ~~3. In facilities where emergency responder radio coverage is required, and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.~~

Section 510.2 Emergency responder radio coverage in existing buildings

Section 510.2 is amended to read:

510.2 Emergency responder radio coverage in existing buildings. ~~Existing buildings shall be provided with approved radio coverage for emergency coverage as required in chapter 11, other than Group R-3, which do not have approved radio coverage for emergency responders in the building based on existing coverage levels of the public safety communications systems, shall be equipped with such coverage according to one of the following conditions:~~

1. Existing buildings that do not have approved radio coverage, as determined by the Fire Chief, in accordance with Section 510.4.1.
2. Where an existing wired communication system cannot be repaired or is being replaced.

3. Within a time frame established by the adopting authority.

Exception: Where it is determined by the fire code official that the radio coverage is not needed.

Section 510.3 Permit required

Section 510.3 is amended to read:

510.3 Permits Required. Permits shall be required to install, modify and operate an emergency radio coverage system and related equipment, as follows:

1. A construction permit for the installation of or modifications to emergency radio coverage systems and related equipment is required as specified in Section 105.7.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

2. An operational permit is required for the operation and maintenance of an emergency radio coverage system and related equipment as specified in Section 105.6.52.

Section 704.3 Wood-burning appliance enclosures and flue shafts

Section 704.3 is added to Section 704 JOINTS AND VOIDS, and reads:

704.3 Wood-burning appliance enclosures and flue shafts. In North Lake Tahoe Fire Protection District and Tahoe Douglas Fire Protection District, the interior of any firewood-burning fireplace enclosure and flue shaft constructed of combustible framing materials shall be completely lined with taped 5/8" type "X" drywall.

Section 901.4.6.2 Marking on access door

Section 901.4.6.2 is amended to read:

901.4.6.2 Marking on access door. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with a maintained approved all-weather sign. The lettering shall be in contrasting color to the background. Letters shall have a minimum height of 2 inches (51 mm) with a minimum stroke of 3/8 inch (10 mm).

Section 901.6 Inspection, testing and maintenance

Section 901.6 is amended to read:

901.6 Inspection, testing and maintenance. Fire detection and alarm systems, emergency alarm systems, gas detection systems, fire-extinguishing systems, mechanical smoke exhaust systems and smoke and heat vents, and commercial kitchen hood ventilation systems shall be maintained in an

operative condition at all times and shall be replaced or repaired where defective. Nonrequired *fire protection systems* and equipment shall be inspected, tested and maintained or removed. Air systems for fire-suppression breathing apparatus shall be maintained at the same frequency as other high-rise life safety systems.

Section 901.6.2.3 Fire fighter air replenishment system

Section 901.6.2.3 is added to Section 901.6.2 Integrated testing, to read:

Section 901.6.2.3 Fire fighter air replenishment system. Fire suppression breathing apparatus air system procedures, maintenance and report records shall be approved by the fire code official. Inspection records shall be kept on-site.

Section 901.11 Problematic unwanted fire alarms

Section 901.11 is added to Section 901 GENERAL, to read:

901.11 Problematic unwanted fire alarms. Problematic unwanted fire alarms are a violation of this code. When a fire alarm system is required by this code, it shall be the responsibility of the property owner or owner's authorized agent to maintain the system and properly educate occupants, tenants, and/or employees in accepted behavioral practices that will minimize or eliminate false and/or nuisance alarms. This includes nuisance activations in response to predictable environmental stimuli such as but not limited to cooking fumes, smoking, and construction activities. Where unwanted alarms become repetitive, the fire code official is authorized to charge fees or issue administrative citations to the property owner in accordance with the fee schedule or administrative code as established by the applicable governing authority.

Section 903.2 Where required

Section 903.2 is amended to read:

903.2 Where required. *Approved automatic sprinkler systems* in new buildings and structures shall be provided in locations described in Sections 903.2.1 through 903.2, and Tables 903.2.1 and 903.2.2.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications 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 711 of the *International Building Code*, or both.

Section 903.2.1.2 Group A-2

Section 903.2.1.2 is amended to read:

903.2.1.2 Group A-2. An *automatic sprinkler system* shall be provided for Group A-2 occupancies and throughout all stories from the Group A-2 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464 m²).
2. The *fire area* has an *occupant load* of 100 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

Occupancies containing a casino, regardless of occupancy classification, must be designed and built with a sprinkler system classified as an Ordinary Hazard Group 2.

Table 903.2.1 Required Automatic Sprinklers by Fire Area, Response Time and Height for Structures Designed and Constructed with the International Building Code Including A, B, E, F, H, I, M, S and U Occupancies

Add Table 903.2.1 to Section 903.2, to read:

TABLE 903.2.1^a

Required Automatic Sprinklers by Fire Area, Response Time and Height

For Buildings Designed and Constructed with the International Building Code Including A, B, E, F, H, I, M, S and U Occupancies

Sprinklers are required when any one of the listed conditions are met, or when otherwise required by this Code

Fire Authority	Fire Area ^{b,c} In square feet (sf)	Height ^d In stories	Response Time In minutes (min)
Carson City Fire Department	≥ 5,000 ^e	>2	NA
Central Lyon County Fire Protection District	≥ 5000	> 2	-
East Fork Fire Protection District	≥5,000	>2	NA
Elko City Fire Department	≥ 5,000	> 2	-
North Lake Tahoe Fire Protection District	≥5,000	2 with basement or >2	NA
North Lyon Fire Protection District	≥5,000	>2	NA
Reno Fire Department	>5,000	>2	NA

Smith Valley Fire Protection District	≥5,000	>2	NA
Sparks Fire Department	≥5,000	>2	>6
Storey County Community Development District	≥5,000	2 with basement or >2	NA
Tahoe Douglas Fire Protection District	All	NA	NA
Truckee Meadows Fire Protection District	≥5,000	>2	NA

- a. This table is in addition to any other automatic sprinkler requirements in this code.
- b. Fire areas may be separated according to IBC 707.3.10.
- c. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage.
- d. Airport towers and open parking garages complying with IBC 406.5 are exempt from this table.
- e. A one-time increase in the fire area is permitted provided said increase is < 50% of the structure's existing permitted fire area square footage.
- f. A one-time increase of 360 square feet of fire area is permitted.

Table 903.2.2 Required Automatic Sprinklers by Fire Area, Response Time, and Height for Structures Designed and Constructed with the International Residential Code

Add Table 903.2.2 to Section 903.2, to read as follows:

TABLE 903.2.2^a

Required Automatic Sprinklers by Fire Area, Response Time and Height

For Structures Designed and Constructed with the International Residential Code

Sprinklers are required when any one of the listed conditions are met,

or when otherwise required by this Code

Fire Authority	Fire Area ^b In square feet (sf)	Height In stories	Response Time In minutes (min)
Carson City Fire Department	$\geq 5,000$ ^c	-	-
Central Lyon County Fire Protection District	≥ 5000	>2	-
East Fork Fire Protection District	-	-	-
Elko City Fire Department	≥ 5000	>2	-
North Lake Tahoe Fire Protection District	$\geq 5,000$	2 with basement or ≥ 3	-
North Lyon Fire Protection District	$\geq 5,000$	-	-
Reno Fire Department	>5,000	-	>6

Smith Valley Fire Protection District	≥5,000	>2	-
Sparks Fire Department	≥5000	-	>6
Storey County Community Development District	-	-	-
Tahoe Douglas Fire Protection District	>3,600	2 with basement or ≥2	-
Truckee Meadows Fire Protection District	New: ≥5,000 sf Existing: >7,000 sf ^f	-	-

- a. This table is in addition to any other automatic sprinkler requirements in this code.
- b. Any addition or remodel that increases the fire area will be included in the calculation for the total square footage. The use of fire walls and fire barriers shall not be allowed to be used to reduce the size of fire areas.
- c. A one-time increase in the fire area is permitted provided said increase is < 50% of the structure's existing permitted fire area square footage.
- d. A one-time increase of 360 square feet of fire area is permitted.
- e. See section 907.2.10.2.1 for alarm requirements for existing structures.
- f. Accessory structures are exempt from this table.

Section 903.2.3 Group E

Section 903.2.3 is amended to read:

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

1. Throughout all Group E *fire areas* greater than ~~12,000~~ 5,000 square feet (~~1115~~ 464 m²) in area.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area.

3. The Group E fire area has an occupant load of 300 or more.

Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest.

4. Daycare facilities where there is occupancy from 12:00 am- 6:00 am and care for 7 or more children.

In high schools where *automatic fire sprinkler systems* are provided, the automatic fire sprinkler systems for automotive and woodworking shops must be *designed to Ordinary Hazard, Group 1 automatic fire sprinkler systems criteria, or as required by the Authority Having Jurisdiction.*

Section 903.3.1.1 NFPA 13 sprinkler systems

Section 903.3.1.1 is amended to read:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an *automatic sprinkler system* in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Section 903.3.1.1.1 and 903.1.1.2.

In North Lake Tahoe Fire Protection District all Group R-3 occupancies larger than ten thousand (10,000) square feet (3048 m²) in area or exceeding four (4) stories in height are required to have automatic sprinklers installed throughout in accordance with NFPA 13.

Section 903.3.1.3 NFPA 13D sprinkler systems

Section 903.3.1.3 is amended to read:

903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one and two-family dwellings: Group R-3; Group R-4, Condition 1; and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D. NFPA 13D systems are not permitted in North Lake Tahoe Fire Protection District.

Section 903.4 Sprinkler system supervision and alarms

Section 903.4 is amended to read:

903.4 Sprinkler system supervision and alarms. Valves controlling the water supply for *automatic sprinkler systems*, pumps, tanks, water levels and temperatures, critical air pressures and water-flow 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 in accordance with Section 903.3.8.

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 open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position. This exception will not apply to any of the above- mentioned control valves if they are located in a building equipped with any fire alarm or protection system that is required to be monitored by a central station fire alarm company.
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.

Section 903.4.2 Alarms

Section 903.4.2 is amended to read:

903.4.2 Alarms. An approved audible alarm notification appliance device, located on the exterior of the building in an approved location, shall be connected to each *automatic sprinkler system*. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Approved alarm notification appliances shall be provided on the exterior of the building and within each tenant space on the interior of the building and in an approved location. When residential (single family dwelling) automatic sprinkler systems are provided, water flow activation shall provide occupant notification at all occupied levels and sleeping units, with minimum audible notification level of 75 dba sound pressure at pillow height. Where a fire alarm system is installed, actuation of the *automatic sprinkler system* shall actuate the building fire alarm system.

Section 903.4.3 Floor control valves

Amend Section 903.4.3 to read:

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings in multi-story facilities.

Section 906.2 General requirements

Section 906.2 is amended to read:

906.2 General requirements. Portable fire extinguishers shall be selected, installed, and maintained in accordance with this section and NFPA 10.

Exceptions:

1. Travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. Thirty-day inspections shall not be required, and maintenance shall be allowed to be ~~once every three years~~ annually for dry-chemical or halogenated agent portable fire extinguishers that are supervised by a listed and approved electronic monitoring device, provided that all of the following conditions are met:
 - 2.1 Electronic monitoring shall confirm that extinguishers are properly positioned, properly charged and unobstructed.
 - 2.2 Loss of power or circuit continuity to the electronic monitoring device shall initiate a trouble signal.
 - 2.3 The extinguishers shall be installed inside of a building or cabinet in a noncorrosive environment.
 - 2.4 Electronic monitoring devices and supervisory circuits shall be tested ~~every three years~~ annually when extinguisher maintenance is performed.
 - 2.5 A written log of required hydrostatic test dates for extinguishers shall be maintained by the owner to verify that hydrostatic tests are conducted at the frequency required by NFPA 10.
3. In Group I-3, portable fire extinguishers shall be permitted to be located at staff locations.

Carbon dioxide, wet chemical, halogenated agent, AFFF and FFFP portable fire extinguishers shall be internally examined in accordance with NFPA 10. All other portable fire extinguishers shall be internally examined annually.

Section 907.2.9.4 Automatic smoke detection systems in Group R-4

Section 907.2.9.4 is added to Section 907.2.9, to read:

907.2.9.4 Automatic smoke detection system in Group R-4. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in corridors, waiting areas open to corridors and habitable spaces other than sleeping units and kitchens.

Exceptions:

1. Smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. 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 door opening directly to an exit or to an exterior exit access that leads directly to an exit.

Section 907.2.9.5 Automatic smoke detection systems in Group R-3

Section 907.2.9.5 is added to Section 907.2.9, to read:

907.2.9.5 Automatic smoke detection system in Group R-3. In Truckee Meadows Fire Protection District automatic smoke detection system installed throughout and connected to a central station fire alarm

company is required for additions that make the structure more than 5,000 square feet but less than 7,000 square feet.

Section 907.2.10.2.1 Alternative to single- and multiple-station smoke alarms

Section 907.2.10.2.1 is added to 907.2.10.2 Groups R-2, R-3, R-4 and I-1, to read:

907.2.10.2.1 Alternative to single- and multiple-station smoke alarms. Fire alarm in place of single and multiple-station smoke alarms may be replaced by an NFPA 72 Household compliant fire alarm system. Plans shall be submitted to the local fire authority and permit obtained prior to installation. All fire alarm installation contractors shall be required to be licensed by both the Nevada State Contractors Board and Nevada State Fire Marshal (F license).

Section 907.5.2.1.1 Average sound pressure

Section 907.5.2.1.1 is amended to read:

907.5.2.1.1 Average sound pressure. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the building. The minimum sound pressure levels shall be 90 dBA in mechanical equipment rooms and 80 dBA in all other occupancies.

Section 910.2.2 High-piled combustible storage

Section 910.2.2 is amended to read:

910.2.2 High-piled combustible storage. Smoke and heat removal required by Table 3206.2 for buildings and portions thereof containing high-piles combustible storage shall be installed in accordance with Section 910.3 in unsprinklered buildings. In buildings and portions thereof containing high-piled combustible storage equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, a smoke and heat removal system shall be installed in accordance with 910.3 or 910.4. Smoke and heat vents shall be activated by manual controls only per Section 910.4.4. In occupied portions of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 where the upper surface of the story is not a roof assembly, a mechanical smoke removal system in accordance with 910.4 shall be installed.

Section 912.5.1 Service area

Section 912.5.1 is added to Section 912.5 Signs, to read:

912.5.1 Connection sign. An approved all-weather sign indicating the buildings address or areas serviced by a sprinkler or standpipe system shall be permanently mounted and maintained on all fire department connections when required by the fire code official.

Section 913.4 Valve supervision

Section 913.4 is amended to read:

913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods.

1. Central-station, proprietary or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a constant attended location.
- ~~3. Locking valves open.~~
4. ~~Sealing of valves and approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.~~

Section 914.3.8 Fire fighter air replenishment systems

Section 914.3.8 is added to Section 914.3 High-rise buildings, to read:

914.3.8 Fire fighter air replenishment systems. A fire fighter air replenishment system shall be provided in all new high-rise buildings of ten (10) or more stories in height. The fire fighter breathing air system installation and maintenance shall comply with Appendix L. Inspection records shall be kept on site and shall be readily available to the fire code official.

Section [BE] 1023.9.1 Signage requirements

Section [BE] 1023.9.1 is amended to read:

[BE] 1023.9.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The letters designating the identification of the interior exit stairway and ramp shall be not less than 1 ½ inches (38 mm) in height.
3. The number designating the floor level shall be not less than 5 inches (127 mm) in height and located in the center of the sign.

4. Other lettering and numbers shall be not less than 1 inch (25 mm) in height.
5. Characters and their background shall have a non-glare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.
6. Where signs required by Section 1023.9 are installed in the interior exit stairways and ramps of buildings subject to Section 1025, the signs shall be made of the same materials as required by Section 1025.4.
7. The background color of the sign shall be green if roof access is available from the signed stairway. The background color of the signs shall be red if roof access is not available from the signed stairway.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

Chapter 11 is deleted.

~~CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS~~

Section 3903.2 Prohibited occupancies

Section 3903.2 is amended to read:

3903.2 Prohibited occupancies. Extraction processes utilizing flammable gases or flammable cryogenic fluids liquids shall not be located in a building containing a Group A, E, I or R occupancy.

Section 3903.3 Location

Section 3903.3 is amended to read:

3903.3 Location. The extraction equipment and extraction processes utilizing hydrocarbon solvents shall be located in a room or area dedicated to extraction. For other than CO₂ and nonhazardous extraction process, the marijuana extraction equipment and process shall be located in a room of noncombustible construction dedicated to the extraction process and the room shall not be used for any other purpose.

Section 3903.5 Use of flammable and combustible liquids

Section 3903.5 is amended to read:

3903.5 Use of flammable and combustible liquids. ~~The use of flammable and combustible liquids for liquid extraction processes where the liquid is boiled, distilled or evaporated shall be located within a hazardous exhaust fume hood, rated for exhausting flammable vapors.~~ Extraction and post oil processing operations, including dispensing of flammable liquids between containers, shall be performed in one of the following locations:

1. A chemical fume hood in accordance with Chapter of NFPA 45.

2. A room with an approved exhaust system installed in accordance with the International Mechanical Code or Uniform Mechanical Code.

Electrical equipment used within the hazardous exhaust fume hood shall be rated for use in flammable atmospheres. Heating of flammable or combustible liquids over an open flame is prohibited.

Exception 1: The use of a heating element not rated for flammable atmospheres, where documentation from the manufacture, or approved testing laboratory indicates the element is rated for heating of flammable liquids.

Exception 2: Unheated processes at atmospheric pressure using less than 16 oz. (473 ml) of flammable liquids shall not be required to comply with 3903.5(1) or 3903.5(2).

Section 3903.5.1 Electrical components

Section 3903.5.1 is added to Section 3903.5 Use of flammable and combustible liquids, to read:

3903.5.1 Electrical components. All electrical components within the chemical fume hood or exhausted enclosure shall be approved permanent wiring, interlocked such that the exhaust system shall be in operation for lighting and components to be used.

Section 3903.6 Liquefied petroleum gas

Section 3903.6 is amended to read:

3903.6 Liquefied petroleum gas. Liquefied petroleum gases (LPG) shall not be released to the atmosphere except where released in accordance with Section 7.3 of NFPA 58. LPG liquid piping systems shall be in compliance with NFPA 58.

Sections 3903.6.1 Exhaust

Section 3903.6.1 is added to Section 3903.6 Liquefied petroleum gas, to read:

3903.6.1 Exhaust. An approved exhaust system shall be provided for LPG extractions.

Section 3903.6.1.1 Installation

Section 3903.6.1.1 is added to Section 3903.6 Liquefied petroleum gas, to read:

3903.6.1.1 Installation. The exhaust systems shall be installed and maintained in accordance with the International Mechanical Code or Uniform Mechanical Code as adopted by the Authority Having Jurisdiction.

Section 3903.6.1.2 Processes

Section 3903.6.1.2 is added to Section 3903.6 Liquefied petroleum gas, to read:

3903.6.1.2 Processes. All LPG extraction operations, including processes for off-gassing spent plant material and oil retrieval, shall be conducted within a chemical fume hood, enclosure, or room in compliance with the International or Uniform Mechanical Code as adopted by the Authority Having Jurisdiction.

Section 3903.6.2 Electrical bonding and grounding

Section 3903.6.2 is added to Section 3903.6 Liquefied petroleum gas, to read:

3903.6.2 Electrical bonding and grounding. All conductive equipment and conductive objects within the exhaust room shall be bonded and grounded with a resistance of less than 1.0×10^6 ohms in accordance with NFPA 70.

Section 3903.6.2.1 Classified areas

Section 3903.6.2.1 is added to Section 3903.6.2 Electrical bonding and grounding, to read:

3903.6.2.1 Classified areas. The area within a hood or enclosure used of LPG extractions shall be classified as a Class 1, Division 1 hazardous location in accordance with NFPA 70. Areas adjacent to Class 1, Division 1 locations shall be classified in accordance with NFPA 70.

Section 3903.6.2.2 Interlocks

Section 3903.6.2.2 is added to Section 3903.6.2 Electrical bonding and grounding, to read:

3903.6.2.2 Interlock. All electrical components within the extraction room shall be interlocked with the hazardous exhaust system such that room lighting and other extraction room electrical equipment will only operate when the exhaust system is in operation.

Section 3903.6.2.3 Emergency power

Section 3903.6.2.3 is added to Section 3903.6. Electrical bonding and grounding, to read:

3903.6.2.3 Emergency Power. An automatic emergency power system shall be provided for the following items, when installed:

1. Extraction room lighting
2. Extraction room ventilation system
3. Solvent gas detection system

Section 3903.6.2.4 Gas detection systems

Section 3903.6.2.4 is added to Section 3903.6.2 Electrical bonding and grounding, to read:

3903.6.2.4 Gas detection systems. Gas detection systems shall be provided with constant non-interlocked power.

Section 3903.7 Carbon dioxide extraction

Section 3903.7 is added to Section 3903 Processing and Extraction, to read:

3903.7 Carbon dioxide extraction. Carbon Dioxide extraction shall comply with sections 3903.7.1, 3903.7.2, and 3903.7.3

Section 3903.7.1 Storage and handling

Section 3903.7.1 is added to Section 3903.7 Carbon dioxide extraction, to read:

3903.7.1 Storage and handling. All CO₂ compressed gas cylinders shall be secured in approved method to prevent falling.

Section 3903.7.2 CO₂ gas detection

Section 3903.7.2 is added to Section 3903.7 Carbon dioxide extraction, to read:

3903.7.2 CO₂ Gas Detection. An approved, listed CO₂ detection system complying with 5307.4.3 shall be installed in the CO₂ extraction room. Auto-calibrating and self-zeroing devices or detectors shall be prohibited.

Section 3903.7.3 CO₂ discharge

Section 3903.7.3 is added to Section 3903.7 Carbon dioxide extraction, to read:

3903.7.3 CO₂ discharge. The extraction equipment pressure relief devices and blow-off valves shall be piped to the exterior of the building.

Section 3903.8 Means of egress

Section 3903.8 is added to Section 3903 Processing and Extraction, to read:

3903.8 Means of Egress. For extraction rooms using hazardous materials, each room shall be provided with at least one exit access door complying with the following:

1. The door shall swing in the direction of egress travel.
2. The door shall be provided with a self-closing or automatic closing device.
3. The door shall be equipped with panic or fire exit hardware.
4. The exit access travel distance cannot be increased as allowed in Section 1017.2.2 for extraction/cultivation facilities.

Section 3903.9 Signage

Section 3903.9 is added to Section 3903 Processing and Extraction, to read:

3903.9. Signage. The NFPA 704 hazard rating diamond sign, minimum 10” in size, and no smoking signs shall be posted on the exterior of the extraction room door.

Section 3903.9.1 Safety data sheets

Section 3903.9.1 is added to Section 303.9 Signage, to read:

3903.9.1 Safety data sheets. All applicable safety data sheets (SDS) shall be posted in the approved location.

Section 3903.9.2 Warning signage

Section 3903.9.2 is added to Section 3903.9 Signage, to read:

3903.9.2 Warning signage. Applicable hazard warning signage shall be posted throughout the facility as applicable for emergency equipment.

Section 3904.4 Site inspection

Section 3904.4 is amended to read:

3904.4 Site inspection. Prior to the operation of the extraction equipment, ~~where required by the fire code official,~~ the engineer of record or *approved* professional, as *approved* in Section 3904.2, shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis. The engineer of record or *approved* professional shall provide a report of findings to the *fire code official* prior to the approval of the extraction process. The field inspection report authored by the engineer of record shall include the serial number of the equipment used in the process and shall confirm that the equipment installed is the same model and type of equipment identified in the technical report.

Section 3904.5 Change of extraction medium

Section 3904.5 is added to Section 3904 Systems and Equipment, to read:

3904.5 Change of Extraction Medium. Where the medium of extraction or solvent is changed from the material indicated in the technical report or as required by the manufacturer, the technical report shall be revised at the cost of the facility owner and submitted for review and approval by the fire code official prior to the use of the equipment with the new medium or solvent.

Section 5601.1.3 Fireworks

Amend Section 5601.1.3 to read:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

1. Storage and handling of fireworks as allowed in Section 5604.
2. Manufacture, assembly and testing of fireworks as allowed in Section 5605.
3. The use of fireworks for fireworks displays as allowed in Section 5608.
4. ~~The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided such fireworks comply with CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks.~~

Section 5601.1.6 Exploding targets

Section 5601.1.6 is added to Section 5601.1 Scope, to read:

5601.1.6 Exploding targets. The possession, manufacture, sale, and use of exploding targets, including binary exploding targets, are prohibited.

Section 6101.1 Scope

Section 6101.1 is amended to read:

6101.1 Scope. Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the

installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58. In the

event of a conflict between any provision in this chapter and the regulations of the Board for the Regulation of Liquefied Petroleum Gas, the regulations of the Board take precedence.

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Appendix B is adopted in whole in accordance with 2018 Edition of the International Fire Code Section 101.2.

Section B102 Definitions

The following definition is added in Section B102 Definitions to read:

Special Fire Protection Problem Facilities. Special Fire Protection Problem Facilities are those facilities that consist of uses similar to fires that may result in large size fires or fires with high heat release such as bulk flammable liquid storage, bulk flammable gas storage, large varnish and paint factories, some plastics manufacturing and storage, aircraft hangars, distilleries, refineries, lumberyards, grain elevators, chemical plants, coal mines, tunnels, subterranean structures, storage facilities, and warehouses using high rack/piled storage for flammables or pressurized aerosols.

Section B103.3 Areas without water supply systems

Section B103.3 is amended to read:

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize the International Wildland-Urban Interface Code or NFPA 1142 where the site is not considered as a “special fire protection problem” as defined in Section B102.

Table B105.2 Required Fire Flow for Buildings Other Than One- and Two-Family Dwellings, Group R-3 and R-4 Buildings and Townhouses

Table B105.2 of Appendix B Fire-Flow Requirements for Buildings is amended to read as follows:

TABLE B105.2

REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (DESIGN STANDARD)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No auto sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the International Fire Code	25 <u>50</u> % of the value in Table B105.1(2) ^{a,b}	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the International Fire Code	25 <u>50</u> % of the value in Table B105.1(2) ^b	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

- ~~a. The reduced flow rate shall be not less than 1,000 gallons per minute.~~
- b. The reduced flow rate shall be not less than 1,500 gallons per minute.

APPENDIX C FIRE HYDRANT LOCATIONS AND DISTRIBUTION

Appendix C is adopted in whole in accordance with 2018 Edition of the International Fire Code Section 101.2.1.

Section C102.2 Distance to a Fire Department Connection (FDC)

Section C102.2 is added to Section C102 Number of Fire Hydrants for a building to read:

C102.2 Distance to a Fire Department Connection (FDC). The maximum distance from a fire hydrant to a fire department connection (FDC) supplying fire sprinklers and/or standpipes shall not exceed 100 feet, or as determined by the fire code official.

APPENDIX D FIRE APPARATUS ROADS

Appendix D is adopted in whole in accordance with 2018 Edition of the International Fire Code Section 101.2.1.

APPENDIX L REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS

Appendix L is adopted in whole in accordance with 2018 Edition of the International Fire Code Section 101.2.1.