

**ND State Electrical Board**  
**PO Box 7335**  
**Bismarck, ND 58507-7335**  
**(701) 328-9522**

**Find us at**  
**www.ndseb.com**

## A Message From the Executive Director:



**Hello, everyone!**

As you are well aware by now, we are working on depleting the **"Undertaking Fund"** as we know it as an outcome of the last legislative session. To expend that fund, our office is addressing the abandoned correction violations left by past (rouge) contractors by sending out letters to property owners of these electrical installations. As you know, our office considers these violations not corrected until a contracting electrician verifies they are completed.

You may or already have received calls from property owners stating they received our letter and that the violations are their responsibility. This is true. To explain the process, we have given the property owner a timeline to collect a cost estimate from an electrical contractor and

provide that information to our office by a deadline. After the costs are collected for that "rogue" contractor from all the associated property owners (if they are received by the deadline), we will reimburse those property owners the cost to make the corrections or prorate (by law, the total cost cannot exceed \$25,000 per rouge contractor).

I too, have received calls so I know this letter has caused some confusion from property owners. So if you field any of these calls, please tell them to give me a call, or feel free to call us at our office in



Bismarck.

We also like to hear from you so send me questions and I'll do my best to answer them and as always we want your comments too. To keep your information in our files accurate, please keep us informed about your most current address as well as e-mail address.

I hope you had a great summer and the same for the fall!

Be safe out there,  
 James Schmidt

P.S. If you haven't been to our website lately, check out the new design at [www.ndseb.com](http://www.ndseb.com)!

## Electrical Certificates Expected to Fall

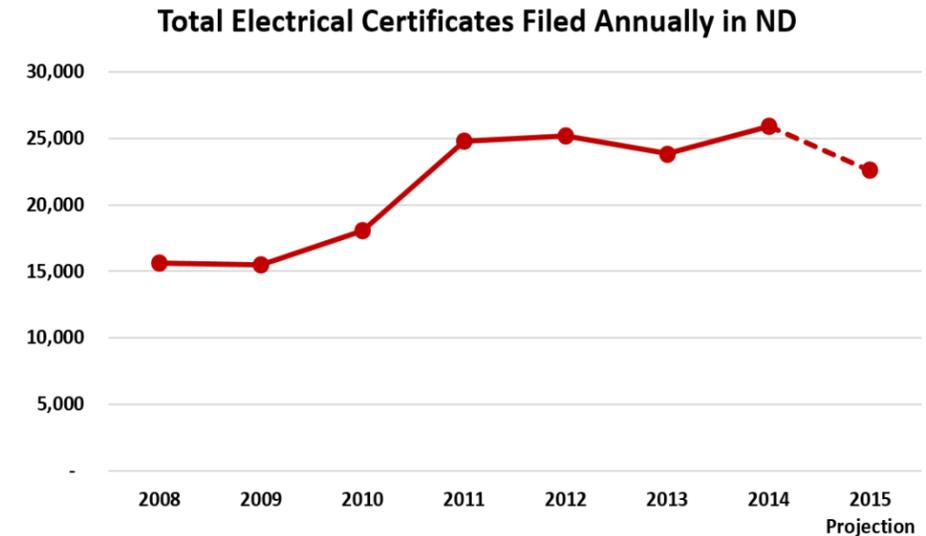
The oil slowdown that is affecting various aspects of North Dakota economy also seems to be affecting the number of electrical certificates filed, based on NDSEB data.

The oil boom in the west sparked a huge increase in construction and electrical certificates rose accordingly. The NDSEB responded by hiring more inspectors to meet the growing demand, creating more districts in the west, and also authorized inspectors to work overtime.

Certificates peaked in 2012 and again in 2014, but data indicates that 2015 may be the lowest number since 2010.

*"We have the actual number of certificates filed in 2015 through mid-October and are estimating the last two months based on the trend in previous years,"* explained James Schmidt, Executive Director of the NDSEB. *"Based on our projections, we are going to be at just over 22,500 filed certificates."*

The data indicates that electrical certificates will be lower in all major cities except for Bismarck, which shows



a slight increase this year. All other districts in the state also show a combined decrease from 2014 levels.

*"We feel we have the right number of staff now to be able to handle the workload,"* says Schmidt. *"We are hoping our inspectors won't have to put in such constant overtime now."*

The increase in electrical work being

done in the state not only required more inspectors, but also significantly increased the workload of NDSEB office staff, who processed hundreds of registrations and licenses from out-of-state electricians looking to do work in North Dakota. That aspect of NDSEB's responsibilities has seen a definite decrease with the oil slump.

*"We used to get around 80 to 100 licensing/registration applications every week,"* says NDSEB Office Manager Paula Glass. *"Now we're down to half of that per week and that's much more manageable for us to get processed in a timely manner."*

## Inside This Issue . . .

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### NDSEB Mission Statement:

Ensure safety and protect life, health, and property in the daily use of electricity.

## Metal Clad Cable for Hazardous Locations Used Incorrectly

At the August Inspectors' meeting, MCHL (metal clad cable for hazardous locations) was brought up for discussion. Since the Bakken boom, MCHL use is widespread on oil field installations. Its use was and still is seen as a labor saving alternative to running rigid pipe and having to pull in conductors. Although more expensive than rigid pipe and wire, it allowed electrical contractors to save on installation time, getting more done in less time. Oil companies are all about getting more done in less time as this allowed more wells and the other projects to get into production sooner.

For those unfamiliar with the cable product, MCHL is basically a MC cable with an overall jacket, but it can have three bare grounding conductors placed between the insulated conductors. It is available in all kinds of wire sizes and number of conductors. Typically inspectors are seeing three wire with ground used for feeders, branch circuits and also multi-conductor cables for control wiring. The use of the three separate bare conductors as equipment grounding conductors is permitted by 250.118(10)(c). Articles 501.10 & 502.10 allow the use of MCHL only in supervised industrial installations.

We are concerned with the use of MCHL as service laterals or service entrance conductors. We can't find where the NEC allows the use of the multiple bare conductors for the grounded or neutral conductor. 250.118(10)(c) only allows it for the equipment grounding conductors. If MCHL is used for service lateral or service entrance it needs to have a single insulated conductor just for the grounded conductor, so order a cable with four insulated conductors. It's made and wholesalers can stock it.

Also of concern is MCHL used for parallel installations after the service.

The sum of the three bare conductors are generally too small to satisfy 250.122(F), specifically the equipment grounding conductor in each cable needs to be sized to the overcurrent device feeding the parallel installation.

We understand that there are some or both of these installation problems in place out there. Give your inspector a call to see what you should do about them. For jobs started after January 1, 2016, there won't be any tolerance for these two installation problems. ☹

- Lyle Wergeland, Director of Inspections



Electrical inspectors gathered in Bismarck on October 14th for their most recent meeting.

## What is a "Readily Accessible Location"?

Please be aware that **Ground Fault Circuit Interrupters** protection for personnel and appliances are required to be installed in a readily accessible location, and that Arc Fault Circuit Interrupters are also required to be installed in a readily accessible location. To meet this requirement we should first read the definition of "readily accessible" in Article 100 of the NEC.

*"Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to actions such as to use tools, to climb over or remove obstacles, or to resort to portable ladders, and so forth."*

For example: if you have to use a screwdriver to open an access door, roll a refrigerator forward, or use a stepladder to reach or access the test and reset buttons on the device, then it would not meet the requirements for readily accessible. To provide an easily remembered, uniform maximum mounting height, electrical inspectors voted on and adopted a height of 6'7" as the highest the device should be mounted to be acceptable as being "readily accessible", matching the rule for overcurrent devices.

Planning ahead when doing layout and rough in as to where you will locate these protective devices will help ensure you are in compliance when the

job is completed. With that in mind, one easy way to comply with these requirements is to use GFCI, AFCI, and Dual Function circuit breakers installed in the panel to provide the required protection. ☹

### 2015 NDSEB CEU Class Schedule:

#### November 2015

November 19th : Minot [FULL]  
November 20th: Bismarck [FULL]

#### December 2015

December 10th: Grand Forks  
December 11th: Fargo [FULL]

## News & Notes from NDSEB

- **Proposals to the 2017 North Dakota Laws, Rules & Wiring Standards are due February 28, 2016.** The proposal form can be obtained from the NDSEB office or downloaded from our website at [www.ndseb.com](http://www.ndseb.com), under Forms and mailed to the address on the form. Anyone may submit a proposal. Proposals received at that time will be submitted to the Board for review to determine if the proposal can be accepted under the authority of the North Dakota State Electrical Board. This process also includes the adoption of the 2017 NEC.
- **If you are an active Apprentice, your registration expires January 31, 2016** (unless you register after November 1, 2015.) Apprentice registration renewal postcards will

be mailed out the first week of December, 2015. We encourage online renewal at [www.ndseb.com](http://www.ndseb.com). Online renewal is quick, easy and instantaneous. It is very important that you stay registered, as any unregistered time will not count towards a Journeyman license.

- **Thomas Paulson was appointed by Governor Dailrymple to the Electrical Board** representing the public which may not be associated with the electrical industry. Tom is retired and now lives in Larimore, North Dakota.



Congratulations, Tom, on your appointment and we are looking forward to working with you!

- **The N.D. State Electrical Board held election of officers** at their August 12, 2015 meeting. Earl Scherer of Bismarck, North Dakota was re-elected President. Rodney Mayer of Minot, North Dakota was re-elected Vice President. Kyle Miller of Bismarck, North Dakota was elected Secretary. Tom Paulson of Larimore, North Dakota was elected Treasurer.

- Approximately 225 contracting Masters and Class Bs had their 2015 **license renewal** placed on hold or returned due primarily to having past due corrections and/or late certificate violations. When an inspection occurs, and there are code violations, you are given thirty (30) days to complete and submit the signed report. After that, the correction report goes past due. If corrections cannot be completed in the allotted time, please communicate with our office or local inspector to request an extension. Also, within fifteen days of completion, use, or occupancy, whichever is foremost, the final paperwork shall be submitted to the office of the state electrical board, along with the proper fee.

As was pointed out in the last Newsletter, this same process will occur for the 2016 renewal. **Please have your past due corrections and certificates completed or addressed to avoid having your license placed on "hold"**. Communicate with us - we would rather work with you before these corrections and/or certificates go "past due" than force you to deal with them at license renewal time. N.D.C.C. §43-09-15(7) and §24-02-01-19(2)(b).

- NDSEB is currently in discussions with the State of Iowa regarding **reciprocating Journeyman licenses**. More information will be available as this progresses. ☹

## Making A Connection:

### Administrative Assistant Janel Redinger



#### **Originally**

from Bismarck, North Dakota, Janel Redinger has been an Administrative Assistant with NDSEB since February of 2009.

Her responsibilities include entering and processing wiring certificates and fees, registration and license renewals, and entry of continuing education classes.

Janel has been married to her husband Ken for 21 years and they have a 13-year-old son, Caden, who is a 7th grader at Simle Middle School.

**What is your favorite part of the job?** *I take pride in doing my best to see that office tasks are completed in an organized and efficient manner while trying to provide excellent customer service.*

**Did you or do you have a mentor or a person that inspired you?** *My*

*parents are an inspiration to me because of their work ethic and how important their family is to them. They are the best grandparents to their three grandchildren.*

**What are your hobbies?** *Walking, reading, our son's sporting events, creating photo memory books/collages, and using our pontoon during the summer.*

**What would be your dream**



*vacation? Hawaii...and we are planning a trip for June of 2016. ☺*

**The best thing about North Dakota is . . . ?** *It is a great place to raise a family.*

**The best movie of all time is . . . ?** *Forrest Gump. ☹*