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A Message From the Executive Director:



Hello, everyone!

I hope everyone is enjoying our warm summer!

We mentioned in the last newsletter about the newly-appointed education committee members. At that time, the board had not initially received applications for the power limited electrician position. Recently, the board received two applications for the power limited committee member position and Robert Arso and Vance Vesey were appointed. We want to thank these two individuals for volunteering their time and energy to help promote and be a part of the education for the electrical industry in North Dakota.

The board recently has approved the education committee's suggested related training credit hour minimums and a policy guide for related training providers. This education committee has lots of hard work in front of it so if you have any

suggestions for the committee, please send them to me and I'll certainly pass along the information.

In June, we started up the first of our NDSEB CEU classes. We will be doing two (2) separate CEU classes this year. The first class will have a residential emphasis and the second will have a commercial emphasis. See our website to sign up and get the details.

The board, also in its pursuit of "promoting" the electrical industry had Scott Halle and Ashley Windhorst present in the Career & Education Fair at the ND State FFA Convention held on the NDSU campus in June. Ashley and Scott reported several high school age students showed an interest in becoming an electrician. Please let us know of other events in your area where we might be able to present or have a booth!

Let me know if you've seen the MIDCO public service announcement on the importance of hiring licensed

electricians. The ad will run for approximately three months across ND and Midco did this announcement free of charge!

Be sure to read the exemptions and rule changes in this newsletter 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!

Check out our website often for new information:

www.ndseb.com

Email at: electric@nd.gov

Mail to: ND State Electrical Board
PO Box 7335
Bismarck, ND 58507-7335

I wish you enough,
- James Schmidt

Note - ND Laws Rules and Wiring Standards Code – Exemption of Rules & Interpretation!

1. Exemption §24.1-06-03-01(7): Metal raceway or metal clad cable (MC) requirements in dormitories designed to house more than sixteen people no longer applies. This administrative rule was exempted as the result of board action at the January 2021 NDSEB meeting.

2. North Dakota—Effective Immediately: NDSEB will allow standard breakers to be used if it resolves the nuisance tripping of GFCI breakers when connecting all mini splits and a/c units that contain DC invertors. If you're having nuisance GFCI tripping on equipment, there is a process for exemption. Go to our website's main page at www.ndseb.com, and access the Non-GFCI Protected Equipment Notification form. The following code article was relaxed until the nuisance tripping issue is resolved by the manufacturers. Thank you to all who have emailed in the form.

NEC 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 or less to ground, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel.

3. Laws & Rules regarding the "control thereof": The following "summary" is meant to clarify the need to be licensed to install HVAC controls. First, we've listed the Laws and Rules then summarized it at the end of the article.

NDCC 43-09-16 License not required. The following persons are not required to be licensed by and are not subject to regulation by the board under this chapter:

6. An individual who is installing a power limited system that is installed within a residential dwelling or is installed with a factory connector or cord powered by an existing electrical receptacle.

NDCC 43-09-01. Definitions. In this chapter, unless the context or subject matter otherwise requires:

7. **"Nonelectrical system"** means a system as defined by the articles contained in chapter 8 and other articles which contains class II or class III circuits and systems as defined by the national electrical code, as adopted by the board. Although the board may expand this definition, the board may not narrow this definition. The term does not include a circuit or system that is installed:

- Within an area of special occupancies, as defined under articles 500 through 517 of the national electrical code.
- For heat, light, or power.
- For the control of heat, light, or power, unless the circuit or system employs digital communication.

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WE HAVE UPDATED OUR FORMS!

- To avoid processing delays, please visit www.ndseb.com.
- Click on forms to find and use the latest downloadable/fillable forms.

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8. **“Power limited electrician”** means an individual who has the necessary qualifications, training, experience, and technical knowledge to plan, layout, and supervise the installation and repair of a power limited system.

9. **“Power limited system”** means a system as defined by the articles contained in chapter 8 and other articles which contains class II or class III circuits and systems as defined by the national electrical code, as adopted by the board. Although the board may expand this definition, the term does not include a nonelectrical system.

§24.1-02-01-02. General statement of policy and interpretative rules.

1. Purpose and scope. The purpose of these standards is the practical safeguarding of persons and of buildings and building contents from electrical hazards arising from the use or control of electricity for light, heat, power, and control thereof, fire detection systems, and power limited systems. It covers the electrical and power limited installations and associated equipment necessary for its safe operation.

Summary:

1. HVAC persons can do their own thermostats in residential dwellings without a license.

2. All locations of Class II & III circuits in NEC Articles 500 through 517 require a minimum PLE licensure.

3. In areas other than residential – Class II & III circuits that control heat, light or power require a minimum PLE licensure, unless the circuit employs digital communication.

News & Notes from NDSEB

E-CERT SYSTEM - CORRECTION REPORTS:

On the main screen (Message Board) of the e-Cert system, the following may appear:

- New corrections that haven't been viewed yet.
- Overdue corrections will show up in **red**.

How to submit correction reports:

- Under Correction Reports, click View.
- A window will open. Click the certificate number for the correction you want to certify.
- After clicking on the certificate number, another window will open. If all corrections are complete, click I Certify.
- DO NOT certify a correction report if it indicates to submit final paperwork and fees until you have submitted the fees for that certificate.
- If you are unable to complete a correction by its due date, please contact your inspector for an extension before it goes past due.

Instructions for the e-Cert system are available on our website, under E-Cert, General Information, or please feel free to contact our office with any questions.

RELATED TRAINING PROVIDER / SPONSORS:

Per North Dakota Century Code §43-09-11(2)(b)(1), a provider / sponsor's "related training electrical apprenticeship program" must be board approved. The NDSEB is sending out applications for those providers to complete and submit, along with supporting documentation, to the board. Each related training provider / sponsor must be approved before commencing these classes this fall. If you do not receive an application, either contact the board or go to our website under Apprentice Education.

ELECTRICAL EXAMS:

The exams will now be held Mondays and Tuesdays until further notice. The exam site can accommodate up to 20 persons each exam day. If you're feeling the least bit ill, please stay home as we're trying to keep a safe

environment for all the exam takers. Face coverings and social distancing are still recommended.

Effective January, 2021, all exams are on the 2020 National Electrical Code and North Dakota Wiring Standards.

Visit our website for exam dates. Once your application is approved, call our office to sign up for a day that fits your schedule.

APPRENTICES:

We're still getting apprentice registration renewals. When you do not renew your apprentice registration by the end of each January, your hours worked are lost, and do not count towards your required apprenticeship working hours. Also, apprentices make sure you are doing electrical work during your apprenticeship!! Mowing grass, spraying foam insulation, automotive work or washing windows does not count towards your electrical work experience. The contracting Master needs to remember that, too!!

PROMOTING OUR INDUSTRY:

With restrictions easing and opportunities beginning to be available for participation in events like career fairs, the board would appreciate hearing about any events we can participate in and talk to young people about careers in the electrical industry.

Ashley and Scott from the NDSEB office participated in the Career & Education Fair at the North Dakota State FFA convention in Fargo on June 8th, where they were able to speak to high school students—promoting scholarships and career opportunities in the electrical industry.

When school resumes this fall, the board wants to continue promoting interest in electrical careers at events around the state. Please let us know so we can participate in any events in order to recruit young people to our trade to ensure a skilled workforce in the future.

Become an Electrician:
www.ndseb.com/become-an-electrician/.



A Word from the Director of Inspections

When the requirement for emergency disconnects in NEC 230.85 was introduced, it seemed that everyone was focused on that new code when doing service or panel changes on existing dwellings, but there are so many other violations that come into play for panel installations that are NOT found in NEC 230.

I thought I should talk about some of the most common violations we see when performing our inspections on both dwelling and commercial installations.

NEC 110.12(A). Install KO plug in panel; and NEC 408.7. Provide panel blank in subpanel: This might not seem like much of a violation but if you

have openings that debris can fall in or someone can inadvertently stick something metal through, the end result could be quite devastating and it could be a costly correction if you have to drive many miles just to install a KO plug or a few panel blanks.

NEC 110.15 and NEC 408.3(F)(1). High leg marking: This seems like a pretty insignificant correction but not every electrician has seen these types of services and if they were to install single pole breakers on the wild leg and ruin some expensive equipment, or someone gets hurt, then this code becomes a little more important and again, who wants to drive 50 miles to label a wild leg?

NEC 110.24. Available fault current label: This code really impacts the initial installation to verify equipment installed is rated for the available fault current, but also when other equipment is installed that requires a SCCR label, you will need AFC label to do your calculations.

NEC 110.26. Covers all requirements for spaces about electrical equipment: This code is important for both residential and commercial and there is a lot of information there so please read through it before you make your installation.

North Dakota Wiring Standards 24.1-06-02-30 and ND 24.1-06-02-40: Please read before doing any type of service change or new installation. These are requirements above the NEC that are required in North Dakota.

NEC 408.36(D). Backfed breakers used to terminate supply conductors shall be secured in place.

NEC 408.4(A). Provide a completed and detailed panel directory.

NEC 300.7(A). Provide proper sealing of the service entrance conduits where they enter and exit areas of different ambient temperatures.

North Dakota Wiring Standards 24.1-06-02-50(3). The grounding electrode shall be connected to the grounded service conductor in the enclosure for the service disconnect.

NEC 408.41. Each grounded conductor shall terminate in the panelboard in an individual terminal.

These are just a few of the other codes to consider when you are changing or adding a panel or service.

Be safe and have a great summer.

Doug Grinde

Making A Connection: NDSEB Office Manager Paula Glass

Originally from Baldwin, ND, Paula Glass started with the NDSEB in 1999 as an Administrative Assistant and was promoted to Office Manager in 2006. She has been with the board for 21 years.

Paula has been married to Joe for 34 years and has three sons: Travis (33) in Colorado, Kody (27) in New York, and Cole (23) in Mandan. She is also "Nana" to three boys: Peyton (12), Greyson (6) and Jackson (9 months)

What is your favorite part of your job? *My job duties and tasks are unlimited and can be very challenging, and this is what I enjoy as Office Manager. It is a very busy office, and there is never a dull moment. I love working with people even though most of it is by telephone or e-mail.*

Do you have any advice for new electricians just starting out in this industry? *I conduct contractor orientations for all new electrical contractors and have a chance to meet company representatives and discuss their electrical business. My advice is that there is a lot of opportunities out there if you have a residential, commercial or industrial work emphasis, and you can make a good living doing it.*

Did you or do you have a mentor or person that inspired you? *I would say my mom and grandma and all those people that lived before all this technology.*

They taught me that not everything involves a computer or cell phone, and that, in fact, some things have to be done by hand or in person, and hard work gets people where they want to be in life.

What are your hobbies? *I love working in the yard and getting some sun. Also, strolling in our pontoon on the river. We recently got a Himalayan Ragdoll, and she keeps me pretty busy. I also enjoy going to casinos (especially Deadwood).*

What would be your dream vacation? *Anywhere, just to get away. Going back to Hawaii (different island—been to Maui) would be ideal though.*

What do you like on your pizza? *Taco pizza is the best.*



“Why do fluorescent lights hum?”



“Because they can't remember the words!”