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Ask AHCA 2023: Review of New Codes, Standards, Submission, and Inspection Requirements of AHCA

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1 OBJECTIVE

Learn about the interpretations from the AHCA inspectors regarding relevant NFPA codes and standards, the Florida Building Code, and the FGI Guidelines.

2 OBJECTIVE

Understand how to be prepared for a fire safety survey from the field office fire safety inspectors at AHCA and for CMS surveys.

3 OBJECTIVE

Learn the new requirements of NFPA 101 Life Safety Code, 2021 edition and how to apply the NFPA101 Life Safety Code, 2012 edition that is enforced by the federal government.

4 OBJECTIVE

Be able to explain and apply the testing and maintenance requirements for health care facilities found in these codes.

Thank you for your attention!

Ask AHCA

Presented by Scott Waltz and Eddie Alday

Moderated by John Altherr

Question #1

NFPA codes require exterior discharge path illumination to be served by the life safety branch of the essential electrical system. Where such lighting is controlled to provide illumination only at night and in low light conditions are these light sources required to provide illumination upon activation of the fire alarm system and/or loss of normal power, even during the day?

See NFPA 101 7.8.1.2.2.(2) and 7.8.1.2.2.(5).

Reference:

NFPA 101 7.8.1.2.2

Unless prohibited by Chapters 11 through 43, automatic lighting control devices shall be permitted to temporarily turn off the illumination within the means of egress, provided that each lighting control device complies with all of the following:

Reference (cont.):

…

(2) The lighting control device is equipped to automatically energize the controlled lights upon loss of normal power and is evaluated for this purpose.

…

(5) In new installations, the lighting control device is activated by activation of the building fire alarm system, if provided.

Answer:

NFPA 101 7.8.1.2.2.(2) and 7.8.1.2.2.(5), do require the lighting control devices to energize upon the loss of power and upon activation of the building's fire alarm system. This, however, does not require the luminaires to energize.

The intent of NFPA 101 7.8.1.2.2.(2) and (5) is to ensure that the lighting control devices are operational when normal power is lost and upon activation of the fire alarm system so the devises can energize the luminaries as needed to provide the artificial lighting of the egress path as required by NFPA 101 7.8.1.2.

Answer:

NFPA 101 7.8.1.2 requires illumination of means of egress to be continuous during the time that the conditions of occupancy require that the means of egress be available for use, unless otherwise provided in 7.8.1.2.2. **Artificial lighting shall be employed at such locations and for such periods of time as are necessary to maintain the illumination to the minimum criteria values herein specified**.

Question #2 (Paraphrased)

The language in the Florida Building Code for I-2, Group 2 regarding the requirements for corridor smoke detection is confusing (see FBC 407.2.1 and 407.9).

Are smoke detectors required in corridors of Group I-2, condition 2?

If so, are quick-response sprinkler an alternative to using smoke detectors in corridors of Group I-2, condition 2?

Reference:

407.9 Automatic fire detection.

Corridors in Group I-2, Condition 1 occupancies and spaces permitted to be open to the corridors by Section 407.2 shall be equipped with an automatic fire detection system. Group I-2, Condition 2 occupancies shall be equipped with smoke detection as required in Section 407.2.

Exceptions:

1.Corridor smoke detection is not required where sleeping rooms are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each sleeping room and an audible and visual alarm at the care provider's station attending each unit.

2.Corridor smoke detection is not required where sleeping room doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

Reference:

407.2.1 Waiting and similar areas.

Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:

1.The spaces are not occupied as care recipient's sleeping rooms, treatment rooms, incidental uses in accordance with Section 509, or hazardous uses.

2.**The open space is protected by an automatic fire detection system installed in accordance with Section 907.**

3.**The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic fire detection system installed in accordance with Section 907**, or the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.

The space is arranged so as not to obstruct access to the required exits.

Answer:

Smoke detection is **not required** in the corridors of Group I-2, Condition 2 occupancies….

…. except when it is.

Answer:

Smoke detectors are required in hospital corridors in the following:

- At cross corridor doors in smoke barriers (FBC 709.5.1)
- Psychiatric treatment areas open to the corridor (FBC 407.2.3)
- In waiting areas and similar spaces open the corridor and the corridors in the smoke compartment on to which the space is open. (FBC 407.2.1) *

* The use of quick response sprinklers throughout the smoke compartment may be used in lieu of smoke detectors in the corridor (the space itself will still require smoke detection)

Question # 3

The Florida Building Code requires a lightning protection system for new hospitals and nursing homes. It is also required for licensed freestanding buildings in which outpatient surgical procedures, cardiac catheterization procedures, or pain management procedures that utilize I.V. drip sedation are provided. See FBC 449.3.14.7 and 450.3.19.

Question # 3

Are new licensed ambulatory surgery centers required to have a lightning protection system as well?

Answer:

No, ASC are not required to have a lightning protection system.

Additionally, ASC are not subject to other requirements that are applicable to hospitals and nursing homes, such as special debris impact protection or enhanced flood protection.

Question # 4

NFPA 70-2023 Article 517, Section 517.33(H) requires “electrically powered doors used for **building egress**” to be connected to the life safety branch of the essential electrical system.

Does Art. 517.33(H) refer only to the automatic doors located at the building exit or does it include all automatic doors in the path of egress?

Answer:

The intent of the code section is to require all electrically powered doors in the means of egress to be on the life safety branch.

The text in NEC originated in NFPA 99. Commentary provided in NFPA 99 explain the purpose for this requirement.

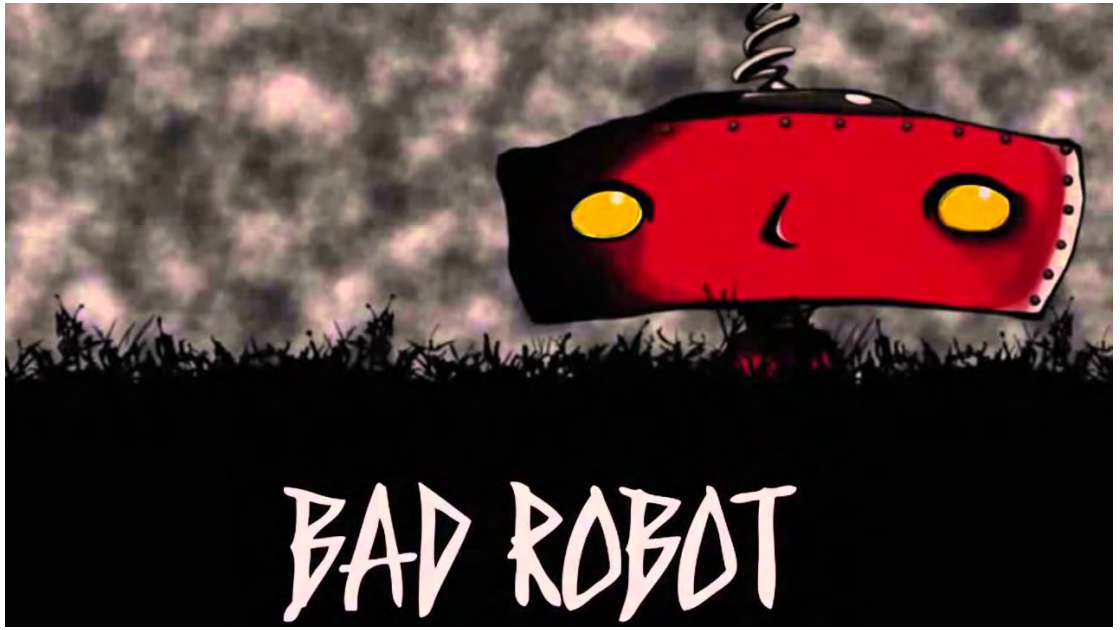
Answer:

NFPA 99 6.7.5.1.2.2 (6) Enhanced Content

“Automatically operated doors noted in 6.7.5.1.2.2(6) are on the life safety branch because they are a means of egress. The general public is not usually familiar with the manual operation of automatic doors under emergency conditions, and automatic-opening doors make it easier to move beds and gurneys from one smoke compartment to another or, if necessary, out of the building when evacuating.”

Question # 5

Robotics equipment that roams around the hospital can open doors equipped with electric auto-door openers, can communicate with elevator controls and can receive fire alarm notifications. I'm wondering if a robot could spread a fire from one smoke compartment to another.



Question # 5

If a robot receives a fire alarm notification, should it return to a designated location on its own, or shut down in place and be moved manually out of the exit corridor?

Answer:

Neither the Life Safety Code or the Florida Building Code specifically address automatous equipment's response to a fire emergency. The equipment's response should be in accordance with the facility's fire safety plan. At a minimum, the equipment should not interfere with the execution of the fire plan. The equipment's response should be simulated during the required fire drills, so the staff is familiar with those actions. The fire safety plan should include staff response needed if the automatous equipment does not respond as intended.

Answer:

Rescue patients in immediate danger

Alarm, use pull station to activate alarm

Contain smoke & fire by closing doors

Extinguish/ Evacuate smoke compartment

Question # 6

In new facility construction, the normal main service equipment shall be separated from the emergency distribution equipment by locating it in a separate room. Transfer switches shall be considered emergency distribution equipment for this purpose (See FBC 450.3.18.2).

In existing nursing homes facilities where the generator is being replaced due to failure, does the electrical room housing the EPSS and service equipment needs to be upgraded to meet the requirements of 450.3.18.2?

Answer:

No, where the existing facility does not provide separate rooms for normal and essential electrical system equipment, the replacement of a faulty generator would not require additional modifications to provide such separation. The intent is to recognize that application of this requirement to existing conditions would often create a significant hardship for the facility.

Answer:

NFPA 99 has similar requirements for separation and like the Florida Building Code, this requirement is limited to new construction.

2021 NFPA 99 6.7.1.2.3.3

Level 1 EPSS equipment shall not be installed in the same room with the normal service equipment, where the service equipment is rated over 150 volts to ground and equal to or greater than 1000 amperes. [110:7.2.3]

Answer:

6.1.3

The following paragraphs shall apply to new and existing health care facilities:

(1) 6.3.2.2.1

(2) 6.3.2.3.6(B)(2) and 6.3.2.3.6(B)(3)

(3) 6.3.2.3.8

(4) 6.3.2.6.8

(5) 6.3.2.8.5

(6) 6.3.3.2.5 through 6.3.3.2.7

(7) 6.3.3.3.3 and 6.3.3.3.4

(8) 6.3.4

(9) 6.7.1.2.7.2(H)

(10) 6.7.2.2.5(B)

(11) 6.7.2.2.6

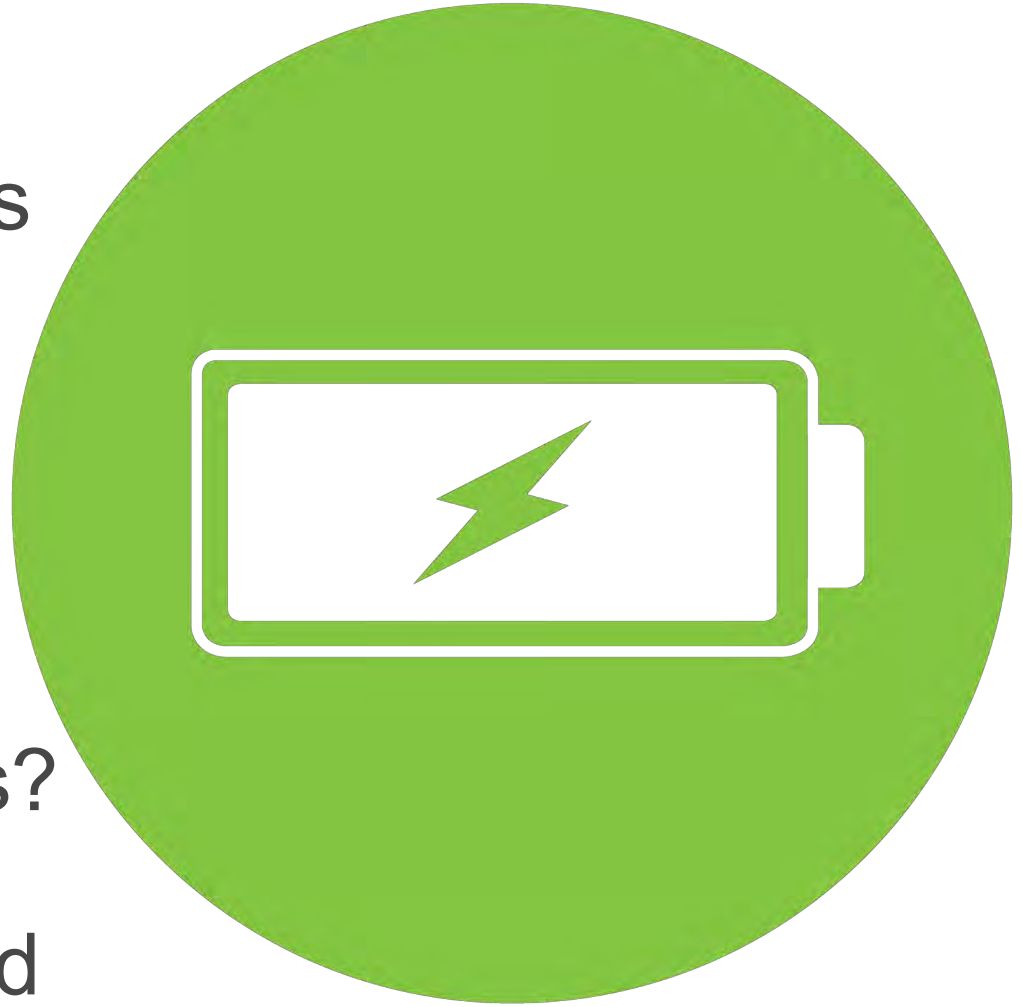
(12) 6.7.4

(13) Section 6.8

Note: 6.7.1.2.3.3 is not included in the list of paragraphs that are applicable to existing facilities

Question # 7

The Florida House is working on two bills to give local Fire Marshalls power to legislate Ion Battery storage and charging.



Can a hospital install charging station(s) for robotic equipment within areas open to exist corridors? Are there ventilation or power or rated enclosures required that need AHCA review?

Answer:

No. The path of egress must be clear free of obstructions that could interfere with exiting of any area. Charging stations for robotic equipment would be considered a hazardous condition and not allowed in the corridor. The creation of an enclosure to separate the charging location from the corridor would be need to be reviewed by Plans and Construction.

Answer:

NFPA 101 (2021)

4.5.3.2 In every occupied building or structure, means of egress from all parts of the building shall be maintained free and unobstructed. Means of egress shall be accessible to the extent necessary to ensure reasonable safety for occupants having impaired mobility.

4.6.1.2 Any requirements that are essential for the safety of building occupants and that are not specifically provided for by this *Code* shall be determined by the authority having jurisdiction.

Question # 8

NFPA 72 requires the sensitivity testing of smoke detectors. The table states "Perform any of the following tests to ensure that each smoke detector is within its listed and marked sensitivity range:

(1) Calibrated test method

(2) Manufacturer’s calibrated sensitivity test instrument

(3) Listed control equipment arranged for the purpose

(4) Smoke detector/control unit arrangement whereby the detector causes a signal at the control unit when its sensitivity is outside its listed sensitivity range

(5) Other calibrated sensitivity test method approved by the authority having jurisdiction

Question # 8

If a panel is addressable and provides the required trouble signal of a dirty head that is outside of sensitivity, why does a company need to pull the sensitivity report or conduct sensitivity testing for AHCA reporting? And if we pull a report that states the percentage of alarm, will that satisfy AHCA?

Answer:

NFPA 72 14.4.4.3 – Test records shall be kept by the building owner specifying which detectors have been tested.

AHCA Life Safety Surveyors will need to see a printed report to verify the system is working as it is designed and detectors are within manufactures sensitivity range and needed repairs and maintenance has been completed in a timely manner.

Question # 9

The International building code requires that building over 6 stories need to have fire retardant and low smoke development properties for flooring and stair treads installed in fire emergency exits. It requires compliance with ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials - Class “A” and CAN/ULC-S102.2 Test of Surface Burning Characteristics of Building Materials and Assemblies.

Do Florida Hospitals higher then 6 stories need to follow the IBC requirement for fire emergency exits and to have fire retardant flooring and stair treads?

Answer:

FBC 804.4.2

In all occupancies, interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux. The minimum critical radiant flux shall be not less than Class I in Groups I-1, I-2 and I-3 and not less than Class II in Groups A, B, E, H, I-4, M, R-1, R-2 and S.

Answer:

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with DOC FF-1 “pill test” (CPSC 16 CFR Part 1630) or with ASTM D2859 are permitted in any area where Class II materials are required.

Answer:

Classification:

Interior floor finish and floor covering materials required by Section 804.4.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm^2 or greater; Class II, 0.22 watts/cm^2 or greater.

Question # 10

ASHRAE 170 6.7.1 requires spaces that have required pressure relationships to be served by fully ducted return systems or fully ducted exhaust systems. The following additional surgery and critical-care areas that do not require a pressure relationship to adjacent areas shall also be served by fully ducted return or exhaust systems: recovery rooms, critical and intensive care areas, intermediate care areas, and wound intensive care units (burn units). In inpatient facilities, patient care areas shall use ducted systems for return and exhaust air.

Question # 10

For minor renovation projects (such as upgrading architectural finishes, or gift shop to coffee shop conversion) is a new fully ducted return air system required for administrative areas or non-patient care areas where there was previously no ducted return?

Answer:

No. Renovation of such spaces as described would not require a new fully ducted system.

Question # 11

FBC 449.3.6.2 requires all new hospital, outpatient surgery and cardiac catheterization facility construction, for both inpatients and outpatients, to have completely ducted air supply, return, outside air and exhaust systems. In hospital buildings with multiple uses, tenants or occupancies, located on a separate floor or floors within the building, or located in a medical office building, only the licensed health care areas where invasive procedures, as defined by The Guidelines, are performed shall be required to be served by separate ducted mechanical air-supply, return and exhaust systems.

Question # 11

FGI 1.1-3.1.1.4 reads,

Building system projects

(1)Only the altered, renovated, or modernized portion of an existing building system or individual component shall be required to meet the installation and equipment requirements in the Guidelines.

(2) When such construction impairs the performance of the balance of an affected building system, upgrades to that system shall be required beyond the limits of the project to the extent required to maintain existing operational performance.

Question # 11

This requirement does not specify whether it is an HVAC, plumbing or medical gas system. A strict interpretation would require the entire chilled water, heating hot water, medical gas and plumbing system serving the entire hospital to be depicted in every stage III submission even for a single room renovation.

Please note that this requirement is not applied equally to every project, every facility, or every design team. It is impractical and very costly to show an entire HVAC, chilled water, heating hot water, plumbing, med gas, or fire sprinkler system for small renovation projects.

Question # 11

For minor renovations (such as upgrading architectural finishes, CT equipment replacement, adding showers or changing hand sinks in patient rooms) is it necessary to show the entire HVAC system if precautions are taken to not impair the air balance beyond the limits of the project through pre and post Test and Balance?

Answer:

The purpose of Guidelines section 1.1-3.1.1.4 is to provide scoping requirements appropriate for renovations involving facility systems. It is not the Agency's intent to require the creation of unnecessary documentation. Minor renovation projects that have no impact on systems beyond the scope of the project need not be documented.

The documentation of pre and post project T&B values in lieu of complete system design documents may be appropriate for some projects.

AHCA Asks

Questions and answers received by AHCA on various code related issues

FGI Guidelines Interpretation Request

State the purpose of your request for formal interpretation:
Both antepartum and postpartum room require a patient toilet room that complies with section 2.1-2.2.6 (Both reference 2.2-2.2.2 which then references 2.1-2.2.6 for patient toilet room requirements). This section requires a toilet, a handwashing station, and a human-waste disposal system. Section 2.2-2.10.3 (LDR and LDRP Rooms), does not include a reference to either 2.2-2.2.2 or 2.1-2.2.6 for patient toilet room requirements. Instead, section 2.2-2.10.3.6 reads, "each LDR or LDRP room shall have direct access to a private toilet room with shower or tub".

FGI Guidelines Interpretation Request

Question: Is it the intent of the Guidelines to exclude a hand washing station and a human-waste disposal system from a patient toilet/bathing room required for an LDR or LDRP? This appears to be an oversight.

FGI Response

Thank you very much for sending in your query. We researched the section history and reached out to two experts, one currently on the HGRC and a former HGRC member who is an expert in LDR/LDRP design. Both members have lengthy tenure with the HGRC and historical knowledge.

In short, we agree the cross-references to the design requirements were unintentionally overlooked as the structure of the document evolved. We plan to issue an erratum to add cross-references to the design requirements at sections 2.1-2.2.6 (Patient Toilet Room) and 2.1-2.2.7 (Patient Bathing Facilities) for the LDR/LDRP rooms as soon as practical. Errata will be prepared for earlier editions as well.

FGI Guidelines Interpretation Request

State the purpose of your request for formal interpretation:
2.2-2.10.3.2 (1)(a) requires the infant stabilization and resuscitation space to be distinct from the mother's area. It is unclear what is meant by the term "mother's area". The 2018 edition added bed clearance requirements. The 2022 edition revised the text to modify the requirement to apply "while the bed is extended for use during deliveries".

FGI Guidelines Interpretation Request

Question: Q1: What is meant by the term, "mother's space"? Q2: If the mother's space includes the bed clearances required by 2.2-2.10.3.2 (2), is it the intent of 2.2-2.10.3.2 (1)(a) to preclude the use the clear space at the side or foot of the bed from overlapping with the clear floor space of the infant stabilization and resuscitation space? (Presumably, the bed clearances are still needed after the infant is delivered as the mother may require additional care or still be in active labor for an additional infant(s)

FGI Response

Thank you very much for sending in your query. We researched the section history and reached out to two experts, one currently on the HGRC and a former HGRC member who is an expert in LDR/LDRP design. Both members have lengthy tenure with the HGRC and historical knowledge.

In short, we agree the cross-references to the design requirements were unintentionally overlooked as the structure of the document evolved. We plan to issue an erratum to add cross-references to the design requirements at sections 2.1-2.2.6 (Patient Toilet Room) and 2.1-2.2.7 (Patient Bathing Facilities) for the LDR/LDRP rooms as soon as practical. Errata will be prepared for earlier editions as well.

Question for NFPA

Code Reference:

NFPA 72 24.4.8.5.6 Where the separation of the in-building fire emergency voice/alarm control equipment occurs as in 24.4.8.5.4, and where the circuits are run through junction boxes, terminal cabinets or control equipment, such as system control units, power supplies and amplifiers, and where cable integrity is not maintained, these components shall, in addition to the pathway survivability required by 24.3.13.4.1, be protected by using one of he following methods:

(1)A 2-hour fire–rated enclosure

(2) A 2-hour fire–rated room

(3) Other equivalent means to provide a 2-hour fire resistance–rating approved by the authority having jurisdiction

Question for NFPA

Question:

Does the installation of a fire alarm panel in a 2-hour fire rated room (where other equipment is also installed such as an IT room) meet the intent of NFPA 72 section 24.4.8.5.6 or, because there is other equipment in the room does a fire alarm panel require a dedicated 2-hour room/enclosure with nothing else installed in this room/enclosure?

NFPA's Opinion

Thank you for contacting NFPA with your question on NFPA 72 2016 edition regarding non-fire alarm equipment in the room with a fire alarm control panel relating to protection of equipment for relocation and partial evacuation.

Unfortunately, the NFPA advisory service program prohibits me from confirming compliance with the standard or addressing project specific arrangements, however please let me offer my opinion on the code intent for the sections you are referencing.

Section 24.4.8.5.6 does not specify equipment that cannot be located in the 2-hour fire rated room. Generally, when a provision in NFPA standards prohibits other items from being located in the same space as a piece of fire protection equipment, it is specified.

NFPA's Opinion

For example, NFPA 20 2022:

Except as permitted in 4.14.1.1.6, rooms containing fire pumps shall be free from storage, equipment, and penetrations not essential to the operation of the pump and related components.

Equipment related to domestic water distribution shall be permitted to be located within the same room as the fire pump equipment.

In this case, it is clear that only domestic water distribution equipment is permitted in the same room as the fire pump.

The NFPA 72 language does not specify any limitations to other equipment in the room.

NFPA's Opinion

Ultimately, the authority having jurisdiction determines compliance with the code.


QUESTIONS