uscontractorlicense.com

Providing Initial and Continuing Education Hours To The Wisconsin Construction Trades

COURSE 962906

SPS 316 Electrical

Review Material

Uscontractorlicense LLC

PO Box 268 / Platteville, Wisconsin 53818 / 608.348.6688 / www.uscontractorlicense.com

Summary Of This Course

SPS 316 ELECTRICAL

Approved by the

Wisconsin Department of Safety and Professional Services Safety and Buildings Division

Course Identification Number 962906

Educational Credit Hours: 12 Hours

Course Provider:

USCONTRACTORLICENSE LLC

P.O. Box 268

Platteville, WI 53818-0268

(608) 348-6688

www.uscontractorlicense.com

This course provides a comprehensive overview of Wisconsin Administrative Code Chapter SPS 316, which governs electrical wiring installations and establishes the state's electrical safety requirements. The course begins by explaining the purpose, scope, application, and authority of the code, emphasizing the protection of people and property from electrical hazards while clarifying when the code applies and identifying specific exclusions. It covers administrative requirements, including permits, inspections, plan reviews, appeals, penalties, and the responsibilities of the Department of Safety and Professional Services and local inspection agencies.

This Course is approved for the following electrical Registrations/Certifications or Licenses:

Registered Electrician	12 Hours of Continuing Education	
Journeyman Electrician	12 Hours of Continuing Education	
Industrial Journeyman Electrician	12 Hours of Continuing Education	
Residential Journeyman Electrician	12 Hours of Continuing Education	
Master Electrician	12 Hours of Continuing Education	
Residential Master Electrician	12 Hours of Continuing Education	
Commercial Electrical Inspector	12 Hours of Continuing Education	
UDC Electrical Inspector	12 Hours of Continuing Education	

This course is a distance learning or e-learning course, which allows the attendee to complete the course on their time schedule.

Course Outline

This course is a distance learning or e-learning course, which allows the attendee to complete the course on their time schedule.

Chapter 1 – Purpose, Scope, and Application (Subchapter I)
SPS 316.001 – Purpose
SPS 316.002 – Scope
SPS 316.003 – Application
SPS 316.004 – Department Authority
SPS 316.005 – Petition for Variance
SPS 316.006 – Definitions
SPS 316.007 – Adoption of Standards by Reference

Chapter 2 – Administration and Enforcement (Subchapter II)
SPS 316.011 – Administration
SPS 316.012 – Permits
SPS 316.013 – Inspections
SPS 316.014 – Penalties
SPS 316.015 – Appeals
SPS 316.016 – Electrical Plan Review
SPS 316.017 – Technical Assistance

Chapter 3 – General Requirements (Subchapter III)
SPS 316.020 – Construction and Operation
SPS 316.021 – Maintenance
SPS 316.022 – Use of Approved Materials and Construction Methods
SPS 316.023 – Electric Fences

Chapter 4 – Wisconsin Changes, Additions, and Omissions to the National Electrical Code (Subchapter IV)
SPS 316.080 – Changes, Additions or Omissions to the NEC
SPS 316.090 – Introduction
SPS 316.100 – Definitions
SPS 316.110 – Examination, Identification, Installation, Use, and Listing of Equipment
SPS 316.210 – Branch Circuits
SPS 316.220 – Branch-Circuit, Feeder and Service Calculations
SPS 316.225 – Outside Branch Circuits and Feeders
SPS 316.230 – Services
SPS 316.240 – Overcurrent Protection
SPS 316.250 – Grounding and Bonding
SPS 316.300 – Wiring Methods
SPS 316.310 – Conductors for General Wiring
SPS 316.312 – Cabinets, Cutout Boxes, and Meter Socket Enclosures
SPS 316.314 – Outlet, Device, Pull and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures
SPS 316.334 – Nonmetallic-Sheathed Cable (Types NM, NMC, and NMS)
SPS 316.358 – Uses Permitted
SPS 316.400 – Flexible Cords and Cables
SPS 316.404 – Switches Controlling Lighting Loads
SPS 316.406 – Receptacles, Cord Connectors and Attachment Plugs
SPS 316.450 – Transformers and Transformer Vaults (Including Secondary Ties)
SPS 316.511 – Commercial Garages, Repair and Storage
SPS 316.547 – Agricultural Buildings
SPS 316.551 – Recreational Vehicles and Recreational Vehicle Parks
SPS 316.620 – Elevators, Dumbwaiters, Escalators, Moving Walks, Platform Lifts and Stairway Chairlifts
SPS 316.675 – Electrically Driven or Controlled Irrigation Machines
SPS 316.680 – Swimming Pools, Fountains and Similar Installations
SPS 316.700 – Emergency Systems
SPS 316.701 – Legally Required Standby Systems

360 questions related to the reference materials are used to test the attendee on their comprehension of the materials. A 70% score will need to be attained in order to pass this course.

Answer Sheet(s)

3 bubble style answer sheets are included. When you are finished with the exam, you may return the answer sheets for grading to:

By Mail: Uscontractorlicense LLC
PO Box 268
Platteville, Wisconsin 53818

By Email: michael@uscontractorlicense.com

By Fax: 608-571-0096

Once we get the answer sheets back, we will graded them, enter your hours into the attendance portal and email or mail you back your certificate of completion(s). You will be responsible for renewing your license with the DSPS at www.license.wi.gov website.

Any questions, please contact us at 608.348.6688

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

Chapter SPS 316

ELECTRICAL

Subchapter I — Purpose, Scope, and Application
SPS 316.001 Purpose.
SPS 316.002 Scope.
SPS 316.003 Application.
SPS 316.004 Department authority.
SPS 316.005 Petition for variance.
SPS 316.006 Definitions.
SPS 316.007 Adoption of standards by reference.

Subchapter II — Administration and Enforcement
SPS 316.011 Administration.
SPS 316.012 Permits.
SPS 316.013 Inspections.
SPS 316.014 Penalties.
SPS 316.015 Appeals.
SPS 316.016 Electrical plan review.
SPS 316.017 Technical assistance.

Subchapter III — General Requirements
SPS 316.020 Construction and operation.
SPS 316.021 Maintenance.
SPS 316.022 Use of approved materials and construction methods.
SPS 316.023 Electric fences.

Subchapter IV — Changes, Additions or Omissions to the NECH
SPS 316.080 Changes, additions or omissions to NECH.
SPS 316.090 Introduction.
SPS 316.100 Definitions.
SPS 316.110 Examination, identification, installation, use, and listing of equipment.
SPS 316.210 Branch circuits.
SPS 316.220 Branch-circuit, feeder and service calculations.
SPS 316.225 Outside branch circuits and feeders.
SPS 316.230 Services.
SPS 316.240 Overcurrent protection.
SPS 316.250 Grounding and bonding.
SPS 316.300 Wiring methods.
SPS 316.310 Conductors for general wiring.
SPS 316.312 Cabinets, cutout boxes and meter socket enclosures.
SPS 316.314 Outlet, device, pull and junction boxes; conduit bodies; fittings; and handhole enclosures.
SPS 316.334 Nonmetallic-sheathed cable: Types NM, NMC and NMS.
SPS 316.358 Uses permitted.
SPS 316.400 Flexible cords and cables.
SPS 316.404 Switches controlling lighting loads.
SPS 316.406 Receptacles, cord connectors and attachment plugs (caps).
SPS 316.450 Transformers and transformer vaults (including secondary ties).
SPS 316.511 Commercial garages, repair and storage.
SPS 316.547 Agricultural buildings.
SPS 316.551 Recreational vehicles and recreational vehicle parks.
SPS 316.620 Elevators, dumbwaiters, escalators, moving walks, platform lifts and stairway chairlifts.
SPS 316.675 Electrically driven or controlled irrigation machines.
SPS 316.680 Swimming pools, fountains and similar installations.
SPS 316.700 Emergency systems.
SPS 316.701 Legally required standby systems.

Note: Chapter ILHR 16 as it existed on October 31, 1984 was repealed and a new chapter ILHR 16 was created effective November 1, 1984; Chapter ILHR 16 as it existed on February 29, 1988 was repealed and a new chapter ILHR 16 was created effective March 1, 1988; Chapter ILHR 16 as it existed on October 31, 1990, was repealed and a new chapter ILHR 16 was created effective November 1, 1990. Chapter ILHR 16 was renumbered chapter Comm 16 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1996, No. 488. Chapter Comm 16 was renumbered chapter SPS 316 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

Note: Chapter Comm 17 was repealed effective October 1, 1999. Sections Comm 16.60 to 16.67 were created to replace ch. Comm 17.

Note: Subchapter III of Ch. Comm 16 (sections Comm 16.15 through 16.52) as it existed on February 28, 2009 was repealed and a new subchapter III was created effective March 1, 2009.

Subchapter I — Purpose, Scope, and Application

SPS 316.001 Purpose. (1) PRACTICAL SAFEGUARDING. Pursuant to ss. 101.02 (1), 101.63 (1), 101.73 (1), and 101.82 (1), Stats., the purpose of this chapter is the practical safeguarding of persons and property from hazards arising from the installation and use of electricity.

Note: Hazards often occur because of overloading of wiring systems by methods or usage not in conformity with this chapter. This occurs because initial wiring did not provide for increases in the use of electricity. An adequate initial installation and reasonable provisions for system changes will provide for future increases in the use of electricity.

(2) CODE INTENTION. This chapter is not intended as a design specification or as an instruction manual for untrained persons.

Note: The Wisconsin state electrical code is issued and administered by the department and by the public service commission in 2 chapters of the Wisconsin administrative code. The department has the responsibility for issuance and administration of this chapter, and the public service commission has the responsibility for issuance and administration of ch. PSC 114.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 08-047: renum. from Comm 16.01 and am. (2) Register February 2009 No. 638, eff. 3-1-09; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638.

SPS 316.002 Scope. (1) GENERAL. Except as provided in sub. (2), this chapter applies to electrical wiring installations.

(2) EXCLUSIONS. This chapter does not cover any of the following electrical wiring installations:

(a) Installations in ships, watercraft other than floating buildings, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles.

(b) Installations for generation, transformation, or distribution of power used exclusively by railways for signaling and communication purposes.

(c) Installations of communication equipment under exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations.

(d) Installations in manufactured homes, other than electrical wiring alterations in existing manufactured homes.

(e) Installations under the exclusive control of an electric utility, or an electric cooperative where such installations meet any of the following situations:

1. Consist of service drops or service laterals, and associated metering.

2. Are located in legally established easements or right-of-ways designated by public service commissions, utility commissions, or other regulatory agencies having jurisdiction for such installations.

3. Are on property owned or leased by the electric utility for the purpose of communications, metering, generation, control, transformation, transmission, storage, or distribution of electric energy.

(f) Installations for the purpose of street or area lighting owned and under exclusive control of electrical utilities or municipalities where located outdoors on property owned or leased by the utility; on or along public highways, streets, roads, or similar public thoroughfares; or outdoors on private property by estab-

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

lished rights such as easements shall comply with this chapter or ch. PSC 114.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; am. (1) (b) and (c), Register, March, 1994, No. 459, eff. 4-1-94; cr. (1) (e), r. and recr. (2) (d), (e), Register, August, 1996, No. 488, eff. 9-1-96; cr. (1) (f), Register, September, 1999, No. 525, eff. 10-1-99; CR 02-072: am. (2) (e) Register April 2003 No. 568, eff. 5-1-03; CR 08-047: renum. from Comm 16.02 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: r. and recr. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.003 Application. (1) TYPES OF INSTALLATIONS. The provisions of this chapter apply to all new installations, reconstructions, alterations and extensions.

(2) TESTING. Rooms which are used exclusively for routine or special electrical test work and are under the supervision of a qualified person, shall comply with this chapter where practicable for the character of the testing done.

(3) EXISTING INSTALLATIONS. Existing electrical installations shall conform to the electrical code that applied when the installations were installed. An existing electrical installation may be required to be brought into compliance with the current code's requirements by the department and within the time period determined by the department when a hazard to life, health or property exists or is created by the installation.

(4) REPAIRS. Repairs to electrical installations shall conform to the electrical code that applied when the installations were installed. A repair may be required to be brought into compliance with the current code's requirements by the department and within the time period determined by the department when a hazard to life, health or property exists or is created by the repair.

(5) DIFFERING RULES. (a) Where any department rule in this chapter differs from a requirement within a standard referenced in this chapter, the department rule shall govern.

(b) Where a provision of this chapter prescribes a general requirement and another provision of this chapter prescribes a specific or more detailed requirement regarding the same subject, the specific or more detailed requirement shall govern, except as provided in par. (a).

(c) Where different sections of this chapter specify conflicting requirements, the most restrictive requirement, as determined by the department, shall govern, except as provided in pars. (a) and (b).

(6) ADDITIONS AND ALTERATIONS. Additions and alterations to electrical systems covered by this chapter shall comply with all provisions of this chapter at the time of permit application or, if no permit is required, the beginning of the project.

Note: This chapter does not nullify any exclusions specified in the standards adopted under s. SPS 316.007.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 02-072: r. and recr. (3), cr. (4) Register April 2003 No. 568, eff. 5-1-03; CR 08-047: renum. from Comm 16.03 Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title), cr. (5) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: cr. (6) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.004 Department authority. Under s. 101.02 (1), Stats., the department reserves the right to interpret the requirements in this chapter and in all adopted codes and standards. Any interpretation under this section shall supersede any differing interpretation by either a lower level jurisdiction or an issuer of the adopted code or standard.

Note: Section 101.86, Stats., prohibits municipalities from enacting rules that are more restrictive than this chapter. Section 101.86 (1) (a), Stats., provides a municipality may "[e]nact an electrical code or otherwise exercise jurisdiction over electrical wiring and inspection of electrical wiring by enactment of ordinances, provided that the electrical code or ordinance strictly conforms with the state electrical wiring code promulgated by the department under s. 101.82 (1). A county ordinance shall apply in any city, village or town which has not enacted such an ordinance."

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; am. (1), Register, August, 1996, No. 488, eff. 9-1-96; am. (2) and r. (3), Register, September, 1999, No. 525, eff. 10-1-99; CR 08-047: renum. from Comm 16.04 Register February 2009 No. 638, eff. 3-1-09; corrections made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638; correction in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 13-042: am. (1) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: r. and recr. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.005 Petition for variance. The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. SPS 303. The petition for variance shall include, where applicable, a position statement from the fire department having jurisdiction.

Note: Chapter SPS 303 requires the submittal of a petition for variance form (SBD-9890) and a fee, and that an equivalency is established in the petition for variance that meets the intent of the rule being petitioned. Chapter SPS 303 also requires the department to process regular petitions within 30 business days and priority petitions within 10 business days.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE (800-362-7253) or 411 (Telecommunications Relay), or at docsales@doa.state.wi.us. Forms are also available at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; r. and recr., Register, September, 1999, No. 525, eff. 10-1-99; CR 08-047: renum. from Comm 16.05 Register February 2009 No. 638, eff. 3-1-09; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 316.006 Definitions. In this chapter:

(1) "Department" means the department of safety and professional services.

(2) "Electrical wiring" has the meaning given in s. 101.80 (1m), Stats.

Note: Under s. 101.80 (1m), Stats., "electrical wiring" means all equipment, wiring, material, fittings, devices, appliances, fixtures, and apparatus used for the production, modification, regulation, control, distribution, utilization, or safeguarding of electrical energy for mechanical, chemical, cosmetic, heating, lighting, or similar purposes, as specified under the state electrical wiring code. "Electrical wiring" does not include the equipment, wiring, material, fittings, devices, appliances, fixtures, and apparatus used by a public utility, an electric cooperative, or a wholesale merchant operator for the purpose of generating, transmitting, distributing, or controlling heat, light, power, or natural gas to its customers or members.

(3) "Farm" means a place where farming is conducted.

(4) "Farming" has the meaning given in s. 102.04 (3), Stats.

Note: Under s. 102.04 (3), Stats., "farming" means the operation of farm premises owned or rented by the operator. "Farm premises" means areas used for operations herein set forth, but does not include other areas, greenhouses or other similar structures unless used principally for the production of food and farm plants.

Note: Section 102.04 (3), Stats., states that the operation of farm premises shall be deemed to be the planting and cultivating of the soil thereof; the raising and harvesting of agricultural, horticultural or arboricultural crops thereon; the raising, breeding, tending, training and management of livestock, bees, poultry, fur–bearing animals, wildlife or aquatic life, or their products, thereon; the processing, drying, packing, packaging, freezing, grading, storing, delivering to storage, to market or to a carrier for transportation to market, distributing directly to consumers or marketing any of the above-named commodities, substantially all of which have been planted or produced thereon; the clearing of such premises and the salvaging of timber and management and use of wood lots thereon, but not including logging, lumbering or wood cutting operations unless conducted as an accessory to other farming operations; the managing, conserving, improving and maintaining of such premises or the tools, equipment and improvements thereon and the exchange of labor, services or the exchange of use of equipment with other farmers in pursuing such activities.

(5) "Multifamily dwelling" has the meaning given in s. 101.01 (8m), Stats.

Note: Under s. 101.01 (8m), Stats., "multifamily dwelling" means "an apartment building, rowhouse, town house, condominium or modular home, as defined in s. 101.71 (6), that does not exceed 60 feet in height or 6 stories and that consists of 3 or more attached dwelling units, as defined in s. 101.61 (1), the initial construction of which is begun on or after January 1, 1993. 'Multifamily dwelling' does not include a facility licensed under ch. 50."

(6) "Municipality" means a city, village, town, or county in this state.

(7) "One- and 2- family dwellings" means any buildings that contain one or 2 dwelling units the construction of which commenced on or after December 1, 1978.

(8) "Place of employment" has the meaning given in s. 101.01 (11), Stats.

Note: Under s. 101.01 (11), Stats., "place of employment" includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by

Published under s. 35.93, Stats. Updated on the first day of each month. Entire code is always current. The Register date on each page is the date the chapter was last published.

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

another for direct or indirect gain or profit, but does not include any place where persons are employed in private domestic service which does not involve the use of mechanical power or in farming. "Farming" includes those activities specified in s. 102.04 (3), Stats., and also includes the transportation of farm products, supplies or equipment directly to the farm by the operator of said farm or employees for use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, "place of employment" does not include an adult family home, as defined in s. 50.01 (1), Stats., or, except for the purposes of s. 101.11, Stats., a previously constructed building used as a community-based residential facility, as defined in s. 50.01 (1g), Stats., which serves 20 or fewer residents who are not related to the operator or administrator.

(9) "Public building" has the meaning given in s. 101.01 (12), Stats.

Note: Under s. 101.01 (12), Stats., "public building" means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy or use by the public or by 3 or more tenants. When used in relation to building codes, "public building" does not include a previously constructed building used as a community-based residential facility as defined in s. 50.01 (1g), Stats., which serves 20 or fewer residents who are not related to the operator or administrator or an adult family home, as defined in s. 50.01 (1), Stats.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 8-1-18; correction in (5) made under s. 13.92 (4) (b) 7., Stats., Register June 2018 No. 750; correction in (5) made under s. 13.92 (4) (b) 7., Stats., Register November 2018 No. 755.

SPS 316.007 Adoption of standards by reference.

(1) PRIMARY STANDARDS. The following standards are incorporated by reference into this chapter, subject to the modifications specified in this chapter:

(a) Except as provided under par. (am), National Fire Protection Association (NFPA), One Batterymarch Park, Quincy, MA 02169-7471, telephone 800-344-3555, www.nfpa.org: NFPA 70 National Electrical Code, (NEC) – 2017.

Note: Copies of the standards are on file in the offices of the Department and the Legislative Reference Bureau. A copy of the code may be purchased from the organization listed or may be reviewed on the organization's website at no cost if the person is a registered user for the site.

(am) Prior to January 1, 2020, for all electrical wiring, installations, equipment, and materials used in the construction of one- and 2- family dwellings, National Fire Protection Association (NFPA), One Batterymarch Park, Quincy, MA 02169-7471, telephone 800-344-3555, www.nfpa.org: NFPA 70 National Electrical Code, (NEC) – 2011.

(b) If a requirement in the standards adopted in pars. (a) and (am) contain a cross-reference to another requirement modified by this chapter, the modification shall apply to the cross-reference unless specified otherwise in this chapter.

(2) SECONDARY REFERENCES. Any codes or standards referenced in the standards adopted in sub. (1) (a) and (am) shall apply to the prescribed extent of each such reference, except as modified by this chapter.

(3) ALTERNATE STANDARDS. Any alternate standard that is equivalent to or more stringent than a standard incorporated by reference or otherwise referenced under this chapter may be used in lieu of the incorporated or referenced standard if the alternate standard is accepted in writing by the department.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; am. (1), Register, March, 1994, No. 459, eff. 4-1-94; am. (1), Register, August, 1996, No. 488, eff. 9-1-96; r. and recr., Register, September, 1999, No. 525, eff. 10-1-99; CR 02-072: r. (1), renum. (2) to be Comm 16.12 and am. Register April 2003 No. 568, eff. 5-1-03; CR 05-010: am. Register August 2005 No. 596, eff. 9-1-05; CR 08-047: renum. from Comm 16.12 and am. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: r. and recr. Register November 2013 No. 695, eff. 12-1-13; CR 16-093: renum. from SPS 316.014 and am. (1) (intro.), (a), cr. (1) (am), am. (1) (b), (2) Register June 2018 No. 750, eff. 8-1-18.

Subchapter II — Administration and Enforcement

SPS 316.011 Administration.

(1) MUNICIPAL ADMINISTRATION. (a) *Jurisdiction conditions.* Pursuant to s. 101.86 (1), Stats., municipalities may exercise jurisdiction over the inspection of electrical wiring installations at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks provided the municipality complies with all of the following:

1. The municipality holds a registration issued by the department as an inspection agency for the purpose of issuing permits and inspecting electrical wiring at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks.

2. The municipality notifies the department at least 60 days prior to the date upon which the municipality intends to assume the jurisdiction.

3. The municipality provides the department with a copy of its electrical ordinances and subsequent revisions to the ordinances.

4. The municipality's ordinances adopt this chapter in its entirety.

5. The municipality employs or contracts with certified commercial electrical inspectors or independent inspection agencies to perform electrical inspection activities.

6. The municipality provides the department with the names of its certified commercial electrical inspectors and independent inspection agencies employed or contracted by the municipality, if applicable.

Note: Section 13.48 (13), Stats., exempts state buildings from local ordinances or regulations relating to building construction, permits, and similar restrictions.

Note: These provisions do not limit municipal authority to implement regulatory oversight for other electrical wiring installations at other locations not addressed under this section. The permitting and inspection of electrical wiring installations for the construction of new one- and 2- family dwellings are addressed under ch. SPS 320.

(b) *County.* Ordinances enacted by a county under this subsection establishing electrical inspection functions may not prevent or prohibit a municipality within that county from assuming those functions at any time.

Note: Pursuant to s. 101.86 (1) (a), Stats., a county ordinance shall apply in any city, village or town which has not enacted such an ordinance.

(c) *Relinquishing of jurisdiction.* A municipality shall notify the department, in writing, at least 60 days prior to the date upon which the municipality intends to relinquish jurisdiction responsibilities.

(2) DEPARTMENT ADMINISTRATION. (a) In municipalities not exercising jurisdiction under sub. (1), the department shall provide permit and inspection services for the installation of electrical wiring on farms and in public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks.

(b) Pursuant to ss. 101.02 (5) and (15) and 101.82 (2m), Stats., municipalities engaging in providing plan review, permit issuance, or inspections regarding electrical wiring under the scope of this chapter as a designated inspection agency may be monitored or audited by the department for compliance with administrative requirements of this chapter and s. SPS 305.627.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 8-1-18, except (1) (a) 1., eff. 3-1-19, and (2), eff. 1-1-20.

SPS 316.012 Permits.

(1) (a) Except for an electrical wiring project described in s. 101.875 (2), Stats., and as provided in par. (b), no electrical wiring project may commence unless the owner of the premises where the installation is to occur or their agent holds a permit from the designated inspection agency if the project involves the installation of new or an addition to any electrical service, feeder, or branch circuit serving any of the following:

1. A farm.

2. A public building, structure, or premises.

3. A place of employment.

4. A campground.

5. A manufactured home community.

6. A public marina, pier, dock, or wharf.

7. A recreational vehicle park.

(b) Under emergency conditions, the necessary electrical wiring may commence without obtaining a permit, provided the owner of the premises where the installation is to occur or their agent submits a permit application to the inspection agency designated by the department to provide electrical inspections for the installation no later than the next business day after commencement of the installation.

(2) The application for a permit required under sub. (1) shall contain all of the following information:

(a) The name of the applicant.

(b) The name of the building or property owner.

(c) The location of the electrical wiring installation.

(d) The scope and extent of the electrical wiring installation.

(e) 1. The name of the person responsible for the installation.

2. The name and license number of the master electrician, residential master electrician, or registered master electrician under s. SPS 305.437 responsible for the installation, unless exempted under s. 101.862 (4), Stats.

(3) (a) The issuing inspection agency shall indicate on the electrical permit the date of issuance.

(b) A permit required under sub. (1) shall expire 12 months after the date of issuance, if installation of the electrical wiring has not commenced.

History: CR 16-093: cr. Register June 2018 No. 750, eff.1-1-20.

SPS 316.013 Inspections. (1) Except as provided under s. 101.875 (2), Stats., electrical wiring installations shall be subject to inspection.

Note: See s. SPS 320.10 regarding the inspections for the construction of new one- and 2- family dwellings.

(2) Inspections of electrical wiring installations described under s. SPS 316.012 (1) (a) shall be conducted by a certified commercial electrical inspector.

Note: See s. SPS 305.62 for certification provisions for commercial electrical inspectors.

(3) (a) The building owner or their agent shall notify the inspection agency designated by the department to provide electrical inspections when the electrical wiring installation is ready for inspection.

(b) Except as provided in par. (c), to facilitate inspection all of the following shall apply:

1. Electrical wiring shall remain accessible and exposed for inspection purposes.

2. Electrical wiring may not be energized.

(c) 1. The concealment or energizing of electrical wiring, other than an electrical service, may proceed if inspection has not been completed within 2 business days after notification is received or as otherwise agreed between the wiring installer and the designated inspection agency providing the inspection.

2. The notification that an electrical wiring installation is ready for final inspection shall be made to indicate when all electrical fixtures, outlets and face plates are in place and the installation or that portion of the installation is energized.

(d) 1. If upon inspection, it is found that the installation is in compliance with this chapter, the certified inspector shall approve the installation prior to concealment or energizing of the electrical wiring.

2. If upon inspection, it is found that the installation is incomplete or not in compliance with this chapter, orders to correct shall be issued. An order may include the condition that the electrical wiring is to remain unconcealed and non-energized until reinspected.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 1-1-20.

SPS 316.014 Penalties. Penalties for violations of this chapter shall be assessed in accordance with s. 101.02 (12) and (13), or s. 101.88 (3), Stats.

Note: Section 101.02 (13) (a), Stats., indicates penalties will be assessed against any employer, employee, owner or other person who fails or refuses to perform any duty lawfully enjoined, within the time prescribed by the department, for which no penalty has been specifically provided, or who fails, neglects or refuses to comply with any lawful order made by the department, or any judgment or decree made by any court in connection with ss. 101.01 to 101.599, Stats. For each violation, failure or refusal, the employee, owner or other person must forfeit and pay into the state treasury a sum not less than $10 nor more than $100 for each violation.

Note: Section 101.02 (12), Stats., indicates that every day during which any person, persons, corporation or any officer, agent or employee thereof, fails to observe and comply with an order of the department will constitute a separate and distinct violation of such order.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; am., Register, September, 1999, No. 525, eff. 10-1-99; CR 08-047: renum. from Comm 16.06 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.006 Register June 2018 No. 750, eff. 8-1-18.

SPS 316.015 Appeals. (1) APPEAL OF LOCAL ORDER. Any person affected by a local order which may be in conflict with a provision of this chapter may petition the department for a hearing on the grounds that the local order is unreasonable and in conflict with the provision of this chapter. All appeals shall be acted on and a decision in writing shall be issued by the department within 30 business days of receiving an appeal.

Note: Section 101.01 (l) (f), Stats., defines "local order" as any ordinance, order, rule or determination of any common council, board of aldermen, board of trustees or the village board, of any village or city, or the board of health of any municipality, or an order or direction of any official of such municipality, upon any matter over which the department has jurisdiction.

(2) PETITION OF ADMINISTRATIVE RULE. Pursuant to s. 227.12, Stats., any municipality, corporation or any 5 or more persons having an interest in an administrative rule may petition the department requesting the adoption, amendment or repeal of the rule.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 08-047: renum. from Comm 16.07 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.008 Register June 2018 No. 750, eff. 8-1-18.

SPS 316.016 Electrical plan review. Upon request, the department may perform electrical plan review for dwellings, public buildings, places of employment and electrical services.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.930 Register June 2018 No. 750, eff. 8-1-18.

SPS 316.017 Technical assistance. The department shall provide technical assistance to the extent possible with the available resources to any person, upon written request, regarding interpretation and application of this chapter. The technical assistance may consist of telephone, written, in-office or on-site review of specific problems.

History: Cr. Register, September, 1999, No. 525, eff. 10-1-99; CR 08-047: renum. from Comm 16.67 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.960 Register June 2018 No. 750, eff. 8-1-18.

Subchapter III — General Requirements

SPS 316.020 Construction and operation. (1) GENERAL. All electrical power and communication equipment and lines shall be constructed, installed, operated, and maintained so as to minimize hazards to life and property. All electrical installations shall conform to the National Electrical Code, incorporated by reference in this chapter, and the requirements specified in this chapter.

Note: The federal and state Fair Housing Acts, the federal Americans with Disabilities Act, and the Wisconsin Commercial Building Code under chs. SPS 361 to

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

366 contain requirements relating to making buildings accessible to and usable by people with disabilities. Some of those requirements apply to the installation of various electrical devices. For example, in the federal Fair Housing Accessibility Guidelines, devices such as light switches, electrical outlets, thermostats and other environmental controls would meet the requirements if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach; or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Complete copies of the federal Fair Housing Accessibility Guidelines or the federal Americans with Disabilities Act Accessibility Guidelines can be obtained from the Superintendent of Documents, New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954.

(2) INSTALLATIONS OVER 600 VOLTS. Installations over 600 volts shall, in addition to the requirements of this chapter, comply with ch. PSC 114.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 08-047: renum. from Comm 16.08 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.009 and am. (1) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.021 Maintenance. All electrical wiring installations and equipment shall be cleaned and inspected at intervals as experience has shown to be necessary. Any equipment or electrical wiring installation known to be defective so as to endanger life or property shall be promptly repaired, permanently disconnected or isolated until repairs can be made.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 08-047: renum. from Comm 16.09 Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.010 and am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.022 Use of approved materials and construction methods. (1) MATERIALS. Materials, equipment, and products that do not comply with the requirements of this chapter shall not be used unless approved in writing by the department in an approval of a petition for variance. Approval of materials, equipment, and products shall be based on sufficient data, tests, and other evidence that prove the material, equipment, or product meets the intent of the requirements of this chapter. Data, tests, and other evidence shall be provided by a qualified independent third party.

Note: Examples of a qualified independent third party include a nationally recognized testing laboratory and a professional engineer.

(2) METHODS OF INSTALLATION. Methods of installation that do not comply with the regulations of this chapter shall not be used unless approved in writing by the department in an approval of a petition for variance.

(3) NEW PRODUCTS, CONSTRUCTIONS OR MATERIALS. The incorporated *National Electrical Code*® may require new products, constructions, or materials that may not be available at the time this chapter is adopted. In such event, the department may permit the use of the products, constructions or materials which comply with a previous edition of the *National Electrical Code*®.

History: Cr. Register, October, 1990, No. 418, eff. 11-1-90; CR 02-072: r. and recr. (1) Register April 2003 No. 568, eff. 5-1-03; CR 08-047: renum. from Comm 16.11 Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (1) to (3) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: renum. from SPS 316.012 and am. (1), (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.023 Electric fences. The following are department rules in addition to the requirements of the *NEC*®:

(1) ELECTRIC FENCE CONTROLLERS. (a) Electric fence controllers shall be of a type listed by a nationally recognized testing laboratory.

(b) Electric fence controllers shall be installed and used in the exact manner and for the exact purpose indicated by the manufacturer's instructions, markings, listings or labels.

(2) GROUNDING. Electric fence controllers shall be grounded as specified in NEC 250, except that where stray voltages in dairy barns or milking parlors create physical problems to the animals, the use of a single made electrode shall be permitted.

(3) EXCEPTION. Subsections (1) and (2) do not apply to electric fence controllers designed and manufactured for the purpose of controlling humans.

Note: Under s. 101.18, Stats., the Department is responsible for establishing "…reasonable standards, rules or regulations for the erection, construction, repair and maintenance of electric fences as shall render them safe."

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.013, cr. (3) Register June 2018 No. 750, eff. 8-1-18.

Subchapter IV — Changes, Additions or Omissions to the *NEC*®

SPS 316.080 Changes, additions or omissions to *NEC*®. Changes, additions or omissions to the *National Electrical Code*® (*NEC*®) are specified in this subchapter and are rules of the department and not requirements of the *NEC*®.

Note: The referenced *NEC*® article or section number will correspond with the SPS designation number and title and will precede the text of the rule. Example: SPS 316.100 [NEC 100].

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 16-093: renum. from SPS 316.015 Register June 2018 No. 750, eff. 8-1-18.

SPS 316.090 Introduction. The requirements specified in 2011 and 2017 NEC 90.1, NEC 90.2, and NEC 90.4 are not included as part of this chapter.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.100 Definitions. (1) ADDITIONS. The following are department definitions in addition to the definitions in NEC 100:

(a) "Floors" means stories as specified in chs. SPS 361 to 366.

(b) "Nonrated construction" means Types III, IV and V construction in accordance with chs. SPS 361 to 366 and is considered to be nonfire-rated for the purposes of this chapter.

(c) "Private sewage system" has the meaning specified under s. 145.01 (12), Stats.

Note: Under s. 145.01 (12), Stats., "private sewage system" means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the department including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private sewage system may be owned by the property owner or a special purpose district.

(2) SUBSTITUTIONS. The following department definition is a substitution for the respective definition in 2011 and 2017 NEC 100: "Special permission"means a petition for variance in accordance with s. SPS 316.005.

Note: See chs. SPS 361 to 366 for fire-resistance standards.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (1) (a), (b), (c), (2) (b) made under s. 13.92 (4) (b) 6., 7., Stats., Register December 2011 No. 672; CR 16-093: r. (1) (a), renum. (1) (b) to (d) to (1) (a) to (c), (2) (intro.), (b) consolidated and renum. to (2) and am., r. (2) (a) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.110 Examination, identification, installation, use, and listing of equipment. (1) Substitute the following wording for the requirements in 2011 NEC 110.3 (B): Listed or labeled equipment shall be installed or used, or both, in accordance with any instructions included in the listing or labeling, provided the instructions, listing, or labeling do not conflict with this chapter.

(2) This is a department exception to the requirements of 2017 NEC 110.3 (C): Exception: As provided under s. SPS 316.022 (1), product testing and evaluation may be conducted by a qualified independent third party, including a nationally recognized testing laboratory or a professional engineer.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. Register November 2013 No. 695, eff. 12-1-13; CR 16-093: r. and recr. Register June 2018 No. 750, eff. 8-1-18; correction in numbering made under s. 13.92 (4) (b) 1. Register June 2018 No. 750.

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

SPS 316.210 Branch circuits. (1) GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. (a) The requirements in 2017 NEC 210.8 (A) (7) do not apply to sinks located in kitchens.

(b) The requirements in 2017 NEC 210.8 (A) (9) and (10) are not included as part of this chapter.

(c) Substitute the following wording for 2017 NEC 210.8 (B): All 125-volt, single-phase, 15- and 20-ampre receptacles installed in the following locations shall have ground-fault circuit interrupter protection for personnel.

(d) This is a department exception to the requirements in 2011 NEC 210.8 (A) and 2017 NEC 210.8 (A) and (B): Exception: Ground-fault circuit-interrupter protection shall not be required for a single receptacle providing power for sump, sewage, or condensate pumps where an accessible ground-fault circuit-interrupter protected receptacle is located within 900 mm (3 ft) of the non-GFCI protected receptacle.

(2) BRANCH CIRCUITS REQUIRED. (a) This is a department rule in addition to the requirements of 2011 NEC 210.11: Where an air conditioner sleeve is provided in a building wall, a receptacle outlet shall be located within 4 feet of the sleeve. If a circuit is not run to the outlet, a raceway shall be provided. When the air conditioner is installed in the sleeve, it shall be supplied by an individual branch circuit. A receptacle outlet installed for an air conditioner may not be counted as one of the receptacles required by NEC 210.52 (A).

(b) The requirements in 2017 NEC 210.11 (C) (4) are not included as part of this chapter.

(3) ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION. The requirements in 2017 NEC 210.12 (A) do not apply to kitchens.

(4) BRANCH CIRCUIT EXTENSIONS OR MODIFICATIONS — DWELLING UNITS AND DORMITORY UNITS. The requirements in 2011 NEC 210.12 (B) and 2017 NEC 210.12 (D) are not included as part of this chapter.

(5) LIGHTING OUTLETS REQUIRED. Substitute the following wording for 2011 NEC 210.70 (A) (1): At least one wall switch-controlled lighting outlet shall be installed in every habitable room, kitchen, and bathroom.

(6) COUNTERTOP RECEPTACLES. The requirements in 2011 NEC 210.52 (A) (4) are not included as part of this chapter.

(7) GARAGES. Substitute the following wording for 2017 NEC 210.52 (G) (1): In each attached garage and in each detached garage with electric power.

(8) MEETING ROOMS. The requirements in 2017 NEC 210.71 do not apply to this chapter.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: r. (2) (a), (c), renum. (2) (b) to (2), r. and recr. (4), renum. (6) to (5), cr. (6) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: r. and recr. (1) to (6), cr. (7), (8) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.220 Branch-circuit, feeder and service calculations. (1) GENERAL. This is a department exception to the requirements in 2011 NEC 220.10: Circuit load calculations may use unit load values lower than those identified in NEC Table 220.12 for lighting loads calculated using the maximum electrical energy conservation values specified under ch. SPS 363 for public buildings and places of employment.

(2) EXCEPTION. This is a department exception to the requirements in 2011 and 2017 NEC 220.40: Exception: Under the supervision of a Wisconsin professional engineer, architect or designer of electrical systems, the feeder or service size may be computed using diversity factors or historical data of a similar type of building, other than one- and 2-family dwelling units.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: r. and recr. (1) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1), (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.225 Outside branch circuits and feeders. (1) CLEARANCES FROM BUILDINGS FOR CONDUCTORS NOT OVER 600 VOLTS. Substitute the following wording for 2011 NEC 225.19 (A) Exception No. 4: The requirement for maintaining the vertical clearance 3 feet from the edge of the roof does not apply to the final conductor span to the building.

(2) NUMBER OF SUPPLIES. The following are department rules in addition to the requirements in 2011 and 2017 NEC 225.30:

(a) For the purpose of this section, multiple feeders that are supplied from the same distribution point, having a total rating of 300 amperes or more, and that supply not more than 6 disconnecting means grouped at the same location shall be considered as one supply.

(b) Multi-occupancy buildings or structures may have one set of branch circuit conductors installed from a dwelling unit to the second building or structure's respective occupied space.

(3) LOCATION. This is a department rule in addition to the requirements of 2011 and 2017 NEC 225.32: The building disconnect required by NEC 225.31 shall be located in accordance with s. SPS 316.230 (3).

Note: See ch. PSC 114 regarding clearances of conductors of over 600 volts and for prohibition of constructing dwellings under or near overhead lines.

(4) CLEARANCES OVER ROADWAYS, WALKWAYS, RAIL, WATER AND OPEN LAND. Substitute the following wording for the note to 2011 and 2017 NEC 225.60 (C): Note: For clearances of conductors of over 600 volts, see ch. PSC 114.

(6) CLEARANCES OVER BUILDINGS AND OTHER STRUCTURES. Substitute the following wording for the note to 2011 and 2017 NEC 225.61 (B): Note: See ch. PSC 114 regarding clearances of conductors of over 600 volts and for prohibition of constructing dwellings under or near overhead lines.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (4) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 13-042: r. (1), renum. (2) to (5) to (1) to (4) and am. (2) (a) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1), (2) (intro.), (3), (4), (6) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.230 Services. (1) NUMBER OF SERVICES. (a) This is a department informational note to be used under 2011 and 2017 NEC 230.2 (intro.): Note: It is recommended that the electric utility or cooperative supplying electric current be contacted prior to service equipment installations for any special requirements.

(b) Substitute the following wording for NEC 230.2 (B) (2): Two or more service drops or laterals for the same class of service if located more than 150 feet apart, measured in a straight line, and provided that all electrical wiring supplied by each service has no common raceway or connection with any other service.

(c) This is a department rule in addition to the requirements of 2011 NEC 230.2 (B): For a building which is not more than 3 stories in height and which contains only 3 or more attached, vertically separated, side-by-side, or back-to-back dwelling units, with each dwelling unit served by an individual exterior exit within 6 feet of the exit discharge grade, a separate service drop or lateral shall be permitted for each 2 attached units.

(2) NUMBER OF SERVICE-ENTRANCE CONDUCTOR SETS. The requirements specified in 2011 and 2017 NEC 230.40 Exception No. 3 are not included as part of this chapter.

(3) SERVICE EQUIPMENT — DISCONNECTING MEANS. (a) *General.* This is a department rule in addition to the requirements of 2011 and 2017 NEC 230.70: Disconnecting means shall be provided to disconnect the utility wiring from the

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

premises wiring at any point where utility wiring terminates and premises wiring extends overhead or underground to more than one building or structure.

(b) *Location.* This is a department rule in addition to the requirements of 2011 and 2017 NEC 230.70 (A): Raceways containing service conductors or cables, or service entrance cable not contained within a raceway, may not extend longer than 8 feet into a building to the service disconnect or the first service disconnect of a group of disconnects as permitted by NEC 230.71. The raceways or conductors shall be considered to have entered the building at the point where they pass through the outer surface of the building exterior, except as permitted by NEC 230.6.

(4) RATING OF SERVICE DISCONNECTING MEANS – 2011 NEC. This is a department rule in addition to the requirements of 2011 NEC 230.79:

(a) *Two- or multi-family dwellings.* Except as provided in par. (b), for 2-family or multi-family dwellings, the service equipment shall have a rating of not less than 150 amperes, 3-wire or 4-wire. Where the combined rating of all service disconnecting means is 150 amperes or larger, the service or feeder equipment rating for each dwelling unit shall have a rating of not less than 60 amperes.

(b) *Exception.* Service equipment having a rating of not less than 100 amperes, 3-wire or 4-wire, may be installed in an existing 2-family dwelling only where both of the following conditions are complied with:

1. The load computed in accordance with NEC 220 does not exceed 80 amperes.

2. Specific written approval is granted by the municipal inspection department having jurisdiction.

(5) RATING OF SERVICE DISCONNECTING MEANS — 2017 NEC. This is a department rule in addition to the requirements of 2017 NEC 230.79: For 2-family or multi-family dwellings, the service equipment shall have a rating of not less than 150 amperes, 3-wire or 4-wire.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: renum. (3) to (3) (b) and am. (3) (b) (title), renum. (4) to (3) (a) and am. (3) (title), (3) (a) (title), renum. (5) to (4) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1) (a) (intro.), (c), (2), (3) (a), (b), (4) (intro.), cr. (5) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.240 Overcurrent protection. The requirements in 2017 NEC 240.67 do not apply to this chapter.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.250 Grounding and bonding. (1) SUPPLEMENTAL ELECTRODE REQUIRED. The exception in 2011 and 2017 NEC 250.53 (A) (2) is not included as part of this chapter.

(2) SUPPLEMENTAL ELECTRODE. This is a department rule in addition to the requirements in 2011 and 2017 NEC 250.53 (A) (3): A single electrode consisting of a rod, pipe or plate shall be augmented by one additional electrode of any of the types in NEC 250.52 (A) (4) to (A) (8).

(3) TYPES OF EQUIPMENT GROUNDING CONDUCTORS. This is a department rule in addition to the requirements of 2017 NEC 250.118: A metallic raceway installed in direct contact with earth, in concrete slabs or floors poured on earth, or in exterior concrete walls below grade shall be augmented with a supplemental equipment grounding conductor identified in NEC 250.118 (1). This supplemental conductor shall be sized in accordance with NEC 250.122. An aluminum equipment grounding conductor used for this purpose shall be insulated.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: r. and recr. Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1), (2), cr. (3) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.300 Wiring methods. (1) ELECTRICAL REQUIREMENTS FOR PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS. These department rules apply to private onsite wastewater treatment systems and are in addition to the requirements of 2011 and 2017 NEC 300:

(a) *Wiring methods.* All effluent pump circuit wiring shall comply with the approved wiring methods as specified in NEC 300 and all of the following requirements:

1. Effluent pumps shall be supplied by a separate branch circuit supplying no other loads.

2. Alarm wiring may not be connected to the pump circuit.

3. All aboveground cables and flexible cords shall be enclosed to protect against physical damage.

4. The neutral conductor may not be common to both alarm and pump circuits.

5. Where the wiring enclosure for the alarm and pump circuit is located outside the pump chamber, any openings into the pump chamber for circuit wiring shall be sealed or plugged to prevent the passage of gas or vapor into the wiring enclosure.

Note: This prohibits use of a multi-wire branch circuit to supply both the alarm and pump.

Note: See NEC 430.102 for location of disconnects.

(b) *Ground-fault circuit protection.* A single receptacle located at the pump chamber that has an alarm or pump connected to it does not require ground-fault circuit-interrupter protection.

(2) PROTECTION AGAINST PHYSICAL DAMAGE. (a) The requirements specified in 2011 NEC 300.4 (D) are not included as part of this chapter.

(b) This is a department exception in addition to the exceptions under 2017 NEC 300.4 (D): Exception No. 4: This distance does not need to be maintained within 8 inches of a device, junction box, splice, or termination point.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09: CR 13-042: cr. (1) (a) 5. Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1) (title), (intro.), renum. (2) to (2) (a) and am., cr. (2) (b) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.310 Conductors for general wiring. (1) This is a department rule in addition to the requirements in 2011 NEC 310.15 (B) (3) (a): The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit except under the following conditions: Exception No. 6: The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit except under the following conditions:

(a) Where more than two NM cables containing two or more current-carrying conductors are installed, without maintaining spacing between the cables, through the same opening in wood framing that is to be fire- or draft-stopped using thermal insulation, caulk or sealing foam, the allowable ampacity of each conductor shall be adjusted in accordance with Table 310.15 (B) (3) (a) and the provisions of 310.15 (A) (2) shall not apply.

(b) Where more than two NM cables containing two or more current-carrying conductors are installed in contact with thermal insulation without maintaining spacing between cables, the allowable ampacity of each conductor shall be adjusted in accordance with Table 310.15 (B) (3) (a).

(2) This is a department rule in addition to the requirements in 2017 NEC 310.15 (B) (3) (a): The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title), (intro.) Register November 2013 No. 695, eff. 12-1-13; corrections in (intro.), (1), (2) under s. 13.92 (4) (b) 7. Register November 2013 No. 695; CR 16-093: renum. (intro.) to (1) (intro.), cr. (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.312 Cabinets, cutout boxes and meter socket enclosures. (1) CABLES. Substitute the following wording for 2011 and 2017 NEC 312.5 (C) Exception (intro.):

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

Exception: Cables with entirely nonmetallic sheaths may enter an enclosure through one or more nonflexible raceways of not less than 12 inches and not more than 10 feet in length, provided all of the following conditions are met:

(2) OMISSION. The requirements specified in 2011 NEC 312.5 (C) Exception paragraph (b) and 2017 NEC 312.5 (C) Exception number 2 are not included as part of this chapter.

(3) FITTING. Substitute the following wording for 2011 NEC 312.5 (C) Exception paragraph (c) and 2017 NEC 312.5 (C) Exception number 3: A fitting is provided on each end of the raceway to protect the cable from abrasion.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.314 Outlet, device, pull and junction boxes; conduit bodies; fittings; and handhole enclosures. (1) CONDUCTORS ENTERING BOXES, CONDUIT BODIES, OR FITTINGS. This is a department exception to the requirements of 2011 and 2017 NEC 314.17 (B) and (C): Exception: Nonmetallic sheathed cable is not required to be secured to the box or conduit body where it is installed in accordance with the wiring method specified in s. SPS 316.312.

(2) OUTLET BOXES. This is a department rule in addition to the requirements of 2011 NEC 314.27 (A): In a dwelling unit, a ceiling outlet box installed for use as a lighting fixture outlet in a habitable room or kitchen and located where a ceiling fan could be installed shall be a type listed for ceiling fan support.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 13-042: am. (title) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.334 Nonmetallic-sheathed cable: Types NM, NMC and NMS. (1) USES PERMITTED. Substitute the following wording for 2011 and 2017 NEC 334.10 (3): Other structures permitted to be of Types III, IV, and V construction except as prohibited in NEC 334.12.

(2) TYPES NM, NMC, AND NMS. The requirements specified in 2011 and 2017 NEC 334.12 (A) (2) are not included as part of this chapter.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (2) (title) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.358 Uses permitted. This is a department rule in addition to the requirements of 2011 and 2017 NEC 358.12: Electrical metallic tubing may not be used in direct contact with earth, in concrete slabs or floors poured on earth, or in exterior concrete walls below grade.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.400 Flexible cords and cables. (1) This is a department exception in addition to the exception in 2011 NEC 400.8 (4): Exception No. 2: Flexible cords and cables permitted by NEC 400.7 (A) that are connected to sources other than busways may be attached to adequately supported equipment or building surfaces provided the type of cord or cable, the attachment to the building and equipment, and the support comply with the provisions of NEC 368.56 (B).

(2) This is a department exception in addition to the exception in 2017 NEC 400.12 (4): Exception No. 2: Flexible cords and cables permitted by NEC 400.10 (A) that are connected to sources other than busways may be attached to adequately supported equipment or building surfaces provided the type of cord or cable, the attachment to the building and equipment, and the support comply with the provisions of NEC 368.56 (B).

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: renum. SPS 316.400 to (1) and am., cr. (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.404 Switches controlling lighting loads. The requirements in 2017 NEC 404.2 (C) do not apply to dwelling units.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.406 Receptacles, cord connectors and attachment plugs (caps). (1) The requirements in 2011 and 2017 NEC 406.4 (D) (4) are not included as part of this chapter.

(2) Substitute the following wording for 2017 NEC 406.9 (B) (1): Receptacles of 15 and 20 amperes, 125 and 250 volts installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: Register November 2013 No. 695, eff. 12-1-13; CR 16-093: renum. SPS 316.406 to (1) and am., cr. (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.450 Transformers and transformer vaults (including secondary ties). (1) OVERCURRENT PROTECTION. This is a department rule in addition to the requirements in 2011 and 2017 NEC Table 450.3 (A) Note 3: The qualified person shall be either an employee at that location or an employee contracted for this purpose who is readily available.

(2) LOCATION. Substitute the following wording for 2011 and 2017 NEC 450.41: Vaults containing oil-insulated transformers shall be located where the vaults can be ventilated to the outside air without using flues or ducts, except where a petition for variance is approved.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title), (1) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.511 Commercial garages, repair and storage. (1) The requirements specified in 2011 NEC 511.3 (C) (1) (a) are not included as part of this chapter.

(2) Substitute the following wording for 2011 NEC 511.3 (C) (2) (a): The ceiling area shall be unclassified where ventilation is provided from a point not more than 18 inches from the highest point in the ceiling. The ventilation shall conform to chs. SPS 361 to 366.

Note: The Commercial Building Code, chapters SPS 361 to 366, adopts and references the International Mechanical Code, IMC, for the design of ventilation systems. The adopted provisions of the International Mechanical Code under section 502.16 prescribe provisions for repair garages for natural gas- and hydrogen- fueled vehicles.

(3) Substitute the following wording for "Extent of Classified Location" in 2017 NEC Table 511.3 (C) under which the floor area of a major repair garage is considered unclassified: Up to 450 mm (18 in.) above floor level of the room where the room is provided with ventilation from a point not more than 300 mm (12 in.) from the lowest point of the floor area and the ventilation conforms to chs. SPS 361 to 366.

(4) Substitute the following wording for "Extent of Classified Location" in 2017 NEC Table 511.3 (D) under which the ceiling area of a major repair garage is considered unclassified: Within 450 mm (18 in.) of ceiling where ventilation is provided from a point not more than 450 mm (18 in.) from the highest point in the ceiling and the ventilation conforms to chs. SPS 361 to 366.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: renum. SPS 316.511 to (1) and am. (title) and (1), cr. (2) Register November 2013 No. 695, eff. 12-1-13; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register November 2013 No. 695; CR 16-093: am. (1), (2), cr. (3), (4) Register June 2018 No. 750, eff 8-1-18.

SPS 316.547 Agricultural buildings. This is a department exception to the requirements in 2011 and 2017 NEC 547.5 (G): Exception: Ground-fault circuit-interrupter protection is not required for a single receptacle providing power for an electric

Published under s. 35.93, Stats. Updated on the first day of each month. Entire code is always current. The Register date on each page is the date the chapter was last published.

Published under s. 35.93, Wis. Stats., by the Legislative Reference Bureau.

fence controller used for livestock containment where an accessible ground-fault circuit-interrupter protected receptacle is located within 900 mm (3 ft) of the non-GFCI protected receptacle.

History: CR 13-042: cr. Register November 2013 No. 695, eff. 12-1-13; CR 16-03: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.551 Recreational vehicles and recreational vehicle parks. Substitute the following wording for 2017 NEC 551.71 (C): A minimum of 20 percent of existing and 40 percent of all new recreational vehicle sites, with electrical supply, shall each be equipped with a 50-ampre, 125/250-volt receptacle conforming to the configuration as identified in Figure 551.46 (C) (1). These electrical supplies shall be permitted to include additional receptacles that have configurations in accordance with 551.81.

History: CR 16-093: cr. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.620 Elevators, dumbwaiters, escalators, moving walks, platform lifts and stairway chairlifts. This is a department exception to the requirements in 2011 and 2017 NEC 620: Exception: Wherever NEC 620 requires disconnecting means with overcurrent protection to be located in an elevator machine room, control room, machinery space or control space and the elevator does not have such a room or space directly accessible from a building floor level, such devices shall be located instead in lockable cabinets or electrical rooms accessible only to qualified persons.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title) Register November 2013 No. 695, eff. 12-1-13; CR 14-020: renum. 316.620 to (2), cr. (1) Register August 2014 No. 704, eff. 9-1-14; CR 16-093: renum. (1) to SPS 316.620 and am., r. (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.675 Electrically driven or controlled irrigation machines. (1) This is a department rule in addition to the requirements in 2011 NEC 675.8: A service disconnecting means with overcurrent protection shall be provided at the service point in accordance with NEC 230 subchapter VI.

(2) This is a department rule in addition to the requirements in 2017 NEC 675.8: A service disconnecting means with overcurrent protection shall be provided at the service point in accordance with NEC 230 Part VI.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. Register November 2013 No. 695, eff. 12-1-13; CR 16-093: renum. SPS 316.675 to (1) and am., cr. (2) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.680 Swimming pools, fountains and similar installations. (1) PERIMETER SURFACES. This is a department rule in addition to the requirements of 2011 NEC 680.26 (B) (2): The requirements specified in NEC 680.26 (B) (2) do not apply to a listed self-contained spa or hot tub constructed with nonmetallic walls.

(2) POOL WATER. This is a department rule in addition to the requirements of 2011 NEC 680.26 (C): The requirements specified in NEC 680.26 (C) do not apply to a listed self-contained spa or hot tub constructed with nonmetallic walls.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (title) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

SPS 316.700 Emergency systems. (1) WIRING, EMERGENCY SYSTEM. This is a department rule in addition to the requirements of 2011 and 2017 NEC 700.10 (B):

(a) Except as provided in par. (b), emergency circuit wiring shall be listed raceways, Type AC cable or Type MC cable.

(b) Emergency lighting fixtures may use flexible cord connections in compliance with NEC 410.62 (C) for electric discharge luminaries.

(2) GENERAL REQUIREMENTS. This is a department rule in addition to the requirements in 2011 and 2017 NEC 700.12 (intro.): The enclosure of the alternate source of power located outdoors for emergency systems shall be located at least 10 feet horizontally from any combustible portion of a Type III, Type IV, or Type V building and at least 20 feet from an outdoor electrical transformer, electrical metering, service equipment, or normal power distribution equipment. These dimensions may be reduced where a noncombustible barrier is installed that extends at least 3 feet beyond each side of the alternate power source and transformer. The height of the barrier shall be at least one foot above the top of the transformer, electrical metering, service equipment, or alternate power source, whichever is higher.

(3) GENERAL REQUIREMENTS, DUAL SUPPLIES. The requirements in 2011 and 2017 NEC 700.12 (B) (3) are not included as part of this chapter.

Note: See chs. SPS 361 to 366 for further requirements.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; CR 13-042: am. (1) (intro.), (3) Register November 2013 No. 695, eff. 12-1-13; CR 16-093: am. (1) (intro.), (2), (3) Register June 2018 No. 750, eff. 8-1-18.

SPS 316.701 Legally required standby systems. (1) ADDITION. This is a department rule in addition to the requirements in 2011 and 2017 NEC 701.12 (intro.): The enclosure of the alternate source of power located outdoors for legally required standby systems shall be located at least 10 feet horizontally from any combustible portion of a Type III, Type IV, or Type V building and at least 20 feet from an outdoor electrical transformer, electrical metering, service equipment, or normal power distribution equipment. These dimensions may be reduced where a noncombustible barrier is installed that extends at least 3 feet beyond each side of the alternate power source and transformer. The height of the barrier shall be at least one foot above the top of the transformer, electrical metering, service equipment, or alternate power source, whichever is higher.

(2) DELETION. The requirements specified in 2011 and 2017 NEC 701.12 (B) (3) are not included as part of this chapter.

Note: See chs. SPS 361 to 366 for further requirements.

History: CR 08-047: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638; corrections in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register November 2013 No. 695; CR 16-093: am. Register June 2018 No. 750, eff. 8-1-18.

Published under s. 35.93, Stats. Updated on the first day of each month. Entire code is always current. The Register date on each page is the date the chapter was last published.