

Board of Electricity
Meeting Minutes
Tuesday, October 8, 2013 @ 9:00 a.m.
Minnesota Room, Department of Labor & Industry
443 Lafayette Road, St. Paul, MN 55155

Members Present:

Andy Toft
Dan Westberg
Doug Fingerson
Jim Freichels
Joe Vespa
John McConnell
John Schultz
Kim Huxford
Scott Novotny
Willy Hoskins
Laura Karow
Dan Klein

Members Absent:

Dan Westberg

DLI Staff & Visitors:

Bill Bierman – (DLI)
Lyndy Lutz – (DLI)
Keith Madonna (IBEW 292)
Jeff Heimerl (IBEW 292)
Andy Snope (IBEW 292)
Keith Anderson (IBEW 292)
John Kripotos (IBEW 292)
Bill Heaney (IBEW 292)
Joe Sellwood (Cook Girard)
Gary Thaden – (NEC)
Scott Nutting – (CEIA)
Pat McMullen (McMullen Inspect)
Tim Power (MNLA)
Jim Nimlos – (Mpls JATC)
David Fisch – (MNESTA)
Judi Rubin – (MEA)
Bill Braun (CCARSA)
Phil Raines (ABC)
Brian Winkelaar (IBEW 110)

I. Call to Order

The meeting was called to order at 9:05 a.m. by Chair Toft. Roll call was taken by Vice Chair Huxford and a quorum was declared. No announcements were made.

II. Approval of Meeting Agenda

A motion made by Vespa, seconded by Klein, to approve the agenda with the addition of V. Special Business, item d and VI. Committee Reports, item a, as indicated below. The vote was unanimous; the motion carried.

V. Special Business

d. CCARSA – Request for a final interpretation of the electrical code

VII. Complaints

a. Requests to address the board

III. Approval of Previous Meeting Minutes

A motion to approve the minutes as presented by Fingerson, seconded by Vespa. The vote was unanimous; the motion carried.

IV. Regular Business

- a. **Expense Approval** – Toft reviewed and approved the per diem and expenses. A motion made by McConnell, seconded by Karow to approve per diem and expenses. The vote was unanimous; the motion carried.
- b. **Enforcement** – Schultz gave a short report. The website is up to date for all enforcement activity. Information can be obtained at:
<http://www.doli.state.mn.us/CCLD/Enforcement.asp>
- c. **E-Licensing and e-TRAKiT** – Schultz provided an update stating e-TRAKiT is running at approximately 70% of electrical permits being filed electronically. To date, the electrical inspection revenue for the fiscal year was approximately 11% ahead for the same time period in the previous fiscal year. Approximately 31,000 electrical permits were filed in the fiscal year and \$2.5 million was collected in fees. The department is developing enhancements to the e-TRAKiT system that will make the system even easier to use. The update is fairly significant, crossing over all the CCLD disciplines.

V. Special Business

- a. **Update on Reciprocal Agreements**
Schultz – nothing to report since the last meeting. He attended the multi-state meeting in Oklahoma City in August and there has been no further discussion with other states regarding reciprocal activity since that time. Wisconsin is working on changing their laws to bring them more in line with Minnesota's laws and other states that have similar licensing laws.
- b. **Update on satellite system installer continuing education and certification program rule adoption**
Schultz provided an update – There has been minimal activity, however, the initial draft of the Statement of Need and Reasonableness (SONAR) will be done shortly and available for final review by the board at January's meeting. After final review, the board would move forward with the rest of the adoption process. Less than twenty licenses were issued. Issues relating to comprehension and compliance resulting in increased enforcement and penalties were discussed.
- c. **Update on adoption of the 2014 National Electrical Code**
Schultz provided an update – The Statement of Need and Reasonableness (SONAR) has been drafted. One of the issues that pertained to current law (Section 326B.13, subdivision 8) requires there be a 180-day offset between the adoption date and the effective date. In the past the board had asked for a waiver to have the 180-day offset not apply. In past adoptions of the Code, the National Electrical Contractors

Association, as well as the Minnesota Electrical Association, provided a statement to the board identifying that they would support the waiver and the subsequent effective date which, in this case, would be July 1, 2014 and not 180 days after the adoption date. **For the record, Schultz asked Mr. Thaden and Ms. Rubin to provide similar statements to the board for adoption of the 2014 Code.**

Mr. Gary Thaden, Government Affairs Director for the Minnesota Contractors of the National Electrical Contractors Association, stated they were looking at the 2014 edition of the new code for quite a while and have followed the entire adoption process. Curriculum on the 2014 code was established with classroom instruction and they would urge the earliest adoption possible of the 2014 code.

Ms. Judi Rubin, Minnesota Electrical Association, stated that she would repeat everything said by Mr. Thaden; they are doing virtually the same thing and they urged the earliest possible adoption of the 2014 code as well. Chair Toft addressed Mr. Thaden and Ms. Rubin asking if it would be possible for the board to receive letters of support from their respective associations. Mr. Thaden stated he already had a rough draft of the letter supporting this position and that the board would receive this letter by the end of the week. Ms. Rubin stated the same.

A motion to ask for a 180-day waiver on the effective date of the adoption of the 2014 code was made by Freichels, seconded by Huxford. The vote was unanimous; the motion carried.

d. CCARSA Final Interpretation dated 9/30/2013 (received via email by DLI staff on 10/1/2013)

Schultz provided background on CCARSA's request to have safety training be allowed as a continuing education credit, as follows: The date of the CCARSA letter was September 30, 2013, and the board had 30 days to provide a final interpretation. The requirements for continuing education were adopted in 1995 and provided the conditions for acceptable subject matters under part 3800.3602. Since 1995 many programs have been submitted for approval but have been denied. There were approximately 175 requests for a hearing in 2009 but none of these related to safety training being recognized as an acceptable subject, and in addition, none of the testifiers at that hearing mentioned anything about this issue. Board staff, the drafters of the rule in 1995, as well as other board and now department staff, have always held that safety training was not to be included in the acceptable subject area.

Mr. Braun requested to speak, stating that there is a difference of opinion between DLI and DLI. DLI safety training officers crafted what they should be teaching their workers since electrical workers are 500 times more likely to die from electricity as another worker in the general population. The purpose of the electrical code is the practical safeguarding of life and property, Article 90.1A, which includes electrical workers that

are doing installations. The difference of opinion between DLI and DLI was narrowed down and addressed in the letter from Chief General Counsel dated September 19, 2013. Item Number 3 of the letter (page 2) clearly indicated that the reason why safety training was not appropriate was due to the informational note following the definition of “qualified person” that related incorrectly to NFPA70E-2009 and not NFPA70. Item 3 is stated below:

“Your email correctly quotes the definition of “Qualified Person” in the NEC. However, you left out the following note at the end of the definition: Informational Note: Refer to NFPA70E-2009, Standard for Electrical Safety in the Workplace, for electrical safety training requirements.”

Braun stated that NFPA70E-2009 relates to a different national fire code and due to this error, safety training has not been allowed by DLI for training of workers. He believed this was an erroneous interpretation of code in several parts, however, he agreed with Schultz that an informational note did not change the clear meaning of a proceeding code requirement. He believed that perhaps Schultz misdirected the second question, stating there are more than 100 clear requirements throughout the national electrical code NPFA70 that require a qualified person. Therefore, he is not talking about a requirement that is in definitions, he is talking about requirements that are all throughout the code that require a qualified person. Article 100 requirements clearly state: “to be a qualified person they must have received safety training”. DLI’s safety trainers feels that this is important training for workers to receive, however, DLI’s informational note (shown above) change the definition and the definitions related to over one hundred times throughout the code, resulting in safety training being deemed unrelated to the code and thereby not approved for installation credit. This is their issue and he believes it is a gross misreading of the code. He is asking for installation training credit not code credits.

Toft questioned Braun on the type of course that they were trying to get approval on with Braun stating it was a 4-hour course consisting of 1 hour of installation credit and 3 hours of safety training procedures – one hour of credit awarded for installation but no credits given for the safety portion. Toft read aloud 3800.3602, as shown below:

*“Subp. 3. **Acceptable subjects.** For the license types listed in subpart 2, item B, subitems (1) to (9), at least 12 hours of instruction must be on the NEC and the remainder on the statutes and rules governing electrical installations, this chapter, chapter 3801, and Minnesota Statutes, sections 326B.31 to 326B.399, or technical topics related to electrical installations and equipment. For the license type in subpart 2, item B, subitem (10), at least four hours of instruction must be on the NEC with the remainder on the statutes and rules governing electrical installations, this chapter, chapter 3801, Minnesota Statutes, sections 326B.31 to 326B.399, or technical topics related to electrical installations and equipment.”*

Toft clarified to Braun that what it comes down to is *“technical topics related to electrical installations and equipment”* with Braun agreeing that this is the category they believe safety training would fall under. Toft further stated that at this point the statutes, the way they are currently written, would need to be amended and he asked for clarification from Schultz. Schultz stated that the board and DLI staff’s position was that safety training was not part of the original draft of these rules and if the board would like to approve safety training it would need to clearly frame this language very carefully through a rule amendment to specifically identify what type of safety training. Questions were asked on how safety training related to the code itself? Schultz addressed the questions saying that he doesn’t disagree that safety training is important but that this wasn’t how the rule was intended or how it had been enforced over the years. He restated that the board’s authority is only on the interpretation of the questions that have been asked in the CCARSA letter and that rules are changed through a formal rulemaking process by the board.

Thaden addressed the board and recounted a former safety training discussion with the outcome decided that safety training would not be included in the rules because the whole code was permeated in safety. The reason for the code was to provide education about electrical installation, not about safety in general, with a concentration on technical ability not on whether they understood general safety principles. Toft agreed with Braun that safety was important and vital but as the rule currently reads, *“technical topics related to electrical installations and equipment”* safety training would not apply.

Toft asked the board for a final ruling on the interpretation. Due to a conflict of interest, Mr. Freichels excused himself from discussion/voting.

Schultz makes a motion to the responses for question 1, 2, and 3, be No, with each question expanded upon (see below) per the request of Chair Toft. Motion was seconded by Hoskins. The vote was unanimous with one abstention noted.

In response to CCARSA’s request for final interpretation of the following questions:

1. Does an “Informational Note” change a clear requirement of a preceding Code Article?
Response: No. NEC section 90.5(C) states in part “Such notes are informational only and are not enforceable as requirements of this Code.”

2. Does the Code definition of a “Qualified Person” require “safety training”?
Response: No. NEC Style Manual section 2.2.2 states in part “Definitions shall not contain requirements or recommendations.”

3. Is “safety training” a Code requirement for a “Qualified Person” for Code or installation, from “hours of instruction” educational program credits under Rules 3800.3601 to 3800.3603?

Response: No, for the reasons stated in 1 and 2.

Following the motion, Chair Toft asked the board members for discussion regarding changing the rules to include safety training; no discussion followed.

VI. Committee Reports

- a. **McConnell gave an update on the Construction Codes Advisory Council** – The CCAC met and discussed creating a green ordinance. He asked for feedback from the electrical board. Toft asked for clarification on what types of green ordinances were referred to and McConnell referenced the **“2012 International Green Construction Code”** book which was reviewed at the CCAC meeting in September 2013.

Assistant Commissioner Jessica Looman gave an update on the Construction Codes Advisory Council – DLI was approached to analyze parts of the green code to determine areas that could be incorporated into the Minnesota code and optional procedures where more green aspects could be integrated into construction. She stated they are in the very early stages and would appreciate the boards’ feedback on incorporating this into Minnesota. She acknowledged concerns and are hoping to have internal staff analysis completed by the end of the year and then brought forward to the CCAC and all of the boards.

- b. **DLI is in the process of drafting changes to the electrical act to correlate within the electrical act and clarify provisions as well as other sections of 326B for possible consideration during the 2014 legislative session.** Schultz stated they don’t have a draft that can be shared with the board at this time, however, he shared some of the proposed changes:

- **Class A installer** – planning to delete this classification. There are currently no individuals that are licensed in this category; can only install wiring for major appliances in limited areas of this state.
- **Class B installer** – planning to modify this classification which relates to agricultural irrigation systems. Currently the Class B installer license requires the individual to be bonded. The proposed modification is to repeal the individual bond requirement and establish an agricultural irrigation contractor license with the responsible license holder being the Class B installer in the same model as other electrical contractor license types.
- **Adding definitions for “employee” and “employer”** – This is an area where there seems to be ongoing conflict and need for further clarification. Toft asked Schultz for clarification on “employees” and “employers” with Schultz stating that the definition of employee is currently in Minnesota Rule, part 3800.3500, but that “employer” is not identified at all; therefore, the intent is to clarify

these definitions as they pertain to the electrical act to resolve some conflicts and gray areas.

- **Definition of municipality** – Adding to the electrical act. Also, in part, correlate permissive municipal inspection with other sections of 326B. For example, plumbing and high pressure piping have municipal agreements where municipalities are then granted the inspection authority within their communities. Currently, in the electrical act, it is just adopting an ordinance, there is no other requirement.
- **Enforcement** - DLI is looking to correlate some of the requirements that are found in other parts of 326B regarding contracts, record retention, and grounds for sanctions. DLI has encountered issues with the enforcement process as the Electrical Act does not have the actual sanctions or grounds for sanctions identified which has become a challenge when investigating complaints and taking enforcement action.

The department's intent is to present its near final draft of the changes to the electrical act at the January 2014 meeting. The intent is to correlate the Electrical Act with the rest of 326B and also provide cleanup within the electrical act itself, not to make any significant changes, but more so to resolve any internal conflicts pertaining to language.

VII. Complaints

a. Office Furniture Partitions – Scott Nutting

Scott introduced himself to the board stating he represented the Contractor Electrical Inspection Association. He provided clarification on enforcing manufactured office furnishings and stated that they come with quick connect devices to help put them together but a large portion of the work was being done by unqualified persons. A qualified person would be someone that can figure out how many receptacles are going to be on the partition, how many light fixtures are going to be on a lighting circuit, and has an electrical license or works for an electrical contractor. He referred to the recent enforcement action taken against Brownsworth, Inc., stating that it was ordered that the employees of Brownsworth could actually put together the jumpers that were going between these partitions. He discussed similar, previously deliberated issues regarding PV systems and stated he believed there would be issues with wall partitions that come pre-wired that would need to be addressed with Article 220-Branch Circuit, Feeder and Service Calculations of the National Electrical Code and as well, done by a licensed electrical contractor to ensure a successful electrical inspection. Novotny added to the conversation from an inspector's point of view stating that as an inspector they may walk on the job and only see a hard-wired flexible whip hanging there and that is all he would be inspecting. He further commented that the office furniture may not even be there yet for a final inspection and an inspector would need to ask who was going to be doing the installation of the modular furniture. He stated that modular furniture people were not qualified to install, they cannot just build everything and plug everything in. He expressed concerns with fires being reported in modular furnishings at the University

of Minnesota due to incorrect installation and wiring methods that resulted in hazardous conditions. He said that enforcement should look at who is doing the installation as well as the electrical wiring portion. Toft asked for clarification on who is liable for a fire in a partition if the circuits are overloaded? Discussion followed regarding whether the electrical inspector would be responsible or if it would be the electrical contractor's responsibility. Questions were asked: "If the electrical contractor is responsible then shouldn't he be the person that puts it all together?" "Where does this liability fall?" The board was asked to further debate these issues and provide concise rulings.

The board discussed the following issues: Whether there were instructions on how many units could be put together, were the walls considered a piece of listed equipment, safety issues regarding the number of receptacles on a circuit and the number of circuits used, contractor complaints, liability issues, and isolated ground type receptacles being used. The equipment was installed incorrectly but under the current ruling these issues wouldn't be addressed. Toft stated that at present the board has no jurisdiction.

Schultz was asked to provide clarification and he stated that this is restrictive to Type 1 office furnishings. Type 1 is the typical office partition that incorporates the factory wiring within the panels. Typically the wiring harness is a flat cable that is 2 ½ to 3 inches wide with all of the circuit conductors, and either a single or 3 phase system, with or without separate neutrals. Some of the systems include light switches but factory wiring is part of the panel assembly. Not included in the factory assembly are specific locations along the base of the partition where you can insert different receptacle outlets. They will be intended for that specific type; they will either be phase a, b, or c, depending on the system. The wiring of the panel is built in with a jumper cable that will go from one panel to another and there isn't any question that if care isn't taken in assembly, it can be damaged. The order is somewhat limiting and only allows the assembly of the panels. The final connection to the premise wiring is required to be done by a licensed electrical contractor. Again, this is a Consent, Cease and Desist order in effect and most of the enforcement actions that the department entered into are Consent type orders. A Consent order means that there is a negotiated settlement between the department and the respondent, in some instances they will include monetary penalties and in other instances they simply restrict the respondent from particular activities as this one does. This particular investigation and negotiation/agreement spanned a fairly lengthy period of time. It was obviously a difficult issue.

There is an article in the 2014 NEC related to ceiling systems that incorporate electrical wiring. It is considered all one system similar to the plug-in-play being discussed. Samples we've seen are normally operating on dc voltage, class 2. The connection points are just a clip that goes over the top of the ceiling channel which energizes that channel. There are going to be the same type of questions as being raised here, such as:

“Who can install?” and “Who is going to control the lighting load put onto those circuits?” Most of you are well aware of new installation in office buildings – you have the initial install and continuing remodeling that goes on. Cubicles are modified all the time – and what might start out as a code compliant installation from a number of circuits and/or number of outlets on a particular circuit standpoint, over a period of time becomes noncompliant because isolated work is done with no awareness by an electrical inspector that work was done. We need to clearly limit this and Schultz believed the order did this by not allowing permanent connections or connection of any panels to the permanent wiring method or extension of that wiring method. He stated that there is a responsibility to make appropriate branch circuit connections and within the constraints of that branch circuit. The board was asked if there were anything that could be done regarding the language to try to encourage this approach. Schultz stated the order is worded carefully and allows Brownsworth to do the inter-connect cabling between the different panels, the installation of receptacle outlets, etc. but still required that an electrical contractor do the final connection. The intent and question is: Does it take an electrical contractor to do the plugging in of that simple receptacle into a track or cable connection at the base of the panel? Brownsworth needs to comply with the consent order. They’ve agreed on this consent order acknowledging that they can do the assembly and plug-in-play part but they cannot make the connections. Toft asked “If Brownsworth modifies an existing panel, things should no longer be listed then, correct?” Schultz stated that inspectors do not need to final permits until they know what is actually connected to the branch circuits.

Keith Anderson inquiry regarding Brownsworth office furnishings. He addressed the board regarding the level of permitting commenting it would be absolutely appropriate to have a permit filed for the installation of the office. He disagreed with this order regarding the presumption of litigation with harm to persons and property. At what point of responsibility does DLI incur by implementing an order of this type? Are they exonerated by this? Toft stated that DLI is looking to a qualified contactor to supply qualified persons to install their type 1 systems. Anderson agreed but said he did not see this in the order. A question was asked on how these individual panels are being grounded or bonded together? Schultz added they are typically metal components and the grounded conductor is part of the cable assembly.

Freichels asked if the department had attempted to put together a summary or notice for these requirements. Schultz stated that at this point the department had not but said it is likely that the department will issue a bulletin. The question was raised as to whether qualifying these furnishings as a piece of electrical equipment, which means the only person that installs electrical equipment are licensed electricians, would address this issue? Toft asked if the department could come up with something directed towards the furniture people stating they need qualified persons and that there are parameters in place that must be followed. Toft asked the following questions: “Can the board do anything beyond this? Can we do anything with this, perhaps make a recommendation, can there be an appeal?” Freichels stated this issue

should be flagged and a bulletin should state that you cannot just add on additional cubes without the proper installation by a qualified person with all hard-wiring being done by a licensed electrical contractor.

McMullen added that if the department were to do a bulletin they should make sure they add in Article 605, which specifically covers office furnishings. Toft asked if they needed to go through the board for an interpretation on this. Toft affirmed there needed to be some clarification since there was disagreement on what the interpretation should be.

Nimlos stated his concern pertained to branch circuit wiring, adding that by definition in the code it is a branch circuit because it covers the high voltage wiring all the way to the plug-ins/device. He declared that a qualified person, someone trained properly in electrical installation should perform every modification and should have a permit. He also added that the law should be clear and state that any modification of the wiring should require a permit and a bulletin should state this. Toft stated that the board has limited authority on complaints. In particular, he referred to the Cease & Desist Order of Brownsworth asking what the process is to appeal or reverse. Toft asked, "Is the board able to do something like this?" Bierman responded by saying "No, the board is not a party to it. This is a consent order which is another way of saying a settlement or agreement between the two parties." Toft then asked if the board would need to go through the process of an interpretation of type 1 panels. Schultz explained that there are three different kinds of panels: Type 1, 2, and 3. Type 1 incorporates the electrical wiring and use of jumpers to inter-connect panels. Type 2 has wiring channels for the installation of other wiring methods. Type 3 doesn't have any accommodation at all for wiring. This only applies to type 1 panels; it doesn't apply to the other two.

Liability issues were discussed and the following questions were raised: "Why the installer wouldn't be held responsible?" and "Why the inspector and contractor should be held responsible?" Schultz stated ALL would be held responsible and they would all need to defend themselves. Toft asked Schultz if the board should address changes to the electrical act or changes to the definitions to include a broader explanation of coverage of definitions when it comes to electrical equipment. Schultz stated that this is a possibility and it may not be a provision nor included in the department's draft but obviously if the bill is introduced there can always be amendments added to it. Toft recommended that the inspectors continue inspecting circuits and branch circuits.

The board asked: "Can the bulletin include the definition of a branch circuit and changes to it?" Schultz stated the order is what it is and we cannot create another document to circumvent it.

VIII. Open Forum

None brought forward

IX. Board Discussion

Schultz discussed the State of Minnesota Construction Industry Conference that is scheduled for February 6, 2014 and all of the parties involved. More information is available at: <http://www.dli.mn.gov/construction/>

X. Announcements

Terms are up at the end of the year. Schultz provided clarification regarding current 326B statutes and the Revisor's website. Toft asked if our website could be updated as it currently shows 2010 information.

Next Regularly Scheduled Meeting (subject to change)

- **Tuesday, January 14, 2014 @ 9:00 a.m. – Minnesota Room, DLI**

XI. Adjournment

A motion was made by Hoskins, seconded by Novoty to adjourn. The vote was unanimous, motion carried and the meeting adjourned at 11:04 a.m.

Respectfully Submitted,

Kim Huxford

Kim Huxford
Secretary