

Scott Walker
Governor

David Ross
Secretary

**WISCONSIN DEPARTMENT OF
SAFETY & PROFESSIONAL
SERVICES**



1400 E Washington Ave
PO Box 8935
Madison WI 53708-8935
Email:
dsps@wisconsin.gov
Voice: 608-266-2112
FAX: 608-251-3016
TTY: 608-267-2416

March 13, 2013

RE: Licensing of Electricians and Electrical Contractor Questions

Notice: 2013 WI Act 4 delayed the effective date of mandatory statewide electrician licensure to April 1st, 2014.

Frequently Asked Questions

- 1) **If I am already licensed/certified by the state am I still required to get a municipal license if a municipal license is required to do electrical wiring?**

No, based on 2013 WI Act 4 municipal licensing requirements do not apply to electrical contractors, electricians, or electrical inspectors who are licensed, registered, or certified by the Department of Safety and Professional Services.

- 2) **Can an unlicensed person add an outlet or switch to an existing circuit in a residence?**

Yes, s. 101.864(a) allows a homeowner to install, repair or maintain electrical wiring without a license on premises that the property owner owns and occupies unless a license is required by a local ordinance.

For example, a homeowner may have to take out a permit but would not need a license to add new lights or receptacles to either new or existing circuits.

- 3) **Can an unlicensed person add outlets, switches, or circuits to new or existing electrical systems in existing commercial or agricultural buildings?**

No. Under SPS 305.40(1) [effective 4/1/14], this work will have to be performed by a licensed master, journeyman, or beginning electrician. Such work will have to be performed under the general supervision of a state licensed master electrician.

For example, new lights to be installed in the new addition to an office building shall be by a licensed electrician. Replacing existing light fixtures, lamps, or ballasts in the existing building does not require a license.

- 4) **Can an unlicensed person add outlets, switches, or circuits to new or existing electrical systems in existing industrial buildings?**

No. Under SPS 305.40(1) [effective 4/1/14], this work will have to be performed by a licensed master, journeyman, industrial journeyman or beginning electrician. Such work will have to be performed under the general supervision of a state licensed master electrician.

For example, new lights to be installed in the new foundry addition shall be by a licensed electrician. Replacing existing light fixtures, lamps, or ballasts in the existing factory does not require a license.

5) Can an unlicensed person change or install manufactured equipment?

Yes. In accordance with Ss 101.864(g) a person can install, repair or maintain manufactured equipment or manufactured systems, not primarily electrical in nature, without an electrician's license as long as the task does not involve modification or installation of the conductors beyond the disconnecting point, or beyond the last junction, pull, or device box.

For example, running a new circuit from the existing electrical distribution box for new manufactured equipment shall be performed by a licensed electrician. Whereas, connecting the manufactured equipment to its' electrical disconnect does not require a license.

s 101.862 (4) Stats, Exception (g) A person engaged in installing, repairing, or maintaining manufactured equipment or a manufactured system that is designed to provide a function that is not primarily electrical in nature if the installation, repair, or maintenance does not involve the modification or installation of conductors beyond the disconnecting point or beyond the last junction, pull, or device box, whichever is nearer to the point where the person is performing the installation, repair, or maintenance.

State Statute 70.11(27) MANUFACTURING MACHINERY AND SPECIFIC PROCESSING EQUIPMENT.

(a) In this subsection:

1. "Building" means any structure used for sheltering people, machinery, animals or plants; storing property; or working, office, parking, sales or display space.
2. "Machinery" means a structure or assemblage of parts that transmits forces, motion or energy from one part to another in a predetermined way by electrical, mechanical or chemical means, but "machinery" does not include a building.

6) Can an experienced electrician continue to work without passing one of the licensing tests?

The law offers two opportunities for an electrician to continue working without passing a state exam or completing an indentured apprenticeship.

1. Individuals completing an approved electrical apprenticeship are not required to take an additional DSPS exam in order to obtain a journeyman's license.
2. The law does not require a license for maintenance work done in an employer's facility. However, many industrial electricians perform both maintenance and installation work. Licensed electricians must perform virtually all installation work.

Experienced electricians must either pass the test or register for a Beginning Electrician License under SPS 305.45. No test is required to obtain a Beginners License. Such an individual would have to work "under" the direct supervision of a licensed master, journeyman, or industrial journeyman. The Beginning Electrician license is an annual registration with a requirement of 24 CEU hours in order to renew. Other categories renew every 4 years and require 24 CEU hours over 4 years.

7) How does the Wisconsin licensing law SPS 305.40 compare with neighboring states?

There are some similarities and a significant difference. Minnesota and Michigan generally require electrical work be performed by licensed or registered individuals. Michigan and

Minnesota have specialty licenses for installers of system such as signs and alarms. Wisconsin has an exception for persons installing, maintaining, and repairing alarm systems.

Minnesota permits experienced electricians to work by "registering" with the state. No test is required. The renewal is annual but only 2 CEU's are required. The individual must work under the direct supervision of a licensed electrician. Only the experience obtained as a registered electrician counts when applying for and testing for a Minnesota journeyman and master electrician license. Registered electricians are not offered reciprocity with neighboring state. There are currently about 10,000 individuals registered in this category in the State of Minnesota.

We have no further information regarding other neighboring states, such as Illinois or Iowa.

- 8) **If licensing is not required by the state am I still required to obtain a local electrical permit?**

Yes, if required by the local municipal code or ordinance. Please be aware that licensing is a different issue than permitting and all requirements for permitting within a community still apply.

- 9) **Some of our maintenance electricians have completed an industrial apprenticeship and are now recognized as industrial journeyman electricians. Must these employees also obtain a journeyman electrician license to install building wiring?**

No. As long as they obtain an Industrial Journeyman license, they may continue to install electrical wiring in their employers' facilities; .SPS 305.40; s.101.862(4) Exception (b).

- 10) **Now that I will be licensed in the State of Wisconsin will my master electrician license reciprocate with our neighboring states?**

No. Wisconsin regulations currently do not permit electrical licensing reciprocity with any other states.

- 11) **Is a plumber required to be licensed as an electrician to make the final connection to an electric water heater? How about re-connecting a replacement water heater?**

No, s 101.862(4) (g) Stats. exempts individuals that are installing manufactured equipment from electrical licensing provided the work is after the last disconnect.

- 12) **As a septic system installer we typically wire the effluent pump and alarm to the building served. Are we required to be licensed to perform this wiring?**

Yes, SPS 305.40 & 41 requires installation work to be done by licensed individuals. Maintenance or repair work to an effluent pump may be done by non-licensed individuals provided there is no alteration of the electrical wiring beyond the disconnection point or last junction, pull, or device box, whichever is closer to the equipment being repaired or replaced.

- 13) **Do the electrical licensing requirements apply to volunteers such as Habitat for Humanity, Special Events and summer help such as college students?**

Yes. There is no exemption in s. 101.862 (4) Stats. for volunteer or intern type of work.

- 14) **S. 101.862(4)(a) permits an unlicensed individual to do wiring on premises that the property owner owns and occupies as a residence, does this exemption apply to a duplex or multifamily building?**

No, premises and residence denotes a single family situation whereby the home owner may do wiring in a detached garage existing on his/her own property but this does not extend to any other

situation(duplex or multifamily) subjecting non-family members or tenants to risks of non-licensed individuals performing electrical wiring.

- 15) **Can the owner of a new dwelling under construction do the electrical wiring in the home as it is being built?**

No, as the individual does not occupy the building under construction, the statutory exemption does not apply.

- 16) **What is meant by the terms, “responsible charge,” “general supervision” and “direct supervision”?**

“Responsible charge” is the term given to the individual and the level of technical authority for the construction activities. Within the responsible charge, there is general supervision and direct supervision of the work.

“General Supervision” is general in nature and does not involve supervision of each specific step. The journeyman or beginning electrician has practical access to a master electrician for guidance and instruction in unclear situations and/or those which deviate from established practices and procedures.

“Direct Supervision” means to be on the same premise or property, physically present, or within an immediate distance, and available to respond to the needs of something or someone.

- 17) **Are sign technicians required have a state electrician’s license in order to install, maintain, or repair a sign, section sign, or field-installed skeleton tubing and associated wiring?**

No. Sign Installers are not be required to have an electrician's license in order to install, maintain, or repair a sign or sign assembly. They are exempted from an electrician’s license under s 101.862 (4) (g) Stats. Their work is limited to signs, section signs, or skeleton tubing and tubing wiring. The field-installed skeleton tubing may be used as a sign or for outline lighting. The non-licensed person is limited to working on wiring and equipment on the load side of the required sign disconnecting means as stipulated in s. 101.862 (4) (g) Stats.

Inspection of Electrical Wiring Questions

- 1) **S. 101.82(2m) requires the Department to promulgate rules that establish standards and a process for the inspection of electrical wiring, including the inspection of electrical wiring for which a municipality does not provide inspection under s. [101.86 \(1\)](#); has the department established rules for inspections in areas not covered by local ordinances?**

The department is currently working on these rules and hopes to have them completed in the near future. The department may provide inspections in non-enforcing communities via inspection request policies and procedures. In accordance with SPS 302, the department will charge a fee for the inspection and will report the findings of the inspection back to the building owner.

Technical SPS 316 and NEC requirement Questions

1) **When will the 2011 edition of the NEC be adopted by the State of Wisconsin?**

The department is putting the finishing touches on this code update and will be completing this project in the near future.

2) **Can the satellite or slave cables that are part of a listed luminaire assembly be secured to a non-fire-rated ceiling grid or the ceiling support wires?**

Typical non-fire-rated ceiling assemblies are designed to support luminaire assemblies with typical spacing patterns. The slave cables component of the luminaire assembly is also permitted to be secured to and be supported by the grid or ceiling support wiring. Branch circuit wiring is not. The method of securing the slave cables is subject to approval by the AHJ in the same manner that the support and securing of the luminaire to the grid is subject to approval.

The slave cables shall be arranged and supported so as to allow removal of the ceiling panels in accordance with NEC 300.23.

3) **How do you size service-entrance conductors that are common to multiple dwelling units? The service equipment consists of two to six service disconnecting means.**

The minimum size of the service-entrance conductor's common to multiple dwelling units is determined by the cumulative calculated load.

4) **Shall the existing electrical wiring in a dwelling unit be brought up to current code requirements in any room where the wall or ceiling surfaces are removed in whole or in part?**

The existing electrical in the space is not required to be replaced, altered, or upgraded based solely on the removal of wall or ceiling surfaces.

5) **Conductors, 4 AWG or larger, are spliced within a pull box. The box is properly sized. However, the distance between raceways entries is not 6 X the diameter of the raceway. Are spliced conductors considered the "same" conductor?**

NEC 314.28(A)(2) Paragraph 2 " The distance between raceways containing the same conductor shall not be less than six times the metric designator (trade size) of the larger raceway.

The intent of the code section is to protect conductor insulation from damage as the conductor is being pulled through an enclosure.

The minimum size of the enclosure containing the spliced conductors, 4AWG and larger, is determined by 314.28(a)(2). The distance between raceways requirement does not apply to spliced conductors.