2024 International Fire Code

Revise as follows:

915.1 General. Carbon monoxide detection shall be installed in new buildings in accordance with Section~~s~~ 915.1.1. Carbon monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.

Exception: Carbon monoxide detection is not required in Group S, Group F and Group U occupancies that are not normally occupied.

915.1.1 Where required. Carbon monoxide detection shall be installed in the locations specified in Section 915.2 where any of the following conditions exist.

1. In buildings that contain a CO source.
2. In buildings that contain or are supplied by a CO producing forced-air furnace.
3. In buildings with attached private garages.
4. In buildings that have a CO producing vehicle that is used within the building.

915.2 Locations. Carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.6.

915.2.1 Dwelling units. Carbon monoxide detection shall be installed in *dwelling units* ~~outside of~~ in each separate *sleeping area* and in the immediate vicinity of the ~~bedrooms~~ sleeping rooms. Where a CO source is located within a ~~bedroom~~ sleeping room or its attached bathroom, carbon monoxide detection shall be installed within the ~~bedroom~~ sleeping room.

Exception:

1. Where the *dwelling unit* is not served by a carbon monoxide producing forced-air furnace.
2. Where a CO source is in an enclosed room or area that is not contiguous to the *dwelling unit*, is provided with CO detection, and the enclosed room or area containing the CO source has no ductwork or ventilation shafts that pass through or are contiguous to the *dwelling unit*.

915.2.2 Sleeping units. Carbon monoxide detection shall be installed in ~~*sleeping units*~~ each separate sleeping area and in the immediate vicinity of the sleeping rooms. Where a CO source is located within a sleeping room or its attached bathroom, carbon monoxide detection shall be installed within the sleeping room.

Exception:

~~Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the *sleeping unit* where the *sleeping unit* or its attached bathroom does not contain a CO source and is not served by a carbon monoxide producing forced-air furnace.~~

1. *Sleeping units* not served by a carbon monoxide producing forced-air furnace.
2. Where a *CO source* is in an enclosed room or area that is not contiguous to the *sleeping unit*, is provided with CO detection, and the enclosed room or area containing the CO source has no ductwork or ventilation shafts that pass through or are contiguous to the *sleeping unit*.

915.2.3 Group E occupancies. A carbon monoxide system that utilizes carbon monoxide detectors shall be installed in Group E occupancies. Alarm signals from carbon monoxide detectors shall be automatically transmitted to an on-site location that is staffed by school personnel.

Exception: Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an *occupant load* of 30 or less.

Reason: This proposal seeks to exempt CO detection in sleeping rooms, and dwelling units where the following two conditions exist.

1. Where the CO source is inside a room or area that is not contiguous with sleeping units, or dwelling units provided CO detection is provided in the non-contiguous room or area. Providing CO detection at the source will detect a leak before it diffuses beyond the non-contiguous room or area. An example of a non-contiguous room or area is a boiler or furnace room in the basement of a building.
2. Where the sleeping, or dwelling unit is not served by a carbon monoxide producing forced-air furnace.

Cost Impact: The proposal will not increase the cost of construction.

Ventilation for ambulatory care facilities and Group I-2 occupancies

Joint proposal with the Healthcare Committee and PMGCAC

Modify Section 401.2 as follows:

401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. *Dwelling units* complying with the air leakage requirements of the *International Energy Conservation Code* or ASHRAE 90.1 shall be ventilated by mechanical means in accordance with Section 403. ~~Ambulatory care facilities and Group I-2 *occupancies* shall be ventilated by mechanical means in accordance with Section 407.~~

> **401.2.1 Ventilation for ambulatory care facilities and Group I-2 occupancies.** Ambulatory care facilities and Group I-2 *occupancies* shall be ventilated in accordance with this code, ASHRAE/ASHE 170 and NFPA 99.

Delete Section 407 in its entirety:

~~**SECTION 407**~~
~~**AMBULATORY CARE FACILITIES AND GROUP I-2 OCCUPANCIES**~~
~~**407.1 General.** Mechanical ventilation for ambulatory care facilities and Group I-2 *occupancies* shall be designed and installed in accordance with this code, ASHRAE 170 and NFPA 99.~~

Update the reference standard in Chapter 15 as follows:

ASHRAE/ASHE 170—~~2017~~ 2021: Ventilation of Health Care Facilities including addenda c, d, e, f, g, h, and j ~~407~~ 401.2.1

Reason: The ventilation for ambulatory care facilities and Group I-2 occupancies are unique. Different ventilation means are identified in ASHRAE 170 and NFPA 99, including a modified method of both natural and mechanical means of ventilation. ASHRAE 170 is jointly published with ASHE. Establishing a separate section in the beginning of Chapter 4 specifically for these facilities and occupancies provides clarity as to what types of ventilation is required.

Ventilation design for health care spaces is a combination of tasks that leads to a set of documents used in construction. One such task requires medical planners to develop departmental programs of spaces. These programs include space names that suggest the use for which the space is intended, and health care ventilation designers depend upon these names to determine the ventilation parameters for their designs. This standard provides these ventilation parameters.

Without high-quality ventilation in health care facilities, patients, health care workers, and visitors can become infected through normal respiration of particles in the air. Poorly ventilated health care facilities

are places where the likelihood of pathogenic particles occurring in the air is quite high. These air-transmitted pathogens can be found everywhere in poorly ventilated health care facilities, and although most individuals can cope using their healthy immune systems, some patients are susceptible to these pathogens or even to normal environmental air-borne organisms such as fungal spores. Because these organisms are found in higher concentrations in hospitals, additional care must be taken in design of the ventilation systems.

Cost Impact Statement: Does not increase or decrease the cost of construction. This change provides clarity on what the existing requirements are, that are already covered in the design and installation standards already referenced in this code.

ABHR TG 6.57.1– Proposal #1
Section clean-up
Ready for Consideration by F-CAC WG 6 (July 19th)

5705.5 Alcohol-based hand rubs classified as Class I or II liquids. The use of dispensers containing alcohol-based hand rubs classified as Class I or II liquids shall be in accordance with all of the following:

4. Wall-mounted dispensers and dispensers on stands shall be located so that the bottom of the dispenser is not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) above the finished floor.

NOTE: Other numbered items remain unchanged

5705.5.1 Corridor installations. In addition to the provisions of Section 5705.5, where dispensers containing alcohol-based hand rubs are located in corridors or rooms and areas open to the corridor, they shall be in accordance with all of the following:

1. Where located in a corridor, dispensers shall be wall mounted.
2~~1~~. Level 2 and 3 aerosol ~~containers~~ dispensers shall not be permitted ~~allowed~~ in corridors.
3~~2~~. The maximum capacity of each ~~Class I or II liquid~~ dispenser shall be 41 ounces (1.21 L) and the maximum capacity of each Level 1 aerosol dispenser shall be 18 ounces (0.51 kg).
4~~3~~. The maximum quantity of alcohol-based hand rub solution in dispensers allowed in a corridor within a control area shall be 10 gallons (37.85 L) of Class I or II liquids or 1135 ounces (32.2 kg) of Level 1 aerosols, or a combination of Class I or II liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gallons (37.85 L) or 1,135 ounces (32.2 kg) such that the sum of the ratios of the liquid and aerosol quantities divided by the allowable quantity of liquids and aerosols, respectively, shall not exceed one.
5. Projections into a corridor shall be in accordance with Section 1003.3.3.

Reason statement:

This is a simple clean-up for the changes made last cycle.

1. ABHR dispensers are often located on countertops or desktops in area other than corridors that would not comply with the height minimum and maximum requirement. Provides correlation for the allowance for these types of free-standing dispensers permitted by this section.

2. Clarifies that ABHR dispensers in corridors must be wall mounted to reduce the risk of a movable dispensers and dispensers on stands being tipped-over creating a trip hazard. Dispensers in “rooms or areas open to the corridor” can be free-standing or placed on a countertop or desktop as these would not create corridor obstructions that may be created by a if located in the corridor.

3. Minor editorial changes for consistency in terminology usage with other sections of section 5705.5.

Just for easy reference: [BE] CORRIDOR. An enclosed exit access component that defines and provides a path of egress travel.

ABHR TG 6.57.1 – Proposal #2
New Section 5705.5.5.2 Storage
Final Draft October 24th TG TEAMs Meeting

2024 International Fire Code

Part 1 – Operational Permit clarification

Add new Operational Permit Requirement:

105.5 Required operational permits. The *fire code official* is authorized to issue operational permits for the operations set forth in Sections 105.5.2 through 105.5.52.

105.5.18 Flammable and combustible liquids. An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site transportation in pipelines regulated by the Department of Transportation (DOT), nor does it apply to piping systems.

2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:

2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the *fire code official*, would cause an unsafe condition.

2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures where such liquids are stored for maintenance, painting, or similar purposes for a period of not more than 30 days.

2.3. The storage, use or handling of alcohol-based hand rub solutions in dispensers or containers where in compliance with Section 5705.5

Renumber remaining items

3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for the following:
   3.1 Fuel oil used in connection with oil burning equipment.
   3.2 The storage, use or handling of alcohol-based hand rub solutions in dispensers or containers where in compliance with Section 5705.5

4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.
   Exception: Fuel oil and used motor oil used for space heating or water heating.

5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the *approved*, stationary on-site pumps normally used for dispensing purposes.

6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where *flammable* and *combustible liquids* are produced, processed, transported, stored, dispensed or used.

7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground *flammable* or *combustible liquid* tank.

8. To change the type of contents stored in a *flammable* or *combustible liquid* tank to a material that poses a greater hazard than that for which the tank was designed and constructed.

9. To manufacture, process, blend or refine *flammable* or *combustible liquids*.

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or, where required by the *fire code official*, to utilize a site for on-demand mobile fueling operations in accordance with Section 5707.

Part 2 – Revisions to Use and Storage requirements; higher MAQs

5705.5 Alcohol-based hand rubs classified as Class I or II liquids. The use of dispensers containing alcohol-based hand rubs classified as Class I or II liquids shall be in accordance with all of the following:

1. In health care facilities, the maximum capacity of each dispenser shall be 41 ounces (1.21 L) in rooms, corridors and areas open to corridors and 68 ounces (2.0 L) in care suites. In all other facilities, the maximum capacity of each wall-mounted dispenser shall be 68 ounces (2 L) and any other dispenser shall be 1 gallon (4 L)
2. The maximum aggregate quantity allowed within a control area, or smoke compartment in health care facilities, shall be 30 gallons (37.85 L) of liquids or 1135 ounces (32.2 kg) of Level 1 aerosols, or a combination of liquids and aerosols not to exceed, in total, the equivalent of 30 gallons (37.85 L) or 1,135 ounces (32.2 kg) such that the sum of the ratios of the liquid and aerosol quantities divided by the allowable quantity of liquids and aerosols, respectively, shall not exceed one.
   Exception: In a single story building with only one control area, the aggregate quantity limit shall be based on 1 gal per 900 sq. ft. (84 sq. m)
3. The minimum separation between dispensers shall be 48 inches (1219 mm).
4. Dispensers shall not be located above, below, or closer than 1 inch (25 mm) to an electrical receptacle, switch, appliance, device or other ignition source. The wall space between the dispenser and the floor or intervening countertop shall be free of electrical receptacles, switches, appliances, devices or other ignition sources.

ABHR TG 6.57.1 – Proposal #2
New Section 5705.5.5.2 Storage
Final Draft October 24th TG TEAMs Meeting

5~~4~~. Dispensers shall be located so that the bottom of the dispenser is not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) above the finished floor.

6~~5~~. Dispensers shall not obstruct required means of egress or be placed within 3 feet (914 mm) of an open flame, heating device or other ignition source.

7~~6.~~ Dispensers shall not release their contents except when the dispenser is manually activated. Facilities shall be permitted to install and use automatically activated "touch free" alcohol-based hand-rub dispensing devices with the following requirements:

7~~6~~.1. The facility or persons responsible for the dispensers shall test the dispensers each time a new refill is installed in accordance with the manufacturer's care and use instructions.

7~~6.~~2. Dispensers shall be designed and must operate in a manner that ensures accidental or malicious activations of the dispensing device are minimized. At a minimum, all devices subject to or used in accordance with this section shall have the following safety features:

7~~6~~.2.1. Any activations of the dispenser shall only occur when an object is placed within 4 inches (98 mm) of the sensing device.

7~~6~~.2.2. The dispenser shall not dispense more than the amount required for hand hygiene consistent with label instructions as regulated by the United States Food and Drug Administration (USFDA).

7~~6~~.2.3. An object placed within the activation zone and left in place will cause only one activation.

8~~7~~. Storage ~~and use~~ of alcohol-based hand rub~~s~~ solution not in use shall be in accordance with the ~~applicable~~ provisions of Section~~s 5704 and~~ 5705.5.2.

5001.1 Scope. Prevention, control and mitigation of dangerous conditions related to storage, dispensing, use and handling of hazardous materials shall be in accordance with this chapter.

This chapter shall apply to all hazardous materials, including those materials regulated elsewhere in this code, except that where specific requirements are provided in other chapters, those specific requirements shall apply in accordance with the applicable chapter. Where a material has multiple hazards, all hazards shall be addressed.

Exceptions:
1-10 remain unchanged

11. The installation and use of dispensers containing alcohol-based hand rubs, replacement alcohol-based hand rub solution and dispensers in storage classified as Class I or II liquids where in accordance with Section 5705.5.

5705.5.2 Storage of alcohol-based hand rub solutions classified as Class I or II liquids.
The indoor storage of alcohol-based hand rub solution, classified as Class I or II liquids flammable or combustible, shall be in accordance with all of the following:
Exception: Alcohol-based hand rub dispensers for personal use with an aggregate of not more than 16 oz (474 ml) at a workstation shall not be included in determining the MAQ.

ABHR TG 6.57.1 – Proposal #2
New Section 5705.5.5.2 Storage
Final Draft October 24th TG TEAMs Meeting

1. The maximum capacity of individual alcohol-based hand rub solution storage containers shall be 1 gallon (4 L) and the container shall be constructed of a material compatible with the alcohol-based solution.
2. Storage of alcohol-based hand rub solutions in basements or below grade shall be in basements protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. The maximum allowable quantity per control area, or smoke compartment in health care facilities, for Storage of alcohol-based hand rub solutions shall be less than or equal to the amounts in Table 5705.5.2.
4. The number of control areas per story shall comply with Section 5003.8.3 of this code.

TABLE 5705.5.2
MAXIUM ALLOWABLE QUANTITY PER CONTROL AREA OF ALCOHOL-BASED HAND RUB SOLUTION IN STORAGE

Storage Location	SPRINKLERED	NONSPRINKLERED
Open storage areas[c]	60 Gal	30 Gal
Non-dedicated storage room[a]	120 Gal	60 Gal
Non-dedicated storage room; 1-HR fire separation[ad]	240 Gal	120 Gal
Non-dedicated storage room; 2-HR fire separation[ad]	360 Gal	240 Gal
Dedicated storage room[b]	360 Gal	240 Gal
Dedicated storage room; 1-HR fire separation[bd]	600 Gal	240 Gal
Dedicated storage room; 2-HR fire separation[bd]	720 Gal	240 Gal

a. Non-dedicated storage room is an enclosed storage room complying with the applicable storage requirements of this code.
b. Dedicated storage room is an enclosed storage room used only for the storage of alcohol-based hand rub solution.
c. The number of open storage areas is limited to 1 per story or fire area with a maximum, of 4 per building
d. Fire separation shall be fire resistance-rated construction separating the dedicated storage room from the remainder of the building.

IFC Table 5003.3.1(5) and IBC Table 307.1.1

Flammable and combustible liquids and gases	Aerosols	Buildings and structures occupied for aerosol product storage, aerosol cooking spray products or plastic aerosol 3 products shall be classified as Group S-1
	Alcoholic beverages	The quantity of alcoholic beverages in liquor stores and distributors without bulk storage is not limited
		The quantity of alcoholic beverages in distilling or brewing of beverages is not limited
		The storage quantity of beer, distilled spirits and wines in barrels and casks is not limited
		The quantity of alcoholic beverages in retail and wholesale sales occupancies is not limited. To qualify for this allowance, beverages shall be packaged in individual containers not exceeding 1.3 gallons
	Cleaning establishments with combustible liquid solvents	The quantity of combustible liquid solvents used in closed systems and having a flash point at or above 140°F (60°C) is not limited. To qualify for this allowance, equipment shall be listed by an approved testing agency and the occupancy shall be separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies, or both, constructed in accordance with the International Building Code

ABHR TG 6.57.1 – Proposal #2
New Section 5705.5.5.2 Storage
Final Draft October 24th TG TEAMs Meeting

		The quantity of combustible liquid solvents having a flash point at or above 200°F (93°C) is not limited
	Closed piping systems	The quantity of flammable and combustible liquids and gases utilized for the operation of machinery or equipment is not limited
	Fuel	The quantity of liquid or gaseous fuel in fuel tanks on vehicles or motorized equipment is not limited
		The quantity of gaseous fuels in piping systems and fixed appliances regulated by the International Fuel Gas Code is not limited
		The quantity of liquid fuels in piping systems and fixed appliances regulated by the International Mechanical Code is not limited
	Fuel oil	The quantity of fuel oil storage complying with Section 605.4.2 is not limited
	Flammable finishing operations using flammable and combustible liquids	Buildings and structures occupied for the application of flammable finishes. Such buildings and areas shall comply with Chapter 24
	Hand sanitizer	The quantity of alcohol-based hand rubs classified as Class I or II liquids in dispensers installed in accordance with Sections 5705.5 and 5705.5.1 is not limited. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents
		The quantity of alcohol-based hand rubs classified as Class I or II liquids in storage shall be in accordance with Section 5705.5.2.
	Retail and wholesale sales occupancies with flammable and combustible liquids	The quantity of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, is not limited To qualify for this allowance, such materials shall be packaged in individual containers not exceeding 1.3 gallons.

Cost Impact Statement:
This code change will not increase the cost of construction.

Reason Statement
Insert standard F-CAC and CHC description

This proposal is submitted by the ICC Fire Code Action Committee (FCAC) and the Committee on Health Care (CHC).

The main purpose of this proposal is to add a new Section (5705.5.2) for storage requirements and quantity limitations. This new section adds reasonable storage quantity limits and requirements based on experience over the past 4 years of the pandemic.

Two key points to consider.:

- Alcohol-based hand-sanitizer solutions at the 60 - 95% level recommended by CDC are classified as Class IB based on flashpoint. However, alcohol type polar solvents have other characteristics that differentiate them from the more volatile petroleum-based flammable (ignitable) liquids: quick evaporation, water-soluble, others ?
- The proposed storage quantity allowances are for ABHR replacement solution stored in their factory containers intended for replacement qualities of one dispenser can be compared to MAQs permitted for Class IB flammable liquids in Group M Occupancies for wholesale and retail sales uses (Table5704.3.4.1) need to explain this comparison; the values don't match.

ABHR TG 6.57.1 – Proposal #2
New Section 5705.5.5.2 Storage
Final Draft October 24th TG TEAMs Meeting

The proposal addresses storage of alcohol-based rub solutions in a maximum individual container size of 1 gallon; provides maximum storage quantities for sprinklered and nonsprinklered buildings and incorporates allowances for higher storage quantities based on whether the storage room is for only alcohol-based sanitizer solutions and whether the storage room has 1 or 2 hour fire resistance rated construction for compartmentation of the hazard.

The current MAQs for Class IB flammable liquids (typical classification for an alcohol-based hand rub solutions) is 120 gallons with 100% increase for sprinklers and approved storage cabinets). The quantities in Table 5705.5.2 are modeled after these MAQ allowances recognizing: the storage challenges created during the pandemic and the experience of storage in these amounts without unreasonable fire risk or notable fire incidents; the benefit of fire sprinkler protection and fire separations for hazard mitigation for ABHR solution in storage.

Other substantiation for specific changes:

1. The addition of “storage” in Exception 11 of Section 5001.1 (Scope) simply ensures that the intention of the exception is for both the alcohol-based hand rub dispensers and the storage of alcohol-based sanitizer solutions awaiting use.
2. This proposal adds an exception from IFC requirements for personal use hand sanitizer in quantities of 16 oz or less. It is not the intention of this section to impose any requirements on individual use hand sanitizers carried or at a workspace for personal sanitizing.
3. The higher quantity of allowable alcohol-based hand rub solution in dispensers is increased from 10 Gallons to 30 Gallons per control area. This is a reasonable increase in MAQ and is supported by the increased quantities that have been safely utilized in all public buildings during the pandemic.
4. Provides a clarification of requirements to differentiate permanent wall-mounted dispenser requirements which have been in the IFC for many cycles from other types of dispensers such as floor-supported, desktop or counter located that are currently being used.
5. Eliminating the additional quantity restrictions for dispensers used in corridors as unnecessary and overly restrictive.

BCAC Egress Item 5 Control Vestibule–

June 14, 2023, draft revised Oct. 4, 2023
John Woestman, BHMA

E55-21 AMPC/D in vote Item 5 E55-21 w PC.pdf
Spring hearings – https://www.cdpaccess.com/videos/4348/
Fall Hearings - https://www.cdpaccess.com/videos/4751/

The draft text below builds on proposal E55-21, the public comments to E55-21, the debate / discussion during the 2021 Public Comment Hearings, and subsequent discussions. The comments in this doc are based on testimony during the 2021 PCH. The formatting of this draft is revised a bit from E55-21 in an attempt to be more reader-friendly.

Add new definition as follows:

CONTROL VESTIBULE. A space with doors in series that are interlocked such that when one door is open another door is restricted from opening.

Add new text as follows:

1010.2.15 Control vestibule. Control vestibules in the means of egress shall be permitted for security, environmental control or clinical needs in:

1. Groups F, H-3, H-4, H-5, I-1, I-2, and S where the occupant load of the room or space served by the control vestibule is less than 50.
2. Groups B and M where the occupant load of the room or space served by the control vestibule is 10 or less.

1010.2.15.1 Control vestibules shall be permitted where the building complies with either of the following:

1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. An approved automatic smoke detection system in accordance with Section 907 is installed in the room or space served by the control vestibule.

1010.2.15.2 Where doors in the means of egress are configured as a control vestibule, the control vestibule door interlocking system shall provide for egress. The control vestibule shall comply with all of the following:

1. On the egress side of each door of the control vestibule, an approved override switch shall be provided which unlocks the interlocked electric lock of that door.
    a. Each override switch shall be located 48 inches (1219 mm) maximum, measured horizontally, of the door and 40 minimum to 48 inches maximum (1016 mm to 1219 mm) above the floor.
    b. Signage shall be provided with instructions on the use of the interlock override switch.
    c. When operated, the override switch shall result in direct interruption of power to the interlocked electric lock — independent of other electronics — and the interlocked electric lock shall remain unlocked for not less than 30 seconds.

    Exception: Where the control vestibule is designed to impede occupant egress for security reasons, the override switches for the door interlocks shall be permitted to be moved to approved alternate locations.

2. Upon activation of the automatic sprinkler system or automatic smoke detection system the interlock function of the doors of the control vestibule shall deactivate.

Commented [JW1]: Groups H-3 and H-4 recommended to be added during joint BCAC / FCAC meeting / discussion in Schiller Park (Chicago), IL, Sept. 20, 2023.

Commented [JW2]: Concern with Group H-5 during 2021 PCH testimony. Should Group H-5 be moved to a new Item 3, and include specific conditions / requirements for egress? Also 2021 PCH concerns with limiting B and M to 10 occupants while permitting / limiting H-5, I-1, and I-2 to 49 occupants.

Commented [JW3]: Per discussion during BCAC Egress Work Group meeting April 19, 2023, this criteria revised and added for consistency with Item 4 of 1010.2.12 (sensor release of electrically locked egress doors).

Commented [JW4]: Concern with this exception as too broad in E55-21 PC4. This text is revised in attempt to address concerns raised during 2021 PCH.

Exception: Where the control vestibule is designed to impede occupant egress for security reasons, automatic sprinkler system sprinkler heads and automatic smoke detection system smoke detectors shall be permitted to be omitted within the control vestibule where the interior finish of the wall, ceiling, and floor of the control vestibule interior is noncombustible.

3. Upon loss of power to the interlock function of the doors, the interlock function of the door locking system of the control vestibule shall deactivate.
4. The egress path from any point shall not pass through more than one control vestibule.
5. The doors of the control vestibule shall be self-closing.
6. The doors of the control vestibule shall swing in the direction of egress travel.

   Exception: Power-operated doors in accordance with Section 1010.3.2.

7. The electro-mechanical or electromagnetic locking devices shall be listed in accordance with either UL 294 or UL 1034.

Commented [JW5]: New exception per discussion during BCAC / FCAC meeting in Schiller Park (Chicago), IL, Sept. 20, 2023.
In the situation addressed by this exception, should the control vestibule be limited in size (i.e. limited square feet)? This exception addresses the potential for a person to deliberately create a fire within the control vestibule which results in the deactivation of the door interlocks allowing the person to egress.

Reason:

Control vestibules are being incorporated in the means of egress in a variety of occupancies. A control vestibule – which may be called an airlock, a mantrap, or a sallyport – has doors in series which are interlocked such that when one door of a control vestibule is open, the other door in series in the control vestibule is temporarily prevented from being opened.

The IBC is currently silent regarding requirements and guidance for control vestibules. This proposal offers requirements (guidance) for control vestibules in the means of egress.

Control vestibules are most commonly configured as a space with two doors in series. But, some control vestibules are configured with more than one inner door and / or more than one outer door. For example, where a control vestibule is required to help keep clean rooms clean, there may be inner doors from more than one clean room opening into the control vestibule, and one outer door for leaving the control vestibule in the direction of egress.

This proposal addresses egress related requirements for control vestibules. Control vestibules, such as mantraps, which provide security or access control on the ingress side of doors into a building or into a space within a building are more common than control vestibules on the egress side of doors controlling egress from a space or from a building. Requirements for access-side control vestibules is outside the scope of the IBC. Thus access-side control vestibules are not regulated or prohibited by the IBC provided all requirements for egress are complied with. This proposal addresses control vestibules in the means of egress with egress-side requirements.

Control vestibules must provide for egress – which is a requirement in the charging language (Section 1010.2.15.2).

Together, the definition and proposed requirements provide for egress where control vestibules are installed.

Note: a control vestibule is different than a sallyport, which is defined in the IBC and permitted in Group I-3 occupancies. Group I-3 includes correction centers, detention centers, jails, prisons, and similar uses. A sallyport is a security vestibule which prevents unobstructed passage. A control vestibule is intended to allow unobstructed passage, but prevents more than one door of doors in series to be open at the same time.

Also, it should be noted that control vestibules may be “stacked” or combined with any of the other “shall be permitted” electrical locking arrangements of the IBC (2021 IBC sections 1010.2.11 through 1010.2.14).For example, assume both doors in the (air lock) control vestibule from an electronics

manufacturing clean room are equipped with sensor release of electrically locked egress doors (IBC Section 1010.2.12) to allow no- touch exiting from the clean room through the (air-lock) control vestibule. The electrical locks on the two doors of the (air lock) control vestibule would be interlocked such that only one door is able to be open at a time. In the event of fire in the clean room, Item 2 requires the interlock function of the control vestibule to be deactivated, facilitating egress through the control vestibule with both doors open at the same time.

Cost Impact:
The code change proposal will increase the cost of construction.

Control vestibules are currently not addressed in the code. Where control vestibules are constructed, these requirements may include some locking requirements and interconnectedness currently not incorporated into some control vestibules.