

NORTHWEST FIRE DISTRICT

Amendments to the Northwest Fire District Fire Code 2024 Edition

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Northwest Fire District
2024 International Fire Code
Fire Code Amendments

The International Fire Code (IFC) 2024 Edition is hereby adopted by the Northwest Fire District Board for the purpose of establishing minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety protection from the hazards of fire, explosions, or dangerous conditions in new and existing buildings, structures, and premises.

The International Fire Code as adopted and amended herein shall be enforced by the Fire Marshal of the District, and which shall be operated under the supervision of the Fire Chief.

The 2024 edition of the International Fire Code (2024 IFC) and the Northwest Fire District Amendments shall be known as the “Fire Code of the Northwest Fire District.”

Amendments

The 2024 International Fire Code is hereby amended in the following respects:

CHAPTER 1 SCOPE AND ADMINISTRATION

SECTION 101 SCOPE AND GENERAL REQUIREMENTS

Amend section 101.1 as follows:

[A] 101.1 Title. This regulation shall be known as the *2024 International Fire Code with Northwest Fire District Amendments*, hereinafter referred to or cited as “this code”, or the Northwest Fire District Fire Code.

Delete and replace section 101.2.1 as follows:

[A] 101.2.1 Appendices. The following appendices are included as part of this code by the Northwest Fire District: B, C, D, F, H, I, L, N, O, and P as adopted and/or amended.

Appendix B	Fire-Flow Requirements for Buildings
Appendix C	Fire Hydrant Locations and Distribution
Appendix D	Fire Apparatus Access Roads
Appendix F	Hazard Ranking
Appendix H	Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions
Appendix I	Fire Protection Systems—Noncompliant Conditions
Appendix L	Requirements for Fire Fighter Air Replenishment Systems
Appendix N	Indoor Trade Shows and Exhibitions
Appendix O	Valet Trash and Recycling Collection in Group R-2 Occupancies
Appendix P	Fire Department Standard Details

SECTION 102 APPLICABILITY

Amend Section 102.7.1 as follows:

[A] 102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the higher standard for the promotion of the safety and welfare of the emergency responders and the public will apply.

Delete section 102.7.2 in its entirety.

SECTION 104

DUTIES AND POWERS OF THE FIRE CODE OFFICIAL

Add Section 104.12

104.12 Fees. The Fire Chief is authorized to establish and collect, with the approval of the Northwest Fire District Fire Board, any amount established by resolution, fees for any or all inspections or operational services authorized by this code. Permit and inspection fees and other operational fees of the Fire Department may be determined by the Fire Chief or designee and established through resolution.

SECTION 105

PERMITS

Amend Section 105.5.15 as follows:

[A] 105.5.15 Exhibits, trade shows, seasonal sales, and temporary sales. An operational permit is required to operate exhibits, trade shows, seasonal sales, and temporary sales stands or tents.

Add sections 105.6.26; 105.6.27; 105.6.28; 105.7; and 105.7.1

[A] 105.6.26 Access-controlled egress doors. A construction permit is required to install or modify access-controlled egress doors in accordance with Sections 1010.2.10, 1010.2.11 or 1010.2.13.

[A] 105.6.27 Delayed egress locks. A construction permit is required to install or modify delayed egress locks in accordance with Section 1010.2.12

[A] 105.6.28 Commercial kitchen cooking oil storage. A construction permit is required to install or modify cooking oil storage systems and their components in accordance with Section 607.

[A] 105.7 Business permit certificate. The Northwest Fire District shall issue a *business permit certificate* to persons or entities that install, modify, alter, add to, test, repair, or service any *fire alarm system, sprinkler system, standpipe system, fire main, fire pump or any other fire-extinguishing or detection system, device, or appliance*. All *business permit certificates* are required to be renewed on an annual basis and expire on December 31 of each year.

[A] 105.7.1 Suspension or revocation of a business permit certificate. The Fire Marshal may suspend or revoke a *business permit certificate* for due cause including, but not limited to, the following:

1. Three or more instances of performing work or activity without a permit within a two-year period.
2. The performance of any fraudulent installation including, but not limited to, installation of sprinklers without connection to piping system or installation of fire alarm devices without being connected to a fire alarm control panel.
3. Failure to provide fire district with proof of insurance.
4. Suspended or revoked Arizona Registrar of Contractors license.
5. Unsafe work practices that put the installers, members of the district, or the public at risk.

SECTION 108 FEES

Add Section 108.7

108.7 Exemption. When a federal agency, municipality, or municipal corporation declares itself exempt from the requirements of this code, including payment of applicable fees, the fire code official may elect not to provide inspections, plan reviews or similar services to the exempt buildings.

SECTION 109 INSPECTIONS

Add Section 109.5

109.5 Reinspection. A reinspection fee may be assessed for each permitted inspection or reinspection when such portion of work for which inspection is called, is not complete or when corrections called for are not made. If the items that were identified during the first reinspection of a particular phase are not corrected at the time of the reinspection, the permit will be locked out and further inspections will not be scheduled until a reinspection fee is paid. Reinspection fees may also be assessed when:

1. The permit is not posted or otherwise available on the work site.
2. The *approved* plans are not readily available to the inspector.
3. Access to the site is not provided on the date for which the inspection is scheduled.
4. A competent responsible party representative is not on-site at time of inspection.

5. Significant deviations from the approved plans are found that have not been *approved* by the *fire code official*.
6. The correct address is not provided so that an inspection can be made as scheduled.

Each reinspection will be assessed this fee. This procedure will be repeated on each phase of the installation and inspection process.

SECTION 112 MEANS OF APPEALS

Amend Section 112.1 as follows:

[A] 112.1 General. Whenever an applicant disputes the application or interpretation of this code by staff, a written appeal may be filed with the fire chief within 14 calendar days.

1. The appeal will be heard by the fire chief or an authorized representative within 10 working days of the receipt of the appeal.
2. Adequate information shall be provided by the applicant on the Petition of Appeal to fully describe the condition(s) in question.
3. The fire chief shall consult with the *fire code official*, and/or an authorized representative as deemed appropriate, to provide additional information regarding the appeal.
4. The applicant may, but is not required to, meet with the fire chief or a designated representative to discuss the appeal.
5. If the appeal is denied, the applicant shall comply with the requirement(s) of the fire code or file an appeal with the Fire District Board within 30 calendar days from the date the appeal was denied.

Delete Section 112.2 in its entirety

Delete Section 112.3 in its entirety

Amend Section 112.4 as follows:

[A] 112.4 Administration. The *fire code official* shall take action without delay in accordance with the decision of the fire chief.

SECTION 113 VIOLATIONS

Amend Section 113.4 as follows:

[A] 113.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair, or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a criminal infraction with associated penalties as determined by the appropriate law enforcement agency having jurisdiction and the applicable court system.

SECTION 114 STOP WORK ORDER

Amend Section 114.4 as follows:

[A] 114.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to correct a violation or unsafe condition, shall be guilty of a *violation penalty* in accordance with Section 113.4.

CHAPTER 2 DEFINITIONS

SECTION 202 GENERAL DEFINITIONS

Business permit certificate. Is added to read:

BUSINESS PERMIT CERTIFICATE. A business permit certificate is a permit required for companies to inspect, install, modify, alter, add to, test, repair or service any fire alarm system, automatic sprinkler system, standpipe system, fire main, fire pump, or any other fire extinguishing or detection system, device, or appliance. Applicants must submit the appropriate documentation required on the permit application and be in good standing with the Arizona Registrar of Contractors in their respective discipline(s) before a business permit certificate will be issued.

Construction and development handbook. Is added to read:

NORTHWEST FIRE DISTRICT FIRE CODE CONSTRUCTION AND DEVELOPMENT HANDBOOK. A publication developed by the Northwest Fire District to assist contractors, engineers, architects, developers, and other members of the public in navigating through required procedures, installation methods and standard details within the Northwest Fire District.

Contractors list. Is added to read:

NORTHWEST FIRE DISTRICT APPROVED CONTRACTORS LIST. A list of approved contractors who have obtained a business permit certificate by demonstrating the minimum basic knowledge of their respective disciplines and maintaining the required licensing, training, and certifications to perform such work within the Northwest Fire District.

Driveway. Is added to read:

DRIVEWAY. A vehicular ingress and egress route that connects a building or structure to a fire department access road.

Interior tenant notification. Is added to read:

INTERIOR TENANT NOTIFICATION. Notification appliances placed within the interior spaces of occupancies equipped with an *automatic sprinkler system*. These appliances are intended to alert occupants of a potential fire condition within the building when the *automatic sprinkler system* water flow switch is activated.

Maintenance. Is added to read:

MAINTENANCE. The repair or replacement of defective or damaged equipment, systems, or programming with an exact duplicate model. Maintenance also includes testing of equipment.

Modification. Is added to read:

MODIFICATION. Any change or reprogramming of any *existing* fire and life safety equipment or system regulated by this code, that is not the exact same model, area or programming from the original equipment or installation.

Permit and fee schedule. Is added to read:

NORTHWEST FIRE DISTRICT ADOPTED FEE SCHEDULE. A document adopted through resolution by the Northwest Fire District Fire Board that details the scope, application, and values of all applicable fees charged by the Northwest Fire District.

Portable fryer appliance. Is added to read:

PORTABLE FRYER APPLIANCE. A portable deep fat fryer must:

1. Be *listed* for operation without required hoods or vents;

2. Be powered by electrical energy only (no fuel-gas connection allowed);
AND
3. Contain an internal fire extinguishing system compliant with Section 904.

If a fryer appliance does not meet all those requirements, it shall be classified and protected as a *medium-duty cooking appliance* in accordance with the *International Mechanical Code*.

Residential dry standpipe. Is added to read:

RESIDENTIAL DRY STANDPIPE. A standpipe installed to assist in providing an available water supply for firefighting operations when access to a residential structure is otherwise limited.

Shell building. Is added to read:

SHELL BUILDING. A building shell, or envelope, includes all components that separate the interior space within a structure from the surrounding exterior areas. The shell may be composed of many different features, including walls, windows, doors, roofing, footers, and foundations that is constructed without prior knowledge of the specific occupants, improvements or hazards that will be present within the structure.

Strip mall. Is added to read:

STRIP MALL. A single commercial building, of two or fewer floors, that is divided into separate spaces for business uses such as retail stores, drinking and dining establishments, offices, or other similar service establishments, which have separate outside entrances and exits and share a parking lot.

SECTION 203 OCCUPANCY CLASSIFICATION AND USE

Amend Section [BG] 203.7.1 as follows:

Institutional Group I-1. The first sentence is amended to read:

Institutional Group I-1 occupancies shall include buildings, structures or portions thereof for more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care.

Amend Section [BG] 203.7.1.3 as follows:

[BG] Six to 16 persons receiving custodial care. Is amended to read:

[BG] Six to 10 persons receiving custodial care. A facility housing not fewer than six and not more than 10 persons receiving custodial care shall be classified as Group R-4.

Amend Section [BG] 203.9.3 as follows:

Residential Group R-3. *Congregate living facilities* is amended to read:

Congregate living facilities (transient or nontransient) with 10 or fewer occupants

Amend Section [BG] 203.9.4 as follows:

Residential Group R-4. The first sentence is amended to read:

Residential Group R-4 occupancies shall include buildings, structures or portions thereof for more than five but not more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care.

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 304 COMBUSTIBLE WASTE MATERIAL

Add Section 304.1.1.1

304.1.1.1 Valet trash services. Valet trash services utilized in any occupancy with individual units or suites that open into a corridor or breezeway shall, at a minimum, comply with the requirements for R-2 occupancies as outlined in Appendix O.

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

SECTION 403 EMERGENCY PREPAREDNESS REQUIREMENTS

Add Section 403.9.4

403.9.4 Group R-3 occupancies. Group R-3 occupancies utilized as care facilities that are licensed to provide directive care shall prepare and maintain an *approved* fire safety and evacuation plan in accordance with Section 404. Such occupancies shall comply with the requirements outlined in Section 403.9.3.

CHAPTER 5 FIRE SERVICE FEATURES

SECTION 507 FIRE PROTECTION WATER SUPPLIES

Add Section 507.5.1.2

507.5.1.2 Hydrants for commercial vehicle parking areas. Commercial parking lots and exterior storage areas exceeding 48,000 square feet (4460 m²) in size designed for: long-term vehicle parking over 24 hours, vehicle storage including those awaiting sale, recreational vehicle storage, boat storage, or the housing of combustible mobile storage containers shall be provided with a hydrant system as if it were a building in accordance with Appendix C. Minimum fire flow requirements shall be based on the values established in Section B105.3.1 (amended).

Add Section 507.5.7

507.5.7 Reflective pavement markers. All fire hydrants and automatic fire sprinkler fire department connections shall be identified by the installation of *approved* four-inch (10 cm) by four-inch (10 cm) reflective raised pavement markers placed in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*.

SECTION 510 EMERGENCY RESPONDER COMMUNICATIONS ENHANCEMENT SYSTEMS

Add section 510.5.6

510.5.6 Emergency responder communication enhancement system (ERCES) infrastructure. New buildings or structures shall be required to install, at a minimum, two-inch (five cm) Electrical Metallic Tubing (EMT) conduit (between floors where applicable) dedicated for potential ERCES use. The conduit will have a breakout box in an equipment room for cables to be pulled. Guide wire will be provided in the conduit (between each floor, where applicable) in the breakout box. Conduit and breakout boxes shall be installed in accordance with NFPA 70. The conduit and breakout box will be labeled "PUBLIC SAFETY USE ONLY!". If it is determined that after all construction is complete that ERCES equipment is required, the conduit will make installation easier and more economical to the building owner. Such ERCES infrastructure shall be provided for the following:

1. New multi-story or multi-level buildings or structures;

2. New single-story buildings or structures totaling 45,000 square feet (4180 m²) or more in size;
3. New buildings or structures containing a basement or other subterranean space totaling 250 square feet (23 m²) in size;
4. Any new building or structure that the *fire code official* has determined to have been constructed in a manner which may limit, or with materials likely to limit, the ability of emergency response personnel to effectively use emergency radio communication while within that building or structure.

New building or structures containing any underground parking areas will be required to provide the capability for a future rooftop antenna to be installed, if deemed necessary, in addition to the above requirements for ERCES infrastructure.

Add Section 510.5.6.1

510.5.6.1 Acceptance. As part of the installation, a final inspection of the ERCES infrastructure shall be required prior to the issuance of an approved Final Fire inspection report.

Add Section 511; 511.1; 511.1.1, and 511.2

SECTION 511 CONTROLLED ACCESS GATES

511.1 General. New and existing controlled access gates installed across fire department access roads and *driveways* shall be *approved* by the *fire code official*. The provisions of this chapter shall apply to the installation, operation, and *maintenance* of controlled access gates, including those installed in accordance with Sections 503.5 and/or 503.6.

Exception: Controlled access gates installed across *driveways* serving one individual single-family residence.

511.1.1 Controlled access gate type. All new and existing controlled access gates installed across fire department access roads shall be of an *approved* manual or automatic type.

Exception: Automatic gates are prohibited across dead-end fire department access roads without *approved* turnarounds installed in accordance with Appendix D.

511.2 Compliance. New and existing controlled access gates regulated by Section 503.5, 503.6, or elsewhere in this code shall be constructed, installed, and maintained in

accordance with UL325, ASTM F2200, and the current Northwest Fire District *Fire Code Construction and Development Handbook*.

Add Section 512 and 512.1

SECTION 512 DRIVEWAYS

512.1 General. *Driveways* exceeding 200 feet (6096 cm) in length shall provide a minimum unobstructed width of 14 feet (4,267 mm) and a minimum unobstructed height of 13 feet six inches (4,115 mm). Such *driveways* shall not exceed 10 percent in grade.

Exception: Where provided with a *residential dry standpipe* in accordance with Sections 905.8.1 and 905.8.2 and *approved* by the *fire code official*.

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

SECTION 901 GENERAL

Amend Section 901.2 by adding a second paragraph as follows:

901.2 Construction documents. Automatic *fire protection system* hydraulic calculations shall be based on a curve that is 90 percent of the available water supply curve as determined by current flow test information. The *fire code official* shall witness all flow tests.

Amend Section 901.4 by adding second paragraph as follows:

901.4 Fire protection and life safety systems. The design, installation, *modification*, or *maintenance* of fire protection systems shall be performed only by entities with a current Northwest Fire District *business permit certificate*. Only qualified professionals (NICET Level III or higher) or applicable Arizona registrants shall design or modify fire alarm systems or sprinkler systems requiring hydraulic calculation engineered to the standards outlined in Section 903.3.1.1.

Add Section 901.4.7.5 as follows:

901.4.7.5 Minimum size. Rooms containing fire pump equipment and fire riser rooms for sprinkler systems installed in accordance with Section 903.3.1.1 shall be a minimum of four-feet (121 cm) by four-feet (121 cm) in size.

Add Section 901.4.7.6 as follows:

901.4.7.6 Room access. Pump and fire riser rooms shall have a door directly accessible from the exterior of the building.

Add Section 901.6.3.2 as follows:

901.6.3.2 Notification. All contractors performing inspections, tests or *maintenance* required by the referenced standards, shall forward itemized reports of such work to the *fire code official* within 30 days of the activity performed.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

Delete and replace Sections 903.2.2.1 and 903.2.8.2 as follows:

903.2.2 Ambulatory care facilities. An *automatic sprinkler system* shall be provided throughout buildings containing an ambulatory care facility.

903.2.8.2 Group R-4, Condition 1. Group R-4, Condition 1 occupancies shall be required to meet the *automatic sprinkler system* requirements outlined in Section 903.3.1.2.

Add Section 903.2.11.7

903.2.11.7 Strip malls, multi-occupant, or shell buildings. An *automatic sprinkler system* shall be installed throughout all strip malls, multi-occupant, shell buildings, or similar type buildings.

Delete existing Section 903.3.1.1.2 in its entirety (see Section 903.7)

Add Section 903.3.1.1.2

903.3.1.1.2 Minimum design requirements. The minimum design requirements for *automatic fire sprinkler systems* installed per section 903.3.1.1 shall be as determined by Section 903.3.1.1.2.1 or by the NFPA 13 for the respective hazard and commodity classification present, whichever is greater.

Add Section 903.3.1.1.2.1

903.3.1.1.2.1 Strip malls, multi-occupant, or shell buildings. The minimum sprinkler design density for all new multi-occupant or shell buildings shall be Ordinary Hazard (Group 2) as outlined in NFPA 13.

Add Section 903.3.1.1.4

903.3.1.1.4 Storage, shell buildings. Buildings with areas primarily utilized for storage with an interior ceiling height in the storage area 20 feet (6096 mm) or more above the finished floor shall be provided with a minimum eight-inch (203 mm) underground connection from an *approved* water supply to the bottom of the *automatic sprinkler system* riser where adequate public or private water systems are present.

Add Section 903.3.1.2.4

903.3.1.2.4 Exterior storage closets. Sprinkler protection shall be extended into attached exterior storage closets in R-1 and R-2 occupancies protected with an *automatic sprinkler system* installed in accordance with Section 903.3.1.2.

Add Section 903.3.1.2.5

903.3.1.2.5 Attached garages and carports. Attached garages and carports shall be provided with sprinkler protection.

Add Section 903.3.1.3.1

903.3.1.3.1 Installation requirements. *Automatic sprinkler systems* installed in accordance with Section 903.3.1.3 are required to comply with all the following:

1. A listed electric bell is required to be installed on the exterior of the building and shall automatically sound upon receiving a signal from the *automatic sprinkler system* water flow switch. The electric bell shall be listed for its application, rated for exterior installation, and be installed in accordance with the manufacturer's specifications.
2. Attached garages are required to be protected by the *automatic fire sprinkler system*. Residential or quick-response sprinklers and the same piping installed in the rest of the system shall be used. Coverage, spacing, and installation requirements shall be compliant with NFPA 13D and the sprinklers' respective listings. Intermediate temperature-rated sprinklers shall be installed where appropriate.
3. NFPA 13D *automatic sprinkler system* risers shall be installed in a wall cavity with an *approved* access panel.

4. Partially enclosed exterior porches, patios, and balconies are required to be protected by the *automatic sprinkler system* if they meet all the following conditions:
 - a. The enclosure area is constructed of combustible material.
 - b. The porch is enclosed on at least three sides with the smallest dimension being 48 inches (1219 mm) deep or greater.
 - c. A means of egress (to include bedroom windows) from the structure is present and opens into the enclosed area.
5. Sprinkler pipe installed in areas subject to freezing conditions shall be protected with insulating pipe wrap or an *approved* alternative.

Amend Section 903.3.5 as follows:

903.3.5 Water supplies. Water supplies for *automatic sprinkler systems* shall comply with this section and the standards referenced in Section 903.3.1. For connections to public waterworks systems, the water supply test used for design of *fire protection systems* shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as *approved* by the *fire code official*.

Add Section 903.4.2.1

903.4.2.1 Water-flow notification. Unless a *manual or automatic fire alarm system* is required elsewhere in this code, *interior tenant notification* shall be provided whenever a monitored *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 is present. An *approved* audible/visual notification appliance shall be installed within a normally occupied interior area of each building or tenant space. Americans with Disabilities Act (ADA)-compliant restrooms inside each building or tenant space shall have a visual notification appliance installed within the restroom area. The notification appliances shall be activated by an *approved* means upon water-flow detection from the *automatic sprinkler system* water-flow switch. Systems shall be required to be installed when:

1. New buildings are constructed: *Interior tenant notification* in accordance with the requirements of 903.4.2.1 shall be provided for all newly constructed buildings containing a monitored *automatic sprinkler system*. If a multi-tenant shell building is constructed, each individual space created by demising walls shall be provided with *interior tenant notification* in accordance with the requirements of 903.4.2.1.

2. *Alterations* occur within buildings or tenant spaces containing a monitored *automatic sprinkler system*. When a building or tenant space undergoes an *Alteration—Level 2* or *Alteration—Level 3* as defined by the 2024 *International Existing Building Code (IEBC)*, *interior tenant notification* shall be provided in accordance with the requirements of 903.4.2.1.
3. A building or tenant space containing a monitored *automatic sprinkler system* undergoes a change in occupancy type or use: *Interior tenant notification* in accordance with the requirements of 903.4.2.1 shall be provided for all areas undergoing a change in occupancy type or use.

The requirements for notification appliance quantities and placement may be increased or adjusted based on occupancy-specific hazards at the discretion of the *fire code official*.

Add Section 903.7

903.7 Bathrooms. Group R occupancies, or areas utilized as Group R areas within another occupancy, that are equipped throughout with an *automatic sprinkler system* in accordance with Sections 903.3.1.1, 903.3.1.2, or 903.3.1.3, shall be required to provide sprinkler protection in all bathroom areas.

Exception: Bathrooms that do not exceed 24 square feet (2.23 m²) in area and are located within individual dwelling units or sleeping units, provided that walls and ceilings, including the walls and ceilings behind a shower enclosure or tub are of noncombustible or limited combustible materials with a 15-minute thermal barrier rating.

SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS

Add Section 904.16

904.16 Portable Fryer Appliances. Portable fryer appliances must be Underwriters Laboratories (UL) listed for their application and installed in accordance with the manufacturer's specifications. Portable fryers shall be set up in an *approved* location and shall not be relocated without the approval of both the *fire code official* and the governing health department. Portable fryers must have their factory appliance cables plugged directly into a permanent power receptacle without the use of intervening electrical components. Portable fryers with an oil capacity exceeding 6.00 gallons (2271 ml) must have their internal fire suppression system tied into the building's occupant notification system, where applicable, in accordance with section 907.5. Internal fire

extinguishing systems are required to be maintained in accordance with section 904.12.5.

SECTION 905 STANDPIPE SYSTEMS

Amend Section 905.8 as follows:

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing, where installed in accordance with NFPA 14, or when required by Section 905.8.1.

Add Section 905.8.1

905.8.1 Residential dry standpipes. *Residential dry standpipes* shall be installed when *driveways* do not meet the requirements outlined in Section 512 or as required by the *fire code official*.

Add section 905.8.2

905.8.2 Installation requirements. *Residential dry standpipes* required by Section 905.8.1 shall be installed in accordance with their respective standards and the current Northwest Fire District *Fire Code Construction and Development Handbook*.

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

Add section 907.2.24

907.2.24 Group R-4. Fire alarm systems and smoke alarms shall be installed in Group R-4 occupancies as required in Sections 907.2.24.1 through 907.2.24.3.

Add section 907.2.24.1

907.2.24.1 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-4 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual *sleeping units* and contiguous attic and crawl spaces to those units are separated from each other and public or common areas

by at least 1-hour *fire partitions* and each individual *sleeping unit* has an *exit* directly to a *public way, egress court* or yard.

2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:

2.1. The building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2;

2.2. The notification appliances will activate upon sprinkler water flow; and

2.3. At least one manual fire alarm box is installed at an *approved* location.

3. Manual fire alarm boxes in resident or patient sleeping areas shall not be required at *exits* where located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.2.1 are not exceeded.

Add section 907.2.24.2

907.2.24.2 Automatic smoke detection system. 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. or 903.3.1.2

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 912 FIRE DEPARTMENT CONNECTIONS

Amend Section 912.2 as follows:

912.2 Location. Fire department connections installed in accordance with Section 903.3.1.1 shall be located a maximum of 200 feet (6096 cm) from the nearest fire hydrant. With respect to hydrants, *driveways*, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be approved by the *fire code official*. Each fire

department connection shall be identified by an approved permanent weather resistant sign in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*.

SECTION 916 GAS DETECTION SYSTEMS

Add Section 916.10.1

916.10.1 Fire alarm system connections for insulated liquid carbon dioxide systems.

Where applicable, insulated liquid carbon dioxide systems with more than 100 pounds (45.4 kg) of carbon dioxide shall be connected to the building fire alarm system in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook* and the manufacturer's specifications.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS

Amend Section 1103.5.3

1103.5.3 Group I-2, Condition 2. In addition to the requirements of Section 1103.5.2, existing occupancies of Group I-2, Condition 2 occupancy shall be equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1. The *automatic sprinkler system* must be installed within 12 months of identification and evaluation.

Add Section 1103.5.6 and 1103.5.1.1

1103.5.6 Fire area increase. An *automatic sprinkler system* shall be provided throughout existing buildings other than one- and two-family *dwelling*s undergoing a *fire area* increase when the square footage of the new *fire area* is greater than 25 percent of the existing fire area and any of the following conditions exist:

1. The available *fire-flow* is less than the *fire-flow* required by Appendix B of this code based upon the new total *fire area*.
2. An *automatic sprinkler system* is required by Section 903 of this code based upon the occupancy type and new total *fire area*.

1103.5.6.1 Fire area increase for existing one- and two-family dwellings. *Fire-flow* as required by Appendix B of this code shall be met for existing one- and two-family *dwellings* undergoing a *fire area* increase where all the following apply:

1. The square footage of the new *fire area* is greater than 50 percent of the total *fire area* of the existing structure.
2. The new combined *fire area* (new and existing) exceeds 3,600 square feet (334 m²).

Add section 1103.5.7

1103.5.7 Existing Group R-3 and R-4 residential facilities. All existing Group R-3 and R-4 residential facilities shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.8. Existing facilities shall be upgraded within 12 months of identification and evaluation.

Exception: Buildings equipped throughout with a previously *approved automatic sprinkler system*.

Add Section 1103.7.7

1103.7.7 Existing Group R-3 and R-4 residential facilities. A manual fire alarm system that activates an occupant notification system in accordance with section 907.5 shall be installed in existing Group R-3 and R-4 residential facilities in accordance with section 907.2.24.

Exception: Where the building is equipped throughout with smoke alarms meeting the requirements of Section 907.2.11 that are interconnected in accordance with Section 907.2.11.5.

CHAPTER 31 TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES

SECTION 3103 TEMPORARY TENTS AND MEMBRANE STRUCTURES

Add Section 3103.1.1

3103.1.1 Compliance. Tents and membrane structures regulated by this code shall be constructed and operated in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*.

3103.5.1 Tent staking or ballasting plan. The Tent or Canopy owner, or the Tent or Canopy Rental Company that is responsible for the tent and the tent installation must provide the installation instructions in accordance with the *Industrial Fabrics Association International (IFAI) Safe Installation and Maintenance of Tents and Fabric Structures Procedural Handbook* at the time of application. Detailed documentation on how those requirements will be met must be reviewed before the permit is issued and approved.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 3310 ACCESS FOR FIRE FIGHTING

Amend Section 3307.1 as follows:

3307.1 Required access. Fire department access shall be *approved* by the *fire code official* and constructed/maintained in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*.

CHAPTER 50 HAZARDOUS MATERIALS—GENERAL PROVISIONS

SECTION 5003 GENERAL REQUIREMENTS

Amend Section 5003.13 as follows:

5003.13 Outdoor rooftop storage, use, and handling. Storage, use, and handling of hazardous materials on top of roofs or canopies shall be prohibited unless the roof or canopy has been specifically engineered for that purpose, complies with Sections 5003.13.1 through 5003.13.5, and is *approved* by the *fire code official*. Engineering controls for rooftop storage of hazardous materials may include, but are not limited to, fire-rated stairwell access to the rooftop provided in accordance with the *International Building Code*, a standpipe system compliant with Section 905, and/or any other control measures necessary to ensure safe firefighting operations.

CHAPTER 53 COMPRESSED GASSES

SECTION 5307

COMPRESSED GASSES NOT OTHERWISE REGULATED

Amend Section 5307.3 as follows:

5307.3 Insulated liquid carbon dioxide systems. New and existing insulated liquid carbon dioxide systems with more than 100 pounds (45.4 kg) of carbon dioxide shall be *approved* by the *fire code official*, constructed, and maintained in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*, and, where applicable, connected to the building fire alarm system in accordance with Section 916.10.1 (amended).

CHAPTER 80 REFERENCED STANDARDS

Amend Chapter 80 by adding the following references:

ATA

*Advanced Textiles Association
1801 County B Road W
Roseville, MN 55113*

- *Non-Engineered Ballasting Tool (NEBT)*
- *Ballasting Tool (EBT)*

IFAI

*Industrial Fabrics Association International
1801 County B Road W
Roseville, MN 55113*

- *Safe Installation and Maintenance of Tents and Fabric Structures Procedural Handbook (6th Edition, 2017)*

NWFD

*Northwest Fire District
13535 North Marana Main Street
Marana, AZ 85653*

- *Northwest Fire District Fire Code Construction and Development Handbook*
- *Northwest Fire District Adopted Fee Schedule*

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Amend Section B105.2 as follows:

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum *fire-flow* and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and *townhouses* shall be specified in Table B105.1(2) and modified by B105.3.1.

Add Section B105.3.1

B105.3.1 Water supply for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses equipped with an automatic sprinkler system. A reduction in required *fire-flow* and flow duration of up to 75 percent, as approved by the *fire code official*, is allowed for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and *townhouses* when the building is equipped throughout with an approved *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting *fire-flow* and flow duration shall not be less than 1,500 gallons per minute (5678 L/min) for two hours as specified in Table B105.1(2).

Delete Table B105.2 in its entirety

Add Section B105.4

B105.4 Insufficient Fire-flow. Where buildings are not able to meet *fire-flow* requirements in accordance with Section B105.1, an *automatic fire sprinkler system* may be accepted as a design alternative by the *fire code official*.

APPENDIX D FIRE APPARATUS ACCESS ROADS

SECTION D103 REQUIRED ACCESS

Amend Section D102.1 as follows:

D102.1. Access and loading. Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire department apparatus access road installed in accordance with the provisions of this code and the Northwest Fire District *Fire Code Construction and Development Handbook*.

SECTION D103 MINIMUM SPECIFICATIONS

Delete Section D103.5 in its entirety

APPENDIX L REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS

SECTION L101 GENERAL

Add Section L101.2

L101.2 Where required. A *fire fighter air replenishment system (FARS)* shall be required to be installed in the following buildings:

1. *High-rise buildings.*
2. Buildings with basements or underground areas five or more floors below the lowest level of fire apparatus access.

SECTION L104 DESIGN AND INSTALLATION

Add to Section L104.13.1 as follows:

L104.13.1 Location.

3. Additional fill stations for refilling breathing air cylinders may be required as determined by the *fire code official* on a case-by-case basis based on operational needs and challenges presented at each individual project.

APPENDIX P

FIRE DEPARTMENT STANDARD DETAILS

Add Section P101

SECTION P101

GENERAL

P101.1 Scope. The Northwest Fire District has approved standard details for both new and existing buildings located within the Northwest Fire District. These details can be used by building owners, property representatives, design professionals and contractors to determine the acceptable installation standards. The details can be modified, reviewed and approved by the Northwest Fire District as needed.

P101.2 Compliance. All standard details for new and existing buildings regulated by this code shall be constructed, installed, and maintained in accordance with the current Northwest Fire District *Fire Code Construction and Development Handbook*. This includes, but is not limited to, all processes, markings, signage, fire department access, construction, and fire service feature requirements.