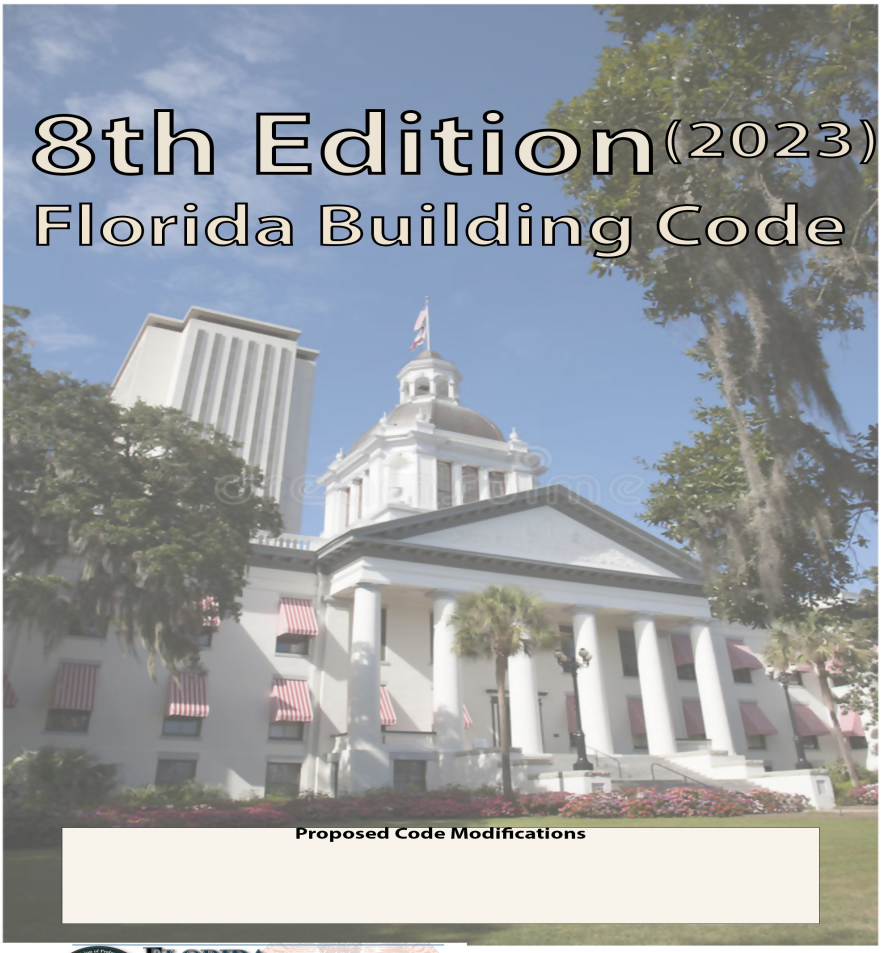

FLORIDA BUILDING COMMISSION
"Stronger Codes Through Science and Consensus"

dbpr Department of Business & Professional Regulation

ICC 2021 Code Changes

This document created by the Florida Department of Business and Professional Regulation - 850-487-1824

TAC: Electrical

Total Mods for **Electrical** in **Denied – Consent: 1**

Total Mods for report: 3

Sub Code: Existing Building

E9758/EB46-19

1

Date Submitted	3/15/2021	**Section**	406.1.4	**Proponent**	Mo Madani
Chapter	4	**Affects HVHZ**	Yes	**Attachments**	Yes
TAC Recommendation	Denied – Consent				
Commission Action	Pending Review			**Staff Classification**	Overlap

Comments

General Comments **Yes**

Related Modifications

406.1.4 (New), 408.3

Original text of this code change is not consistent with that of the 2020 FBC-EB/407.1.4.

Summary of Modification

NFPA 99 specifies broader requirements for existing buildings beyond just hospital grade receptacles. This change will align the electrical and medical gas systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities.

Rationale

NFPA 99 specifies broader requirements for electrical systems in existing buildings beyond just hospital grade receptacles in bed locations. This includes requirements tamperproof receptacles in pediatrics, and additional requirements for surgery. NFPA 99 defines requirements for existing facilities. In order to meet federal conditions of participation health care facilities must comply with the electrical systems and equipment and medical gas systems must be installed according to the requirements listed in NFPA 99, Health Care Facilities Code (K912, and K917). This change will align the electrical and medical gas (K909 and K910) systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities. NFPA 99 defines when repairs are made to these systems requirement for component replacement, means and methods of repairs and safety requirements.
NFPA 99 uses a risk based approach to system design, installation and maintenance in healthcare facilities (Group I-2 facilities, ambulatory care facilities and outpatient clinics). Four levels of systems categories are defined in NFPA 99, based on the risks to patients and caregivers in the facilities. The categories are as follows:

(1) Category 1: Systems that are expected to be functional at all times. Failure of these systems is likely to cause major injury or death.
(2) Category 2: Systems are expected to have a high level of reliability. Failures of these systems are likely to cause minor injury to patients or caregivers, however, limited short durations of equipment downtime can be tolerated. Category 2 systems are not critical for life support.

(Please see the uploaded mod EB46-19 for the complete text)

Comment Period History

Proponent Bryan Holland **Submitted** 6/28/2021 **Attachments** No

Comment:

NEMA fully supports replacing 407.1.4 of the 2020 FBC-EB with the new language in 406.1.4 of the 2021 IEBC as this will ensure that all electrical system repairs will comply with the NFPA 99 and NFPA 70 and not just Group I-2 receptacle replacement.

E9758-G1

Approved as Submitted

2018 International Existing Building Code

Delete and substitute as follows:

~~**406.1.4 Group I-2 receptacles.Receptacles in patient bed locations of Group I-2 that are not "hospital grade" shall be replaced with "hospital grade" receptacles, as required by NFPA 99 and Article 517 of NFPA 70.**~~

406.1.4 Healthcare facilities.Portions of electrical systems being repaired in Group I-2, ambulatory care facilities and outpatient clinics shall comply with NFPA 99 requirements for repairs.

Add new text as follows:

408.3 Healthcare facilities.Portions of Medical Gas systems being repaired in Group I-2, ambulatory care facilities and outpatient clinics shall comply with NFPA 99 requirements for repairs.

Code Change No: EB46-19

Original Proposal

Section(s): 406.1.4 (New), 408.3 (New)

Proponents: John Williams, representing Healthcare Committee (AHC@iccsafe.org)

2018 International Existing Building Code

Delete and substitute as follows:

~~**406.1.4 Group I-2 receptacles.** Receptacles in patient bed locations of Group I-2 that are not "hospital grade" shall be replaced with "hospital grade" receptacles, as required by NFPA 99 and Article 517 of NFPA 70.~~

406.1.4 Healthcare facilities. Portions of electrical systems being repaired in Group I-2, ambulatory care facilities and outpatient clinics shall comply with NFPA 99 requirements for repairs.

Add new text as follows:

408.3 Healthcare facilities. Portions of Medical Gas systems being repaired in Group I-2, ambulatory care facilities and outpatient clinics shall comply with NFPA 99 requirements for repairs.

Reason: NFPA 99 specifies broader requirements for electrical systems in existing buildings beyond just hospital grade receptacles in bed locations. This includes requirements tamperproof receptacles in pediatrics, and additional requirements for surgery. NFPA 99 defines requirements for existing facilities. In order to meet federal conditions of participation health care facilities must comply with the electrical systems and equipment and medical gas systems must be installed according to the requirements listed in NFPA 99, Health Care Facilities Code (K912, and K917). This change will align the electrical and medical gas (K909 and K910) systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities. NFPA 99 defines when repairs are made to these systems requirement for component replacement, means and methods of repairs and safety requirements.

NFPA 99 uses a risk based approach to system design, installation and maintenance in healthcare facilities (Group I-2 facilities, ambulatory care facilities and outpatient clinics). Four levels of systems categories are defined in NFPA 99, based on the risks to patients and caregivers in the facilities. The categories are as follows:

(1) Category 1: Systems that are expected to be functional at all times. Failure of these systems is likely to cause major injury or death.
(2) Category 2: Systems are expected to have a high level of reliability. Failures of these systems are likely to cause minor injury to patients or caregivers, however, limited short durations of equipment downtime can be tolerated. Category 2 systems are not critical for life support.
(3) Category 3: Normal building system reliabilities are expected. Such systems support patient needs, but failure of such equipment or systems would not immediately affect patient care and are not critical for life support.
(4) Category 4: Such systems have no impact on patient care and would not be noticeable to patients in the event of failure.

The category definitions apply to equipment and systems operations.

A risk assessment should be conducted to evaluate the risk to the patients, staff, and visitors in all healthcare facilities. These categories are not always aligned to occupancy classification. Potential examples of areas/systems and their categories of risk;

(1) Ambulatory surgical center, where patients undergo general anesthesia, Category 1
(2) Reconstructive surgeon's office with general anesthesia, Category 1
(3) Procedural sedation site for outpatient services, Category 2
(4) Cooling systems in Houston, TX, Category 2
(5) Cooling systems in Seattle, WA, Category 3
(6) Heating systems in Chicago, IL Category 2
(7) Dental office, no general anesthesia, Category 3
(8) Typical doctor's office/exam room, Category 4
(9) Group I-2 Condition 2 facilities most systems would be Category 1

This approach more closely aligns system design, performance and maintenance to the safety risk to the public. It does not create significant additional costs.

This proposal is submitted by the ICC Committee on Healthcare (CHC). The CHC was established by the ICC Board to evaluate and assess contemporary code issues relating to healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. In 2017 and 2018 the CHC held 4 open meetings and numerous conference calls, *which included members of the committees as well as any interested parties, to discuss and debate the proposed changes*. Information on the CHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CHC effort can be downloaded from the CHC website at: https://www.iccsafe.org/codes-tech-support/cs/icc-committee-on-healthcare/.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This change aligns with existing federal requirements for the healthcare industry.

Report of Committee Action Hearings

Committee Action: **Approved as Submitted**

Committee Reason: This proposal is necessary to link with the required regulations for healthcare occupancies which requires compliance with NFPA 99 for repairs of electrical and medical gas systems. (Vote: 13-0)

Assembly Action: **None**

Final Action

EB46-19	**AS**

TAC: Electrical

Total Mods for **Electrical** in **Denied – W/ Individual Consideration: 2**

Total Mods for report: 3

Sub Code: Building

E9274/CCC IBC6-20

2

Date Submitted	2/23/2021	**Section**	421.7	**Proponent**	Mo Madani
Chapter	4	**Affects HVHZ**	Yes	**Attachments**	Yes
TAC Recommendation	Denied – W/ Individual Consideration			**Staff Classification**	Correlates Directly
Commission Action	Pending Review				

Comments

General Comments **Yes**

Related Modifications

[F] 2702.2.11, [F] 2702.2.12, [F] 2702.2.13, 1203.2.12

Summary of Modification

Adds section 2702.2.12 as a pointer to the IFC to be consistent with Chapter 12 of the IFC

Rationale

: Staff recommends adding section 2702.2.12 as a pointer to the IFC to be consistent with Chapter 12 of the IFC, specifically IFC Section 1203.2.12. IBC Section 421.7 references Section 2702 for standby power but there is currently no section addressing Hydrogen fuel gas rooms in 2702. Language is proposed based upon IFC Section
1203.2.12 which should be found in IBC Section 2702 to be consistent with Chapter 12 of the IFC. Chapter 27 is maintained by the Fire Code Committee. The equivalent section of the 2021 IFC is shown below.

1203.2.12 Hydrogen fuel gas rooms. Standby power shall be provided for hydrogen fuel gas rooms as required by Section 5808.7

Comment Period History

E9274-G1

Proponent Bryan Holland **Submitted** 6/28/2021 **Attachments** No

Comment:

NEMA supports adding this requirement to the FBC-B, however, we recommend the section point the Florida Fire Prevention Code (FFPC) in lieu of the IFC, which is not adopted by the Commission. We would recommend: "Hydrogen fuel gas rooms. Standby power shall be provided for hydrogen fuel gas rooms as required by the Florida Fire Prevention Code.

Comment Period History

E9274-G2

Proponent John Hall **Submitted** 6/29/2021 **Attachments** No

Comment:

This modification would be good except that the IFC is not adopted by Florida. Further, there is no corresponding requirement in the adopted Florida Fire Prevention Code to reference. Therefore I disagree with this proposed modification at this time.

Please see attachment

CCC IBC6-20

Correlation Requested by: ICC Staff

CCC Action AS

2021 International Building Code

Revise as follows:

SECTION 421
HYDROGEN FUEL GAS ROOMS

[F] 421.7 Standby power. Mechanical *ventilation* and gas detection systems shall be provided with a standby power system in accordance with Section 2702.

SECTION 2702
EMERGENCY AND STANDBY POWER SYSTEMS

[F] 2702.2.11 High-rise buildings. Emergency and standby power shall be provided in high-rise buildings as required in Section 403.4.8.

[F] 2702.2.12 Hydrogen fuel gas rooms. Standby power shall be provided for hydrogen fuel gas rooms as required by the International Fire Code.

[F] 2702.2.13~~12~~ Laboratory suites. Standby or emergency power shall be provided in accordance with Section 5004.7 where *laboratory suites* are located above the sixth story above grade plane or located in a story below grand plant.

Reason: Staff recommends adding section 2702.2.12 as a pointer to the IFC to be consistent with Chapter 12 of the IFC, specifically IFC Section 1203.2.12. IBC Section 421.7 references Section 2702 for standby power but there is currently no section addressing Hydrogen fuel gas rooms in 2702. Language is proposed based upon IFC Section 1203.2.12 which should be found in IBC Section 2702 to be consistent with Chapter 12 of the IFC. Chapter 27 is maintained by the Fire Code Committee. The equivalent section of the 2021 IFC is shown below.

> **1203.2.12 Hydrogen fuel gas rooms.** Standby power shall be provided for hydrogen fuel gas rooms as required by Section 5808.7

Sub Code: Existing Building

E9693/EB99-19

Date Submitted 3/12/2021	**Section** 1007.1	**Proponent** Mo Madani
Chapter 10	**Affects HVHZ** Yes	**Attachments** Yes
TAC Recommendation Denied – W/ Individual Consideration		**Staff Classification** Correlates Directly
Commission Action Pending Review		

Comments

General Comments **Yes**

Related Modifications

1007.1

FBC-EB/ Section 1008

Summary of Modification

This change will align the electrical systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities. NFPA 99

Rationale

NFPA 99 specifies additional requirements for electrical systems in health care facilities than just NFPA 70. In order to meet federal conditions of participation health care facilities must comply with the electrical systems and equipment must be installed according to the requirements listed in NFPA 99, Health Care Facilities Code (K901, K911, and K916). This change will align the electrical systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities.
NFPA 99 uses a risk based approach to system design, installation and maintenance in healthcare facilities (Group I-2 facilities, ambulatory care facilities and outpatient clinics). Four levels of systems categories are defined in NFPA 99, based on the risks to patients and caregivers in the facilities. The categories are as follows:

(1) Category 1: Systems that are expected to be functional at all times. Failure of these systems is likely to cause major injury or death.
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(3) Category 3: Normal building system reliabilities are expected. Such systems support patient needs, but failure of such equipment or systems would not immediately affect patient care and are not critical for life support.
(4) Category 4: Such systems have no impact on patient care and would not be noticeable to patients in the event of failure.

(Please see the uploaded mod EB99-19 for the complete text)

Comment Period History

E993-G1

Proponent Bryan Holland **Submitted** 6/28/2021 **Attachments** No

Comment:

NEMA fully supports adding this new language related to health care facilities and the pointer to the NFPA 99 to the FBC-EB.

Comment Period History

E993-G2

Proponent John Hall **Submitted** 6/29/2021 **Attachments** No

Comment:

I support adding this new language related to health care facilities and the reference to NFPA 99 as it would apply to the Florida Building Code, Existing Building.

Approved as Submitted

2018 International Existing Building Code

Revise as follows:

1007.1 Special occupancies.Where the occupancy of an *existing building* or part of an *existing building* is changed to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70 ~~whether or not a *change of occupancy* group is involved~~. Health care facilities, including Group I-2, ambulatory healthcare facilities and outpatient clinics, shall also comply with the applicable requirements of NFPA 99:

1. Hazardous locations.
2. Commercial garages, repair and storage.
3. Aircraft hangars.
4. Gasoline dispensing and service stations.
5. Bulk storage plants.
6. Spray application, dipping and coating processes.
7. Health care facilities, including Group I-2, ambulatory healthcare facilities and outpatient clinics.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.
11. Motion picture projectors.
12. Agricultural buildings.

Code Change No: EB99-19

Original Proposal

Section(s): 1007.1

Proponents: John Williams, representing Healthcare Committee (AHC@iccsafe.org)

2018 International Existing Building Code

Revise as follows:

1007.1 Special occupancies. Where the occupancy of an *existing building* or part of an *existing building* is changed to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70 ~~whether or not a *change of occupancy* group is involved~~. Health care facilities, including Group I-2, ambulatory healthcare facilities and outpatient clinics, shall also comply with the applicable requirements of NFPA 99:

1. Hazardous locations.
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3. Aircraft hangars.
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7. Health care facilities, including Group I-2, ambulatory healthcare facilities and outpatient clinics.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.
11. Motion picture projectors.
12. Agricultural buildings.

Reason: NFPA 99 specifies additional requirements for electrical systems in health care facilities than just NFPA 70. In order to meet federal conditions of participation health care facilities must comply with the electrical systems and equipment must be installed according to the requirements listed in NFPA 99, Health Care Facilities Code (K901, K911, and K916). This change will align the electrical systems installation requirements for Outpatient Clinics, Group B Ambulatory Care and Group I-2 facilities.

NFPA 99 uses a risk based approach to system design, installation and maintenance in healthcare facilities (Group I-2 facilities, ambulatory care facilities and outpatient clinics). Four levels of systems categories are defined in NFPA 99, based on the risks to patients and caregivers in the facilities. The categories are as follows:

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Cost Impact: The code change proposal will not increase or decrease the cost of construction
This change aligns with existing federal requirements for the healthcare industry.

Report of Committee Action Hearings

Committee Action: **Approved as Submitted**

Committee Reason: This proposal was approved to further correlate the IEBC with the federal healthcare requirements. (Vote: 13-0)

Assembly Action: **None**

Final Action

EB99-19 **AS**