

Electrical Technical Advisory Committee (TAC) – Comments

9th Edition (2026) Florida Building Code, Plumbing

Glitch/Errata

P – Appendix F Comment #1

From: Cheryl Harris <charris@fisstate.org>

Mo,

Thank you for taking our suggested changes today. Below are the two changes to Appendix F in the Plumbing Code. If this needs to be in a different format, I can do so quickly.

Part V 5.1 Eliminate all of Number 1.

Reason: The reference to 98 volts is in direct conflict with the electrical code which states 50 volts or less being considered for low voltage. Strike all of number 5.1.

PART V: INSTALLATION

E. Low voltage wire installation.

1. Install low voltage wire (less than 98 volts) with a minimum depth of cover of 12 inches (305 mm) where not installed directly under the mainline.

Part V 5.5 Eliminate the "Exception: No conduit is required when wiring above ground manifolds from the valve to the ground immediately beneath it."

5. Install all above-ground wire runs and wire entries into buildings in electrical conduit.

Exception: No conduit is required when wiring above ground manifolds from the valve to the ground immediately beneath it.

Reason: There are still 110 volt solenoids being sold and used in Florida. This is a safety issue.

TAC Recommendation: Not Glitch - Denial – 9-0

Commission Action:

9th Edition (2026) Florida Building Code, Building

Glitch

E – Ch. 35 Comment #2

- Under NFPA 70-23 National Electric Code (NEC) published September 1, 2022, include TIA 23-9 (Effective Date April 10, 2023) - **Douglas Dorr**
- Respectfully urge the Florida Building Commission to expedite adoption of NEC Tentative Interim Amendment (TIA) 23-9 - **Florida House of Representatives Representative Griff Griffiths**
- Remove the phrase "as published September 1, 2022" from the Referenced Standards section - **Anthony Solino**

Hi Mo,

Attached please find the amended glitch/errata proposed change based on the threat to public safety criteria listed in the call for proposed modifications: Adoption of an updated edition of the National Electrical Code if the Commission finds that delay of implementing the updated edition causes undue hardship to stakeholders or otherwise threatens the public health, safety, and welfare

Best Regards

Doug Dorr

Technical Executive

Electric Power Research Institute

4011 Isle Vista Ave

Belle Isle, FL 32812

ddorr@epri.com

To: mo.madani@myfloridalicense.com

Subject: **Proposed Glitch Code Change:**

From: **Douglas Dorr**

As a member of the National Fire Protection Association (NFPA) experts panel for NEC Article 680.26 and as the Principal R&D Manager for the EPRI Swimming Pool Test Facility, I am proposing the expedited

adoption into the Florida Building Code by December 31, 2026, of NEC TIA 23-9 for all new construction of commercial or residential pools.

More specifically this request is to revise Chapter 35 (Referenced Standards) of the Florida Building Code 9th Edition Draft as follows: Under NFPA 70-23 National Electric Code (NEC) published September 1, 2022, include TIA 23-9 (Effective Date April 10, 2023). For convenience, the specific language from TIA-23-9 is included both, as an attachment, and as the last several paragraphs in this proposal.

This proposed code change is requested according to the following Glitch Code Change requirement: *“Adoption of an updated edition of the National Electrical Code if the Commission finds that delay of implementing the updated edition causes undue hardship to stakeholders or otherwise threatens the public health, safety, and welfare.”*

The rationale for the proposed code change is based on the following:

- (a) The proposed code change falls within the glitch criteria stated above - because not including TIA 23-9 in the 9th Edition of the Florida Building Code threatens the public health, safety, and welfare of Floridians and visitors.
- (b) The proposed code change has a Florida specific need because the present Florida adoption does not consider or require minimum safe electric shock drowning criteria of the 2023 NEC, and particularly the published TIA 23-9.
- (c) The impact on small businesses is not significant or slightly beneficial as this early adoption of TIA 23-9 would result in fewer follow up visits and investigation costs to determine why shock complaints may be occurring at a newly constructed in ground swimming pool.
- (d) The proposed code change has a reasonable and substantial connection with the health, safety, and welfare of the general public and in particular fewer electric shock drowning possibilities. See [CPSC reference](#) and [USCG Electric Shock Drowning Report](#).
- (e) The proposed code change strengthens the Florida Building Code’s 9th Edition by bringing it back up to the minimum NEC requirements described in the TIA 23-9.
- (f) The proposed code change adds lower cost options for approved wire types such as approved steel wire mesh, and therefore, does not discriminate against materials, products, methods, or systems of construction.
- (g) The proposed code change strengthens a well-known and approved shock drowning risk mitigation method and as such improves – and does not degrade - the effectiveness of the Florida Building Code.

For reference, On the following pages, I have excerpted NEC TIA 23-9 below and have included the original as an attachment along with this letter.



Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: Definition of Pool, and 680.26

TIA 23-9

(SC 23-3-8 / TIA Log #1687)

Pursuant to Section 5 of the NFPA Regulations Governing the Development of NFPA Standards, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, National Electrical Code®, 2023 edition. The TIA was processed by the NEC Code-Making Panel 17 and the NEC Correlating Committee, and was issued by the Standards Council on March 21, 2023, with an effective date of April 10, 2023.

1. Revise the definition of "Pool" to read as follows:

Pool. Manufactured or field-constructed equipment designed to contain water on a permanent or semipermanent basis and used by persons for swimming, wading, immersion, or therapeutic purposes, but not including bodies of water incorporated as part of an industrial process or lakes, lagoons, surf parks, or other natural and man-made bodies of water that may incorporate swimming and swimming areas. (680) (CMP-17)

Informational Note: Natural and man-made bodies of water, which includes lakes, lagoons, surf parks, or other similar bodies of water, are addressed in Article 682.

2. Revise section paragraph 680.26 to read as follows:

680.26 Equipotential Bonding.

(A) Performance. The equipotential bonding required by 680.26(B) and (C) to reduce voltage gradients in the pool area shall be installed for pools with or without associated electrical equipment related to the pool.

Informational Note No. 1: Some causes of voltage gradients originate outside the premises wiring system and are not within the scope of the NEC. Measures identified in Rule 097D2 of ANSI C2, National Electrical Safety Code, can also serve to address voltage gradients originating on the utility side of the service point.

Informational Note No. 2: By its nature, equipotential bonding of swimming pools and perimeter surfaces involves contact between various metallic materials and the earth. This can, in some cases, expose various specific metals to a corrosive environment, depending on factors such as the type and chemical content of the soil and the specific metal. Corrosive environments are also addressed in 680.14.

(B) Bonded Parts. ...

(1) Conductive Pool Shells. ...

(2) Perimeter Surfaces. The perimeter surface to be bonded shall be considered to extend for 4-m 900 mm (3 ft) horizontally beyond the inside walls of the pool ~~and~~ while also at a height between 900 mm (3 ft) above and 600 mm (2 ft) below the maximum water level. The perimeter surface shall include unpaved surfaces, concrete, and other types of paving. Perimeter surfaces separated from the pool by a permanent wall or building 1.5 m (5 ft) in height or more shall

Comments received:

From: Tarek Gadd <tarek.gadd@sce.com>

Sent: Wednesday, July 22, 2026 11:59 AM

To: Madani, Mo <Mo.Madani@myfloridalicense.com>

Subject: Proposed glitch Code Change: Support for E-Ch. 35 Comment #2

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From: **Tarek Gadd**, PE, Southern California Edison, Senior Engineer 1

I strongly support this comment and urge you to adopt TIA 23-9 into the Florida Building Code by December 31, 2026. The NEC is the minimum level of safety, and no other state has removed this emergency amendment from their adoption of the 2023 Edition or later. The utility companies have had to bear the burden and significant expense of diagnosing and resolving shocks on swimming pools until this misunderstood phenomenon was studied by the panel of experts at the NFPA. This increases electricity costs for all customers, because the problem is not with the delivery of power, but inadequate premises wiring, which clearly falls under the purview of the National Electrical Code.

It is now known that when shocking occurs on pool decks without adequate equipotential bonding, the only resolution is to remove the existing deck, install a steel or copper bonding grid, and reinstall the deck. The cost is substantial and will vary between one and two orders of magnitude more than installing a grid during initial construction.

Installing proper equipotential bonding in a pool is now considered an electrical safety blanket, protecting swimmers from fatal and harmful electrical faults even from pool equipment. Not protecting the public and forcing all customers to pay higher electricity costs is negligent.

Please adopt TIA 23-9 into the Florida Building Code by December 31, 2026.

Thank you,

Tarek Gadd, PE

Power Quality | Distribution Engineering | System Planning and Engineering

M. 626-260-0655

1851 W. Valencia, Fullerton, CA



From: Bill Byrd <wbyrd@privacomventures.com>

Sent: Wednesday, July 22, 2026 11:56 AM

To: Madani, Mo <Mo.Madani@myfloridalicense.com>

Subject: Fla. Building Code Changes.

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Fla. Board Members,

I strongly support this comment and urge you to adopt TIA 23-9 into the Florida Building Code by December 31, 2026. The NEC is the minimum level of safety, and no other state has removed this emergency amendment from their adoption of the 2023 Edition or later. The utility companies have had to bear the burden and significant expense of diagnosing and resolving shocks on swimming pools until this misunderstood phenomenon was studied by the panel of experts at the NFPA. This increases electricity costs for all customers, because the problem is not with the delivery of power, but inadequate premises wiring, which clearly falls under the purview of the National Electrical Code.

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Installing proper equipotential bonding in a pool is now considered an electrical safety blanket, protecting swimmers from fatal and harmful electrical faults even from pool equipment. Not protecting the public and forcing all customers to pay higher electricity costs is negligent.

Please adopt TIA 23-9 into the Florida Building Code by December 31, 2026.

Bill

President

William A. Byrd, P.E., C.S.

803-781-7112

C/o PRIVACOM VENTURES, INC.

106 Larkspur Road

Columbia, SC 29212-2047

Gregory L. Olson

Mr. Mo Madani,

I strongly support this comment and urge you to adopt TIA 23-9 into the Florida Building Code by December 31, 2026. The NEC is the minimum level of safety, and no other state has removed this emergency amendment from their adoption of the 2023 Edition or later. The utility companies have had to bear the burden and significant expense of diagnosing and resolving shocks on swimming pools until this misunderstood phenomenon was studied by the panel of experts at the NFPA. This increases electricity costs for all customers, because the problem is not with the delivery of power, but inadequate premises wiring, which clearly falls under the purview of the National Electrical Code.

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Installing proper equipotential bonding in a pool is now considered an electrical safety blanket, protecting swimmers from fatal and harmful electrical faults even from pool equipment. Not protecting the public and forcing all customers to pay higher electricity costs is negligent.

Please adopt TIA 23-9 into the Florida Building Code by December 31, 2026.

Thank you.

Gregory L. Olson, P.E., CP2

Gregory L. Olson, P.E., CPQ 2 Arrow Wood Ln 51 Sammys Beach Rd Savannah, GA 31411 East Hampton

Anthony L. Solino

(772) 807-0174

IAEI Treasure Coast Education Chair
ICC Certified Electrical Plans Examiner / Inspector
NFPA Electrical Inspector Member
UL TC 4, 758, 1563

From: Michael Nappa <michael.a.nappa@gmail.com>
Sent: Saturday, July 18, 2026 12:01 AM
To: Madani, Mo <Mo.Madani@myfloridalicense.com>
Subject: Pool NEC electrical code for bonding -support TIA

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Hi Mr. Madani,

I support TIA to say that single wire conductor is not sufficient for equipotential, and that the copper mesh be used. I live in NJ and have had experience in bonding since I was having stray voltage / mild shock issues from concrete decking to the water surface in my pool.

Please email me back if you have any questions. I wanted you to get this email by August so it can count towards the specific endeavor to change the building code in Florida.

I support improvement of more than just a single wire buried in concrete decking.

Thank you.

-Mike Nappa



Florida House of Representatives
Representative Griff Griffiths
District 6

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Counsel Oversight

July 20, 2026

Florida Building Commission
c/o Department of Business & Professional Regulation
2601 Blair Stone Road Tallahassee, FL 32399

Dear Chair and Members of the Florida Building Commission,

I write today to respectfully urge the Florida Building Commission to expedite adoption of NEC Tentative Interim Amendment (TIA) 23-9 into the Florida Building Code (FBC) for all new commercial and residential swimming pool construction through the glitch/errata process.

As the sponsor of House Bill 405, which included similar language addressing electrical safety and equipotential bonding requirements for swimming pools, I remain committed to ensuring that Florida's Building Code reflects the most current and scientifically supported standards necessary to protect Floridians and visitors. The Commission's timely adoption of TIA 23-9 is essential to maintaining that commitment.

This proposed update meets the statutory requirement for glitch/errata, which allows adoption of an updated edition of the National Electrical Code when delay would cause undue hardship or threaten public health, safety, and welfare. In this case, delaying adoption of TIA 23-9 would do both.

TIA 23-9 addresses critical minimum safety requirements related to electric shock drowning (ESD). Failure to adopt this update leaves Florida pools governed by outdated bonding criteria that do not reflect current research or national safety standards. This poses a direct risk to the public.

Florida has one of the highest concentrations of residential and commercial pools in the nation, with year-round usage and unique environmental conditions. The current Florida Building Code does not incorporate the minimum safe ESD criteria established in the 2023 NEC and refined in TIA 23-9. Florida's pool environment warrants adoption of the most current protections. The proposed change directly supports the health, safety, and welfare of the general public by reducing the likelihood of electric shock drowning incidents.



Florida House of Representatives
Representative Griff Griffiths
District 6

TIA 23-9 expands acceptable bonding materials—including approved steel wire mesh—reducing costs and avoiding discrimination against specific construction materials or methods.

Conclusion

For these reasons, and consistent with the intent of House Bill 405, I respectfully urge the Florida Building Commission to adopt NEC TIA 23-9 into the Florida Building Code, 9th Edition, effective December 31, 2026. This action is necessary to maintain Florida's leadership in electrical safety, align with national standards, and protect the public from preventable electric shock drowning hazards.

Thank you for your consideration and for your continued service to the people of Florida. I stand ready to assist the Commission with any additional information or legislative context that may be helpful.

Sincerely,

A handwritten signature in blue ink, appearing to read "Griff", is positioned above the printed name.

Philip "Griff" Griffiths Jr.
Florida House Representative
District 6

Hello sir Please see my recommendations for (2) glitch changes relating to the 9th edition

Respectfully,

COMMENTS TO THE FLORIDA ELECTRICAL TECHNICAL ADVISORY COMMITTEE

Regarding the Proposed Referenced Standards Glitch Change
9th Edition (2026) Florida Building Code, Electrical

Submitted by

Anthony Solino

Chief Electrical Inspector/Plans Examiner
Martin County Building Department

Disclaimer

These comments are submitted in my individual professional capacity as a State of Florida Licensed Electrical Plans Examiner/Inspector. They are intended to assist the Florida Electrical Technical Advisory Committee in its deliberations and do not necessarily represent the official position or policy of Martin County or the Martin County Building Department.

Introduction

These comments are submitted in response to the proposed Referenced Standards Glitch Change for the 9th Edition (2026) Florida Building Code, Electrical.

During my review of the proposed Glitch Change, I identified concerns regarding both the proposed Referenced Standards language and the proposed amendment to Section 210.8(F) of the National Electrical Code (NFPA 70).

Accordingly, these comments address the following two issues:

- Issue 1 – The proposed Referenced Standards language adopting NFPA 70 "as published September 1, 2022."
- Issue 2 – The proposed amendment to Section 210.8(F).

Issue 1 – Referenced Standards

Administrative and Enforcement Considerations

The proposed language adopting NFPA 70 "as published September 1, 2022" presents significant practical enforcement challenges.

While the intent appears to be preserving the First Printing of the 2023 National Electrical Code, this approach creates unnecessary administrative complexity.

Since publication of the 2023 National Electrical Code, NFPA has issued Tentative Interim Amendments (TIAs), Errata, and has published the 2026 edition of NFPA 70.

Today, NFPA LiNK and digital versions of the National Electrical Code have become the primary means by which the Code is accessed. Requiring enforcement of the First Printing of the 2023 NEC is impractical and will likely result in inconsistent enforcement throughout Florida.

Historically, Florida has adopted NFPA 70 in its entirety while amending only those individual sections where state-specific modifications were necessary. This approach has provided consistency, simplified code administration, and promoted uniform enforcement throughout the state.

If Florida determines that modifications to Sections 210.8(F), 680.26, or any other provisions are appropriate, those individual sections should be amended directly within the Florida Building Code. The Referenced Standards section should simply reference "NFPA 70-23" without the additional phrase "as published September 1, 2022." This approach preserves Florida's longstanding method of adopting NFPA 70 while clearly identifying the specific state amendments.

This approach would provide greater clarity for code officials, designers, contractors, manufacturers, and the public while avoiding unnecessary enforcement challenges.

Issue 2 – Proposed Amendment to Section 210.8(F)

Public Safety Considerations

The purpose of both the Florida Building Code and the National Electrical Code is the protection of persons and property from hazards associated with the use of electricity.

When evaluating any proposal that modifies a nationally recognized electrical safety requirement, it is important to remember why that requirement was introduced into the Code.

The legislative history of Section 210.8(F) traces back to Public Input 1206 during the development of the 2020 National Electrical Code.

That proposal was prompted, in part, by the tragic electrocution of a 12-year-old child who came into simultaneous contact with an energized residential outdoor air-conditioning condenser and a grounded metal fence.

One preventable fatality is unacceptable. The State of Florida has a longstanding history of leading the nation in building safety and code development. As code officials, we should carefully consider the consequences of reducing an established life safety requirement. If a future loss of life were to occur under circumstances this provision was intended to address, we should ask whether we are prepared to justify that decision.

For that reason, any proposal to amend the personnel protection required by Section 210.8(F) should be supported by clear technical substantiation demonstrating that the proposed amendment maintains an equivalent or greater level of public safety.

Recent advancements in high-frequency and special-purpose GFCI protective devices appear to address many of the operational concerns associated with nuisance tripping that developed following adoption of Section 210.8(F).

Given these technological advancements, the Committee should evaluate whether a Florida-specific amendment to Section 210.8(F) remains necessary while maintaining the level of public safety intended by the National Electrical Code.

Recommendations

1. **Remove the phrase "as published September 1, 2022" from the Referenced Standards section.** The Florida Building Code should simply reference "NFPA 70-23," consistent with Florida's longstanding practice of adopting NFPA 70 while amending only those individual sections requiring state-specific modification.
2. **Evaluate whether the proposed amendment to Section 210.8(F)** is supported by sufficient technical substantiation demonstrating that the amendment maintains an equivalent or greater level of public safety.

From: Muayad Tarabain <Muayad.TARABAIN@HydroOne.com>
Sent: Friday, July 24, 2026 4:47 PM
To: Madani, Mo <Mo.Madani@myfloridalicense.com>
Subject: Proposed glitch Code Change: Support for E-Ch. 35 Comment #2

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Hello,

I'm Muayad Tarabain, a professional engineer in the province of Ontario that has worked on investigating & mitigating hundreds of stray/contact voltage complaints for residential and farm properties. I'm also a member of the Section 10 Grounding subcommittee for the Canadian Electrical Code (CSA C22.1).

I wanted to share with you my view and **support regarding the subject comment by Doug Dorr** in the [Electrical TAC.pdf](#) comments.

I strongly urge you to adopt TIA 23-9 into the Florida Building Code by December 31, 2026. It's the appropriate safe measure that will provide a reasonable level of protection from electrical faults whether they're primary or secondary faults.

Thank you,

Muayad Tarabain, P.Eng

Sr. Manager, Dx Lines Technical Services

Hydro One Networks Inc.

230 Bayview Drive Barrie, ON L4N 4Y8

Tel: (705) 220-4766

Email: Muayad.Tarabain@HydroOne.com

TAC Recommendation: Not Glitch - Denial – 8-1

Commission Action: