

780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2021*

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

[F] 403.4.5 Emergency communication coverage. Revise as follows.

In-building, two-way emergency responder communication coverage shall be provided in accordance with 780 CMR Chapter 9.

404.2 Use. Change *International Fire Code* to 527 CMR 1.00: Chapter 12.

[F] 404.3 Automatic sprinkler protection. Delete exception number 1.

406.5.2.2 Add subsection as follows.

Where barriers, textile, scrim, or other covering is added to an exterior wall of an open parking garage, the material shall be evaluated to verify that it does not obstruct natural ventilation. If the material is found to obstruct natural ventilation, the portion of the exterior wall obstructed shall not be included in the calculation of the open perimeter for the purposes of determining an open parking garage.

406.6.4 Mechanical-access enclosed parking garages. Revise as follows.

Mechanical-access enclosed parking garages and buildings containing *automated-type parking*, or portions thereof, shall be in accordance with Sections 406.6.4.1 through 406.6.4.4.

406.6.4.4 Access for fire service and maintenance personnel. Revise as follows.

Access for fire service and maintenance personnel shall be provided in accordance with Chapter 10 and as follows:

1. Fire service access doors shall be provided in exterior wall facing fire department vehicle access roads (which are defined and regulated by 527 CMR 1.00: Chapter 18), spaced no more than 150 ft apart.
2. Access shall be provided to each level of parking and the lowest level of the garage or structure.
3. Horizontal walkways for access shall be provided at intervals of 19.5 ft (6m) vertically and 98.5 ft (30 m) horizontally.
3. Travel distance to the exterior or to an enclosed stair shall not exceed 400 ft (122m).
4. A minimum of one exterior door shall be provided at grade for every stair.

406.7 Motor fuel-dispensing facilities. Revise as follows.

Motor fuel-dispensing facilities shall comply with 527 CMR 1.00: Chapter 42 and Sections 406.2 and 406.7.

406.8 Repair garages. Revise as follows.

Repair garages shall be constructed in accordance with 527 CMR 1.00: Chapter 30 and Sections 406.2 and 406.8. This occupancy shall not include motor fuel-dispensing facilities, as regulated in Section 406.7.

[F] 406.8.3 Automatic sprinkler system. Change Section 903.2.9.1 to this code.

407.1 General. Add subsection as follows.

407.1.1 M.G.L. requirements. Hospitals, nursing homes, and convalescent homes shall be constructed of at least Type IB construction in accordance with M.G.L. c. 111, §§ 51 and 71.

407.4 Means of egress. Change Sections 403 and 404 of the *International Fire Code* to 527 CMR 1.00.

[F] 408.11 Automatic sprinkler system. Change to Section 903.2.6 this code.

410.2.6 Scenery. Revise as follows.

Combustible materials used in sets and scenery shall meet the fire propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701, in accordance with 527 CMR 1.00: Chapter 12.

Foam plastics and materials containing foam plastics shall comply with Section 2603 and 527 CMR 1.00: Chapter 32.

410.5 Means of egress. Revise as follows and Delete points 1, 2, and 3.

Except as modified or as provided for in this section, the provisions of Chapter 10 shall apply.

[F] 412.5.1 Occupancy classification. Change the *International Fire Code* to 527 CMR 1.00: Chapter 43 for such occupancy.

SECTION 413 Revise title to **COMBUSTIBLE STORAGE & BULK MERCHANDISING**

413.2 Attic, under-floor and concealed spaces. Revise exception and Add subsections as follows.

Exception: Neither fire-resistance-rated construction nor opening protectives are required in any of the following locations where not required by 780 CMR 7.

413.3 Bulk Merchandising. Unless otherwise noted in this section, the requirements for bulk merchandising retail buildings shall be in accordance with the requirements for high-piled combustible storage, and as set forth for Group M and Section 414.

413.4 Construction documents. At the time of building permit application for new structures designed to accommodate high-piled storage or for requesting a change of occupancy/use, and at the time of application for a storage permit, plans and specifications shall be submitted for review and approval. In addition to the information required by this code, the storage permit submittal shall include the information specified in this section. The construction documents shall include all of the following:

1. Floor plan of the building showing locations and dimensions of high-piled storage areas.
2. Usable storage height for each storage area.
3. Number of tiers within each rack, if applicable.
4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. Maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with Chapter 32 of the International Fire Code.
8. Location of commodities that are banded or encapsulated.
9. Location of required fire department access doors.
10. Type of fire protection systems.
11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.
12. Type, location and specifications of smoke removal and curtain board systems.
13. Dimension and location of transverse and longitudinal flue spaces.
14. Additional information regarding required design features, commodities, storage arrangement and fire protection features within the high-piled storage area shall be provided at the time of permit, where required by the building official.

413.4.1 Approved construction documents. Following approval of the construction documents, a copy of the approved plans shall be maintained on the premises in an approved location.

413.5 Approved storage layout. A floor plan, of legible size, shall be provided, mounted on a wall and protected from damage. The floor plan shall be mounted in an approved location and show the following:

1. Locations, dimensions and rack layout of high-piled storage areas.
2. Design storage height for each storage area.
3. Types of commodities.
4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. For palletized and solid-piled storage, the maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with Section 3203 of the International Fire Code.
8. Location of required fire department access doors.

9. Location of valves controlling the water supply of ceiling and in-rack sprinklers.

413.6 Fire safety and evacuation plan. A fire safety and evacuation plan shall be submitted at the time of permit application to the head of the fire department for review and approval in accordance with 527 CMR 1.00. A copy of the approved fire safety and evacuation plan shall be maintained on the premises in an approved location.

413.6.1 The evacuation plan shall detail procedures, define roles and responsibilities of employees, and shall include an egress plan indicating routes of travel to all exits. The evacuation plan shall be used to ensure the safe evacuation of all customers and employees. All employees shall be instructed and periodically trained with respect to their duties, as required by 527 CMR 1.00: Chapter 10.

413.6.2 The certificate of use and occupancy shall not be issued until the fire safety and evacuation plan has been reviewed and approved by the head of the fire department.

413.6.3 Any changes to the evacuation plan shall not be effected until a revised plan has been submitted to and approved by the head of the fire department.

413.7 Hose Connections. A Class I automatic, wet standpipe system shall be provided in accordance with NFPA 14. Hose connections shall be located around the interior perimeter of the building within five feet of all required fire department access doors, adjacent to the latch side of the door. Hose connections shall be installed to accommodate 200 feet of travel distance to any point in the building.

413.7.1 Where the most remote portion of the building exceeds 200 feet of travel distance from the required access doors, additional hose connections shall be provided in locations approved by the head of the fire department. Hose connections shall be readily accessible and marked for fire department use only.

413.7.2 When approved by the head of the fire department the following exceptions shall be permitted:

1. Hose connections may be omitted when the following fire department building access and fire hydrant coverage is provided: minimum 20 feet wide, unobstructed access roadways located within 20 feet of the building on at least three sides, compliant with applicable provisions of 527 CMR 1.00: Chapter 18; minimum ten feet wide, unobstructed access route between the access roadway and the fire department access doors; and, fire hydrants in locations approved by the head of the fire department.

2. In lieu of a Class I standpipe system, a Class II automatic, wet standpipe system in accordance with NFPA 14 shall be permitted when the following fire department building access and fire hydrant coverage is provided: minimum 20 feet wide, unobstructed access roadways located within 50 feet of the building on at least three sides, compliant with applicable provisions of 527 CMR 1.00: Chapter 18; minimum ten feet wide, unobstructed access route between the access roadway and the fire department access doors; and, fire hydrants in locations approved by the head of the fire department. The hose connections shall be located as described above for the Class I standpipe system. Occupant hose shall not be required, and the hose connections shall be marked for fire department use only.

413.8 Fire department access doors. Fire department access doors shall be provided for fire department emergency access. Fire department access doors may be used as occupant egress doors. Access doors shall comply with all the following provisions:

1. Located adjacent to fire department access roadways,
2. Provided with an approved exterior fire department accessible key cylinder operable lock device,
3. Provided with approved fire department identification signs, and
4. Provided such that all points of the floor area are accessible within 200 feet of travel distance.

413.9 Fire department vehicle access. Fire department vehicle access comply with the provisions of 527 CMR 1.00: Chapter 18 and shall be provided on at least two sides of the building with such access to be approved by the head of the fire department prior to any construction.

413.9.1 Fire hydrants shall be provided in locations approved by the head of the fire department.

413.10 Means of Egress. Exit access travel distance shall be limited to 200 feet.

413.10.1 For bulk merchandising buildings, if the only means of customer entrance is through one exterior wall of the building, two thirds of the required egress width shall be located in this wall. At least one half of the required exits shall be located so as to be reached without passing through checkout stands. In no case shall checkout stands or associated railings or barriers obstruct exits, required aisles, or approaches thereto.

413.11 Fire protection systems. Fire protection systems shall be installed in accordance with Chapter 9 of this code and the International Fire Code. There are specific sprinkler criteria included in the IFC that apply to high-piled combustible storage. Also, provisions on sprinklers and fire alarm systems related to these occupancies in Chapter 9.

413.12 Hazardous material storage. Hazardous material storage shall be compliant with this code and 527 CMR 1.00: Chapter 60.

414.2 Control areas. Control areas shall comply with Sections 414.2.1 through 414.2.5 and the *International Fire Code*.

Exception: *Laboratory suites* in accordance with Section 428 and 527 CMR 1.00 Chapter 26.

[F] **416.1 General.** Change *International Fire Code* to 527 CMR 1.00: Chapter 43.

[F] **416.2.3 Ventilation.** Change *International Fire Code* to 527 CMR 1.00: Chapter 43 and the International Mechanical Code.

[F] **416.4 Spray booths.** Change *International Fire Code* to 527 CMR 1.00: Chapter 43.

[F] **419.1 Artificial decorative vegetation.** Change *International Fire Code* to 527 CMR 1.00: Chapter 12.

[F] **420.4 Automatic sprinkler system.** Revise as follows.

Group R occupancies shall be equipped throughout with an automatic sprinkler system in accordance with 780 CMR. Group I-1 occupancies shall be equipped throughout with an automatic sprinkler system in accordance with 780 CMR 1.00. Quick-response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.

[F] **421.1 General.** Add the words and 527 CMR 1.00: Chapter 63 to end of section.

[F] **422.4 Automatic sprinkler systems.** Change Section 903.2.2 to 780 CMR.

[F] **426.1 General.** Change *International Fire Code* to 527 CMR 1.00: Chapter 40.

[F] **426.1.4 Explosion control.** Change *International Fire Code* to 527 CMR 1.00.

[F] **427.1 General.** Change *International Fire Code* to 527 CMR 1.00: Chapter 63.

[F] **427.2.3 Gas cabinets.** Change *International Fire Code* to 527 CMR 1.00: Chapter 63.

428. Revise section 428 as follows.

SECTION 428 LABORATORY SUITES

[F] **428.1 Scope.** Laboratories complying with the requirements of Sections 428.1 through 428.4 shall be permitted to exceed the maximum allowable quantities of *hazardous materials* in *control areas* set forth in Tables 307.1(1) and [F] 307.1(2), and Table 414.2.2 without requiring classification as a Group H occupancy. Except as specified in Section 428, such laboratories shall comply with all applicable provisions of this code, including subsection 101.4.5.

Add following section.

428.1.1 Compliance options. Laboratories shall comply with one or more of the following:

- 1. Laboratory Suites Method.** Laboratories shall be permitted to exceed the maximum allowable quantities of *hazardous materials* in *control areas* set forth in Tables 307.1(1), 307.1(2), and Table 414.2.2 without requiring classification as a Group H occupancy when also complying with the requirements of Section 428. This includes compliance with NFPA 45: Table 5.1.1 as amended in subsection 428.6 and Table 9.1.1(b).
- 2. Control Area Method.** Laboratories are permitted to comply with the maximum allowable quantities of *hazardous materials* in *control areas* set forth in Table 307.1(1), 307.1(2), and Table 414.2.2 without requiring classification of Group H occupancy.
- 3. Use Group H Method.** Laboratories are permitted to exceed the maximum allowable quantities of hazardous materials in control areas when classified as Group H.

428.1.1.1 The maximum number of laboratory suites and control areas shall be in accordance with subsection 428.3.4.

[F] **428.1.2 Application.** Change Chapters 38 and 50 through 67 of the *International Fire Code* to 527 CMR 1.00.

Add subsections as follows.

428.2 Classification. *Laboratory suites* shall be classified in accordance with NFPA 45 subsection 4.2.1 and Table 9.1.1(b).

428.2.1 Higher Education Laboratories. *Laboratory suites* under direct supervision of an instructor that are used for purposes of instruction for students beyond the twelfth grade shall be classified as Class C or Class D *laboratory suites*.

428.2.2 Educational Laboratories. Laboratories in educational facilities for students through the 12th grade shall comply with the requirements for Group E occupancies. The laboratory suite provisions of Section 428 shall not be applied to laboratories in Group E occupancies.

Revise sections as follows.

428.3 Laboratory suite construction. Where *laboratory suites* are provided, they shall be constructed in accordance with this section. The number of *laboratory suites* and maximum allowable quantities of *hazardous materials* in *laboratory suites* shall be in accordance with NFPA 45: Table 5.1.1 as amended in subsection 428.6 and NFPA 45: Table 9.1.1(b).

Revise/add subsections as follows.

[F] 428.3.1 Separation from other nonlaboratory areas. Change reference to Table 428.3 to instead reference NFPA 45: Table 5.1.1 as amended in subsection 428.6.

[F] 428.3.2 Separation from other laboratory suites. Change to NFPA 45: Table 5.1.1 as amended in subsection 428.6.

[F] 428.3.3 Floor assembly fire resistance. Delete exception.

[F] 428.3.4 Maximum number. Change references to Table 428.3 in 2 places to instead read NFPA 45: Table 5.1.1 as amended in subsection 428.6.

[F] 428.3.5 Means of egress. *Means of egress* shall be in accordance with Chapter 10 and *NFPA 45: 5.3.1 and 5.3.2*.

428.3.6.1 Where required by the *International Mechanical Code* or NFPA 45, standby or emergency power shall be provided.

[F] 428.3.7 Ventilation. *Ventilation* shall be in accordance with Chapter 7 of NFPA 45, the *International Mechanical Code*, and ASHRAE 62.1.

428.3.7.1 Laboratory ventilation systems exhausting air from areas in use, in which flammable gases, vapors, or particulate matter are actively being released shall be continuously ventilated under normal conditions and shall be provided with standby power.

428.3.8 Liquid-tight floor. Portions of *laboratory suites* where *hazardous materials* are present shall be provided with a liquid-tight floor. The liquid-tight floor shall comply with NFPA 45: 5.1.5.1 and 5.1.5.2.

Exception: Containment of water discharged from the automatic fire sprinkler system is not required to be included.

[F] 428.3.9 Automatic sprinkler systems. Add and 903.2.11.7 to end of section.

[F] 428.4 Maximum allowable quantity in each laboratory suite. The maximum allowable quantities of *hazardous materials* in each *laboratory suite* shall be in accordance with NFPA 45 Table 9.1.1(b).

428.5 Documentation. In addition to all other documents required by 780 CMR, the building management company, or a designated representative, must submit the following documents with the permit documents. These shall be reviewed with the Building and Fire Official and updated accordingly to receive a Certificate of Occupancy.

1. Emergency Action Plan

2. Hazardous Materials Management Plan 3. Hazardous Materials Inventory Statement

It is it responsibility of the building management company, or designated representative, to keep these documents current.

428.6 Amendments to NFPA 45: Table 5.1.1.

Where NFPA 45: Table 5.1.1 is referenced, said table shall be followed as amended below:

SEPARATION REQUIREMENTS AND HEIGHT ALLOWANCES FOR
LABORATORY SUITES

Laboratory Suite Fire Hazard Class ^a	Permitted Stories		Number of Laboratory Suites Permitted per Story ^e		Fire Separation ^b
A	Above Grade Plane	1-3	4		2 hours
		4+	Not Permitted		Not Permitted
	Below Grade Plane	Not Permitted	Not Permitted		Not Permitted
B	Above Grade Plane	1-3	4		1 hour
		4-6	4		2 hours
		7+	Not Permitted		Not Permitted
	Below Grade Plane	Not Permitted	Not Permitted		Not Permitted
C	Above Grade Plane	1-3	4		1 hour ^c
		4-6	4		1 hour ^c
		7-15	2		2 hours
		16+	Not Permitted		Not Permitted
	Below Grade Plane	1	2		1 hour ^c
		2	1		1 hour ^c
		3+	Not Permitted		Not Permitted
D	Above Grade Plane	1-6	6		1 hour ^c
		7-20	4		2 hours
		21+	Not Permitted		Not Permitted
	Below Grade Plane	1	2		1 hour ^c
		2	1		1 hour ^c
		3+	Not Permitted		Not Permitted

- a. Refer to NFPA 45 Table 9.1.1(b) for laboratory suite classification.
- b. Separation in this table refers to fire separation from laboratory suite(s) to nonlaboratory areas or fire separations from laboratory suite(s) of equal or lower hazard classification.
- c. A single Class C or Class D laboratory suite on a floor shall not be required to have fire separation.
- d. The total number of laboratory suites per story shall not exceed the maximum number of laboratory suites permitted for the most restrictive laboratory suite fire hazard class.

SECTION 429: RESERVED

Add Sections 430 through 433 as follows.

SECTION 430 MOTION PICTURE AND TELEVISION PRODUCTION FACILITIES

430.1 Scope. This section addresses building code regulations for motion picture and television industry soundstages, production facilities, and approved production locations. All requirements not specified in this section shall conform to 780 CMR.

430.2 Referenced Standard. Except as otherwise noted in section 430.0, the buildings, structures and sites associated with motion picture and television industry soundstages, production facilities, and approved production locations shall be in accordance with NFPA 140 except NFPA101 does not apply. In addition, these facilities, shall meet 527 CMR 1.00: Chapter 32 and any other applicable Massachusetts specialized codes, see section 101.4.

430.3 Definitions. Definitions in NFPA 140 shall apply along with any additional terms that are defined by other reference standards.

430.4 Sound Stages and Approved Production Facilities.

430.4.1 Fire Protection. See NFPA 140, section 5.11.

430.4.2 Fire Department Building Access. See 527 CMR 1.00: Chapters 18 and 32.

430.4.3 Fire Hydrants. At least one fire hydrant shall be located on each side of the building. The head of the fire department shall determine fire hydrant locations. See 527 CMR 1.00: Chapters 18 and 32.

430.4.4 Portable Fire Extinguishers. Portable fire extinguishers shall be provided installed in accordance with NFPA 10 as listed in 780 CMR 35.00: Referenced Standards.

430.4.5 Automatic Sprinkler System. An automatic sprinkler system shall be designed and installed in accordance with the Extra Hazard, Group 2 requirements of NFPA 13 throughout all buildings having a soundstage, production studio or approved production facility. The automatic sprinkler system shall additionally meet the provisions of section 903, as applicable.

430.4.6 Fire Alarm Systems.

430.4.6.1 Manual Fire Alarm System. A manual fire alarm system meeting the requirements of subsection 907.3 shall be installed in all buildings having a soundstage, production studio, or which are approved production facilities.

430.4.6.2 Alarm Notification Appliances. Alarm notification appliances shall be provided in accordance with 780 CMR 9.00. With the approval of the head of the local fire department, the alarm notification appliances may be deactivated during videotaping, filming or broadcasting of programs as long as the building is equipped with a fully

operating, approved and supervised automatic sprinkler system in accordance with NFPA 13.

430.4.6.3 Supervision. The automatic sprinkler system and fire alarm system shall be supervised in accordance with 780 CMR 9.00: Fire Protection Systems.

430.5 Means of Egress. Means of egress shall be in accordance with 780 CMR 10.00: Means of Egress except NFPA 140, sections 4.10.2 and 4.10.3, shall govern where there is conflict with 780 CMR 10.00: Means of Egress. Means of egress shall be appropriate for the intended use and subject to the approval of the building official in consultation with the head of the fire department.

430.6 Approved Production Locations.

430.6.1 Permits. A building permit is required for structures undergoing construction, reconstruction, and modification. Other permits may be required from the local fire department or as applicable to any specialized code.

430.6.2 Foamed Plastic Materials. Foamed plastic materials affixed to the building or structure and used for decorative purposes shall meet the requirements of NFPA140, Chapter 5.

430.6.3 Structural Loads. Buildings or structures shall be evaluated for increased loading caused by sets, scenery, and other equipment in accordance with 780 CMR.

430.6.4 Fire Department Access. See 527 CMR: 1.00: Chapters 18 and 32.

430.6.5 Means of Egress. See 780 CMR 10.00: Means of Egress.

430.7 Operating Features.

430.7.1 Audience Life Safety. When a live audience is present for a production, the provisions for life and means of egress shall be subject to the approval of the local building official in consultation with the head of the local fire department.

430.7.2 Notification in Event of Emergency. The production company shall provide the head of the local fire department an emergency notification procedure for the production location activities for review and approval. See 527 CMR: 1.00: Chapter 32.

SECTION 431: SUMMER CAMPS FOR CHILDREN

431.1 New and Existing Occupancies. This section shall apply to existing and new summer camps for children. The use of such accommodations for purposes of inspection and certification shall be considered as being similar to a dormitory in Use Group R-2.

431.2 Means of Egress. All one-story, one-room buildings having 1,000 ft.² or fewer and having 25 occupants or fewer shall require only one means of egress provided that: 1. the length of travel does not exceed 50 feet from any point in the building to the outside at grade; and 2. the minimum width for aisles and corridors shall be three feet.

431.2.1 Emergency Escape. Every sleeping room shall have at least one exterior door or openable window to permit emergency exit or rescue; the windows shall conform to the following requirements: 1. shall be openable from the inside without the use of separate tools; 2. the sill height shall not be more than 36 inches above the finish floor and with a maximum six foot drop from the window sill to grade below the window; and 3. provide a minimum net clear opening area 5.7 ft.². The minimum net clear opening dimensions shall be 20 X 24 inches in either direction.

431.3 Fire Protection. Smoke detectors shall be required for existing and new residential units in accordance with section 907. When applicable, carbon monoxide (“CO”) detectors shall be required in summer camps for children. In new construction of summer camps for children, and where applicable, CO detectors shall be hard-wired and interconnected or otherwise be of an acceptable wireless type and conform to location requirements and listing requirements as set forth in 780 CMR, 527 CMR 1.00: Chapter 13 or 248 CMR: Board of State Examiners of Plumbers and Gas Fitters, as applicable (see 248 CMR 5.09(7)). For existing summer camps for children undergoing alterations, additions, etc., refer to 780 CMR34.00: Existing Buildings Code.

For existing day care centers, located on the premises of summer camps for children, CO detectors shall conform to the requirements of 780 CMR, 527 CMR: Board of Fire Prevention Regulations or 248 CMR: Board of State Examiners of Plumbers and Gas Fitters, as applicable.

EXCEPTION: Tents and other temporary shelters which are designed to sleep less than eight persons and which have an open side consisting of greater than 1/6 of the perimeter of the shelter or which have built-in provisions for emergency escape.

431.4 Mechanical. If camps are heated, then the building shall conform to all applicable code sections and specialized codes.

431.5 Enforcement and Inspections. Enforcement shall be by the building official who shall inspect and certify the summer camps yearly, prior to season opening.

SECTION 432: NIGHTCLUBS

432.1 General. All buildings containing a nightclub with an occupant load 50 or greater shall comply with the provisions of this section and other applicable provisions of 780 CMR.

432.2 Sprinkler Protection. An approved automatic sprinkler system shall be provided throughout buildings containing a nightclub in accordance with section 903.3.1.1.

432.3 Foam Plastics and Interior Finishes. Foam plastics shall not be used in nightclubs as interior finish except as provided in section 803.4 and shall not be used as interior trim except as provided in sections 806.5 or 2604.2. This section shall apply both to exposed foam plastics and to foam plastics used in conjunction with a textile or vinyl facing or cover.

432.4 Entertainment System Response. The activation of any fire protection system element (signaling system, detection, sprinklering, etc.) shall automatically cause immediate:

1. illumination of all areas and components of the required means of egress, and additionally;
2. full activation of all other house lighting; and
3. stopping of any and all sounds and visual distractions (public address systems, entertainment and dance lighting, music, etc.) that conflict/compete with the fire protective signaling system.

432.5 Main Exit. The main entrance egress system shall be sized such that the width of all required means of egress elements is a minimum of 72 inches (nominal) or as determined by section 1029.2, whichever is greater. The main entrance/exit door system shall consist of a pair of side-hinged swinging type doors without a center mullion and shall be equipped with panic hardware.

432.5.1 Alternative Egress. The building official may allow an alternative means of compliance where conditions exist which would preclude the installation of a 72-inch egress system. This approval is contingent upon the submission of an egress analysis from a registered design professional which determines that there is adequate means of egress. As a condition of an alternative egress approach, low level exit pathway marking shall be provided in accordance with sections 1024.2 through 1024.5.

SECTION 433: INDOOR AGRICULTURE FOR CANNABIS

433.1 Scope. The provisions of this section shall apply to buildings or structures defined as indoor agriculture or portions thereof containing indoor agriculture with relation to Cannabis. This section shall not be deemed to impose, impact, or override any requirements on buildings or structures or portions thereof not utilized for Cannabis Cultivation or Extraction.

433.2 Definitions.

CANNABIS. The plant or any product derived from the plant, of the family *cannabaceae*; also known as marijuana or hemp, as further defined by MGL Ch. 94G sec. 1 and MGL Ch. 128 sec. 116-123.

CULTIVATION. To prepare, or prepare and use, soil or another growing medium for the raising of crops.

EXTRACTION. The process by which a substance is withdrawn from another substance by physical or chemical means.

EXTRACTION ROOM. A room where extraction occurs.

GREENHOUSE. A structure or thermally isolated area of a building that maintains a specialized sunlit environment used for and essential to the cultivation, protection or maintenance of plants.

INDOOR AGRICULTURE. The science or practice of farming, including cultivation for the growing of crops, and/or the rearing of animals to provide food, wool, and/or other products, conducted within a building or structure.

433.3 Cannabis Cultivation or Extraction. Indoor agriculture buildings used for cannabis cultivation or extraction shall comply with this section and other codes, as explicitly referenced.

433.3.1 Fire Protection and Life Safety Systems. Fire protection and life safety systems shall be provided in accordance with Chapter 9 for Group F-1 unless otherwise modified in this section, excluding greenhouse classified as Group U.

433.3.2 Means of Egress. Means of egress shall be in accordance with Chapter 109 10 of the International Building Code, as amended, for Group F-1 unless otherwise modified in this section.

433.3.3 Ventilation for Light Fixtures. Light fixture ductwork shall be installed in accordance with the manufacturer and the International Mechanical Code.

433.3.4 Odor Control. The use of ozone generators used for odor control shall comply with 527 CMR 1.00: Chapter 38 and 310 CMR 7.00: Air Pollution Control.

433.3.5 Carbon Dioxide Enrichment Equipment. The design, installation, and maintenance of equipment utilized for a carbon dioxide enrichment process with more than 100 lbs. (45.4 kg) of carbon dioxide or utilizing any quantity of carbon dioxide having a remote fill connection shall comply with this section.

433.3.5.1 Equipment. Pressure relief, vent piping, fill indicators, fill connections, vent terminations, piping systems, and the storage, use, and handling of the carbon dioxide shall be in accordance with 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code.

433.3.5.2 Gas Detection System. A gas detection system complying with 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code shall be provided in rooms or indoor areas in which the carbon dioxide enrichment process is located, in rooms or indoor areas in which container systems are located, and in other areas where carbon dioxide could accumulate. The system shall be designed in compliance with Subsection 38.5.3.2.2 of NFPA 1. Alternative methods of protection may be approved by the Inspector for greenhouses utilizing positive pressure.

433.3.5.3 Pressurization and Ventilation. See Subsection 38.5.3.3 of NFPA 1.

433.3.5.4 Signage. See Subsection 38.5.3.4 of NFPA 1.

433.3.5.5 Container Refilling. Carbon dioxide containers located indoors shall not be refilled unless filled from a remote connection located outdoors and comply with 527 CMR 1.00: Chapter 38.

433.3.5.6 Interior Finish, Contents, and Furnishings.

433.3.5.6.1 To be in Accordance with Chapter 8.

433.3.5.6.2 Hanging of plastic from ceiling or from suspended overhead structures to create wall dividers shall not be permitted.

433.3.5.7 Processing or Extraction. Processes or extraction involving hazardous materials or their by-products which have a hazard rating of more than 2, according to NFPA 704, and the use and storage of hazardous materials, shall comply with 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code.

433.3.5.7.1 General Location. See Subsection 38.6.1.1.2 of NFPA 1.

433.3.5.7.2 Exception. Extraction shall not be located in any building containing Use Groups A, E, I, R, or ambulatory health care.

433.3.5.7.3 Means of Egress. For extraction rooms using hazardous materials, each room shall be provided with exit access door(s) in accordance with Chapter 10 and complying with Subsection 38.6.1.1.4 of NFPA 1.

433.3.5.7.4 Signage. See Subsection 38.6.1.5 of NFPA 1.

433.3.5.7.5 Liquefied Petroleum Gas (LPG) Extraction or Processes. Facilities using liquefied petroleum gas solvents shall comply with this section and 527 CMR 1.00: Chapters 38 and 60.

433.3.5.7.5.1 An exhaust system approved by the Inspector and the head of the Fire Department shall be provided for LPG extractions.

433.3.5.7.5.2 Operations shall be conducted in compliance with Subsection 38.6.2.2.3 of NFPA 1 and 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code.

433.3.5.7.5.3 Electrical work shall be performed in accordance with 527 CMR 12.00: Massachusetts Electrical Code (Amendments) and Subsection 38.6.2.3 of NFPA 1.

433.3.5.7.5.4 Extraction Room Gas Detection System. An approved continuous gas detection system shall be provided in the extraction room in accordance with subsection 38.6.2.4 of NFPA 1 and 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code.

433.3.5.7.5.5 Protection. See Subsection 38.6.2.5 of NFPA 1.

433.3.5.7.5.6 Facility Piping Systems. LPG liquid piping systems shall be in compliance with 527 CMR 1.00: Chapter 38 and 248 CMR 4.00: Massachusetts Fuel Gas Code. [see 248 CMR 4.03(2)]

433.3.5.7.5.7 Storage and Handling. The storage, use, and handling of LPG shall be in compliance with this code and 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code.

433.3.5.7.6 Flammable and Combustible Liquid Extraction and Processes. Facilities using flammable and combustible liquid solvents shall comply with this section and 527 CMR 1.00: Chapters 38 and 60.

433.3.5.7.6.1 Exhaust. 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 780 CMR and 527 CMR 1.00: Chapter 38; or 2. An approved exhaust system installed in accordance with the International Mechanical Code.

433.3.7.5.6.1.1 Exception: Unheated processes at atmospheric pressure using less than 16 oz. (473 ml) of flammable liquids.

433.3.7.5.6.2 Classified electrical systems shall conform with 527 CMR 12.00: Massachusetts Electrical Code (Amendments).

433.3.7.5.6.3 Electrical components within the chemical fume hood or exhausted enclosure shall adhere to Subsection 38.6.3.2.4 of NFPA 1.

433.3.7.5.6.4 Storage and Handling. The storage, use, and handling of flammable liquids shall be in compliance with this code and 527 CMR 1.00: Chapter 38.

433.3.5.7.7 Carbon Dioxide Extraction or Processing. Facilities using carbon dioxide solvents shall comply with subsection 38.6.4 of NFPA 1 and 527 CMR 1.00: Chapter 38.

433.3.5.7.8 Transfilling. Filling LPG extraction equipment supply containers shall be in compliance with 527 CMR 1.00: Chapter 38.