Meeting Minutes: Board of Electricity

Date: April 9, 2019
Time: 9:00 a.m.
Location: Minnesota Room, Department of Labor and Industry
443 Lafayette Road North, St. Paul, MN 55155

Members Present:
David Curtis
Alfreda Daniels
Cole Funseth
Derrick Givens
Michael Hanson
Chad Kurdi
Peter Lindahl (via tele)
Scott Novotny – Vice Chair
Daniel Westberg – Chair (via tele)
John Williamson
Weston Wilson

Members Absent:
Duane Hendricks – Secretary

DLI Staff & Visitors:
Jeff Lebowski (DLI)
Lyndy Logan (DLI)
Neil Furman (DLI)
Dean Hunter (DLI)
Marty Kumm (DLI)
Todd Green (DLI)
Charlie Durenberger (DLI)
Adam Hanson (ABC)
Gary Thaden (NECA)
Bob Akers (East Central Energy)
Dan Ordahl
Jack Kluempke (COMM)
Ben Martin (COMM)
Dan Moynihan (City of St. Paul)

1. Call to Order
The meeting was called to order at 9:04 a.m. by Vice-Chair Novotny. Roll call was taken by Secretary Hendricks and a quorum was declared with 11 of 12 voting members present in person or via teleconference.

2. Approval of Meeting Agenda
A motion was made by Curtis, seconded by Givens, to approve the agenda as presented. The roll call vote was unanimous with 11 votes in favor of the motion; the motion carried.

3. Approval of Previous Meeting Minutes
A motion was made by Givens, seconded by Hanson, to approve the January 8, 2019, meeting minutes adding additional comments from Lindahl on Item 8, Open Forum (shown in italics below). The roll call vote was unanimous with 11 votes in favor of the motion; the motion carried.

8. Open Forum
Jeff Keljik, Minnesota Electrical Association, asked if the electrical test would be modified and Williamson said the journeyworker exam was reduced to 80 questions from 100. The license exam guide was completely reformatted. The master electrician test will also be reduced to 80 questions from 100. The “passing score” for all examinations is 70%. Historically since the 1980’s,
journeyworker exams have had a “passing rate” in the range of 40-45%. Lindahl said he would be concerned with lowering the standard just because of a labor shortage to squander down the standards for safety for those folks that are going to have electrical work done at their houses or buildings. [Testers] need to come prepared, slacking on preparation is not what should be catered to. Williamson said the department believes competency can be equitably assessed with 80 questions instead of 100.

4. Regular Business
   a. Expense Approval – reviewed and approved the per diem and expenses.


   c. Inspections update
      Kurdi suggested that more examples related to theory, calculations, and code be added to the exam guide.

5. Special Business
   a. iMS (Intuitive Municipal Solutions) permitting and inspection system
      Williamson said that the new system will replace the e-Trakit/Trakit system in fall 2019. For more information and to sign up for iMS related news, please visit: https://public.govdelivery.com/accounts/MNDLI/subscriber/new?topic_id=MNDLI_16

   b. Adoption of the 2020 NEC
      • Williamson said the 2nd draft was published on April 3, 2019, and is available on NFPA’s website.
      • Lebowski added that the Board will need to set up subcommittees to discuss possible rule changes. The effective date of the new rule would be July 2020.
      • Williamson gave a PowerPoint presentation – See Attachment C.

6. Committee Reports
   Construction Codes Advisory Council (CCAC) – has not met because the Energy Code has not released its findings. The CCAC is waiting for this before scheduling a meeting.

7. Complaints
   No complaints brought forth

8. Open Forum
   Nothing
9. **Board Discussion**
Lebowski said the Request for Comments will be going out next week. There is nothing that needs to be done – this is just a standard rulemaking process.

10. **Announcements**
Next regularly scheduled meetings – 9:00 a.m. Minnesota Room, DLI
   a. July 9, 2019 (annual meeting)
   b. October 8, 2019

11. **Adjournment**
A motion was made by Givens, seconded by Daniels, to adjourn the meeting at 9:53 a.m. The vote was unanimous with 11 votes in favor of the motion; the motion carried.

Respectfully Submitted,

Scott Novotny
Scott Novotny
Vide-Chair
CCLD ENFORCEMENT STATS 2014-2019

RESIDENTIAL BUILDING CONTRACTOR

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### WORKER MISCLASSIFICATION

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ELECTRICAL ENFORCEMENT ORDERS

January 1, 2019 through April 8, 2019

Unless otherwise noted, Cease and Desist Orders and Administrative Orders are based on allegations of unlicensed activity

A Consent Order is not a finding of fact or an admission of guilt.

For more information on specific orders, please call (651) 284-5069

Able Energy Corp., dba WeKnowSolar.com, and Michael J. Harvey, Individually
– Lic #EA006412 and AM711510
Shoreview, MN and River Falls, WI
*Findings of Fact, Conclusions of Law, and Order: Licenses revoked; Respondents ordered to cease and desist from performing or offering to perform electrical work; $30,000 monetary penalty against Able Energy and $20,000 monetary penalty against Respondent Harvey – 1/28/19
*ELE1712-00033/00017/00016/1710-00009/1709-00049/1607-00023/00021/CMW – OAH Docket No. 82-1902-35187

Anderson, Rick R. – Lic. #AJ013767
Inver Grove Heights, MN
*Licensing Order: License suspended until such time that continuing education requirements are completed; $1,000 monetary penalty – 1/2/19
*ELE1812-00021/WJS

Bassing, Brian R. – Lic. #AJ014674
Ogilvie, MN
*Licensing Order: License suspended until such time that continuing education requirements are completed; $1,000 monetary penalty – 1/2/19
*ELE1812-00018/WJS

Brink, Zachary A. see Restorz, LLC
Connectors Audio and Video Services, Inc. and Jerome Kramer, Individually. – Lic. #TS753106
North Mankato, MN
*Consent Order: License granted with conditions; Respondents shall fully comply with the requirements for continuing education; $2,000 monetary penalty with stayed with conditions – 3/19/19
*ELE1804-00010/AWT

Croix Management, LLC and Croix Valley Contracting, LLC
Taylors Falls, MN
*Administrative Order: Corrective action required; Respondents shall cease and desist from performing or offering to perform electrical work; $5,000 monetary penalty of which $4,000 is forgivable is violations are corrected or corrective plan acceptable to Commissioner is developed – 1/24/19
*ELE1812-00024/CMW

Crumrine, Robert - see Genesis 6 Construction, L.L.C.

Diers, Thomas R. – Lic. #AM005053
Minneapolis, MN
*Consent Order: Respondent censured; $2,000 monetary penalty with $1,500 stayed with conditions – 3/19/2019
*ELE1808-00015/CMW

Dillard, Cornell – Lic #RE668162
Minneapolis, MN
*Licensing Order: Registration revoked; Respondent ordered to cease and desist from performing or offering to perform electrical work; stay of $2,250 monetary penalty previously assessed is lifted, and an additional $7,000 monetary penalty is assessed – 1/3/19
*ELE1812-00025/CMW

Dimmer, Allen G. – Lic. #AJ711407
Fargo, ND
*Licensing Order: License suspended until such time that continuing education requirements are completed; $1,000 monetary penalty – 1/2/19
*ELE1812-00020/WJS

Enterprise Sales Company
Valley City, ND
*Consent Order: Respondent shall not perform or offer to perform in the state of Minnesota services for which an electrical contractor license is required until such time the requisite licensure is obtained – 3/19/2019
*ELE1712-00038/AWT and OAH Docket No. 21-1902-35665
Fisher, Johnnie W. – Lic. #PL711184
Lucasville, OH
*Licensing Order: License suspended until continuing education requirements are completed; $1,000 monetary penalty – 1/14/19
*ELE1812-00018/WJS

Four Seasons Electric LLC – Lic. #EA004908
Owatonna, MN
*Consent Order: Respondent Censured; Respondent shall ensure all of its registered unlicensed employees are properly supervised while performing electrical work; $3,000 monetary penalty with $2,000 stayed with conditions – 4/8/19
*ELE1902-00028/WJS

Genesis 6 Construction, L.L.C. and Robert Crumrine, Individually – Lic. #BC683429
Jordan, MN
*Consent Cease and Desist Order: Respondents censured; Respondents ordered to cease and desist from performing or offering to perform electrical work in the state of Minnesota until granted the requisite licensure; $3,000 monetary penalty with $2,000 stayed with conditions – 2/28/19
*ELE1809-00016/WJS

Harvey, Michael J. - see Able Energy Corp., dba WeKnowSolar.com

Helms, Richard R., Individually and dba Richard Helms Electrical – Lic. #EA709793 and #AM004429
Minneapolis, MN
*Licensing Order: License suspended until such time that Respondent fully complies with Commissioner’s January 8, 2019 request for information and pays monetary penalty; During term of suspension Respondent shall cease and desist from performing or offering to perform electrical work in the state of Minnesota; $6,000 monetary penalty – 3/1/19
*ELE1812-00026/CMW

Johnson, Robert D. – Lic. #PL677301
Coon Rapids, MN
*Consent Order: Respondent censured; Licensing Order vacated; Respondent shall ensure that he has complied with continuing education requirements; $1,000 monetary penalty with $900 stayed with conditions – 4/2/19
*ELE1901-00007/WJS

Lipinski, Daniel S. – Lic. #PL004778
Oakdale, MN
*Licensing Order: License suspended until such time that continuing education requirements are completed; $1,000 monetary penalty – 1/2/19
*ELE1812-00019/WJS
North Star Electrical Contractors, Inc. – Lic. #EA001357
Plymouth, MN
*Consent Order: Respondent censured; Respondent shall ensure that all permits are obtained prior to commencing work and all required inspections are requested; $2,000 monetary penalty with $1,500 stayed with conditions – 3/19/19
*ELE1812-00007/WJS

Ohren Electric, Inc. and Justin L. Ohren, Individually – Lic. #EA737864 and 651969 and AM008355
Dalton, MN
*Consent Order: Respondents censured; Respondents shall ensure all requests for electrical inspections are filed prior to commencing electrical work; $10,000 monetary penalty with $8,000 stayed with conditions – 3/26/19
*ELE1811-00019/CMW

Ohren, Justin L. - see Ohren Electric, Inc.

Omega6 Contracting L.L.C. dba Omega6 Contracting, and Mark A. Smith, Individually – Lic. #BC708948
Duluth, MN
*Consent Order: Censure; Respondents ordered to cease and desist from performing or offering to perform electrical work in the state of Minnesota until granted the requisite licensure; $5,000 monetary penalty with $4,000 stayed with conditions – 4/8/19
*ELE1903-00018/AWT

Pettus Plumbing & Piping, Inc.
Saint Paul, MN
*Administrative Order: Respondent shall cease and desist from performing or offering to perform electrical work; $1,750 monetary penalty – 2/13/19
*ELE1902-00002/TWI

Q3 Contracting, Inc. – Lic. #EA006277
Little Canada, MN
*Licensing Order: License suspended until such time that Respondent submits complete responses to Commissioners' requests for information and submits all required documentation to identify and secure a qualifying responsible individual for its electrical contractor license; $5,000 monetary penalty – 3/6/19
*ELE1808-00012/CMW
Restorz, LLC and Zachary A. Brink, Individually
Zimmerman, MN
*Consent Cease and Desist Order: Respondents ordered to cease and desist from performing or offering to perform electrical work in the state of Minnesota until granted the requisite licensure; $2,500 monetary penalty stayed with conditions – 4/2/19
*ELE1903-00003/CMW

RJR Services LLC and Ronald J. Rotondo, individually
Coon Rapids, MN
*Administrative Order: Respondents shall cease and desist from performing or offering to perform the services of an electrical or technology systems contractor; shall also cease and desist from acting or holding themselves out as a residential building contractor, remodeler, or roofer until appropriate licensure is achieved; $10,000 monetary penalty – 3/4/19
*ELE1811-00001/WJS

Rotondo, Ronald J. - see RJR Services LLC

Sachs Fence LLC and Jarod Sachs, Individually
Farmington, MN
*Consent Cease and Desist Order: Respondents ordered to cease and desist from performing or offering to perform electrical work in the state of Minnesota until granted the requisite licensure; $2,000 monetary penalty with $1,500 stayed with conditions – 1/23/19
*ELE1811-00016/WJS

Sachs, Jarod - see Sachs Fence LLC

Smith, Mark A. - see Omega6 Contracting L.L.C. dba Omega6 Contracting

Speedway, LLC
Enron, OH
*Stipulation and Consent Order: Respondent shall cease and desist from performing or offering to perform electrical work and shall cease and desist from directing or dispatching employees to perform electrical work until the requisite licensure is obtained; $5,000 monetary penalty with $3,000 stayed with conditions – 2/4/19
*ELE1810-00029/CMW
This & That Handyman Services, LLC
Apple Valley, MN
*Consent Cease and Desist Order: Respondent ordered to cease and desist from performing or offering to perform plumbing and/or electrical work in the state of Minnesota until granted the requisite licensure; $5,000 monetary penalty stayed with conditions – 1/2/19
*MLT1811-00004/SON

Tinklenberg, Thomas Lee
Taylors Falls, MN
*Administrative Order: Corrective action required; $2,500 monetary penalty of which $2,000 is forgivable if violations are corrected or corrective plan acceptable to Commissioner is developed – 2/12/19
*ELE1810-00031/TWI

University Electric, Inc. – Lic. #EA006045
Buffalo, MN
*Consent Order: Licensing Order vacated; censure; Respondent shall ensure that all of its employees who engage in electrical work are either registered or licensed and properly supervised; shall secure an inspection to finalize all electrical work in a timely manner; $3,000 monetary penalty with $2,750 stayed with conditions – 3/7/19
*ELE1811-00011/TWI

Vinco, Inc. – Lic. #EA003009
Forest Lake, MN
*Consent Order: Respondent censured; Respondent shall ensure all of its registered unlicensed employees are properly supervised while performing electrical work; $3,000 monetary penalty with $2,000 stayed with conditions – 1/23/19
*ELE1811-00009/WJS
An overview of significant proposed changes in the 2020 NEC

Construction Codes and Licensing Division | Electrical Inspection Unit
April 6, 2019
www.dli.mn.gov

Disclaimer and Notification

• At their January 8, 2019 meeting, the Board of Electricity passed a motion to start the adoption process for the 2020 NEC

• The 2nd Draft of the 2020 NEC was published by NFPA on April 3, 2019

• The ANSI-approved 2020 NEC will be published by NFPA in September 2019

• If everything goes according to plan...
  ...the 2020 NEC will be enforceable on July 1, 2020

• The information and analysis in this presentation is based on preliminary information from various industry sources and is subject to change.
NEC 210.8  GFCI Protection for Personnel

- **Topic:** Measurements for GFCI protection
- **Type of Change:** Revision
- **Change at a Glance:** Revised language to clarify how measurements would be determined for GFCI receptacles
- **Analysis of the Change:** In the parent text of 210.8 where it describes how to measure the shortest path of an appliance cord, the words “door” and “doorway” have been removed. Under the 2017 NEC, it has been interpreted that the receptacle for a garbage disposer would not require GFCI protection because a cabinet “door” would obstruct the path of the appliance cord. The 2020 NEC would be clear that GFCI protection is required for all receptacle outlets that are within 6-feet of the hazards listed in 210.8 (A) and (B), regardless of any cabinet doors.

NEC 210.8(A)  GFCI Protection for Personnel

- **Topic:** GFCI Protection in Dwelling Units
- **Type of Change:** Revision
- **Change at a Glance:** The receptacle voltage thresholds have been changed, and the amperage thresholds have been deleted
- **Analysis of the Change:** GFCI protection would be required for all 125-volt through 250-volt receptacles that are supplied by single-phase branch circuits rated 150-volts to ground or less. Previously, GFCI protection was only required for 125-volt, 15- and 20- amp receptacles. In addition to 125-volt receptacle outlets, 250-volt receptacle outlets would also be required to have GFCI protection, such as clothes dryers and range receptacles. In effect, GFCI protection would be required for most receptacle outlets commonly used in bathrooms, garages, basements, outdoors, kitchens, near sinks, and for laundry areas.
NEC 210.8(B)  GFCI Protection for Personnel

• **Topic**: GFCI Protection in Other Than Dwelling Units (Kitchens and Other Areas)

• **Type of Change**: Revision

• **Change at a Glance**: GFCI protection has been expanded beyond kitchens to other areas

• **Analysis of the Change**: In addition to kitchens (defined in Article 100), GFCI protection would also be required for “other areas” with a sink and permanent provisions for either food preparation or cooking. The distinction here is that GFCI protection would be required in permanent food preparation areas, regardless if there is any permanent provision for cooking. Ice cream parlors, coffee shops, some delicatessens, sandwich shops and other food retailers have preparation areas, but no cooking appliances. It has been substantiated that stainless steel food preparation areas that utilize refrigerators and freezers also deserve protection from electric shock.

NEC 210.52(C)(2) Islands and Peninsulas

• **Topic**: Receptacle Outlets for Island and Peninsula Countertops and Work Surfaces

• **Type of Change**: Revision

• **Change at a Glance**: The method for determining the number of receptacle outlets has changed

• **Analysis of the Change**: Instead of basing the number of receptacle outlets on short and long dimensions of the countertop, a calculation based on square-footage would be used. At least one receptacle would be required for the first 9-ft², or fraction thereof. An additional receptacle would be required for each additional 18-ft², or fraction thereof. At least one receptacle would be required to be located within 2-feet of the outer end of a peninsula.
NEC 210.52(C)(2) Islands and Peninsulas

• Jeopardy Question: Name an object in the middle of the kitchen, often in various sizes, that has a flat surface for multiple uses.
  • Is it kitchen table?
  • Is it a kitchen island?
  • Is it a dining island?
  • Is it fastened in place?
  • Is it moveable on casters?
  • Would the NEC require receptacle outlets?
  • How many receptacle outlets need to be installed?

NEC 215.9 GFCI Protection for Personnel

• Topic: GFCI Protection for Personnel on Feeders
• Type of Change: Revision
• Change at a Glance: The language that referenced 15- and 20-ampere receptacle branch circuits has been removed
• Analysis of the Change: Previously, feeders were permitted to have GFCI protection where they supplied 15- and 20-amp receptacle branch circuits. It has been substantiated that there is no practical reason to continue to impose what appears to be a limitation. In recent years, GFCI protection has been expanded to include dishwashers, boat hoists and crawl space lighting that are not connected via receptacle outlets. In some situations installers may choose to provide GFCI protection at the feeder level instead of at the individual branch circuit level.
NEC 220.12 Lighting Load for Non-Dwellings

- **Topic**: Lighting Load for Non-Dwelling Occupancies
- **Type of Change**: Revision
- **Change at a Glance**: Extensive revisions have been made to modify the lighting loads in certain occupancies
- **Analysis of the Change**: NEC 220.12 and Table 220.12 have only seen minimal revisions in the past 40+ years, yet lighting technology has changed significantly in very recent years. The promulgation of modern energy codes, and the collection of data from numerous case studies, has propelled the need to modify lighting load values. The lighting load was slightly increased for gymnasiums, manufacturing, religious facilities and warehouses, but otherwise reduced across most other occupancies.

NEC 230.67 Surge Protection

- **Topic**: Surge Protection in Dwelling Units
- **Type of Change**: New
- **Change at a Glance**: A surge protective device (SPD) would be required at dwelling unit service equipment
- **Analysis of the Change**: NEC 230.67 would be a new section in the code. Surge protective devices would be required at all dwelling unit service equipment. The SPD would be required to be an integral part of the service equipment, or located immediately adjacent to the service equipment. An exception would allow the SPD to be installed at each next distribution equipment downstream and toward the load. The SPD would be required to be Type 1 or Type 2 (Type 1 SPDs are permitted to be installed on the supply-side of the service disconnecting means, and Type 2 must be installed on the load side of an overcurrent protective device). Where service equipment is replaced, SPDs would be required to be installed. The substantiation for this new requirement is to protect all of the critical electronic equipment that is deployed in modern homes (GFCIs, AFCIs, smoke and carbon dioxide alarm systems, security systems, HVAC systems, etc.)
**NEC 230.86 Emergency Disconnect(s)**

- **Topic:** Emergency Disconnect for One- and Two-Family Dwellings
- **Type of Change:** New
- **Change at a Glance:** An outdoor emergency disconnect would be required for all one- and two-family dwellings
- **Analysis of the Change:** This new provision would require an emergency disconnect at a readily accessible outdoor location for all one- and two-family dwelling units. The substantiation for this new rule is to provide a means for first responders to disconnect power in an emergency, instead of relying on the electric utility to remove power to the structure. There are three options:
  1. Service Disconnect marked: EMERGENCY DISCONNECT, SERVICE DISCONNECT
  2. Meter Disconnect marked: EMERGENCY DISCONNECT, METER DISCONNECT, NOT SERVICE DISCONNECT
  3. Other SUSE-rated Disconnect marked: EMERGENCY DISCONNECT, NOT SERVICE DISCONNECT

**NEC 314.16(B)(5) Conductor Fill at Boxes**

- **Topic:** Equipment Grounding Conductors
- **Type of Change:** Revision
- **Change at a Glance:** The box fill volume allowance for equipment grounding conductors and equipment bonding jumpers has been revised
- **Analysis of the Change:** To avoid overcrowding and to ensure adequate heat dissipation, the single volume allowance for grounding conductors would only include up to four conductors. A 1/4-inch volume allowance must be added for each additional grounding conductor that enters the box, based on the largest grounding conductor. In multi-gang boxes only one volume allowance for grounding conductors has proven to be inadequate, especially with the larger devices is use today (dimmers, fan controls, etc.)
NEC 314.27(C) Boxes at Paddle Fan Outlets

• **Topic:** Boxes at Ceiling-Suspended Fan Outlets

• **Type of Change:** Revision

• **Change at a Glance:** Outlet boxes in ceilings of habitable rooms, in a location acceptable for the future installation of a fan, must be listed for the sole support of a fan, unless the fan will be supported independently by the structure.

• **Analysis of the Change:** Language concerning spare, separately switched conductors has been deleted. That criteria is no longer a driving factor for fan box selection. Ceiling fans today (with or without luminaires) are remote-controlled and can be supplied by a 2-wire circuit (extra switched conductors for speed control or lighting are no longer needed).

Stay Tuned for More 2020 NEC Updates

As more 2020 NEC information becomes available, the Electrical Inspection unit in the Construction Codes and Licensing Division will continue to expand this presentation.
Thank you!

dli.electricity@state.mn.us