



NORTH DAKOTA STATE ELECTRICAL BOARD

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Donald Offerdahl, Executive Director

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NEWSLETTER

NO. 223

ADMINISTRATIVE RULES TO TAKE EFFECT – APRIL 1, 2008

Enclosed you will find your complimentary Laws, Rules and Wiring Standards of North Dakota. Additional copies can be downloaded from our web site at www.ndseb.com or purchased through the office for \$1.00 (\$2.00 if mailed). They will also be available for sale at our continuing education classes.

One of the reasons to go through the administrative rule process is to adopt the 2008 National Electrical Code. The following are major changes of our administrative rules that were adopted at the September 12, 2007 Board Meeting and by final review at the N.D. Administrative Rules Committee hearing on December 12, 2007. Keep in mind these rules take effect April 1, 2008. **On or after April 1, 2008, all wiring and equipment installed needs to meet the 2008 State and National Electrical Code.**

* **24-02-01-02. General statement of policy and interpretative rules.**

Practical experience shall consist of a minimum of four thousand hours and a maximum of eight thousand hours credit may be granted for wiring for and installing electrical wiring, apparatus, and equipment.

Credit allowed in other areas may include any combination of the following:

- (1) A maximum of two thousand hours credit for maintaining and repairing electrical wiring, apparatus, and equipment;
 - (2) A maximum of one thousand hours for wiring and maintaining light, heat and power, and fire alarm technology circuits or systems;
 - (3) A maximum of two thousand hours for wiring and maintaining process control circuits or systems; and
 - (4) A maximum of two thousand hours of electrical construction experience gained in the armed forces of the United States which the board has determined is equivalent to work performed under the supervision of a North Dakota licensed electrical contractor.
- e. The state electrical board issues an identification card to currently licensed and registered electricians. This identification card shall be in the possession of the electrician when doing electrical work. If the identification card is misplaced or destroyed, a replacement charge to cover board costs shall be imposed.

*** 24-02-01-02 Cont.**

2. Apprentice electricians. There are two categories of apprentice electrician training.
 - a. Apprentice electricians who have successfully completed the United States department of labor training program recognized by the office of apprenticeship.
 - b. Apprentice electricians who have successfully completed at least two years of electrical school approved by the state electrical board or five hundred seventy six hours of training classes recognized by the United States department of labor office of apprenticeship. An unlicensed electrician who has prior experience outside of the state of North Dakota may take a placement examination equal to the verification of practical experience obtained in order to apply credit toward the verification of hours. If the electrician fails the placement examination, the electrician is ineligible to retake the examination. An appeal would need to be submitted in writing to the state electrical board.
 - c. An apprentice electrician who has not successfully completed training as stated in subdivision a or b is required to be registered with the state electrical board, but is not eligible to take the journeyman or class B license examination. If the person receives a license from another state based on the verification that the majority of practical experience was obtained in the state of North Dakota the person will not be eligible for examination for licensure or a reciprocal license.

*** 24-02-01-03. General requirements.**

Exception: Manufacturing firms that install industrial machinery for use by the firm itself and employ professional engineers may evaluate the industrial machinery according to NFPA 79 or UL 508 Standards. This evaluation shall be maintained with the equipment at all times.

*** 24-02-01-06. Grounding and bonding.**

- b. The metal lighting standard shall be connected to a one-half inch [12.70 millimeters] by ten-foot [3.05 meter] copperweld ground rod, or twenty feet of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods (rebar) of not less than one-half inch in diameter, by the means of a bonding jumper.

*** 24-02-01-07. Branch circuits and feeders.**

5. One-family and two-family dwelling occupancies. . . . One 20-amp branch circuit shall be provided for no more than two bathrooms.
6. Fifteen and twenty ampere 125-volt receptacles located outdoors or in unfinished basements supplying sewer pumps and sump pumps shall be ground-fault protected or a single receptacle shall be installed in an enclosure that is lockable.

*** 24-02-01-08. Services.**

5. Rating of service switch. Any new or old single-family dwelling where the main house panel or service is altered or repaired, the dwelling is moved, or where the dwelling is rewired, a minimum one hundred ampere service-rated panel shall be installed. Replacement of service mast or meter enclosure is an alteration of the service.

*** 24-02-01-22. Continuing education requirements.**

1. Each master, journeyman, and class B electrician license shall not be renewed unless proof of eight continuing education hours have been submitted of which a minimum of fifty percent of the hours shall be based on the 2008 edition, National Electrical Code.

REMINDER OF N.D.S.E.B. 2008 CONTINUING EDUCATION CLASSES

PLACE	DATE	DEADLINE	LOCATION	LUNCH
Dickinson	Fri., 1/4/08	12/27/07	Dickinson Eagles Club, 31 1 st Ave. E.	\$6.00 (Hot Beef)
Williston	Fri., 1/11/08	1/3/08	Airport Int'l Inn, 3601 2 nd Ave. W.	\$8.89 (Deli Buffet)
Minot	Sat., 1/12/08	1/3/08	Holiday Inn, 2200 Burdick Expy. E	\$8.05 (Deli Buffet)
Jamestown	Fri., 1/18/08	1/10/08	Quality Inn, Hwy. 281 S. & I-94	\$10.45 (Hot Beef)
Bis./Man.	Sat., 1/19/08	1/10/08	Seven Seas, 2611 Old Red Trail	\$8.00 (Deli Buffet)
Fargo	Fri., 1/25/08	1/17/08	Ramada Plaza, 1635 42 nd Street S.	\$11.85 (Hot Beef)
Grand Forks	Sat., 1/26/08	1/17/08	Ramada Inn, 1205 N. 43 rd Street	\$9.30 (Hot Beef)

The N.D. State Electrical Board will be providing 8-hour continuing education courses covering the 2008 National Electrical Code Analysis of Changes. The cost of the class is \$10.00. Pre-registration is required before the registration deadline. **There will be no registration at the door.** The 2008 National Electrical Code book (\$45.00) and the 2008 IAEI Analysis of Changes book (\$55.00) are available through pre-payment when registering for a class. You need to register either online at www.ndseb.com, "Continuing Education Registration" or complete the mail-in form. Refunds will only be given if you cancel by Monday before the scheduled class by calling (701) 328-9522. If cancellation occurs due to weather, please check the "Bulletin" on our web site at www.ndseb.com or call (701) 328-9522.

PLEASE CONTACT INSPECTOR FOR PERIODIC INSPECTIONS

Electrical Contractors, Project Formans and Supervisors: When working on large projects such as new school buildings, office buildings, process plants, etc., please contact your field inspector for rough-in or periodic inspections before major portions of the electrical work is covered up. If the job includes large services, the field inspector would like to check the installation before or at the time the service is being energized. The inspector

sometimes is scheduled up to a week in advance with appointments, so the more notice you can provide the inspector the better we can serve you.

It is our policy to inspect these larger projects on a periodic basis, and if you contact the inspector ahead of time, it also allows arrangements for you to be there to explain the project to the inspector.

MAJOR CHANGES IN THE 2008 NEC ** CONTINUED **

Article 300.4(E). This article addresses protection of cables and raceways installed under metal roof decking. Cables and raceways, other than rigid metal conduit and intermediate metal conduit, shall not be supported and installed within 1½ inches of the metal roof decking.

Article 310.15(B)(2)(c). A new requirement in subdivision (c) has been added to this section for correction factors for ambient temperature on raceways and cables installed on rooftops. A table is provided on what temperature to increase the ambient temperature of the raceways depending on the height of the raceway is above the roof.

Article 314.16(B)(4). This article addresses that a device or utilization equipment wider than 2 inches shall have a double volume allowance provided for each gang required for mounting.

Article 314.24(C)(1). This addresses minimum depth of outlet boxes containing utilization equipment and devices. The minimum depth of boxes containing either device or utilization equipment boxes that project more than 1⅞ rearward from the mounting plane of the box shall have a depth that is not less than the depth of the utilization equipment plus ¼ inch.

Article 334.80. NM cable installed in contact with thermal insulation and without maintaining spacing are subject to passing the adjustment factors in Table 310.15(B)(2)(a).

Article 348.12(1). Flexible metal conduit is not permitted for use in wet locations regardless of any condition.

Article 352. This article has been changed to include only those requirements associated with Rigid Polyvinyl Chloride (PVC) conduit. Requirements for Type Reinforced Thermosetting Resin Conduit (RTRC) have been removed from Article 352 and placed in new Article 355.

Article 404.8(C). General-use multipole snap switches are not permitted to be fed from more than one single circuit, unless listed and marked as two-circuit or three-circuit switches.

(MORE IN FUTURE NEWSLETTER)

CHANGES TO WIRING CERTIFICATES

The N.D. State Electrical Board is in the process of revising its paper and electronic electrical wiring certificates to include the following language, which statements will need to be completed upon submitting a goldenrod for the electrical project:

Estimated Job Cost

< \$10,000

\$10,000 - \$50,000

> \$50,000

Also, we have added the following to assist the electrical inspector when inspecting an electrical service:

Grounding Electrode (Please Check One – If Applicable):

Rebar

Ground Rod <25 ohms

2-Ground Rods

Other _____

Thank you for your cooperation. Our electrical inspectors will appreciate the information.

WIRING CERTIFICATES VALID FOR ONLY ONE YEAR

This is a reminder that wiring certificates with a job cost of ten thousand dollars or less are valid twelve months from the original filing date (N.D. Administrative Code 24-02-01-19(2)). This was put into administrative rules to eliminate the smaller jobs lingering from year to year and where owners are occupying unfinished projects.

NEW LICENSES ISSUED

Examinations were conducted in Bismarck on November 19, 2007. We had 9 individuals who took the Master exam, 12 who took the Journeyman exam and 1 who took the Class B 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
2519	Sime, Dean	Fargo, ND	2520 ®	Fischer, Roger	Kennebec, SD

JOURNEYMAN

® Represents Reciprocal Licenses

LICENSE #	NAME	ADDRESS	LICENSE #	NAME	ADDRESS
5080	Robertson, Dennis	Afton, WY	5086 ®	Miller, Dwight	Marmarth, ND
5081	Weber, Jamie	Bismarck, ND	5087	Anderson, Gary	Casselton, ND
5082	Ennen, Josh	Mandan, ND	5088	Haugen, Christopher	Fargo, ND
5083	Vikan, Brian	Grand Forks, ND	5089	Rummel, Joseph	Dickinson, ND
5084	Bentson, Jeremy	Fargo, ND	5090 ®	Weeks, Jon	Ray, ND
5085	Tostenson, Josh	Rugby, ND			

IN MEMORIAM

Glenn Weston, 69, Sarles, North Dakota, died December 1, 2007. Glenn served on the North Dakota State Electrical Board as a Member from 1983 to 1988. We wish to express our deepest sympathy to Marilyn, his surviving wife, and family and friends.

We also regret to announce the death of Eugene Sass, Hettinger, ND. Eugene Sass (Gene's Electric) obtained his Master license #0674 in 1957. Also, Ashley Bakken, Fargo, ND. Ashley Bakken obtained his Journeyman license #4956 in 2007. We wish to express our deepest sympathy to their family and friends.



HAPPY HOLIDAYS FROM THE N.D. STATE ELECTRICAL BOARD

Don Brad Paula Ashley
Josh Vern Mitch Al
Greg Jon Richard K. Rich W.

Board Members: Eugene Cross; James Schmidt; Karen Karls;
Pam Geiger and Earl Scherer