

Board of Electricity Request for Interpretation

Name of submitter	Date	Rule(s) to be interpreted (e.g., Mn Rule Part 3801.XXXX, subpt. XX):		
Tim Kunkel	06/26/2025			
Company Name	Phone number	Email address		
Tim Kunkel Electric L.L.C.	(651) 353-1072	tim@timkunkelelectric.com		
Mailing address	City or Township	State	Zip	
1838 Laurel Avenue	Saint Paul	MN	55104	

The National Electrical Code (NEC) is available at

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70>

Has a request for interpretation been submitted to Minnesota Department of Labor and Industry (DLI) staff, either as a verbal request or a written request? ☒ Yes ☐ No

- If "No," contact DLI staff at 651-284-5820. DLI staff are responsible for administration and initial interpretation of the National Electrical Code. All requests must first be processed by DLI and provided with a staff interpretation before being referred to the Board of Electricity. This form is intended to be used to request an interpretation from the Board of Electricity only as a resolution of dispute with DLI interpretation.

Code Section(s) to be interpreted (e.g., 20XX NEC, Ch XX, § XXX.XX):	Date interpretation was first requested:	Name of DLI staff member who provided interpretation:
210.8 (A) (6)	06/23/2025	Dean Hunter

Provide a copy of the DLI interpretation with this request (a copy must be provided as reference).

Is there a dispute with a local Inspector of other official?	If Yes, provide the name and type of official:
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dean Hunter

Describe the circumstances underlying the initial dispute:

210.8 requires GFCI protection of kitchen appliances. On or before July of 2024 Mr. Hunter enacted a behind closed doors exception to this requirement.

Explain why you disagree with the interpretation given to you by DLI staff:

I do not believe that Mr. Hunter has the power to unilaterally change the electrical code without the approval of the board of electricity.

Provide and explain your interpretation of the relevant Code section or Rule part's language:

I believe that the code as written and adopted is accurate. If the board chooses to change the requirements of the electrical code than it must be published

Provide any additional information you would like the Board to consider:

I would like it made clear that changes to the electrical code have a process which must be followed.

Information regarding submitting this form:

- Submit this form and any supporting documentation to be considered electronically to DLI.CCLDBOARDS@state.mn.us or mail to Board of Electricity, c/o CCLD, Department of Labor and Industry, 443 Lafayette Road North, St. Paul, MN 55155.
- Once your Request for Interpretation form has been received, it will be assigned a file number. Please reference this file number on any subsequent correspondence and supplemental submissions.

Information for presentation to the Board:

- You will be notified with the date of the Board Meeting in which your Request for Interpretation will be heard.
- Please limit presentations to 10 minutes or less.
- Be prepared to answer questions regarding the Code Section/Rule Part at issue and the circumstances that led to the dispute.

What you can do if you disagree with the Board’s determination:

- You may appeal the Board’s final determination pursuant to Minnesota Statutes §326B.127, subd. 5 (2020).

For assistance or questions on completing this form, please call 651-284-5820.

This material can be made available in different forms, such as large print, Braille, or on a tape. To request, call 1-800-342-5354.

Office Use Only			
RFI File No.	Date Received by DLI	Dated Received by Board	Date of Board Meeting
Title of RFI	By:		

EXHIBIT A

90.2 (B) Adequacy.

This code contains provisions that are considered necessary for safety. Compliance therewith and proper maintenance result in an installation that is essentially free from hazard but not necessarily efficient, convenient, or adequate for good service or future expansion of electrical service.

The NEC specifically tells us that it is a document intended to provide safety from electrical hazards that may otherwise exist. This states to us that convenience is not it's stated purpose or goal.

90.4 (B) Interpretations

The authority having jurisdiction for enforcement of the Code has the responsibility for making interpretations of the rules, for deciding on the approval of equipment and materials, and for granting the special permission contemplated in a number of the rules.

While the AHJ has the responsibility for interpretation of the rules, Mr. Hunter's proposal (directive) did not meet the definition of interpretation. It was an amendment adding an exception to the code. Furthermore, it is my opinion that MN State Statute 326B.32 (see exhibit A.1) gives the power of interpretation AND of amendment to the Board of Electricity, not Mr. Hunter. Also showing that the Board of Electricity, not Mr. Hunter is who holds the power of AHJ.

SEE PAGE 2

90.4 (C) Specific Requirements and Alternative Methods.

By special permission, the authority having jurisdiction may waive specific requirements in this Code or permit alternative methods where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

The AHJ may waive specific requirements “where it is assured that equivalent objectives can be achieved”. A standard circuit breaker does not provide an equivalent objective to a GFCI type circuit breaker. There is nothing located in or provided by a NEMA Unwanted Tripping Report (see exhibit 1.B) that provides GFCI protection. As such, equivalent objectives have not been established.

Additionally when Mr. Hunter sent out an email to his inspection department dated 06/27/2024 (see exhibit 1.C) stating the “new protocol”, this stopped being special permission, and instead became state policy. No special situational consideration was to be given, and no case-by-case permission was required. This was a de facto code change, a code change that legally should have been submitted for public comment, voted on by the Board of Electricity, and subsequently published as required.

EXHIBIT A.1

326B.32 BOARD OF ELECTRICITY.

Subdivision 1. **Composition.** (a) The Board of Electricity shall consist of 12 members. Eleven members shall be appointed by the governor with the advice and consent of the senate and shall be voting members. Appointments of members by the governor shall be made in accordance with section 15.066. If the senate votes to refuse to consent to an appointment of a member made by the governor, the governor shall appoint a new member with the advice and consent of the senate. One member shall be the commissioner of labor and industry or the commissioner's designee, who shall be a voting member. Of the 11 appointed members, the composition shall be as follows:

- (1) one member shall be an electrical inspector;
- (2) two members shall be representatives of the electrical suppliers in rural areas;
- (3) two members shall be master electricians, who shall be contractors;
- (4) two members shall be journeyworker electricians;
- (5) one member shall be a registered consulting electrical engineer;
- (6) one member shall be a power limited technician, who shall be a technology system contractor;
- (7) one member shall be a power limited technician; and
- (8) one member shall be a public member as defined by section 214.02.

The electrical inspector shall be appointed to a term to end December 31, 2011. One of the rural electrical suppliers shall be appointed for a term to end December 31, 2011. The other rural electrical supplier shall be appointed for a term to end December 31, 2010. The consulting electrical engineer shall be appointed for a term to end December 31, 2011. One of the master electrician contractors shall be appointed for a term to end December 31, 2011. The other master electrician contractor shall be appointed for a term to end December 31, 2010. One of the journeyworker electricians shall be appointed for a term to end December 31, 2011. The other journeyworker electrician shall be appointed for a term to end December 31, 2010. One of the power limited technicians shall be appointed for a term to end December 31, 2011. The other power limited technician shall be appointed for a term to end December 31, 2010. The public member shall be appointed for a term to end December 31, 2010.

(b) The consulting electrical engineer must possess a current Minnesota professional engineering license and maintain the license for the duration of the term on the board. All other appointed members, except for the public member and the representatives of electrical suppliers in rural areas, must possess a current electrical license issued by the Department of Labor and Industry and maintain that license for the duration of their terms. All appointed members must be residents of Minnesota at the time of and throughout the member's appointment. The term of any appointed member that does not maintain membership qualification status shall end on the date of the status change and the governor shall appoint a new member. It is the responsibility of the member to notify the board of their status change.

(c) For appointed members, except the initial terms designated in paragraph (a), each term shall be three years with the terms ending on December 31. Members appointed by the governor shall be limited to three consecutive terms. The governor shall, all or in part, reappoint the current members or appoint replacement members with the advice and consent of the senate. Midterm vacancies shall be filled for the remaining portion of the term. Vacancies occurring with less than six months time remaining in the term shall be filled

for the existing term and the following three-year term. Members may serve until their successors are appointed but in no case later than July 1 in a year in which the term expires unless reappointed.

Subd. 2. Powers; duties; administrative support. (a) The board shall have the power to:

(1) elect its chair, vice-chair, and secretary;

(2) adopt bylaws that specify the duties of its officers, the meeting dates of the board, and containing other provisions as may be useful and necessary for the efficient conduct of the business of the board;

(3) adopt the Minnesota Electrical Code, which must be the most current edition of the National Electrical Code and any amendments thereto. The board shall adopt the most current edition of the National Electrical Code and any amendments thereto pursuant to chapter 14 and as provided in subdivision 6, paragraphs (b) and (c);

(4) review requests for final interpretations and issue final interpretations as provided in section 326B.127, subdivision 5;

(5) adopt rules that regulate the licensure or registration of electrical businesses, electrical contractors, master electricians, journeyworker electricians, Class A installer, Class B installer, power limited technicians, and other persons who perform electrical work except for those individuals licensed under section 326.02, subdivisions 2 and 3. The board shall adopt these rules pursuant to chapter 14 and as provided in subdivision 6, paragraphs (d) and (e);

(6) adopt rules that regulate continuing education for individuals licensed or registered as electrical businesses, electrical contractors, master electricians, journeyworker electricians, Class A installer, Class B installer, power limited technicians, and other persons who perform electrical work. The board shall adopt these rules pursuant to chapter 14 and as provided in subdivision 6, paragraphs (d) and (e);

(7) advise the commissioner regarding educational requirements for electrical inspectors;

(8) refer complaints or other communications to the commissioner, whether oral or in writing, as provided in subdivision 8, that allege or imply a violation of a statute, rule, or order that the commissioner has the authority to enforce pertaining to code compliance, licensure, registration, or an offering to perform or performance of unlicensed electrical services;

(9) approve per diem and expenses deemed necessary for its members as provided in subdivision 3;

(10) approve license reciprocity agreements;

(11) select from its members individuals to serve on any other state advisory council, board, or committee; and

(12) recommend the fees for licenses and certifications.

Except for the powers granted to the Plumbing Board, Board of Electricity, and the Board of High Pressure Piping Systems, the commissioner of labor and industry shall administer and enforce the provisions of this chapter and any rules promulgated pursuant thereto.

(b) The board shall comply with section 15.0597, subdivisions 2 and 4.

(c) The commissioner shall coordinate the board's rulemaking and recommendations with the recommendations and rulemaking conducted by all of the other boards created pursuant to this chapter. The commissioner shall provide staff support to the board. The support includes professional, legal, technical,

and clerical staff necessary to perform rulemaking and other duties assigned to the board. The commissioner of labor and industry shall supply necessary office space and supplies to assist the board in its duties.

Subd. 3. Compensation. (a) Members of the board may be compensated at the rate of \$55 a day spent on board activities, when authorized by the board, plus expenses in the same manner and amount as authorized by the commissioner's plan adopted under section 43A.18, subdivision 2. Members who, as a result of time spent attending board meetings, incur child care expenses that would not otherwise have been incurred, may be reimbursed for those expenses upon board authorization.

(b) Members who are state employees or employees of the political subdivisions of the state must not receive the daily payment for activities that occur during working hours for which they are compensated by the state or political subdivision. However, a state or political subdivision employee may receive the daily payment if the employee uses vacation time or compensatory time accumulated in accordance with a collective bargaining agreement or compensation plan for board activities. Members who are state employees or employees of the political subdivisions of the state may receive the expenses provided for in this subdivision unless the expenses are reimbursed by another source. Members who are state employees or employees of political subdivisions of the state may be reimbursed for child care expenses only for time spent on board activities that are outside their working hours.

(c) The board shall adopt internal standards prescribing what constitutes a day spent on board activities for purposes of making daily payments under this subdivision.

Subd. 4. Removal; vacancies. (a) An appointed member of the board may be removed by the governor at any time (1) for cause, after notice and hearing, or (2) after missing three consecutive meetings. The chair of the board shall inform the governor of an appointed member missing the three consecutive meetings. After the second consecutive missed meeting and before the next meeting, the secretary of the board shall notify the appointed member in writing that the member may be removed for missing the next meeting. In the case of a vacancy on the board, the governor shall, with the advice and consent of the Senate, appoint a person to fill the vacancy for the remainder of the unexpired term.

(b) Vacancies shall be filled pursuant to section 15.0597, subdivisions 5 and 6.

Subd. 5. Membership vacancies within three months of appointment. Notwithstanding any law to the contrary, when a membership on the board becomes vacant within three months after being filled through the appointments process, the governor may, upon notification to the Office of Secretary of State, choose a new member from the applications on hand and need not repeat the process.

Subd. 6. Officers, quorum, voting. (a) The board shall elect annually from its members a chair, vice-chair, and secretary. A quorum of the board shall consist of a majority of members of the board qualified to vote on the matter in question. All questions concerning the manner in which a meeting is conducted or called that is not covered by statute shall be determined by Robert's Rules of Order (revised) unless otherwise specified by the bylaws.

(b) Each electrical code amendment considered by the board that receives an affirmative two-thirds or more majority vote of all of the voting members of the board shall be included in the next electrical code rulemaking proceeding initiated by the board. If an electrical code amendment considered, or reconsidered, by the board receives less than a two-thirds majority vote of all of the voting members of the board, the electrical code amendment shall not be included in the next electrical code rulemaking proceeding initiated by the board.

(c) The board may reconsider electrical code amendments during an active electrical code rulemaking proceeding in which the amendment previously failed to receive a two-thirds majority vote or more of all of the voting members of the board only if new or updated information that affects the electrical code amendment is presented to the board. The board may also reconsider failed electrical code amendments in subsequent electrical code rulemaking proceedings.

(d) Each proposed rule and rule amendment considered by the board pursuant to the rulemaking authority specified in subdivision 2, paragraph (a), clauses (5) and (6), that receives an affirmative majority vote of all of the voting members of the board shall be included in the next rulemaking proceeding initiated by the board. If a proposed rule or rule amendment considered, or reconsidered, by the board receives less than an affirmative majority vote of all of the voting members of the board, the proposed rule or rule amendment shall not be included in the next rulemaking proceeding initiated by the board.

(e) The board may reconsider proposed rules or rule amendments during an active rulemaking proceeding in which the amendment previously failed to receive an affirmative majority vote of all of the voting members of the board only if new or updated information that affects the proposed rule or rule amendment is presented to the board. The board may also reconsider failed proposed rules or rule amendments in subsequent rulemaking proceedings.

Subd. 7. **Board meetings.** (a) The board shall hold meetings at such times as the board shall specify. Notice and conduct of all meetings shall be pursuant to chapter 13D and in a manner as the bylaws may provide.

(b) If compliance with section 13D.02 is impractical, the board may conduct a meeting of its members by telephone or other electronic means so long as the following conditions are met:

(1) all members of the board participating in the meeting, wherever their physical location, can hear one another and can hear all discussion and testimony;

(2) members of the public present at the regular meeting location of the board can hear clearly all discussion and testimony and all votes of members of the board and, if needed, receive those services required by sections 15.44 and 15.441;

(3) at least one member of the board is physically present at the regular meeting location; and

(4) all votes are conducted by roll call, so each member's vote on each issue can be identified and recorded.

Each member of the board participating in a meeting by telephone or other electronic means is considered present at the meeting for purposes of determining a quorum and participating in all proceedings.

If telephone or other electronic means is used to conduct a regular, special, or emergency meeting, the board, to the extent practical, shall allow a person to monitor the meeting electronically from a remote location. The board may require the person making such a connection to pay for documented costs that the board incurs as a result of the additional connection.

If telephone or other electronic means is used to conduct a regular, special, or emergency meeting, the board shall provide notice of the regular meeting location, of the fact that some members may participate by telephone or other electronic means, and that a person may monitor the meeting electronically from a remote location. Any person monitoring the meeting electronically from a remote location may be required to pay documented costs incurred by the board as a result of the additional connection. The timing and method of providing notice is governed by section 13D.04.

Subd. 8. **Complaints.** (a) The board shall promptly forward to the commissioner the substance of any complaint or communication it receives, whether in writing or oral, that alleges or implies a violation of a statute, rule, or order that the commissioner has the authority to enforce pertaining to the license or registration of any person authorized by the department to provide electrical work, the performance or offering to perform electrical work requiring licensure or registration, or electrical code compliance. Each complaint or communication that is forwarded to the commissioner shall be submitted on a form provided by the commissioner.

(b) The commissioner shall advise the board of the status of the complaint within 90 days after the board's written submission is received, or within 90 days after the board is provided with a written request for additional information or documentation from the commissioner or the commissioner's designee, whichever is later. The commissioner shall advise the board of the disposition of a complaint referred by the board within 180 days after the board's written submission is received. The commissioner shall annually report to the board a summary of the actions taken in response to complaints referred by the board.

Subd. 9. **Data Practices Act.** The board is subject to chapter 13, the Minnesota Government Data Practices Act, and shall protect from unlawful disclosure data classified as not public.

Subd. 10. **Official records.** The board shall make and preserve all records necessary to a full and accurate knowledge of its official activities in accordance with section 15.17.

History: 2007 c 140 art 4 s 61; art 5 s 19,32; art 13 s 4; 2008 c 337 s 7,8; 2014 c 275 art 1 s 104; 2017 c 68 art 1 s 26; 1Sp2017 c 7 s 8; 2023 c 53 art 11 s 50

EXHIBIT A.2



GFCI Unwanted Tripping Report

Contact Information

First Name

Last Name

Address

City

Zip

Daytime Telephone

Evening Telephone

Role/Title

Email

GFCI Product Information at your installation

GFCI Manufacturer Part/Model Number

GFCI Type

Other (Type)

Select Amperage of GFCI

Other (Amperage)

Select Poles of GFCI

Select the Manufacturer/Brand Name of GFCI

Please select location type:

- Select -

Image URL

GFCI Installation Location

Date of Occurrence

Date of Installation

Installation Location if Different location

Address

City

State

Zip

Trip Incident

Describe The Tripping Incident

What Equipment Is Connected To The Circuit That Is Tripping The GFCI?

Equipment Manufacturer Name

Equipment Model Number

Other Equipment on the circuit

Type of Residence/Room Affected

Please select residence type

- Select -

Please describe room(s) affected by trip

Other Information

Have you contacted the GFCI manufacturer?

☐ Yes

☐ No

If no, would you like to be contacted by them?

☐ Yes

☐ No

Have you contacted the Equipment manufacturer?

☐ Yes

☐ No

Did the equipment manufacturer provide any recommendations?

☐ Yes

☐ No

Attach pictures of the installation and equipment nameplates.

No file chosen

For additional information about GFCIs or if you require assistance answering any of these questions NEMA installation experts are available to assist. Their territories and contact information is available here: **NEMA Field Representative Information.**

EXHIBIT A.3

From: Hunter, Dean (DLI) <dean.hunter@state.mn.us>
Sent: Thursday, June 27, 2024 8:10 AM
To: Aaron Goslee; Anthony Kohrs; Arthur Hall; Braden Trende; Brandon Lennox; Brian Luce; Bruce Haugen; Chad McCarthy; Christopher Jackson; Daniel DeGrood; David Hucky; David Sawyer; Don Edel; Dylan Becker; Fred Reichel; Gary Pederson; Gerald Jones; James Bjorklund; James Noonan; Jason Klimek; Jeff Larson; John Thompson; Joshua Kath; northshoreinspector; Justin Doebbeling; Keith Hollnagel; Keith Tillotson; Levi Stoy; Michael Anthony; Michael Wenzel; Nathan Readell; Patrick McMullen; Paul Hipsag; Peter DeGrood; Randy Edel; Rodney VanOrt; Scott Preuss; Shannon Merchlewitz; Steven Bartlett; Steven Roberts; Thomas Bzdok; Todd Drescher; Tom McCormick; Vern Dose; Walter Kath; William Husom; Dahlk, David (DLI); Disselbrett, Brandon (DLI); Ditsch, Ronald J (DLI); Husom, Ben (DLI); Johnson, Kelly C (DLI); Jorgenson, Eric (DLI); Knaack, Todd (DLI); Koons, Wade (DLI); Kurtz, Austin (DLI); Lane, Terry (DLI); Mechtel, Justin (DLI); Paetznick, Clifton H (He/Him/His) (DLI); Pieske, Luke (DLI); Prussia, Josh (DLI); Schaffer, Rod (DLI); Senkyr, Mark (DLI); Sickels, Wess (DLI); Sorensen, Adam (DLI); Thoennes, Jacob (DLI); Thoma, Mark (DLI)
Cc: Dudley, Steven (DLI); Higgins, Scott (DLI); Jespersen, Wayne (DLI); Monson, Sheldon (DLI); Bradbury.DLI, Lowell (DLI); Furman, Neil (DLI); Hunter, Mark (DLI); McNamara, John (DLI); Nemeth, Luke (DLI); Krahmer, Eric (DLI); Moreen, Michael (DLI); Weispfennig, Kent (DLI); Moynihan, Dan (CI-StPaul); Hanson, Eric C
Subject: Re: Change in reporting GFCI/AFCI unwanted tripping events.
Importance: High

Good morning DLI and Municipal Inspectors,

Lately, I have received a rash of phone calls and emails regarding unwanted GFCI tripping on various appliances.

In the past, we have been requiring contractors or homeowners to submit incident reports to NEMA; however, as a department, we have **not** granted “special permission” until we have received a response back from the manufacturers (breaker or appliance) regarding a solution.

That said, the problem is.... the manufacturers are slow to respond, and sometimes never follow through with the request and contractors/homeowners are becoming very impatient. I have voiced my frustration with all the parties involved and have stressed to them how this puts the enforcement community in a tough spot.

I am proposing that we change our protocol, a bit, to take us (the enforcement community) and our contractors/homeowners out of the waiting game to eliminate some of the frustration. My proposal is this: the contractor/homeowner needs to complete the incident report, as before - but now, they just need to provide us proof that the report (screenshot) was sent to NEMA. In this situation, we are letting the manufacturers oversee the process.

Moving forward, here will be state’s protocol:

- GFCI breakers are installed and inspected for NEC compliance.
- If after the appliance is installed, the appliance is shown to not be compatible with the GFCI protection, the contractor or homeowner will submit a NEMA incident report, and the GFCI breaker can be removed.

GFCI issues can be documented here: <https://www.nema.org/membership/products/gfci-unwanted-tripping-report>

AFCI issues can be documented here: <https://www.afcisafety.org/>

- The contractor or homeowner provides proof, which is uploaded to the permit, that shows a NEMA incident report was submitted for an appliance at a specific address. (This could be a screenshot of the report on their webpage)
- If the breaker or appliance manufacturers provide a solution - it is up to the contractor/homeowner to make the necessary repairs and provide GFCI protection.

As a code official, I am not advocating for less safety, but have a hard time when contractors/homeowners don't have a solution to remedy these situations. Simply telling someone it doesn't work so they can't use their appliances, or that GFCI protection is a "joke" and taking the breaker out - is not a solution.

Let me know if you have any further questions.

Dean

Dean Hunter

Chief Electrical Inspector

Minnesota Department of Labor and Industry

443 Lafayette Road N., St. Paul, MN 55155

Phone: Office (651) 284-5314 Cell (218) 770-1263 | Web: www.dli.mn.gov



Approval as a result of an inspection shall not be construed to be an approval of a hidden, concealed, undetected or other violation of the provisions of the code or of the laws and rules of the state. Electrical inspections only include readily accessible systems and components. Latent and concealed defects, deficiencies and violations are excluded from inspections.

If you are not the intended recipient of this message, or the person responsible for delivering it to the intended recipient, please notify the sender immediately by replying to this message. Destroy all copies of this message and any attachments.

EXHIBIT B

NFPA 70®-2020 Edition

National Electrical Code®

TIA Log No.: 1593

Reference: Section 210.8(F)

Comment Closing Date: July 19, 2021

Submitter: Dean Hunter, Minnesota Department of Labor & Industry

1. Revise 210.8(F) to read as follows:

210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. ...

(F) Outdoor Outlets. All outdoor outlets for dwellings, other than those covered in 210.8 (A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel. This requirement shall become effective on January 1, 2023 for mini-split-type heating/ventilating/air-conditioning (HVAC) equipment and other HVAC units employing power conversion equipment as a means to control compressor speed.

Informational Note: Power conversion equipment is the term used to describe the components used in HVAC equipment that is commonly referred to as a variable speed drive. The use of power conversion equipment to control compressor speed differs from multistage compressor speed control.

Exception: Ground-fault circuit-interrupter protection shall not be required on lighting outlets other than those covered in 210.8(C).

Substantiation: This expansion of GFCI protection in the 2020 NEC, for the purpose of covering exterior outlets through 250-volts at dwelling units, is a necessary enhancement for electrical safety. Code Making Panel 2 supported the expansion of GFCI protection to cover these outdoor outlets based on the electrocution of a young boy who came into contact with the energized enclosure of an outdoor HVAC unit.

The purpose of this TIA is not to eliminate the GFCI protection for *all* HVAC outdoor equipment, but to extend the date of enforcement for the circuit supplying the HVAC units employing power conversion equipment.

Emergency Nature: The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification of the action.

In the state of Minnesota, we began enforcing Section 210.8(F) on April 5, 2021 and we have already documented many cases of operational tripping occurrences which have been difficult for inspectors and electricians to resolve. The only solution at this time is for the AHJ to approve a temporary allowance for the installation of a circuit breaker without GFCI protection so that these HVAC units can operate.

The language in this TIA is in direct alignment with the once-proposed TIA 1529 that was supported by Code Making Panel 2 for Technical and Emergency Nature. The Correlating Committee also agreed that no correlating issues existed with this language; however, the TIA narrowly failed ballot with regards to the Emergency Nature. Recently, proposed TIA 1564, which included “all HVAC equipment” failed ballot, but had multiple voting member comments supporting the language in TIA 1529. Also, TIA 1564 language contains substantiation to support reasons for delaying the date to address the operational GFCI tripping.

As we enter into the peak cooling season in Minnesota and in other states where the 2020 NEC has been adopted, it is expected that this issue will continue to grow and be problematic for the enforcement and installation community. Delaying the implementation date allows for the affected stakeholders to reach a solution to the operational tripping occurrences and provides AHJs with the ability to permit installations of cooling equipment that is essential to the health and safety of residents in warm climates.

Anyone may submit a comment by the closing date indicated above. Please identify the TIA number and forward to the Secretary, Standards Council. [SUBMIT A COMMENT](#)

As evidenced by this submission for a Tentative Interim Amendment Mr. Hunter shows knowledge of and willingness to utilize a pre-existing method accepted to make an emergency change to the NEC as written. Mr. Hunter should have also utilized this method for any other proposed change to the electrical code of an emergency nature. This avenue is available to any member of the public, and passed TIA's are considered a part of MN state electrical law.



MEMORANDUM

TO: Code-Making Panel 2

FROM: Sarah Caldwell, *Senior Committee Administrator*

DATE: September 20, 2023

SUBJECT: NEC® Proposed TIA No. 1749 **FINAL TC BALLOT RESULTS**

The public comment circulation has passed, therefore, according to Section 5.7(a) in the NFPA *Regs*, the final results show this TIA **HAS NOT** achieved the $\frac{3}{4}$ majority vote needed on both Ballot Item No. 1 (**Technical Merit**) and Ballot Item No. 2 (**Emergency Nature**).

19 Eligible to Vote
2 Not Returned (*Abbassi, Harman*)

Technical Merit:

0 Abstentions
9 Agree (*w/comment: Reyes*)
8 Disagree (*Campolo, Domitrovich, El-Sherif, Humphrey, Johnson, Manche, McCamish, Pavese*)

Emergency Nature:

0 Abstentions
8 Agree
9 Disagree (*Campolo, Cook, Domitrovich, El-Sherif, Humphrey, Johnson, Manche, McCamish, Pavese*)

There are two criteria necessary to pass ballot [(1) simple majority (2) affirmative vote of $\frac{3}{4}$ of ballots received]. Both questions must pass ballot in order to recommend that the Standards Council issue this TIA.

- (1) In all cases, an affirmative vote of at least a simple majority of the total membership eligible to vote is required.

$$[19 \text{ eligible} \div 2 = 9.5 = (10)]$$

- (2) The number of affirmative votes needed to satisfy the $\frac{3}{4}$ requirement is **13**.
(19 eligible to vote - 2 not returned - 0 abstentions = $17 \times 0.75 = 12.75$)

Ballot comments are attached for your review.

The *Regs* at Section 1.6.2.(c) state: An appeal relating to a proposed Tentative Interim Amendment that has been submitted for processing pursuant to Section 5.2 shall be filed no later than 5 days after the notice of the TIA final ballot results are published in accordance with Section 4.2.6.

Appeal Closing Date for this TIA is **September 25, 2023**.

QUESTION NO. 1: I AGREE with the TECHNICAL MERITS of the NEC Proposed TIA Log No. 1749 to Add a new Exception No. 6 to Section 210.8(A) and to Add a new Exception to Section 210.8(D).

Eligible to Vote: 19

Not Returned : 2

Thomas L. Harman,Mathher
Abbassi

<u>Vote Selection</u>	<u>Votes</u>	<u>Comments</u>
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Agree	9	
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Daniel Buuck	Agree
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Greg Woyczynski	Agree
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Fred Neubauer	Agree
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Jeremy Mark Tidd	Agree
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Charles L. Boynton	Agree
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Mark Daniel Cook	Agree
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Frederick P. Reyes	We have been consistently supporting the use of GFCI protection to advance safety of electrical systems. We have additionally been active in trying to support reconciliation of the utilization equipment requirements and protective technology requirements to obtain the best coordinated results. We also see that time is needed to fully accomplish the systemic solution and are not opposed to additional timing being allocated to accomplish this
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David W. Johnson	F.
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Tyler James Doering	Agree
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Disagree	8
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Steve Campolo

I continue to vote NO on both the proposed changes as well as the emergency nature. Embedded in the TIA's substantiation mention is made regarding the Department of Energy's energy efficiency requirements necessitating the product designs producing the harmonic content causing the unwanted tripping. Several times I questioned if the DOE was ever petitioned for a waiver or extension of the energy efficiency requirements. Additionally, I asked if filtering could reduce unwanted tripping. To date, no requests (and denials) to the DOE have been received.

Thomas A. Domitrovich

This proposed TIA Log #1749 severely compromises electrical safety. This proposed TIA does not merely negate the intentional deletion of the "kitchen countertop" GFCI limitation in 2023 NEC® 210.8(A)(6), but actually removes previously required GFCI protection of receptacle outlets serving these appliances within 6 feet of a sink in place since the 2011 NEC®, and of receptacle outlets serving these appliances in garages mandated since the 2008 NEC® appliance Exception removal. GFCIs historically have not had tripping issues with these appliances. The supposed unwanted tripping issues recently emerged because of the introduction of energy-efficiency technologies to meet Energy Star mandates but only employed essential filtration selectively, dictated largely by economics. These technologies (switching power supply, variable frequency, etc.) generate high-frequency (beyond 60 Hz) components that did not previously exist in these appliances. Other appliances and utilization equipment subject to these same energy-efficiency directives are not seeing these supposed tripping issues. Indeed, GFCI protection was added for residential dishwashers to 2014 NEC® 210.8(D) [relocated to 2020 NEC® 422.5(A)(7)] at the behest of the appliance industry to address shock hazards occurring at dishwasher end-of-life that resulted in liability litigation; incorporation of these energy-efficiency technologies for dishwashers in fact did address necessary high-frequency filtration to avoid instigating unwanted tripping of GFCIs. Where there's a will, there's a way or, more to the point, where there's NOT a will, there's a TIA seeking exemption from consensus safety requirements. The submitter substantiation states that energy efficiency requirements from the U.S. Department of Energy (DOE) are forcing technology changes that is driving incompatibility. Delayed implementation dates of energy efficiency requirements would be more appropriate approach than delay/remove public safety requirements. Other industries have successfully petitioned the DOE for delayed implementation dates, it would be recommended for the appliance industry to evaluate future technology for compatibility. The reference to central air conditioner equipment is not relevant to this substantiation as it is a different voltage, power and application. There has been GFCI protection provided at receptacle outlets for countertop appliances and utilization equipment, including microwave ovens, since the 1987 NEC® without reported issues." The proposed TIA would roll back electrical safety pertaining to GFCI to circa 2008 NEC requirements. There was no substantiation provided with TIA regarding unwanted tripping.

Christopher J. Pavese

This exception doesn't provide clarity due to the term, "Dedicated Space." The term needs to be defined for each of the appliances listed.

Alan Manche

The proposed language revision seeks to reduce public safety by removing GFCI protection on receptacles to the microwave oven, range, and oven while millions of circuits serving microwaves are protected by GFCI today. GFCI protection for receptacles serving the countertop in kitchens was put in place in 1987. Millions of microwave ovens are connected to a GFCI protected receptacle, yet this TIA has presented no substantiation that a GFCI trips a microwave. The proposed language does not require an individual branch circuit, therefore the language permits an accessible receptacle on the counter serving the microwave to also serve the countertop and connect other appliances while preparing food, removing the GFCI protecting that has been in place for over 35 years. Removing GFCI protection from the range receptacle puts lives at risk. The range cord is typically installed by an unqualified electrical person which has resulted in placing ranges in an electrically unsafe operating condition. The addition of indoor 240Vac GFCI protection was directly related to electrocution fatalities involving electric ranges and laundry dryers. A significant number of tests have been conducted to further understand the leakage current on ranges. The results of those tests show are alarming. Initial testing demonstrated electric range models leaked current well in excess of the GFCI trip threshold above 10mA up to 17mA. Additional testing demonstrated that 6 units were leaking above 10mA including one unit that was measured to be leaking at the 54mA of current level. If a wiring issue occurs either internal or external to the electric range itself then you would exceed the let go threshold, Muscle Freeze in 50% of the population, and in the 54mA case potentially result in fibrillation. These issues would affect anyone, but especially for our most vulnerable populations, children, and the elderly. Compliance with the most recent revisions to UL 858 must move in a more expeditious time frame to ensure public safety. Removing GFCI protection is not an option and actually testing has demonstrated GFCI protection to be more critical to support public safety.

John McCamish

The technical substantiation point out that appliances have leakage currents above an agreed upon threshold for human safety and include reports of injury. Appliances such as microwaves have been used with GFCI protection for years and a delay is not warranted.

David G. Humphrey

GFCI provides an important safety function. The associated report repeatedly references that appliances provided with GFCI protection "MAY" cause a "nuisance trip" of the GFCI device. The unwanted tripping events that are alleged may likely be a result of current being detected above the 6 milliampere trip threshold which is the maximum level considered safe for human contact. GFCI protected commercial receptacle outlets supplying appliances at 120 volts have been installed in commercial kitchens since the 2002 NEC without apparent incident. Three phase receptacle outlets up to 100 amperes and single phase receptacle outlets up to and including 50 amperes have required GFCI protection since adoption of the 2017 NEC again without apparent incident. Additionally 5 years of delay is in the opinion of this CMP 2 member an excessive amount of time to correct an issue that may exist with a cooking appliance. Any changes to this section should come as a result of the 2026 revision process. There is at the time of this writing ample time to submit a public input where the submitter may seek revision through the NEC revision process.

Nehad El-Sherif

IEEE is not in favor of this TIA for the following reasons: 1. The incompatibility concerns discussed in this TIA are understandable but these concerns do not apply to microwaves that have been protected by GFCIs since 1987 with no reported cases of incompatibility. The TIA provided no substantiation to refute this 2. The substantiation did not address the multiple electrocution deaths reported by CPSC in Attachment A of this TIA 3. There is a concern with the enforcement of this TIA (if passed), because the language "The appliance is located within a dedicated space" is vague and hard to enforce 4. Through a friend, I just became aware of a tragic incident of an 8-year-old boy who was electrocuted in Ft. Myers, FL by touching a 220V electrical outlet behind the stove per comments by police (refer to the links below). This tragedy details why protecting the electric range branch circuit receptacle outlet is needed to improve safety in the kitchen. <https://www.wptv.com/news/national/florida-boy-dies-after-being-shocked-by-electrical-outlet-police-say> <https://www.wfla.com/news/florida/boy-dies-after-touching-electrical-outlet-in-fort-myers-home/>

Brian H. Johnson

After further reading and considering public input comments, the proposed changes would significantly reduce electrical safety.

Abstain

0

QUESTION NO. 2: I AGREE that the subject is of an EMERGENCY NATURE for one or more of the reasons noted in the Instructions box.

Eligible to Vote: 19

Not Returned : 2

Thomas L. Harman,Mathher

Abbassi

Vote Selection

Votes

Comments

Agree

8

Daniel Buuck

A

Greg Woyczynski

A, F

Fred Neubauer

Agree

Jeremy Mark Tidd

A

Charles L. Boynton

F

Frederick P. Reyes

F

David W. Johnson

Agree

Tyler James Doering

C and F

Disagree

9

Steve Campolo

I continue to vote NO on both the proposed changes as well as the emergency nature. Embedded in the TIA's substantiation mention is made regarding the Department of Energy's energy efficiency requirements necessitating the product designs producing the harmonic content causing the unwanted tripping. Several times I questioned if the DOE was ever petitioned for a waiver or extension of the energy efficiency requirements. Additionally, I asked if filtering could reduce unwanted tripping. To date, no requests (and denials) to the DOE have been received.

Thomas A. Domitrovich

The proposed remedy demonstrates no emergency natures that would warrant decreasing safety, as introduced by this TIA.

Christopher J. Pavese

This TIA adds to the code and is not an emergency.

Alan Manche	The emergency nature that microwaves and ranges are tripping GFCIs while not protecting from a hazardous condition has not been substantiated. Further investigation has actually resulted in an understanding that hazardous currents can exists that are being protected by GFCIs.
John McCamish	A compromise in GFCI protection is not warranted when other avenues such as delay in DOE requirements, and pursuing solutions to appliance problems that have known to exist for several years have not been resolved.
Mark Daniel Cook	Substantiate with more data
David G. Humphrey	There was no error, omission, existing hazard or the like with the panels action. Only diligent review and discussion.
Nehad El-Sherif	IEEE disagrees with the emergency nature of this TIA
Brian H. Johnson	After further reading and considering public input comments, I do not believe it is an emergency nature to reduce the safety by removing GFCI requirements.
Abstain	0

- A. The standard contains an error or an omission that was overlooked during the regular revision process.**
- B. The NFPA Standard contains a conflict within the NFPA Standard or with another NFPA Standard.**
- C. The proposed TIA intends to correct a previously unknown existing hazard.**
- D. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.**
- E. The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public.**
- F. The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification for the action.**

NFPA 70®-2023 Edition

National Electrical Code®

TIA Log No.: 1749

Reference: 210.8(A) Exception No. 6 (new), and 210.8(D) Exception (new)

Comment Closing Date: September 6, 2023

Submitter: Greg Woyczynski, Association of Home Appliance Manufacturers (AHAM)

www.nfpa.org/70

1. Add a new Exception No. 6 to section 210.8(A) to read as follows:

210.8(A) Dwelling Units.

...

Exception No. 6: GFCI protection shall not be required for a receptacle serving an electric range, wall-mounted oven, counter-mounted cooking unit, or microwave oven if both of the following conditions are met:

(1) The appliance is located within a dedicated space.

(2) In normal use, the appliance is not easily moved or is fastened in place.

This exception shall expire January 1, 2028.

2. Add a new Exception to section 210.8(D) to read as follows:

210.8(D) Specific Appliances.

...

Exception: GFCI protection shall not be required for an outlet supplying an electric range, wall-mounted oven, counter-mounted cooking unit, or microwave oven if both of the following conditions are met:

(1) The appliance is located within a dedicated space.

(2) In normal use, the appliance is not easily moved or is fastened in place.

This exception shall expire January 1, 2028.

Substantiation:

A. Introduction

This TIA is in response to the direction given in Standards Council Decision D#22-10. The Standards Council directed, "...the formation of a Task Group of affected stakeholders...to evaluate the issues raised and consider whether a TIA may be appropriate." The Task Group consists of representatives from home builder organizations, contractors, appliance manufacturers, GFCI manufacturers, electrical inspectors, CPSC, and a testing laboratory. Based upon the information submitted to and reviewed by the Task Group, the proposed TIA adds an exception to GFCI protection requirements.

B. GFCIs trip on safe appliances

There is a technological incompatibility between common loads in the home and GFCIs. The incompatibility is often realized in the form of "nuisance tripping", where a GFCI trips and no electrical hazard is present. This incompatibility is especially pertinent in the context of home appliances, which are subject to continuously updated, mandatory, Department of Energy efficiency requirements. In order for appliances to become meet efficiency standards, home appliance manufacturers incorporate components that operate at frequencies higher than the mains frequency of 60-Hertz. These technologies include switch-mode power supplies, electronically commutated

EXHIBIT D

EXCERPTS FROM STATE OF MN OFFICE OF ADMINISTRATIVE HEARINGS REGARDING THE ADOPTION OF THE 2020 NEC, PROVIDED HEREIN FOR PRECEDENT REGARDING CURRENT ISSUE AT HAND- COMMENTARY BY TIM KUNKEL IN BOLD

In the Matter of the Proposed Rules Adopting and Incorporating the 2020 National
Electrical Code for Use in Minnesota, Minnesota Rules Chapter 1315

FULL TEXT CAN BE FOUND AT

https://mn.gov/oah/assets/9001-36673-dli-electrical-code-rule-report_tcm19-450152.pdf

1.

SECTION I-BACKGROUND TO THE PROPOSED RULES

B. OVERVIEW OF ISSUES

6. The Board also explained that the changes to the NEC are made at national code hearings conducted by NFPA. The NEC is written by those who use the code book and utilize ANSI processes to provide maximum input from those who use and are impacted by the code. The Board described the extensive process of consideration, revision, public input, and review used to revise the NEC.¹³

13. A wide variety of organizations and individuals support the Board's adoption of the NEC without amendments. These include representatives of fire prevention, protection, fighting, and code-writing organizations such as the Fire Marshal's Association of Minnesota, National Fire Protection Association, Underwriter Laboratories, and International Association of Electrical Inspectors; electrical industry groups, unions, and educational institutions, such as the Electrical Association, National Electrical Contractors Association, National Electrical Manufacturers Association, International Brotherhood of Electrical Workers, American Circuit Breaker Manufacturers Association, National Electrical Manufacturers Association, and Minneapolis Electrical JATC; and electrical component manufacturing companies such as Square D/Schneider Electric, Siemens, and Eaton. Furthermore, several individuals in the electrical trades and in government, including electrical inspectors with the cities of Bloomington and St. Paul, are in favor of adoption without amendment. Fire prevention experts such as the Minneapolis Fire Marshal are also in support of adoption without amendment, as are medical professionals and burn victim advocates with Regions Hospital Burn Center and the Phoenix Society for Burn Survivors.²¹

The board recognized and valued the extensive process involved in creating the 2020 NEC. It is believed that the Board, and Mr. Hunter still value that extensive process. Numerous groups and individuals supported the adoption of the 2020 NEC, while this list may not be

entirely accurate for the 2023 NEC, many groups and individuals were also in support of the NEC 2023 adoption without amendment, of which the Board has record.

2.

**SECTION II-PROCEDURAL REQUIREMENTS OF CHAPTER 14
SUBSECTION E-STATUTORY REQUIREMENTS FOR THE SONAR**

1. THE AGENCY'S REGULATORY ANALYSIS

(c) The determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule.

30. The Board asserts that there are no less costly or intrusive methods for achieving the purpose of the proposed rule. The Board states that the NEC is recognized throughout the U.S. and many other countries as the prevailing model electrical code. Incorporating the 2020 NEC by reference is the least costly method for adopting a national model code and is in accordance with Minnesota Statutes, section 326B.32, subdivision 2 (a)(3) (2020), which directs that adoption

31. The Board states that, historically the state of Minnesota has adopted the NEC by reference without any state amendments. The Board of Electricity is proposing adoption of the 2020 NEC without amendment in this rulemaking, consistent with past code adoptions. The Board maintains that, unlike other building codes that may need to be amended at the local level due to specific conditions, such as earthquakes, snow loads, wind loads, prevalence of hurricanes, extreme temperatures and so on, the NEC is universally applicable in all jurisdictions.

During the hearings regarding the 2020 NEC the MN Board of Electricity maintained that the use of the NEC was the least costly method for adopting a model code.

The board also maintained that no local level amendment to the code was required and the NEC is universally applicable. Unless the board has reversed course this shows prima facie evidence that the Board of Electricity has no intention, or need to adopt local level amendments to the electrical code.

39. The Department asserts that, if the new edition of the NEC is not adopted, the State would continue to rely on the 2017 NEC. In the Board's view, this would cause the industry in Minnesota to use an electrical code that does not incorporate all the latest methods and technologies and would therefore fall behind in electrical standards to the detriment of all stakeholders. The Board contends, the failure to adopt the proposed rule would also have a negative effect on electrical licensing reciprocity with other states. Minnesota has electrical licensing reciprocity agreements with Alaska, Arkansas, Colorado, Iowa, Montana, Nebraska, North Dakota, South Dakota and Wyoming, all of which are in the process of reviewing and adopting the 2020 NEC as well.⁶³ 40. The Board also argues that failure to adopt the proposed rule could be considered a statutory violation, because Minn. Stat. § 326B.32, subd. 2(a)(3) requires the incorporation of the most recently published edition of the NEC into Minnesota's electrical code

As stated, the Board’s view was that without adoption of the most current NEC the state of MN would fall behind in electrical standards to our detriment. The Board also made argument that failure to adopt the proposed rule could be considered a statutory violation. Again, without a Board reversal of direction, these statements should be taken into account. And if the Board has changed course, the public should be aware of it, and able to propose local level amendments through a newly established state level process.

**3. SECTION III-Critiques of the Board’s Minn. Stat. § 14.131 Analysis
SUBSECTION A-GENERAL CRITICISMS**

53. The Board disputes the characterization of its process as “rubber stamping.” Rather, the Board believes that it complied with all procedural and notice requirements, and that it reasonably relied upon and thoroughly analyzed the outcome of the rigorous analysis and public debate that occurred at the national level during the development of the most recent version of the NEC

54. The Board also explained that, unlike other parts of the building code that are impacted by a region’s particular terrain, geological underpinnings, and weather, among other factors, electrical safety is little impacted by those considerations.⁸⁵ As demonstrated by the record in this matter, no evidence was presented to show that methods for preventing the electrocution of installers and end users of electricity significantly differ from state to state. In the same way, the methods for preventing fires from electricity may differ slightly but not significantly based on choices made in other sections of the building code. This is one reason why the Board believes its decision to enact the NEC without amendment may be viewed as warranted, practical, efficient, and cautious rather than rushed and predetermined. The record demonstrates that the NEC does not trend only towards greater precautions and concomitant costs but will, as occurred in the 2020 iteration with the GFCI requirement for certain agricultural receptacles, remove requirements determined to be more burdensome than useful.

55. The Administrative Law Judge finds that the Board’s rulemaking process in considering the 2020 NEC—including its consideration of changes from the 2017 NEC and whether Minnesota-specific amendments were warranted—complied with procedural and notice requirements, was thorough and well-reasoned, and was not arbitrary or capricious.

The Board during the 2020 code cycle “reasonably relied” upon the national level process of the NEC. The Board contended that NEC adoption without amendment was “warranted, practical, efficient, and cautious”. The Administrative Law Judge concurred. Again, without reversal of Board opinion, this shows that no need for local level amendment is warranted.

4. SECTION III-Critiques of the Board's Minn. Stat. § 14.131 Analysis SUBSECTION A-GENERAL CRITICISMS

65. In response to the Commenters' criticism of the Board's analysis under this section, the Board states that the Minnesota legislature has mandated that the Board specifically adopt the most current version of the National Electrical Code available. The Board says that, unlike the Minnesota Plumbing Board or the Department of Labor and Industry, which are given the discretion as to which model code to review for adoption and incorporation, the legislature did not give the Board of Electricity the discretion to choose between available model codes or create its own "homegrown" electrical code. The Board references Minn. Stat. §§ 326B.435, subd. 2 (a)(3) (Plumbing Board) and 326B.106, subd. 1 (Department of Labor and Industry)

67. Minn. Stat. § 326B.32, subd. 2, compels the Board to adopt "the most current edition of the [NEC] and any amendments thereto." The adoption of amendments is controlled by Minn. Stat. § 326B.32, subd. 6(b)-(e), which states that amendments receiving an affirmative two-thirds or more majority vote of voting Board members shall be included in the next code rulemaking proceeding initiated by the Board. Furthermore, during an active code rulemaking procedure, subdivision 6(c) permits the Board to reconsider code amendments that previously failed to receive a two-thirds majority vote, but "only if new or updated information that affects the electrical code amendment is presented to the board." Thus, although the statute requires the Board to adopt the NEC and no other code, it does permit the Board to consider and adopt amendments to the NEC. During this rulemaking procedure, the Board, in its discretion, chose not to adopt any amendments. The procedure for allowing reconsideration of amendments during an open rulemaking procedure would permit the Board to reconsider amendments within the scope of the subjects of the rulemaking notice, of its own accord, or on an administrative law judge's recommendation, and vote in their favor if commenters brought to light new or updated information affecting those amendments.

68. The Administrative Law Judge finds that the Board's rulemaking process resulting in the adoption in full of the most recent NEC does not constitute an exercise of the Board's will over its judgment. The record demonstrates that the Board appropriately considered whether the adoption in full of the NEC was the least costly measure for adopting the that code. Although the statute permits the Board to adopt amendments to the NEC, the Board has explained that adopting Minnesota-specific amendments would not ensure safety and provide a uniform set of electrical regulations. Thus, the record supports the Board's finding that no amendments to the NEC are appropriate in this proceeding.

The Board has in it's power the ability to amend the electrical code. I have found no evidence that allows Mr. Hunter to make change to the electrical code without vote by the Board. The Board's position in the 2020 NEC cycle was that local amendments to the electrical code would be detrimental to safety, and to regulations. I have found no evidence of the Board reversing it's position.

5. SECTION IV-Rulemaking Legal Standards

106. The Administrative Law Judge must make the following inquiries: whether the agency has statutory authority to adopt the rule; whether the rule is unconstitutional or otherwise illegal; whether the agency has complied with the rule adoption procedures; whether the proposed rule grants undue discretion to government officials; whether the rule constitutes an undue delegation of authority to another entity; and whether the proposed language meets the definition of a rule.

Unilateral amendment of the electrical code, amendment by interpretation, or directed non-compliance of the electrical code by Mr. Hunter would constitute “an undue delegation of authority”. I request that Mr. Hunter be made aware of his role in the DLI, and where his authority begins and ends. I believe that giving Mr. Hunter the authority to solely determine amendment, amendment by interpretation, or directed non-compliance would be covered under MN Administrative Rule 1400.2100 A-D (see exhibit D.1).

A. Non-compliance of procedural regulations

B. Not rationally related to the Agency’s objective

C. Is substantially different from the proposed rule

D. Grants the Agency discretion beyond what is allowed by law

6. SECTION V- Rule By Rule Analysis

SUBSECTION A-2020 NEC Section 210.8(A): Ground-Fault Circuit-Interrupter Protection for Dwelling Units

119. In its response, the Board stated that GFCIs are intended to protect individuals from a fatal electric shock. A ground-fault condition occurs when an electrical current takes an unintentional path back to the source of the electricity by coming into contact with a grounded surface, such as the metal case of an electric power tool or a person standing in damp grass. This unintentional electrical current is often referred to as “leakage current.” Ground faults commonly occur in a dwelling due to worn wire insulation, miswiring, or when a faulty cord or plug on an appliance causes the hot wire to directly connect with another pathway to the ground, which can be a person. This hazard of electrical shock is increased in the presence of moisture or water, which is an excellent conductor of electrical current. As Dean Hunter explained in his testimony, a GFCI “protect[s] people from the hazards of electrical shock” and is able to do this because “it senses the imbalance of electrical current between the hot and the neutral conductor.” When this imbalance of electrical current occurs, a GFCI causes the circuit to de-energize and shuts off the flow of electricity, thereby preventing an individual using a faulty appliance from experiencing electric shock.

120. The Board further explained that the location of the 250-volt receptacle does not necessarily mitigate potential hazards. The Board noted that while it may be correct that 250-volt receptacles are generally installed behind a range or dryer, but if so they are still accessible to the consumer as is any other receptacle in the home that is located behind furniture or any other large object. Consequently, the location of the receptacle has little to no impact on the hazards posed by water

and electricity, so the Board believes the GFCI expansion contained in the 2020 NEC is needed and reasonable.

121. While it is undeniable that the proposed rule will result in real impacts on the prices of new homes, the Department made a reasoned decision that, after considering the costs and benefits, expanding GFCI requirements to receptacle outlets rated at 250-volts is an available, reasonable, and needed protection against potential hazards, including electrocution. The proposed rule is needed and reasonable as those terms are used in the Administrative Procedure Act.

Mr. Hunter made testimony stating that GFCI protection prevents an individual using a faulty appliance from experiencing electrical shock. To make this testimony in September of 2020 and then to privately, and departmentally make contrary exceptions less than 3 years later is perplexing to say the least. I implore the Board, and Mr. Hunter to take into account their own testimony from 2020.

I suggest that the unwanted tripping events that have occurred with appliances be addressed through means other than exception or amendment.

Unwanted tripping of appliances is generally not the fault of, nor the responsibility of electrical contractors to solve. And it is most certainly not the consumer bases fault. This responsibility lies solely on the manufacturer of the appliance to ensure an appliance sold can meet the standards of safety in place.

I recommend the Board make contact with other appropriate state or federal agencies to address the rights of the consumer to be sold a functional, safe appliance. And I furthermore recommend that the Board make it clear that no exception for deletion of GFCI protection will be made, either at the state, or rogue inspector level.

I ask that the Board make it clear that changes, amendments, directed non-compliance, etc... are under the sole purview of the Board of Electricity. Any changes which affect the electrical code should be made public so that we may all follow or utilize those changes.

1400.2100 STANDARDS OF REVIEW.

A rule must be disapproved by the judge or chief judge if the rule:

A. was not adopted in compliance with procedural requirements of this chapter, Minnesota Statutes, chapter 14, or other law or rule, unless the judge decides that the error must be disregarded under Minnesota Statutes, section 14.15, subdivision 5, or 14.26, subdivision 3, paragraph (d);

B. is not rationally related to the agency's objective or the record does not demonstrate the need for or reasonableness of the rule;

C. is substantially different than the proposed rule, and the agency did not follow the procedures of part 1400.2110;

D. exceeds, conflicts with, does not comply with, or grants the agency discretion beyond what is allowed by, its enabling statute or other applicable law;

E. is unconstitutional or illegal;

F. improperly delegates the agency's powers to another agency, person, or group;

G. is not a "rule" as defined in Minnesota Statutes, section 14.02, subdivision 4, or by its own terms cannot have the force and effect of law; or

H. is subject to Minnesota Statutes, section 14.25, subdivision 2, and the notice that hearing requests have been withdrawn and written responses to it show that the withdrawal is not consistent with Minnesota Statutes, section 14.001, clauses (2), (4), and (5).

Statutory Authority: *MS s 14.386; 14.388; 14.51*

History: *20 SR 2058*

Published Electronically: *August 6, 2013*