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A Message From the Executive Director:



Hello, everyone!

It's been a chilly/snowy winter and I am sure all of us are ready for spring and summer!

The board hired a new District 6 inspector, Andy Schwab, who replaced David Paul after David moved to Alabama with his family. We want to welcome Andy aboard and he may be stopping in your District 6 shops to greet you!

District 4, Leo Floer, retired from the NDSEB December 31, 2021, but he agreed to stay on part-time until we found a replacement inspector, which we did. Brent Kubischta started with the board March 28th so welcome aboard Brent! He too will be stopping in your District 4 shops to pay you a visit! We again want to wish Leo the best in his retirement and welcome Brent aboard!

Jon Sayler and Scott Halle have been attending high school job fairs and the Marketplace for Kids events across the

state. They both have been giving favorable reports on young people showing interest in the electrical field, so hopefully this will pay off to "spark" some interest in finding replacements for the aging personnel in our trade. I am told the national average age of an electrician is now 58.

We received proposals for changes to the ND Laws, Rules and Wiring Standards. The deadline for proposals was February 28, 2022, so now the board's office will review. Stay tuned for the upcoming public hearing in which you can participate on these proposals.

I had a NERA (National Electrical Reciprocal Alliance) teleconference meeting with the other 18 NERA members in February. We discussed the similarities and struggles we all face with the industry. Guest speaker Jeff Sargent, Senior Electrical Specialist for NFPA, was also present to give us an update on the status of the 2023 NEC. Jeff stated the first draft will be available soon. They created a 22 member NFPA

task force to investigate the HVAC equipment nuisance tripping of the GFCI's that enforcement of article 210.8 (f) has encountered. North Dakota relaxed that rule as of September 2021 until January 1, 2023 because of these issues. There will be more to come on this situation.

Be sure to understand the exemptions and rule changes for ND and if you have more ideas on areas we can improve, we encourage your input on electrical happenings in ND. If you have questions or comments, please send an email, or give me a call as I'd like to visit with you!

<https://www.ndseb.com/>

Email at: electric@nd.gov or

Phone: 701-328-9522

Hope you have a great spring and can get out and enjoy the summer!!

I wish you enough,
- James Schmidt

Ground Fault Circuit Interrupters

Spring is finally arriving after what has seemed to be a long winter for us all, and with it comes the wet conditions and flooding associated with spring. This seems like a great time to touch on GFCIs and their applications due to the wet conditions and with everyone eager to get outside and enjoy some fresh air and sunshine. A GFCI monitors the current flowing in an electrical circuit when the difference between the outgoing current and return current differs by 4mA to 6mA. The GFCI device will quickly operate to deenergize the circuit.

GFCIs were first introduced in the NEC in 1968 for swimming pool lighting, and the locations where they are required has been increasing gradually due to a proven track record of preventing shock hazards and electrocution.

The 2020 edition of the NEC was no different, and saw the expansion of GFCI requirements at dwelling units expand to include all 125-volt and 250-volt receptacles supplied by single phase circuits rated 150 volts or less to ground in the areas specified in 210.8 (A)(1) through (A)(11) with no amperage limit. The previous language in (5), related to unfinished areas of basements was changed to simply say "basements", so now all receptacles in dwelling unit basements are required to be GFCI protected unless exempted.

New item (11) was added for indoor wet and damp locations to match the similar requirement in 210.8(B) and to provide protection for spaces that may not fit into the previously required locations. There were some adjustments made to the locations in 210.8(B), notably kitchens were modified to include areas with a sink and permanent provisions for food preparation where electrical appliances are used in proximity to wet grounded metal surfaces. Also added were GFCI requirements for laundry areas and bathtubs and shower stalls to match the requirements for dwelling units, as the hazard is the same in both locations.

210.8(C) requires GFCI protection for all crawl space lighting outlets rated 120 volts or less, regardless of the type of luminaire used for the installation. It is important to understand the difference between an outlet and a receptacle in the NEC, both terms are defined in Article 100, and while some GFCI requirements apply only to receptacles, others apply to outlets, so understanding the difference is critical to making the correct installation.

210.8(D) was changed to refer the reader to Section 422.5 for appliances that require GFCI protection with specific methods of providing the protection found in (D). 210.8(E) is a new requirement that all receptacles

installed for equipment requiring servicing by 210.63 shall be GFCI protected, regardless of where they are located.

Lastly 218.8(F) is a new requirement that all outdoor outlets at dwelling units supplied by a single phase branch circuit rated 150 volts to ground or less, 50 amps or less, must be GFCI protected whether it is hard wired or cord and plug connected, with exceptions for electric snow melting or deicing equipment and for outdoor lighting outlets. A tentative interim amendment was issued for the 2020 NEC on 9/15/21 that delays the implementation of 210.8(F) for mini-splits and a/c units that contain power conversion equipment to control compressor speed until January 1, 2023. Please note this amendment does not apply to air conditioning units that do not use power conversion equipment.

- Scott Halle, Training & Compliance

CONTINUING EDUCATION REQUIREMENTS: With Journeyman wrapping up their license renewals that expired on March 31, 2022, and Master, Class B and Power Limited Electrician licenses expiring April 30, 2022, here is a review of the ND State Electrical Board's requirements on continuing education:

- You must have eight hours (four of which must be code-related) to renew your license yearly.
- All courses including online or correspondence need to be approved in North Dakota to be accepted as hours for renewal.
- Continuing education credits will **not** be given for attending the same continuing education class more than once in a code cycle (example: same sponsor, same title and same class approval number).
- This information is also available on our website, www.ndseb.com under the continuing education tab.

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Labeling Requirements

Greetings everyone,

Approximately 22% of all corrections being issued at this point have to do with labeling requirements that are not being met. A common one is in 230.85 for the emergency disconnect label for one and two-family dwelling units. This section gives us three options on how to label the disconnect. Simply labeling the disconnect "emergency disconnect" does not meet the requirement. If the emergency disconnect also serves as the service disconnect it must be labeled accordingly. Please take a look at this section to ensure the proper label is being installed.

Another common one we see is the requirement to label service equipment at other than dwelling units with the available fault current in accordance with 110.24 (A). We need to make sure our equipment is rated properly for the install and calculating our available fault current is the only way to make sure we have a compliant installation.

Please see 110.22(A) for labeling disconnects with the source that supplies the disconnect as well as 408.4 (B) for switchboards, switchgear, and panelboards in other than one- and two-family dwellings "where the power originates". We often see subpanels not meeting this requirement.

These may seem like a lot of labeling requirements, but they are an important safety measure to ensure properly rated equipment is being installed as well as sources of power are identified.

Everyone enjoy the spring and stay safe!

Respectfully,

Jon Saylor
Insurance/Inspection Compliance
Administrator

Frequently Asked Questions During License Renewal Time

The NDSEB phones tend to get very busy during this time of year. Below are some frequently asked questions that we typically receive during license renewal time that may help or make you aware:

I completed my continuing education class last night, but the website won't allow me to renew today?

If you have recently taken a continuing education class, please allow sufficient time for the provider to send us the attendance roster and our office to enter them. We do not accept completion certificates from the individual. We get bombarded with a lot of attendance rosters especially toward the end of renewal time, so please be patient.

I am checking on how many CEU hours I have?

There are ways to check your continuing education credits on file:

1. Go to our website and look-up your CEU hours on record at: <https://www.ndseb.com/continuing-education/lookup-your-continuing-education-credits-on-file/>.
2. Your address label affixed to newsletters and renewal reminder postcards mailed by this office contains a set of numbers in front of your name - e.g. 8-0. The first set contains code hours available, and the second set contains non-code hours available.

I tried to renew, but the website is telling me I can't and to contact the NDSEB?

There may be many reasons why your license may be on "hold." The primary reason, however, is an expired

Certificate of Liability Insurance. We are close to the end of this year's license renewal and the problems we have seen quite often are that the insurance companies are sending the Certificate of Liability Insurance to the Secretary of State and not this office. Please have your insurance company list the North Dakota State Electrical Board as a certificate holder.

Another reason is failure to correct code violations, submit the correction report(s) as completed and pay the administrative late fees per 24.1-05-01-02(6). If the corrections cannot be completed within the allotted time, we have repeatedly emphasized that it is your responsibility to contact your inspector and/or this office to get the extension. By doing so, you can eliminate administrative late fees being assessed, license placed on hold, etc.

Why can't I register for NDSEB CEU classes yet or does the NDSEB have any classes coming up?

The NDSEB conducts its state-sponsored continuing education classes June through January. We are in the process of reviewing the CEU contracts with our various vendors for June, 2022 through January, 2023, and will be posting the classes shortly for registration on our website. Please watch for further details on our website and in the next newsletter

I completed an online class through another state, and it says it is accepted in North Dakota, why don't I see the credit?

If you completed an online class through another state and the course has also been approved in North Dakota, you still need to take the required North Dakota section of the class in order to get credit.

A Word from the Dir. of Inspections

Greeting everyone,

As you may or may not know, we here at NDSEB are busy finding replacements for a couple of retiring inspectors. We are also adding a few new inspectors and are working on moving some counties around and adding new districts. Our plan is to do more rough-in inspections, especially on new dwelling units and new commercial and industrial projects. Please check our website for district changes in your area and let your inspector know when you have projects that are almost ready for a rough-in inspection - we'll do our best to get there.

I have been out riding along and training our new inspectors. We have

been trying to focus on rough-in inspections and find a few corrections that seem to repeat on several projects:

1. NEC 406.12: Please read this for all locations requiring tamper-resistant receptacles. Take note that this includes attached and detached garages for dwelling units. We have found detached garages seem to be forgotten in this code.
2. ND Wiring Standards 24.1-06-01-40 (1)(b): Requires heat detectors for new construction attached single tenant garages. Please contact our office or your inspector if you have any questions about this installation.
3. NEC 210.52 (H) and (I): Receptacles in hallways and foyers.
4. NEC 110.26 (D): Requires illumination for electrical equipment. The light in the middle of the room might not be enough?
5. NEC 230.85: Emergency disconnects. Please read this article and make sure your grounding and bonding are done at the service disconnect and that your "emergency disconnect label" reflects what and how it is installed. If you have an emergency disconnect outside but your service is located indoors, remember your grounding electrodes and water pipe connections will be in your indoor panel, but you still will need a supply side bonding jumper in your outdoor disconnect as required in NEC 250.92
6. NEC 210.52 ©: Countertops and Work Surfaces. Corrections on this code can be a real issue if the builder or owner put in smaller sinks or a kitchen window that goes down to the countertop. You should contact your inspector as soon as you think there might be a spacing issue because it might be very difficult to correct after the countertops are in. Please remember that just because the current homeowner might not want these receptacles installed, the next owner of the house might want these receptacles and they will be tough to add to a finished room.

If you ever have a question, please feel free to call our office or your local inspector and we will help you out the best we can. Maybe we can all avoid unwanted corrections. Have a great spring!!!

- Doug Grinde

Upon completion, the provider will then send the attendance roster to our office that you fully completed the course.

Why don't CEU credits reciprocate, and how can I get my provider to submit approval?

Pursuant to our Laws & Rules, the NDSEB encourages and implements providers to apply to North Dakota, if they want electricians to receive CEU credit here in North Dakota. We want the ability to review all curriculums and determine if the class suffices for CEU credits for electricians in North Dakota.

Providers can go to our website and apply. There is no cost to apply:

<https://www.ndseb.com/continuing-education/continuing-education-providers-instructors/> ☺

Making A Connection: NDSEB Board Member Christina Roemmich

Christina Roemmich is the director of apprenticeship training, and safety service for North Dakota Association of Rural Electric Cooperatives. In this role she has partnered with many federal, state, and local agencies and affiliates to assure the resiliency of the distribution system and community safety.

Christina has a master's degree in occupational therapy. She has worked in safety and occupational health for 25 years and her understanding of human performance extends into safety and training of ND's electric cooperative workforce.

Service, both personal and professional, is one of Christina's core values. Her passion for sharing the cooperative spirit extends into the

community where she volunteers for her parish and school system. She holds the position of chairperson with Bismarck State College's lineworker advisory committee, and a governor appointed position for the state electrical board as the consumer representative.

She is inspired by her husband and their three children and enjoys spending time with her family, outdoors, photography, and participating in her children's many activities. ☺



Leo Floer Retires

Leo retired December 31, 2021, but continued working with us part-time until March 16, 2022.

In February, we presented Leo with some parting gifts which included a monogrammed rocking horse, official sheriff's badge, and a retirement plaque. Leo's passion for horses earned him the rocking horse which he can ride into retirement while proudly wearing his sheriff's badge!! We wish Leo well and it was a pleasure working with him during his years of service with the Board. Good Luck Leo in your future endeavors!

