



NORTH DAKOTA STATE ELECTRICAL BOARD

P.O. Box 7335

Bismarck, ND 58507-7335

(701) 328-9522 - www.ndseb.com

Donald Offerdahl, Executive Director

FEBRUARY, 2008

NEWSLETTER

NO. 224

ELECTRICAL INSPECTOR POSITIONS OPEN

The North Dakota State Electrical Board has two openings for an electrical inspector. Minimum qualifications are: A high school graduate with electrical trade school degree preferred. A licensed Journeyman capable of being a Master. Successful Journeyman candidate must take and pass North Dakota Master examination within 90 days of employment. Have a firm knowledge of the National Electrical Code and the North Dakota Laws, Rules and Wiring Standards. Ability to be a problem solver with excellent interpersonal, written and oral skills. Ability to learn computer system, read and trace circuitry, schematics and blueprints. Must be a self-starter committed to time management, highly motivated, teamwork, high quality customer service and be able to multi-task projects. Flexible scheduling and overnight travel required. Must be able to lift 50 pounds, climb ladders and scaffolds and follow department's safety procedures. Must possess a valid driver's license. Must successfully complete standard background and criminal record check.

An inspector will be located in the Jamestown area (District 6) and cover Benson, Eddy, Foster, Wells, Stutsman, Logan, LaMoure, Griggs, Barnes and Dickey counties. Also, a temporary, full-time (may become permanent) inspector to work in the Devils Lake area. A State Fleet vehicle will be provided for work purposes.

Applicants must complete an Application for Employment State Form 10950 (available at web site <http://www.nd.gov/hrms>, any N.D. Job Service, or at the North Dakota State Electrical Board by calling (701) 328-9522). Applicants must also submit with the Application a resume and cover letter explaining how their education, experience, and skills will qualify them for this position. Applicants who are residents of North Dakota and eligible to claim veteran's preference must include Form DD214. Claims for disabled veterans' preference must include a current statement of disabled status from the Veteran's Affairs Office.

Completed Applications must be received by the N.D. Job Service, 1601 E. Century Avenue, Bismarck, ND 58503 by 5:00 pm on Wednesday, February 27, 2008.

ATTENDANCE AT STATE-SPONSORED CONTINUING EDUCATION HAS ONCE AGAIN INCREASED AS WELL AS CODE BOOKS SALES

The N.D. State Electrical Board wants to thank those attending the state-sponsored continuing education classes for their participation in discussions. Without this participation, these classes would not be successful. We also want to thank the attendees for their timely pre-registrations and watching registration deadlines. This is very helpful in our office staff and facilities in preparing for these classes. We have already made arrangements to have the continuing education classes in January, 2009 and this information will be posted in a future newsletter.

Through the process of pre-registering for the state-sponsored classes, the N.D. State Electrical Board also offered, through pre-payment, the 2008 National Electrical Code book. As a result, we have also experienced a dramatic increase in the sale of the 2008 National Electrical Code book from previous code-cycle years. By keeping up with the code, we can all make electrical installations safer.

DON OFFERDAHL ELECTED WESTERN SECTION IAEI PRESIDENT FOR 2008

The International Association of Electrical Inspectors' Western Section held their 103rd annual meeting in St. Louis, Missouri in September, 2007. At that meeting, Don Offerdahl was elected President of the IAEI Western Section for 2008, which consists of 17 states. During his year as President, Don will be visiting other Chapter meetings throughout the Western Section.

Don represents the Western Section on the IAEI Board of Directors, Code Making Panel 9 for three code cycles and has recently been appointed to Code Making Panel 14, which covers Article 500-516 of the National Electrical Code. He has also been appointed to NFPA 30A, which covers automotive and marine service stations.

We would like to congratulate Don on his new term as President, and because of his hard work, North Dakota is being represented on a national level.

SERVICE AWARD PRESENTED

5 - YEARS BRAD STEIER

Brad started with the Board on May 1, 2002 as District 3 Electrical Inspector. On July 1, 2006, he accepted the position as Director of Inspections. Congratulations to Brad! We appreciate your years of service and dedication to the Board.

MAJOR CHANGES IN THE 2008 NEC ** CONTINUED **

Article 406.8. Standard nonlocking receptacles in 15- and 20-ampere, 125- and 250-volt configurations are required to be listed weather-resistant type of receptacles when installed in damp or wet locations.

Article 406.11. Receptacles installed in dwelling units in areas specified in 210.52 are required to be listed tamper-resistant receptacles.

Article 408.3(F). Switchboards and panelboards containing high-leg systems are required to be field marked on the outside of the enclosure.

Article 408.4. This article covers circuit directory and circuit identification. Spare overcurrent devices or panelboards must be identified as spares, and circuits cannot be identified in the manner that depends on transient conditions of occupancy.

Article 408.36. This covers the deletion of the language "lighting and appliance panelboard". This section has been restructured and states that overcurrent protection is required on each panelboard. There is a new exception that has been added that individual protection shall not be required for a panelboard used as service equipment with multiple disconnecting means in accordance with 230.71. In panelboards protected by three or more main circuit breakers or sets of fuses, the circuit breakers or sets of fuses shall not supply a second bus structure within the same panelboard assembly.

Article 410.16(A). Surface-mounted or enclosed light fluorescent luminaires that are listed and identified for use are now permitted to be installed within clothes closets including storage spaces.

Article 410.130(G). This requires a disconnecting means for all conductors of a branch circuit when connecting to a multiwire branch circuit. When the disconnecting means is installed externally to the luminaire, it shall be located in sight of the luminaire.

AREAS IN DWELLINGS WHERE AFCI ARE NOT REQUIRED

This topic had a lot of discussion at this year's state-sponsored continuing education classes. The areas where AFCI circuits are required are listed in 210.12. The words "or similar rooms or areas" has brought up a lot of discussion with the inspectors and electricians in the field. One needs to keep in mind that the code panel's objective was to not cover all areas in a dwelling. Its objective was to expand AFCI protection to other areas of the home. For your benefit, we have put together a list

of areas where AFCI's are not required in a dwelling, which include: kitchens, garages, bathrooms, outdoors, unfinished basements, crawl spaces, attics, utility room, branch circuits for washing machine, furnace, sump pump and sewer lift motors. We have tried to come up with as many scenarios as we can to help everyone in the field when wiring a home. If you come across another situation in the field that we did not cover, please contact your local inspector.

INTERSYSTEM BONDING – NEC 250.94

This requirement has been in the code for some time. The significant change to this requirement is that the termination point now requires three terminals. Please take note that the wire size that is required to be routed from the service disconnect or panel to the termination point is required to be a #6 AWG copper. Here are a few options that will be accepted by the inspector. One option is to route a #6 AWG wire to a terminal strip mounted on the plywood next to the panel. One would need to work with the utilities providing phone, cable or other communication on where to provide this connection or route the required bonding conductor to the incoming lines, so it can be available to bond to their system. You can install a terminal strip on the meter enclosure. You would need to remove the paint behind the terminal before installing the termination strip. There is a listed

terminal strip that mounts on the meter enclosure. Check with your suppliers to see what listed products are available. If you decide to route the #6 AWG bonding conductor from the service disconnect to the outside of the building, be sure NOT to attach this terminal to the meter socket. This will create a parallel grounding path to the grounding electrode conductors that are installed for the electrical service. A question was brought up at continuing education classes: Can I route a #6 copper wire to the outside of the building and put three split bolts on the wire? This question was discussed among the inspectors and the decision was made that a terminal bar shall be provided. These are just a few options. Make sure that you don't forget to install this intersystem bonding when it becomes effective – April 1, 2008.

FOR SALE - 2008 NATIONAL ELECTRICAL CODE BOOKS

The North Dakota State Electrical Board has the 2008 National Electrical Code books for sale for \$65.00. If you wish to purchase them by mail, you need to contact the State office at (701) 328-9522. There is a \$5.00 shipping and handling charge in addition to the \$65.00 cost.

N.D. ELECTRICAL CONTRACTORS TO HOLD CONTINUING EDUCATION SEMINAR

The North Dakota Electrical Contractors 61st annual convention will be held March 6-7, 2008 at the Ramkota Inn in Bismarck, North Dakota. This year's education presentation will be on the Analysis of the 2008 NEC. For more information, you may contact Chuck or Kathy Downs, Langdon, North Dakota at (701) 370-1993.

REMINDER ON APPRENTICESHIP TRAINING

Any person registering as an apprentice electrician on or after February 1, 2008 is required to have related training consisting of one the following:

- 1) Completed at least two years of electrical school approved by the state electrical board; or
- 2) Five hundred seventy six (576) hours of training classes recognized by the United States department of labor office of apprenticeship.

From testimony presented during legislation, individuals that completed an apprenticeship training program and took their Journeyman exam showed a 90% pass rate. We would encourage you to contact different providers of apprenticeship training in order to determine what best suits your needs. For your information, we have provided you with the following.

Please keep in mind that this is not an inclusive list and will be updated as training providers are approved by the United States department of labor office of apprenticeship in North Dakota.

**Dakota Area Wide
JATC**

2901 1st Avenue N.
Fargo, ND 58103
(701) 293-1300
Contact: Robert Wolf

**N.D. State College of
Science – Outreach Prog.**

800 6th Street N.
Wahpeton, ND 58076
(800) 342-4325 / (701) 671-2177
Contact: Russ Karlgaard

**Independent Electrical
Contractors**

P.O. Box 1071
Pierre, SD 57501
(605) 224-9272 / (800) 310-9272
Contact: Pam Fuhrer

We encourage contractors and fellow electricians to be good mentors and encourage your new apprentices to get active and start related training early. If you need any assistance, please feel free to contact this office.

NEW LICENSES ISSUED

Examinations were conducted in Bismarck on December 17, 2007 and January 14, 2008. We had 10 individuals who took the Master exam and 21 who took the Journeyman exam. **Our congratulations to the following applicants who passed their examination and were issued a license.**

MASTERS

® Represents Reciprocal Licenses

LICENSE #	NAME	ADDRESS	LICENSE #	NAME	ADDRESS
2521	Ohlhauser, Ryan	Linton, ND	2524	Neiss, Darren	Fargo, ND
2522	Jackson, Michael	Dayton, WY	2525 ®	Struble, Jim	Chanhassen, MN
2523	Linstad, Kevin	Fargo, ND	2526 ®	Schroepfer, John	Cottage Grove, MN

JOURNEYMAN

® Represents Reciprocal Licenses

LICENSE #	NAME	ADDRESS	LICENSE #	NAME	ADDRESS
5091	Hultberg, Joey	Bismarck, ND	5100 ®	Wisdom, Jason	Vernal, UT
5092	Kollman, Prentice	Jamestown, ND	5101	McGrath, Jeremy	Lincoln, ND
5093	Schuster, Nathan	West Fargo, ND	5102	Zabka, Lucas	Fargo, ND
5094	Steiner, Robert	Rothsay, MN	5103 ®	Johnson, Don	Elko, MN
5095	Blair, Matt	Grand Forks, ND	5104 ®	Vollertsen, Matt	Bloomington, MN
5096	Sundet, Michael	Fargo, ND	5105 ®	Webster, Wade	Saint Croix, MN
5097	Sondrol, Christopher	Williston, ND	5106	Meckle, Scott	Anamoose, ND
5098 ®	Hansen, Thomas	Helena, MT	5107 ®	Summerville, Nathan	Breckenridge, MN
5099 ®	Johnson, Kevin	Fergus Falls, MN			