**Exercise – NFPA 101 and IBC – Electrified Hardware**

Find the answers in NFPA 101-2021 and/or the 2021 IBC and include the paragraph reference number below.

1. What are the names of the sections in the IBC and NFPA 101 that address the use of electromagnetic locks released by door-mounted hardware?
2. Per NFPA 101, what restrictions are placed on doors with delayed egress locks serving New Assembly spaces?
3. In the IBC, which Group A assembly occupancies are allowed to have delayed egress locks?
4. Per the IBC and NFPA 101, is a sprinkler system required in order for an electromagnetic lock released by a sensor to be installed?
5. Which examples are given in NFPA 101 as the types of hospital units that may have doors that are locked in the direction of egress because of the patients’ clinical needs?
6. What is the NFPA 101 term used to describe the practice of locking some doors within a stairwell mechanically, and leaving others unlocked for reentry?
7. Does NFPA 101 allow doors in stairs serving 4 stories or less to be mechanically locked on the stairwell side?
8. In buildings that are required to have more than one exit stairway, does the IBC allow doors in stairs serving 4 stories or less to be mechanically locked on the stairwell side?
9. Per the IBC, what initiates the unlocking of stair doors to allow reentry?
10. If an electromagnetic lock is released by a switch in the door-mounted hardware (AKA “door hardware release”), does the IBC require the lock to unlock upon activation of the fire alarm?
11. What product would you use to deter the unauthorized use of a large public library’s emergency exit if the applicable code is the IBC?
12. If the adopted code is the 2021 IBC, what are the options for deterring egress from an elevator lobby in an office building through a tenant space?
13. Does NFPA 101 allow locks released by a sensor (AKA “sensor release of electrical locking systems”) in a New Educational Occupancy?

**Answers:**

1. IBC: Door hardware release of electrically locked egress doors. Paragraph 1010.2.11

NFPA 101: Door hardware release of electrically locked egress doors. Paragraph 7.2.1.6.3

1. Permitted on doors other than main entrance/exit doors. Paragraph 12.2.2.2.5
2. Group A-3 courtrooms (except the main exit), if the building is equipped throughout with an automatic sprinkler system. Paragraph 1010.2.13(3)
3. No (“where provided” / “if provided”). IBC Paragraph 1010.2.12, NFPA 101 Paragraph 7.2.1.6.2
4. Psychiatric units, Alzheimer units, and dementia units. Paragraph A18.2.2.2.5.1
5. Selected re-entry. Paragraph 7.2.1.5.7 (3)
6. Yes. Paragraph 7.2.1.5.7
7. No. Paragraph 1010.2.7(3)
8. A signal from the fire command center or location at the building’s main entrance. Paragraph 1010.2.7(3)
9. No. Section 1010.2.11
10. An exit alarm (the IBC does not allow delayed egress locks on doors serving Assembly occupancies – with the exception of courtroom secondary exits). Sections 1010.2, 1010.2.13
11. Delayed egress lock or exit alarm are most restrictive applications that can be used – “Elevator lobbies shall be provided with not less than one means of egress complying with Chapter 10 and other provisions in this code.” (Note: This will change in the 2024 IBC.) Paragraph 3006.4
12. Yes – “Sensor-release of electrical locking systems complying with [7.2.1.6.2](https://link.nfpa.org/publications/101/2021/chapters/7#ID001010001136) shall be permitted.” Paragraph 14.2.2.2.3.2

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