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A Message From the Executive Director:



Hello, everyone!

I hope everyone is doing well!

As you know, we've adopted the 2023 Laws, Rules and Wiring Standards for

North Dakota which became effective July 1st. This included the adoption of the 2023 NEC. Keep an eye on our website under the "Laws and Rules" tab for any changes or updates that may appear on an errata sheet.

We are working with Iowa on an additional reciprocity agreement for master electricians. We've also expanded the journeyman reciprocity agreements. The reciprocal states can be reviewed on our website under Reciprocal Licensing Agreements.

For filing nuisance tripping issues on AFCI's and GFCI's, we have a new form on our website under the "Forms" tab labeled "Non-GFCI/AFCI Protected Equipment Notification." First you must notify the appropriate entity for GFCI or

AFCI tripping. The website links to those entities are listed on the form. After that, then email the NDSEB the completed form.

Apprentices: At the September 25, 2024 meeting the NDSEB approved its first Professional Electrician Apprentice Program (PEAP) and I understand other providers are scrambling to also create theirs. The PEAP program is an avenue for apprentices that already have 8,000 hours of NDSEB registered apprenticeship time logged, but do not have the required electrical education. If this is the case, the apprentice can acquire through a board-approved PEAP program, the required education by working an additional 2 years or 4,000 hours while attending an approved PEAP program earning a minimum of 186 hours each year (372 hours total) of classroom education hours and receive an electrical education completion certificate.

This is the perfect opportunity for those that need the education component as I am still hearing of stories how an apprentice has their worktime

completed, but don't have the education. Our office has been trying to do our part by reminding apprentices when they register as an apprentice and again each year when they renew to meet the education requirements.

Contractors: Be sure to follow up with your apprentices to ensure they have the education requirements taken care of.

Keep an eye on our website for more apprentice education information as your apprentices need to either have a 2 year degree or you have them enrolled in one of the NDSEB approved apprenticeship programs which that list can be found on our website at <https://www.ndseb.com/apprentice-education/approved-apprenticeship-related-training-programs-and-colleges/>.

I hope you had a great summer and let's all look forward to a continued great rest of the year!!

I wish you enough,

- James Schmidt



Ensuring Public Safety Since 1917

Connections

Issue 280
 October, 2024

SURGE PROTECTION

With the July 1 2024 adoption of the new Laws, Rules and Wiring Standards of North Dakota and the 2023 National Electrical Code, there have been changes to the requirements for surge protection at dwelling unit type occupancy locations.

The exception that was in the 2020 Laws & Rules has been removed, so the requirement of NEC 230.67 is now in effect for any wiring certificate started after July 1 2024. A service that supplies the following occupancies:

- Dwelling units
- Dormitory units
- Guest rooms and guest suites of hotels and motels
- Areas of nursing homes and limited care facilities used exclusively as patient sleeping rooms

must be provided with a surge protective device (SPD) as an integral part of the service equipment or be located immediately adjacent thereto.

The surge protective device must be a Type 1 or Type 2 SPD, and it must have a nominal discharge current rating (In) of not less than 10 kA. When

service equipment is replaced, all of the requirements of 230.67 shall apply, so be sure to keep this requirement in mind when planning a service change at the listed occupancies.

On a related note, the feeder surge protection requirements found at NEC 215.18 have been exempted by the 2023 edition of the ND Laws & Rules at 24.1-06-02-15, so the feeder requirement is not required.

TOM CRAWFORD RETIRES

District 9 Inspector Tom Crawford retires after years of on and off again employment at the North Dakota State Electrical Board (no pun intended). Tom retired as of September 6, 2024.

We will all miss Tom and his many interesting stories and adventures, but we wish him well with his retirement. Best wishes Tom and take care! Keep your head up!!



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NDSEB Continuing Education Classes 2024-2025

"2023 NEC Code Essentials"

Main Topics [Load Calculations, Common Corrections & Review of 2023 Code Changes]

CLASSES STILL AVAILABLE FOR ONLINE REGISTRATION

November 2024

Registration Deadline: Thursday, November 7, 2024 (or earlier if full)

**Nov. 14: Dickinson

**Nov. 15: Williston

December 2024

Registration Deadline: Thursday, November 28, 2024 (or earlier if full)

**Dec. 5: Bismarck

**Dec. 6: Minot

January 2025

Registration Deadline: Thursday, January 2, 2025 (or earlier if full)

**Jan. 9: Fargo

**Jan. 10: Grand Forks

• Lunch is provided and included in cost of the class.

• Please bring 2023 NEC book, calculator and pencil.

Marketplace for Kids

A new season of Marketplace for Kids will be starting soon. The NDSEB will be participating in these events in:

- Bismarck
- Minot
- Dickinson
- Mayville
- Cavalier
- Wahpeton

For those of you that are not aware or familiar with, these events are classroom setting sessions where we teach grade school kids the basics of electricity, along with safety. The classes comprise of building a small DC powered switch light kit or a small motor kit. Once the light kits have been assembled correctly, the classroom lights are turned off so they can see their bulbs burning bright. We have been told numerous times by the attendees that our class was their favorite! The NDSEB has participated in these events numerous times, and we are hoping we are inspiring some young ones to consider this trade as a possible career path.

In addition to the Marketplace for Kids, we will be once again attending Career Fair events throughout the State. These events are geared more towards high school students, but a few events may also be open to the general public for all ages. We get an opportunity to speak with people of all ages regarding what it takes to become an electrician and spread word about the opportunities available to anyone that is interested. We are engaging people of all ages to help fill the need for skilled electricians. If you are a contractor actively searching for workers, these events may be an avenue you may want to participate in as a presenter.



“Autumn leaves don't fall, they fly. They take their time and wander on this their only chance to soar.” Delia Owens.

News & Notes from NDSEB

COMING SOON APPRENTICE REGISTRATION ONLINE RENEWALS

Apprentice registrations expire on January 31, 2025 (unless you originally register after November 1, 2024). A postcard reminder will be mailed out to all registered apprentices the first week of December 2024. Renewals must be submitted electronically through the NDSEB'S website at www.ndseb.com.

Remember, apprentices must remain registered for your work experience to count towards a journeyman license.

PREVIOUSLY REGISTERED AS AN APPRENTICE

If an individual was previously registered as an apprentice electrician with the NDSEB, and the registration had expired, **do not** complete another application for apprentice electrician registration.. Simply reinstate the registration by going to our website at www.ndseb.com, under Licensing, Apprentice Registration Renewal.

Please keep in mind that any time worked from February 1st of the year their registration expired until they are properly registered will not count towards a journeyman license.

J-Box Size Requirements

The inspectors recently have been looking at several remodels, reconstructions and splices of different types where a junction box (J-box) was installed for the splice point. A handful of the installations had inadequately sized J-boxes or pull boxes installed and these corrections are not always easy to repair, so this would be a good time for a refresher on J-box size requirements based on the NEC.

Pull boxes, J-boxes and conduit bodies must be sized to allow conductors 4 AWG and larger to be installed without damage to the conductor insulation. The NEC provides these sizing requirements in 314.28, but remember these requirements address conductors used for general wiring such as those identified in Table 310.16. These requirements may not apply to other types of wiring or cabling that may require a significantly larger pull box than what you'd use for a general wiring conductor of a similar sized outer jacket.

NEC 314.28(A)(1) states that for a straight pull, the length of the box or conduit body shall not be less than eight times the trade size of the largest raceway.

314.28(A)(2) Angle Pulls occur when raceways containing conductors enter a J-box and leave through one that's 90 degrees from the entry wall. The distance from the raceway entry to the opposite wall must be at least six times the trade size of the largest raceway, plus the sum of the trade sizes of the remaining raceways on the same wall and row.

314.28(A)(2) U Pulls. A raceway containing conductors that enters and leaves from the same wall is a U pull. The distance from where the raceways enter to the opposite wall must be at least six times the trade size of the largest raceway, plus the sum of the trade sizes of the remaining raceways on the same wall and row.

Pull boxes, J-boxes and conduit bodies shall be installed so the wiring and/or devices are accessible. NEC 314.29

ANNUAL AUDIT OF START-UP E-CERTS

****Wiring Certificates Valid for One Year****

Contractors: This is a reminder that wiring certificates with a job cost of twenty thousand dollars (\$20,000) or less are valid twelve (12) months from the original filing date (N.D. Administrative Code 24.1-05-01-01(3)).

This was put into administrative rules to eliminate the smaller jobs lingering from year to year and where owners are occupying unfinished projects. If the project remains unfinished, a new wiring certificate shall be filed on all unfinished work.

We would ask that you please review your wiring certificates for ones that can

be closed out, if completed. Our annual audit letter will be mailed to contractors the first part of October 2024 and would appreciate your response by the deadline. This audit letter will also inquire as to the status of jobs over \$20,000 to determine estimation of completion.

PERSONAL INFORMATION CHANGES IMPORTANT

When mailing out our Newsletters, renewal reminders and other correspondence, we get a lot of items back due to being non-deliverable, insufficient address, moved left no address, etc. The number one reason for return mail is no apartment number indicated. If you live in an apartment, you need to include that with your street

address. You could be missing important information by not keeping the NDSEB informed of personal information changes.

If you have recently moved or changed your mailing address or phone number, please let our office know as soon as possible. It is imperative you have updated personal information on record with our office to ensure receipt of our mailers and contacts.

You can change your personal information by calling our office, emailing the information to electric@nd.gov or going to our website, www.ndseb.com, under Forms, #20, Personal Information Change.

UPDATED NDSEB FORMS

The NDSEB periodically updates our forms, such as:

- Applications for Licensure (Exam, Reciprocal, Re-Exam)
- Apprentice Registration Application
- E-Cert Application
- Electrical Contracting Application

If you have "old" forms in a file folder in your drawer and/or saved on your computer, we ask that you go to our website (www.ndseb.com), under Forms, and replace them with the updated forms. By using the "updated" forms, this will help us by not having to return the form back to you because its incomplete or items we added to the forms are required to complete the processing.

All forms are downloadable, fillable Adobe pdf documents. Typing versus handwriting makes these forms legible. A lot of times, we are unable to read handwriting and then having to contact the applicant or employer to verify the information. By typing the information in the fillable form, hopefully this can be eliminated.

Making A Connection: Justin Smestad, District 7 Inspector

Originally from Burlington ND. Went to NDSCS for the electrical program. Worked in Las Vegas for industrial and luxury high rises and then was recruited to be a mine electrician in Montana. Came back to North Dakota to work closer to home in the oil field and now work as an inspector at NDSEB.

What projects are you currently working on?

Currently covering Dunn and Mercer counties — mostly in the oil fields.

What is your favorite part of your job?

Seeing all the projects going on in North Dakota and working with other electricians.

What are your hobbies?

Woodworking, hunting and fishing.

What's your favorite TV show?

CSI.

The best thing about North Dakota is . . . ?

The outdoors.

What do you like on your pizza?

Supreme.



Who's your favorite superhero?

The Hulk



SERVICE AWARDS

Congratulations. We appreciate your years of service and dedication to the Board!

JANEL REDINGER – 15

JUSTIN LILL – 5