

WISCONSIN LEGISLATIVE COUNCIL STAFF

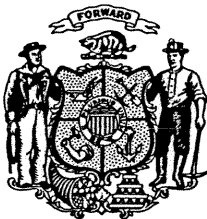
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FORM 2

APR 14 1999

RULES CLEARINGHOUSE

Ronald Sklansky
Director
(608) 266-1946

Richard Sweet
Assistant Director
(608) 266-2982



David J. Stute, Director
Legislative Council Staff
(608) 266-1304

One E. Main St., Ste. 401
P.O. Box 2536
Madison, WI 53701-2536
FAX: (608) 266-3830

CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE 99-050

AN ORDER to repeal Comm 16.04 (3), 16.25 (3) and (7) (a), 16.28 (2) and (3), 16.325, 16.37, 16.40, 16.42 (3), 16.45 (1) and (2) (c) and 16.47 and chapter Comm 17; to renumber and amend Comm 16.26 and 16.27; to amend chapter Comm 16 (title), 16.01 (2) Note, 16.04 (2), 16.06, 16.10, 16.25 (1) (b) and (c), (4) (intro.) and (a) and (7) (intro.), 16.355, 16.42 (title), (1) and (2) and 16.44; to repeal and recreate Comm 16.12 and 16.30; and to create Comm 16.02 (1) (f), 16.06 Note 3, 16.065, 16.17 (1) (c), 16.20, 16.24 (3) and (4), 16.28 (1) (d) Note 2, 16.43, 16.435 and 16.437, Table 16.46 item 12m and subchapter IV of chapter Comm 16, relating to electrical construction and inspection.

Submitted by **DEPARTMENT OF COMMERCE**

03-15-99 RECEIVED BY LEGISLATIVE COUNCIL.

04-09-99 REPORT SENT TO AGENCY.

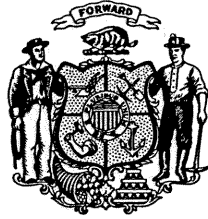
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CLEARINGHOUSE RULE 99-050

Comments

[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated September 1998.]

2. Form, Style and Placement in Administrative Code

In SECTION 1 of the rule, the word "title" in the treatment clause should be in parentheses. In addition, the title "Chapter Comm 16" should be in all capital letters.

4. Adequacy of References to Related Statutes, Rules and Forms

A reader might surmise, given the notes to s. Comm 16.63 (8), that s. 102.04 (3), Stats., is applicable to the interpretation of sub. (8). However, that is not clear from the substantive provision of sub. (8). Is s. 102.04 (3), Stats., applicable to sub. (8)? If so, an appropriate cross-reference should be included in sub. (8).

5. Clarity, Grammar, Punctuation and Use of Plain Language

a. In s. Comm 16.63 (9), does a sole proprietor have to have an employe, or is the proprietor considered the employe? The rule should be clarified.

b. In s. Comm 16.64 (2) (a) 6., who are considered "new" inspectors? To what point in time does "new" refer? The rule should be clarified. [See s. 1.01 (9) (b), Manual.]

c. In s. Comm 16.65 (3) (b), independent inspection agencies must provide inspections “as required by the department.” Where and how are they “required”? In another rule provision? In separate orders from the department? The rule should be clarified.

d. In s. Comm 16.65 (4) (a) 2., is the rule intended to be limited only to “YMCA and YWCA” buildings? Does this imply that other shelter facilities that provide overnight accommodations are not covered?

The Department of Commerce proposes an order to repeal Comm 16.04(3), Comm 16.25(3), Comm 16.25(7)(a), Comm 16.28(2) and (3), Comm 16.325, Comm 16.37 and 16.40, Comm 16.42(3), Comm 16.45(1) and (2)(c), Comm 16.47, and ch. Comm 17; to renumber and amend Comm 16.26 and Comm 16.27; to amend ch. Comm 16(title), Comm 16.01(2)Note, Comm 16.04(2), Comm 16.06, Comm 16.10, Comm 16.25(1)(b) and (c), Comm 16.25(4)(intro.) and (a), Comm 16.25(7)(intro.), Comm 16.355, Comm 16.42(title), (1) and (2), and Comm 16.44; to repeal and recreate Comm 16.12, and Comm 16.30; to create Comm 16.02(1)(f), Comm 16.06 Note 3, Comm 16.065, Comm 16.17(1)(c), Comm 16.20, Comm 16.24(3) and (4), Comm 16.28(1)(d) Note 2, Comm 16.43, Comm 16.435 and 16.437, Table 16.46 item 12m, and Comm 16 subch. IV, relating to electrical construction and inspection.

Analysis of Proposed Rules

Statutory Authority: Sections 101.02(1), 101.63(1), 101.73(1) and 101.82(1), Stats.

Statutes Interpreted: Sections 101.63(1), 101.73(1), 101.82(1) and 101.865, Stats.

Chapter Comm 16, Electrical Code, establishes safety and health requirements for the installation of electrical wiring, communication systems and electrical equipment in places of employment, public buildings, dwellings and other premises such as carnivals, parking lots, mines, trenches, mobile homes and recreational vehicles. The chapter incorporates by reference the National Fire Protection Association (NFPA) standard NFPA 70 – National Electrical Code (NEC). In addition, the chapter includes amendments that clarify or supplement the electrical standards contained in the NEC.

Chapter Comm 17, Electrical Inspection, establishes rules for the electrical inspection of farms, public buildings and places of employment. Those rules are related to the enforcement of chapter Comm 16.

The proposed rules consist of an update of chapter Comm 16, including the incorporation by reference of the 1999 edition of the NEC. The rule proposal also includes moving the electrical inspection requirements from chapter Comm 17 into a subchapter of chapter Comm 16, with no changes in those requirements. The following is a summary of the major changes in the proposed rules.

1. Deleting several amendments to the NEC which are covered as a result of changes in the 1999 edition of the NEC. For example, because of changes in the 1999 NEC relating to isolation of transfer switch equipment, sections Comm 16.45 (1) and 16.47 are being deleted.
2. Adding a requirement for installation of GFCI protection in commercial garages, repair areas and storage areas where electrical diagnostic equipment, electrical hand tools or portable lighting equipment are to be used. [Comm 16.20]
3. Adopting the NEC requirements for installing non-metallic sheathed cable in exposed work. [Comm 16.325]
4. Adding kitchens, hallways and stairways as areas needing a listed ceiling fan support box for a ceiling lighting fixture where a ceiling fan could be installed. [Comm 16.355]

5. Adopting the NEC exception that allows rigid non-metallic conduit to be used underground at gasoline service stations. [Comm 16.40]

6. Adding a rule requiring the listing mark on electric signs and outline lighting to be visible after installation. [Comm 16.43]

7. Adding requirements relating to wiring of hoistway pumps for elevators and disconnecting means for wheelchair lifts. [Comm 16.435 and 16.437]

8. Adding a rule requiring standby emergency power in day care centers serving 20 or more children during night-time hours. [Comm 16.46]

The proposed rules have been developed with the assistance of the Electrical Code Advisory Council. The members of that citizen advisory council are as follows:

<u>Name</u>	<u>Representing</u>
Ron Jahnke	NECA, Wisconsin Chapter
Ron Janikowski	International Association of Electrical Inspectors
Charles Johansen	Wisconsin Builders Association
James D. Loock	Wisconsin Public Service Commission
Dave McHale	Wisconsin Utilities Association
Ronald E. Maassen	NECA, Milwaukee Chapter
Bill Neitzel	International Association of Electrical Inspectors
Ken Peterson	Wisconsin Electric Cooperative Association
Randall Roth	Associated Builders and Contractors of Wisconsin
Steven Sauer	Department of Agriculture, Trade and Consumer Protection
Paul Welnak	Wisconsin State AFL-CIO

SECTION 1. Chapter Comm 16 title is amended to read:

Chapter Comm 16
ELECTRICAL, ~~VOLUME 2~~

SECTION 2. Comm 16.01 (2) Note is amended to read:

Comm 16.01 (2) Note: The Wisconsin state electrical code is issued and administered by the department and by the public service commission ~~as part in 2 chapters of the Wisconsin administrative code. The department has the responsibility for issuance and administration of Volume 2 as contained in this chapter, and the public service commission has the responsibility for issuance and administration of Volume 1 as contained in ch. PSC 114.~~

SECTION 3. Comm 16.02 (1)(f) is created to read:

Comm 16.02 (1)(f) Inspections of electrical construction of farms, public buildings and places of employment.

SECTION 4. Comm 16.04 (2) is amended to read:

Comm 16.04 (2) MUNICIPAL AUTHORITY. Municipalities may exercise jurisdiction over inspection of electrical construction covered by the scope of this chapter. For public buildings and places of employment, s. ~~ILHR 17.13 (2)~~ Comm 16.64 (2) specifies the conditions required for municipalities to exercise this jurisdiction.

SECTION 5. Comm 16.04 (3) is repealed.

SECTION 6. Comm 16.06 is amended to read:

Comm 16.06 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.

SECTION 7. Comm 16.06 Note 3 is created to read:

Comm 16.06 Note 3: Section 101.88 (3), Stats., states that except as provided under s. 101.865 (2), Stats., whoever violates subchapter IV of chapter 101, Stats., or any rule promulgated under that subchapter shall forfeit to the state not less than \$25 nor more than \$500 for each violation. Each day that the violation continues shall constitute a separate offense. Section 101.865 (2), Stats., states that any person who violates the provisions of s. 101.865, Stats., shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail not less than 30 days nor more than 6 months.

SECTION 8. Comm 16.065 is created to read:

Comm 16.065 Fees. Fees for petitions for variance and electrical inspections issued under this chapter shall be submitted as specified in ch. Comm 2.

SECTION 9. Comm 16.10 is amended to read:

Comm 16.10 Electrical inspection of public buildings and places of employment.

Inspection of electrical construction relating to public buildings and places of employment shall comply with the requirements of ~~ch. II HR 17~~, subch. II IV.

SECTION 10. Comm 16.12 is repealed and recreated to read:

Comm 16.12 Adoption of standards by reference. (1) CONSENT. Pursuant to s. 227.21, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the National Electrical Code specified in sub. (2).

(2) INCORPORATION. The National Electrical Code, NEC-1999, subject to the changes, additions or omissions specified in subch. III, is hereby incorporated by reference into this chapter.

Note: Copies of the National Electrical Code are on file in the offices of the department, the secretary of state and the revisor of statutes.

Note: Copies of the National Electrical Code can be obtained from the National Fire Protection Association, Fulfillment Center, 11 Tracy Drive, Avon, MA 02322-9908, telephone 1-800-344-3555.

SECTION 11. Comm 16.17 (1)(c) is created to read:

Comm 16.17 (1)(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.

SECTION 12. Comm 16.20 is created to read:

Comm 16.20 Ground-fault circuit-interrupter protection for personnel. [NEC 210-8] This is a department rule in addition to the requirements of NEC 210-8(b)(1) and (2):

Commercial garages, repair areas and storage areas where electrical diagnostic equipment, electrical hand tools, or portable lighting equipment are to be used.

SECTION 13. Comm 16.24 (3) and (4) are created to read:

Comm 16.24 (3) NUMBER OF SUPPLIES. [NEC 225-30] This is a department rule in addition to NEC 225-30(a):

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

(4) LOCATION. [NEC 225-32] This is a department rule in addition to the requirements of NEC 225-32:

The building disconnect required by NEC 225-31 shall be located in accordance with s. Comm 16.25 (4).

SECTION 14. Comm 16.25 (1)(b) and (c) are amended to read:

Comm 16.25 (1)(b) Substitute the following wording for ~~NEC 230-2(a), Exception No. 5~~ NEC 230-2(b)(2):

~~Exception No. 5.~~ Two or more service drops or laterals ~~may be installed~~ 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 exception rule in addition to the exceptions requirements of ~~NEC 230-2(a)~~ NEC 230-2(b):

~~Exception No. 8.~~ For rowhouse construction as defined in ch. ~~ILHR~~ Comm 66, a separate service drop or lateral shall be permitted for each 2 attached units.

SECTION 15. Comm 16.25 (3) is repealed.

SECTION 16. Comm 16.25 (4)(intro.) and (a) are amended to read:

Comm 16.25 (4) LOCATION. [NEC 230-70(a)] ~~Substitution the following wording for the first paragraph~~ This is a department rule in addition to the requirements of NEC 230-70(a):

(a) ~~The service disconnecting means shall be installed at a readily accessible location either outside of a building or structure, or inside nearest the point of entrance of the service conductors.~~ Except as provided in par. (b), raceways containing service conductors or cables, or service entrance cable not contained within a raceway, shall 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.

SECTION 17. Comm 16.25 (7)(intro.) is amended to read:

Comm 16.25 (7) RATING OF DISCONNECT. [NEC 230-79] ~~Substitute the following wording for~~ This is a department rule in addition to the requirements of NEC 230-79(c):

SECTION 18. Comm 16.25 (7)(a) is repealed.

SECTION 19. Comm 16.26 is renumbered Comm 16.27 and amended to read:

Comm 16.27 ~~Service equipment. [NEC 250-71] Services. [NEC 250-92]~~ This is a department rule in addition to the requirements of ~~NEC 250-71(b)~~ NEC 250-92(b):

Bonding to other systems shall not be done on or within a metering enclosure unless a means of bonding, intended for intersystem bonding, is furnished as part of a listed joint-use metering enclosure.

SECTION 20. Comm 16.27 is renumbered Comm 16.26 and Comm 16.26 (title), (intro.) and (2) are amended to read:

Comm 16.26 Grounding electrode system. [~~NEC 250-81~~ NEC 250-50] These are department rules in addition to the requirements of ~~NEC 250-81(a)~~ NEC 250-50(a):

(2) TWO SUPPLEMENTAL ELECTRODES. For one- and two-family dwellings, where the supplemental electrode required by ~~NEC 250-81(a)~~ NEC 250-50(a) consists of made electrodes specified in ~~NEC 250-83~~ NEC 250-52, not less than 2 supplemental made electrodes shall be installed.

SECTION 21. Comm 16.28 (1)(d) Note 2 is created to read:

Comm 16.28 (1)(d) Note 2: See NEC 430-102 for location of disconnects.

SECTION 22. Comm 16.28 (2) and (3) are repealed.

SECTION 23. Comm 16.30 is repealed and recreated to read:

Comm 16.30 Ampacities for conductors rated 0-2000 volts. [NEC 310-15] (1) ADJUSTMENT FACTORS. [NEC 310-15(b)(2)] This is a department exception in addition to the exceptions specified in NEC 310-15(b)(2)(a):

Exception No. 5: The derating factors shown above do not apply to branch circuits supplying an individual dwelling unit.

(2) 120/240-VOLT, 3-WIRE, SINGLE-PHASE DWELLING SERVICES AND FEEDERS. [NEC 310-15(b)(6)] This is a department rule in addition to the requirements of NEC 310-15(b)(6):

When using Table 310-15(b)(6) and the conductors are installed in a raceway, the raceway trade size shall be a minimum of one inch in diameter.

SECTION 24. Comm 16.325 is repealed.

SECTION 25. Comm 16.355 is amended to read:

Comm 16.355 Outlet boxes. [NEC 370-27] This is a department rule in addition to the requirements of NEC 370-27(a):

In a dwelling unit, a ceiling outlet box installed for use as a lighting fixture outlet in a habitable room, kitchen, hallway and stairway and located where a ceiling fan could be installed shall be a type listed for ceiling fan support.

SECTION 26. Comm 16.37 and 16.40 are repealed.

SECTION 27. Comm 16.42 (title), (1) and (2) are amended to read:

Comm 16.42 ~~Grounding, bonding and equipotential plane~~ [NEC 547-8] Agricultural buildings. [NEC 547] (1) ~~GROUNDING AND BONDING.~~ [NEC 547-8(a)] SERVICE EQUIPMENT, SEPARATELY DERIVED SYSTEMS, FEEDERS, DISCONNECTING MEANS, AND GROUNDING. [NEC 547-8] (a) This is a department informational note to be used under NEC 547-8(a) ~~Exception No. 1c~~ and (c):

Note: A pole-top disconnect is recognized as the service disconnecting means required by this section.

~~(b) NEC 547-8(a) Exception No. 2 does not apply in Wisconsin.~~

(2) ~~CONCRETE EMBEDDED ELEMENTS.~~ [NEC 547-8(b)] BONDING AND EQUIPOTENTIAL PLANE. [NEC 547-9] Substitute the following wording for ~~the first paragraph of NEC 547-8(b)~~ NEC 547-9(b):

Wire mesh or other conductive elements, if installed in the concrete floor of livestock confinement areas, shall be bonded to the building grounding electrode system to provide an equipotential plane that ~~has a~~ may have voltage gradient ramps at entrances and exits that are traversed daily by the same livestock. The bonding conductor shall be copper, insulated, covered or bare, and not smaller than No. 8. The means of bonding to wire mesh or conductive elements shall be by pressure connectors or clamps of brass, copper, copper alloy, or an equally substantial approved means.

SECTION 28. Comm 16.42 (3) is repealed.

SECTION 29. Comm 16.43 is created to read:

Comm 16.43 Electric signs and outline lighting. [NEC 600] This is a department rule in addition to the requirements of NEC 600-3:

All electric signs and listed outline lighting shall have the listing mark of the approving agency visible after installation.

SECTION 30. Comm 16.435 and 16.437 are created to read:

Comm 16.60 Purpose. Pursuant to s. 101.82, Stats., the purpose of this subchapter is to establish rules for the inspection of electrical construction of farms, public buildings and places of employment.

Comm 16.61 Scope. This subchapter specifies the electrical construction to be inspected, the inspection procedures to be followed and the procedures for connection of electric service.

Comm 16.62 Application. This subchapter applies to persons, independent inspection agencies, municipalities and state governmental agencies engaged in the inspection of electrical construction for the purposes of administering and enforcing this chapter on farms and in public buildings and places of employment, and to companies or utilities providing connection of electric service.

Comm 16.63 Definitions. In this subchapter:

- (1) "Certified inspector" means a certified commercial electrical inspector.
- (2) "Commercial electrical inspector" means a person who conducts inspections of electrical construction of farms, public buildings and places of employment.
- (3) "Department" means the department of commerce.
- (4) "Electrical construction" means the installation of electrical wiring.
- (5) "Electrical contractor" means any person, firm or corporation engaged in the business of erecting, installing, altering, repairing, servicing or maintaining electrical wiring.
- (6) "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 covered by the scope of this chapter.
- (7) "Farm" means a place where farming is conducted.
- (8) "Farming" means the operation of a farm premises owned or rented by the operator.

Note: Section 102.04 (3), Stats., states that farm premises include the areas which are planted and cultivated, 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.

(9) "Independent inspection agency" means any corporation, partnership or sole proprietor with one or more employes, other than a municipal corporation, that performs inspections of buildings.

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

(11) "Person" includes all partnerships, associations, and bodies politic or corporate.

(12) "Place of employment" has the meaning specified under 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 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), and also includes the transportation of farm products, supplies or equipment directly to the farm by the operator of said farm or employes 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), or, except for the purposes of s. 101.11, a previously constructed building used as a community-based residential facility, as defined in s. 50.01 (1g), which serves 20 or fewer residents who are not related to the operator or administrator.

(13) "Public building" has the meaning specified under 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) 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).

Comm 16.64 Authority. (1) DEPARTMENTAL AUTHORITY. Pursuant to ss. 101.82 and 101.84, Stats., the department is granted the authority and jurisdiction over the inspection of electrical construction of farms, public buildings and places of employment.

(2) MUNICIPAL AUTHORITY. (a) Jurisdiction conditions. Pursuant to s. 101.86 (1), Stats., municipalities may exercise jurisdiction over inspection of electrical construction in public buildings and places of employment by passage of ordinances, providing all of the following conditions are complied with:

1. The municipality's ordinances meet the minimum requirements of this subchapter.
2. The municipality notifies the department at least 30 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 inspectors or independent inspection agencies to perform electrical inspection functions.

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

7. The municipality provides the department with any information requested by the department relative to the electrical inspection of public buildings and places of employment.

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

(b) *Joint jurisdiction.* Municipalities may jointly exercise the jurisdiction granted in par. (a).

(c) *Municipal contracts.* A municipality may contract with a certified inspector, independent inspection agency or the department for those inspection services which the municipality does not perform under par. (a) or (b).

(d) *County.* 1. Ordinances enacted by a county under this subsection establishing electrical inspection functions shall apply to all municipalities within that county which have not assumed jurisdiction.

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

(e) *Relinquishing of jurisdiction.* The municipality shall notify the department, in writing, at least 30 days prior to the date upon which the municipality intends to relinquish jurisdiction responsibilities.

Comm 16.65 Inspections. (1) PERSONS AUTHORIZED TO PERFORM INSPECTIONS.

(a) *General.* Inspections performed for a municipality, independent inspection agency or the department for the purpose of administering and enforcing this chapter shall be performed by a certified inspector.

(b) *Right of entry.* A certified inspector performing inspections under par. (a) may, during reasonable hours, enter any building or premises in the discharge of his or her official duties for the purpose of making inspections, re-inspections or testing of electrical construction.

Note: Section Comm 5.63 contains requirements pertaining to the certification of commercial electrical inspectors.

(2) MUNICIPAL INSPECTIONS. (a) *Electrical wiring requiring inspection.* Municipalities exercising jurisdiction under s. Comm 16.64 (2) shall provide for inspection of all electrical wiring in all of the following:

1. New construction, additions, alterations and change of use of public buildings and places of employment requiring submittal of building plans under ss. Comm 50.03 and 50.12 for the classes of occupancies specified under sub. (4) (a).

2. Such other installations as required by the municipality.

(b) *Inspection types.* Inspections required to be performed shall be of all of the following types for the purpose of determining if the electrical construction complies with this chapter:

1. An inspection before the construction is concealed.
2. Re-inspections, as necessary, to confirm compliance and satisfactory completion of all electrical construction.
3. A final inspection.

(c) *Permit required.* 1. Except as provided in subd. 2., no electrical wiring specified in par. (a) may be installed unless an application for a permit and the required fees have been submitted to the municipality exercising jurisdiction under s. Comm 16.64 (2).

2. Under emergency conditions, the necessary electrical construction may be commenced without submitting an application for a permit; however, the person performing the emergency

construction shall report the construction to the municipality no later than the next business day. The emergency installation shall conform to this chapter.

(d) *Inspection.* 1. Upon completion of the electrical wiring required to be inspected under par. (a) or before any electrical wiring is to be hidden from view, the person, firm or corporation installing the electrical wiring shall notify the municipality that the installation is ready for inspection.

2. The certified inspector responsible for the inspection shall perform the requested inspection within 2 business days after receiving notification.

3. If upon inspection, it is found that the installation is fully in compliance with this chapter and the municipal ordinances, the certified inspector shall approve the installation and authorize concealment of the electrical wiring or connection of electric service. For connection of electric service, the certified inspector shall issue the certificate required in s. Comm 16.66 (1).

4. If the installation is incomplete or not in compliance with this chapter or the municipal ordinances, orders to correct shall be issued in accordance with the municipal ordinances.

(3) INDEPENDENT AGENCY INSPECTIONS. (a) *Municipalities.* Independent inspection agencies performing inspections for municipalities exercising jurisdiction under s. Comm 16.64 (2) shall provide inspections in accordance with the requirements of sub. (2) for municipalities.

(b) *Department.* Independent inspection agencies performing inspections for the department shall provide inspections as required by the department.

(4) DEPARTMENT INSPECTION PROGRAM. (a) *Specific inspections.* The department may inspect all electrical wiring in new construction, additions, alterations and change of use of public buildings and places of employment requiring submittal of building plans under ss. Comm 50.03 and 50.12 in all of the following occupancies that are not within the boundaries of municipalities exercising jurisdiction:

1. Nursing homes and health care facilities

- 4. Community-based residential facilities.
- 5. Restaurants having a capacity of 100 or more occupants.
- 6. All indoor theaters.

(b) *Random inspections.* The department may perform random inspections of electrical wiring in any new construction, additions, alterations and change of use of public buildings and places of employment, that are not within the boundaries of municipalities exercising jurisdiction.

(c) *Requested or complaint inspections.* The department may perform inspection of electrical construction in public buildings or places of employment in any municipality upon written request or complaint.

(d) *Farm inspections.* The department may inspect electrical construction on farms.

Comm 16.66 Connection of electric service. Pursuant to s. 101.865, Stats., the company or utility furnishing electric current shall obtain proof that electrical wiring complies with this chapter before furnishing the service, as follows:

(1) **CERTIFICATE REQUIRED.** The electrical wiring required to be inspected under s. Comm 16.65 (2) (a) may not be connected for use until a certificate is filed with the company or utility furnishing electric current. The certified inspector authorized to perform the inspection shall complete and file the certificate with the company or utility.

(2) **STATEMENT REQUIRED.** Electrical wiring not requiring a certificate under sub. (1) may not be connected for use until a written statement is filed with the company or utility furnishing electric current indicating that the electrical wiring complies with this chapter. The electrical contractor or other person doing the wiring shall complete and file the written statement with the company or utility.

Comm 16.67 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.

SECTION 36. Chapter Comm 17 is repealed.

(END)

EFFECTIVE DATE

Pursuant to s. 227.22 (2)(intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.



JUN 19 REC'D

201 West Washington Avenue
P.O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018

Tommy G. Thompson, Governor
Brenda J. Blanchard, Secretary

June 14, 1999

Senate Chief Clerk
Room 402
1 East Main Street
Madison, Wisconsin 53703

Assembly Chief Clerk
Room 402
1 East Main Street
Madison, Wisconsin 53703

Dear Chief Clerks:

**TRANSMITTAL IN FINAL DRAFT FORM OF ADMINISTRATIVE
RULES AND REPORT**

CLEARINGHOUSE RULE NO.: 99-050

RULE NO.: Chapters Comm 16 and 17

RELATING TO: Electrical Construction and Inspection

Pursuant to section 227.19, Stats., agencies are required to submit, in triplicate, copies of the proposed administrative rules in final draft form together with a rule report and an analysis. The recommendations received from the Legislative Council are also to be submitted.

At this time, this material, together with cover letters to the President of the Senate and the Speaker of the Assembly, is being transmitted for referral to the standing committees for legislative review.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brenda J. Blanchard', written in a cursive style.

Brenda J. Blanchard
Secretary



201 West Washington Avenue
P.O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018

Tommy G. Thompson, Governor
Brenda J. Blanchard, Secretary

June 14, 1999

Senator Fred Risser
President of the Senate
Room 220 South, State Capitol
Madison, Wisconsin 53702

Representative Scott Jensen
Speaker of the Assembly
Room 211 West, State Capitol
Madison, Wisconsin 53702

Dear Senator Risser and Representative Jensen:

NOTICE OF ADMINISTRATIVE RULES IN FINAL DRAFT FORM

CLEARINGHOUSE RULE NO.: 99-050

RULE NO.: Chapters Comm 16 and 17

RELATING TO: Electrical Construction and Inspection

Section 227.19, Stats., requires agencies to submit proposed rules in final draft form to the presiding officer of each house for referral to the appropriate legislative standing committees.

The following information, as required by law, is being submitted to you.

1. Rules in final draft form (in triplicate).
2. Report consisting of:
 - a) Rule Report.
 - b) Public Hearing Attendance Record.
 - c) Public Hearing Comment and Agency Response Form.
 - d) Legislative Council Rules Clearinghouse Report.
 - e) Response to Legislative Council Rules Clearinghouse Report.
 - f) Fiscal Estimate.
 - g) Final Regulatory Flexibility Analysis.

If you have any questions regarding this matter, please do not hesitate to contact us.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brenda J. Blanchard', written over a horizontal line.

Brenda J. Blanchard
Secretary

AGENCY RESPONSE MERCER

BUILDINGS

Hearing Location: Waukesha

Hearing Date: April 13, 1999

Proposed Changes	Agency Response
<p>It is a valid additional code at initial review is there when the code of switches; it is a protection as required in 150 per home, and less than the added safety, they</p>	<ol style="list-style-type: none"> 1. Agree in part. The requirement for fan boxes in hallways and stairways has been removed from Comm 16.355. There is no clear definition of hallway and stairway. 2. Agree. 3. Agree in part. The requirement has been removed from this code change proposal. 4. Comment noted.
<p>no need for fan boxes; ambiguous for kitchens. A prohibition should be removed.</p>	<ol style="list-style-type: none"> 1. Agree in part. Hallways and stairways have been removed from the rule. 2. Disagree. This requirement prevents bonding in a metal cabinet that is sealed by the serving utility.
<p>Habitable Rooms: A room, family room, sun room or similar will not require a 1.01 definition of</p>	<ol style="list-style-type: none"> 1. Agree in concept. The rule has been revised by including kitchens in NEC 210-70(a)(1).
<p>Commercial Garage: A repair operation including but not limited to (and/or tractors) in which for powering the definition will require that classified as a 511</p>	<ol style="list-style-type: none"> 2. Disagree. The scope of Article 511 refers to repair operations in which volatile "flammable" liquids are used for fuel or power. Comm 16 should not extend these requirements to diesel fuel applications.

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
 Relating To: Electrical Construction and Inspection

Hearing Location: Waukesha
 Hearing Date: April 13, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In	For Exh. No.			
Sup.	Opp.			
	1	Patrick Clancy (continued)	<p>3. Comm 16.184 [200-6(b)] Add a new paragraph to read "Grounded circuit conductors (neutral) used on a wye system operating over 250 volts to ground shall be gray in color." Or delete the word "natural" from (b). This is the color that's been used for 30 years in Wisconsin to identify the grounded circuit conductor (neutral). With the new code change requiring 3 tracers or marks on the wire this will add confusion and misapplication of this rule. The yellow tracer is too hard to get.</p> <p>4. Comm 16.186 [200-7(c)(2)] Add a note to read "That identifying a conductor at its terminal means within 2" of the screw, wrenut, lug, or other suitable termination. By means of tape, paint, or other effective means." This change is going to add 1000's of dollars to the cost of a home. This code will require a 3, 4 or 5 wire cable to be used for all switch loops in a dwelling unit. The other option is to re-identify the whole length of the conductor with a tubing or tape which will be very time consuming.</p> <p>5. Comm 16.20 [210-8(b)] Change wording to read "All parking garages where receptacles are installed for use other than for fixed cord connected appliances." Commercial garages are defined in Article 511. GFCI's are already required by the NEC. This change would clear-up if receptacles that are installed in multi-family underground parking need to be GFCI or not.</p> <p>6. Comm 16.— [210-12] Add "NEC 210-12(b) does not apply in Wisconsin." The effective date of the 2002 NEC will be after the effective date. In the past when we have waited to let technology catch up to the code it has paid off. If we make people use equipment and it doesn't work right all the good that will be done is for nothing.</p> <p>7. Comm 16.225 [210-60] Add a note to read "Motels and hotels as constructed per Comm 57 are not dwelling units." These types of building are not intended to be lived in for long periods of time. If they are then they become rooming houses and the ADA requirements go away.</p>	<p>3. Disagree. Three stripes are an additional option to existing language. The current code is adequate.</p> <p>4. Disagree. Code language provides several methods of identification of white conductors used in switch loops.</p> <p>5. Disagree. If receptacles are installed in parking garages such as multi-family underground parking, they will be used with portable appliances.</p> <p>6. Agree. The rule has been revised to delete the requirement for the arc fault circuit interrupter.</p> <p>7. Disagree. If permanent cooking provisions are provided, motels and hotels become dwelling units.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
Relating To: Electrical Construction and Inspection

Hearing Location: Waukesha
Hearing Date: April 13, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting In		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
Sup.	Opp.			
		Patrick Clancy (continued)	<p>8. Comm 16.24 [225-1] Add a note to read "When feeders are from the secondary of transformer with the service point on the primary, inside the building. The same rules apply as outdoor feeder." If you don't add something to the code. The power from the secondary under the change in definitions of feeder and service. This will be the same as a normal feeder and a single disconnect and overcurrent will be required on all feeders. This is not the intent but an oversight of the committee.</p> <p>9. Comm 16.25 (3) and (7) Delete the proposal. If you delete this requirement for sizing conductor there will be no minimum size services or feeders in 2 family and up. Under 230-79(d) a 60 ampere is all that's required. By deleting this the main disconnect will also go away for single and 2 family and multi-family units. 230-72 allows 6 disconnects to be used. Comm 16.25(6)(a) is an exception to the main paragraph.</p> <p>10. Comm 16.28(2) and (3) Delete the proposal. Without this requirement the plumbers and others are going to be splicing cord and conductor in the pit. There will be no sealing for inside to outside location. Or add an exception to read "Where the alarm is located remote from the pumping chamber and in sight from a lockable disconnecting means." This will meet the way it's been done. Where the alarm and controls are located in the basement of the dwelling unit.</p> <p>11. Comm 16.355 [370-27(a)] Delete the word "kitchen" from the proposal. This is not needed if it is covered in the definition of habitable room as proposed above.</p> <p>12. Comm 16.40 [514-8] Add the following exception #2: "A manufacturer's grounding terminal shall be provided to terminate the equipment grounding conductor in the dispenser. The intrinsically safe wiring shall comply to 504-30(a)(2)." If you put a grounding conductor in 501-16 requires the box to be bonded, but doesn't say how. The manufacturer assumes you are using 250-72 (1996) or 250-94 (1999) the hub. The last sentence in this exception will stop a common practice on dispenser replacement.</p>	<p>8. Disagree. Articles 225, 240 and 300 adequately address conductor sizing and protection.</p> <p>9. Disagree. There is no documentation of problems in this area.</p> <p>10. Disagree. Deletion of these rules does not change the requirements of the NEC.</p> <p>11. Agree in part. The definition is not being added, so use of the word "kitchen" is necessary.</p> <p>12. Disagree. The Department does not regulate manufacturing of listed products.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
Relating To: Electrical Construction and Inspection

Hearing Location: Waukesha
Hearing Date: April 13, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Opp. Info.			
		Patrick Clancy (continued)	<p>13. Comm 16.43 [600-3] Delete this proposal and add a note to read "Every effect should be taking to make the label visible." The electrician or contractor has no control of the manufacturers or UL. If labels are installed on the top or inside of the fixture, it's a violation to move the tag. The cost of field inspections is too high and will be put on the owners and taxpayer.</p> <p>14. Comm 16.44 [680-8] Add the word N.E.S.C. to the last sentence.</p> <p>15. Comm 16.445 [680-12] Add 2 new exceptions as follows: "Exception 1. Where the manufacturer provides a disconnect as part of listed equipment or requires a disconnect to be installed in a special place or location." The disconnect for spas, hot tubs and fountain, and other 680 related equipment provide for this as part of their listing. Why require redundant equipment? Disconnecting means under the skirt of the spa or disconnect next to the pump in a fountain or the disconnect next to the hot tub motor. There are code articles that already cover the disconnect within sight of the motor (430-102) or appliances (422). "Exception 2. If a lighting switch is provided that disconnects all the ungrounded conductors from their source and is located accessible to the user. That this switch can be used as the disconnecting means for the lighting circuit." If you install lighting as per 680-20. It is required to be installed as per 680-5 and all the conductors are not permitted in the same enclosure or box. The lighting is where the users are but the equipment is never there. So where do you locate the switch? What if the equipment is large and requires different types of power? The grounding is required to be one continuous unbroken conductor between the panel and the deck box. How does the bonding and grounding happen in this NEMA 3 panelboard located out by the pool? There is limited area in commercial pools and spas. The common wall where there may be more than 10' from the water is normally a fire wall. How do I mount this panel in this wall it's more than 16 sq. in?</p>	<p>13. Agree in part. The proposal has been deleted. The Department has no control over manufacturers or UL.</p> <p>14. Disagree. The reference to chapter PSC 114, which adopts the NESC, is sufficient.</p> <p>15. Disagree. Section 680-12 has been part of the NEC for many years and it has not posed a single family dwelling and the redundancy will save lives. The lighting issue mentioned must be addressed by the system design. NEC provisions are for safety and are not necessarily convenient or efficient.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
 Relating To: Electrical Construction and Inspection

Hearing Location: Waukesha
 Hearing Date: April 13, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting In Sup.	For Info. Opp.	Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
		1	Patrick Clancy (continued)	<p>16. Comm 16.45 (1) Delete the proposal. This is a safety device that is a add-on doesn't come with all transfer switches. Without this device the 2 switches can and will be operated together. This will cause damage and death to the persons in the area. The code does say should be advertent. The interlock prevents this accident from happening. Power sources need the sinusoidal wave forms to be synchronized.</p> <p>17. Comm 16.45 (2)(c) [700-9(d)] Delete the proposal and change (c) to (d). (d) Fire Protection doesn't comply with the state building code. Continue to omit this section.</p> <p>18. Comm 16.46 Table Change column B to read "All licensed centers receiving night-time care between the hours of 6 p.m. and 6 a.m." The staffing is reduced to one or 2 attendants at night because the children are normally sleeping. If power fails moving even one small child in the dark is hard. Try calming 19 children. Power goes off in storms, and the same wakes up children.</p> <p>19. Comm 16.47 Delete the proposal. See the comments in item 16 above.</p> <p>20. Comm 16.50 Add the following 3 new notes: "Note 1: See Comm 20-25 UDC for smoke detectors and Comm 63 smoke detectors in multi-family dwellings. Note 2: Physical protection is required below 7 foot for all cables. As per NFPA 72. Note 3: Smoke detector in Comm 63 building need not be placed in the sleeping unit." This will assist the installer and inspector to the proper sections.</p>	<p>16. Disagree. This section is now covered in the NEC and is no longer necessary in Comm 16.</p> <p>17. Disagree. This section has very limited use in large assembly occupancies and the section allows 6 options for compliance.</p> <p>18. Disagree. The proposed rule is consistent with and based on the state Building Code, and any change would need to be made in that code.</p> <p>19. Disagree. See response 16 above.</p> <p>20. Agree in part. Notes of this type are best addressed in a code commentary.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE
DIVISION OF SAFETY AND BUILDINGS**

Rule Number: Chapters Comm 16 and 17
 Relating To: Electrical Construction and Inspection

Hearing Location: Wausau
 Hearing Date: April 16, 1999

Commenting In	For Info.	Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
				No comments/recommendations were presented.	

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
 Relating To: Electrical Construction and Inspection

Hearing Location: Madison
 Hearing Date: April 19, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Opp. Info.				
	X	2	Jane Witt Wisconsin Builders Assn Madison, WI	<p>1. Comm 16.355 "Kitchen, hallway and stairway" should be deleted. NEC 370-27 addresses the issue and there is no reason this should be changed.</p> <p>2. Article 380-9 This change is not logical. It's hard to comprehend how a non-conductive box with a non-conductive device and a non-conductive plate can be considered a safety hazard. We should return to the 1996 NEC wording: "Snap switches, including dimmer switches, shall be effectively grounded and shall provide a means to ground metal faceplates, when metal faceplates are installed." The rest of 350-9 can remain the same.</p> <p>3. Section 210-2 This new technology is not readily, commercially available at a reasonable cost. This should not go into the code at this time. If we wait for the next code cycle, it will allow manufacturers time to develop and refine the technology of the arc fault circuit interrupter. Also, if other manufacturers take on this new product, competition will possibly reduce the cost of the AFCI.</p>	<p>1. Agree in part. Hallways and stairways have been removed from the rule.</p> <p>2. Disagree. Grounding of metal equipment is a primary safety requirement of the NEC.</p> <p>3. Agree. The rule has been revised to delete the requirement for the arc fault circuit interrupter.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapters Comm 16 and 17
Relating To: Electrical Construction and Inspection

Hearing Location: Mailed In Comments
Hearing Date: N/A

DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In	For			
Sup.	Opp.	Exh. No.		
X		3	<p>1. Change Comm 16.45(2) 1. to read: "Except as provided in subd. 2., all emergency circuit wiring supplying power to emergency systems shall be in listed raceway systems or type MC cable. Emergency systems include fire alarm systems, ADAAG area of rescue assistance systems." It is important to protect the branch circuits supplying these emergency systems with raceways and MC cable; this will give the occupants a safer building for a longer amount of time when a fire occurs. It is also important that these branch circuits be kept independent of other wiring that may cause a malfunction to one of the emergency systems. These systems are more important than exit lights and emergency lighting, and should be wired accordingly. This will not increase the cost of wiring a building, as we are wiring these systems this way now; however, it is not clearly stated in the NEC or Comm 16 that these systems are emergency systems.</p> <p>2. Comm 16.355 [NEC 370-27] Delete hallways and stairways from the proposed wording. Ceiling fan boxes should be installed in kitchens because kitchens should be considered habitable rooms. This requirement should not extend to hallways and stairways because most houses built in Wisconsin do not have hallways and stairways large enough to accommodate a ceiling fan.</p> <p>3. Comm 16.50 should be re-instated with the minor change that a listed raceway or Type MC cable should only be required for systems that are required by the Building Code. Adopting NFPA 72 should not automatically take out this requirement. The fire alarm system is a life safety system and should be treated as such and should be protected from the fire itself. Most of these systems are installed in mechanical rooms or small closets and are not monitored by personnel. By installing these systems in low voltage cables, they are being treated the same as a computer system or heating system (both are not life safety systems).</p>	<p>1. Disagree. Emergency systems also include area of rescue signage and communication required by chapter Comm 69 ADAAG and the primary power supply for fire alarm control panels.</p> <p>2. Agree.</p> <p>3. Disagree. Proper use of NFPA 72 and Article 760 of the NEC provides safe, effective and operational systems.</p>

PUBLIC HEARING COMMENT AND AGENCY RESPONSE DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters Comm 16 and 17
 Relating To: Electrical Construction and Inspection

Hearing Location: Mailed In Comments
 Hearing Date: N/A

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Opp. Info.				
X		4	Richard E. Pokorny Self Plover, WI	<p>1. Comm 16.40 This rule should not be repealed. Wisconsin has required rigid metal conduit to gasoline dispensers due to concerns regarding grounding. These metallic installations are safer. One manufacturer requires metallic installations; this will cause confusion in the future when dispensers are upgraded and may result in legal repercussions if plastic was used instead of metal. Many installations outside of municipalities are not inspected.</p> <p>2. Comm 16.43 This is a good start to a much needed addition to the code; however, the duration of the listing mark needs to be addressed. The paper stickers used by sign companies will last 2-3 months. The rule should be changed to say that the listing mark must be "made permanently visible after installation."</p> <p>3. Comm 16.50 The repeal of this section should have been advertised for input from all building and electrical code officials and from installers. This change was first heard of just before its March 1, 1999 adoption. To downgrade these systems from a higher standard of having added protection of raceways or metallic cables to one of unprotected cables is shocking.</p>	<p>1. Disagree. Neighboring states have successfully used this provision for many years. The Department has previously granted variances to this section and no problems have occurred.</p> <p>2. Disagree. The proposed rule has been removed. The Department has no control over manufacturers or UL.</p> <p>3. Disagree. Proper use of NFPA 72 and Article 760 of the NEC provides safe, effective and operational systems.</p>
X		5	Len Linzmeier Windsor Homes Madison, WI	<p>1. Comm 16.355 There are several things in this recommendation which should be deleted. Which refers to the narrowness of the hallway and the height of the ceiling in that area. If a fan box is up there, then switch wire will need to be added. In kitchens with recess lighting going in, how can a fan support box be attached? This code is more stringent than the NEC.</p> <p>2. Article 380-9 If there is a plastic box and plastic cover what is the need for grounding? The code should read that metal boxes and metal faceplates would require grounding.</p> <p>3. NEC 210-2 Because the arc fault circuit interrupter is new technology and only one company currently manufactures this equipment, it will be very costly. We should wait on this item. Maybe there will be more companies making this product so the affordability issue can be addressed.</p>	<p>1. Agree in part. Hallways and stairways have been removed.</p> <p>2. Disagree. Grounding of metal equipment is a primary safety requirement of the NEC.</p> <p>3. Agree.</p>

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DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters Comm 16 and 17 DATE: April 13, 1999

RELATING TO: Electrical Construction and Inspection TIME: 10:30 a.m.

LOCATION: Room 120, State Office Building CITY: Waukesha

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
PATRICK CLANNY	SELF	WAUKESHA WI	✓		✓
TIMOTHY PENNO	ELECTRICAL CONTRACTORS ASSN.	BROOKFIELD, WI		✓	
JOHN GRAY	SELF	MELGON, WI			

**DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD**

RULE NO.: Chapters Comm 16 and 17 DATE: April 16, 1999
 RELATING TO: Electrical Construction and Inspection TIME: 10:30 a.m.
 LOCATION: Room E102, Northcentral Technical College CITY: Wausau

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information

**DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD**

RULE NO.: Chapters Comm 16 and 17 DATE: April 19, 1999
 RELATING TO: Electrical Construction and Inspection TIME: 10:00 a.m.
 LOCATION: Room 3B, WHEDA Building CITY: Madison

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
Fred W. Brown	Self	Madison, WI	✓		
Gwendolyn	WBA	Madison, WI	✓	✓	✓

1997 Session

FISCAL ESTIMATE WORKSHEET
Detailed Estimate of Annual Fiscal Effect
DOA-2047(R02/97)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
Chapters Comm 16 and 17

Amendment No.

Subject

Electrical Construction and Inspection

I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

None known.

1997 Session

FISCAL ESTIMATE
DOA-2048 (R02/97)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
Chapters Comm 16 and 17
Amendment No. if Applicable

Subject

Electrical Construction and Inspection

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation
or affects a sum sufficient appropriation

Increase Existing Appropriation Increase Existing Revenues
 Decrease Existing Appropriation Decrease Existing Revenues
 Create New Appropriation

Increase Costs - May be Possible to Absorb
Within Agency's Budget Yes No

Decrease Costs

Local: No local government costs

1. Increase Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:

Towns Villages Cities

Counties Others _____

School Districts WTCS Districts

2. Decrease Costs
 Permissive Mandatory

4. Decrease Revenues
 Permissive Mandatory

Fund Sources Affected

GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations

None

Assumptions Used in Arriving at Fiscal Estimate

The Safety and Buildings Division is responsible for administering and enforcing chapters Comm 16 and 17. The proposed rules do not contain any changes in the Division's fees charged for administering and enforcing chapters Comm 16 and 17. Also, the proposed rules will not create any additional workload costs. Therefore, the proposed rules will not have any fiscal effect on the Division.

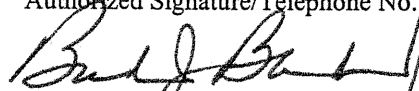
Local municipalities may voluntarily enforce chapters Comm 16 and 17, and they have the authority to offset any costs by charging appropriate fees.

Long-Range Fiscal Implications

None known.

Agency/Prepared by: (Name & Phone No.)
Commerce/Ronald Acker 267-7907

Authorized Signature/Telephone No.



Date

3/12/99

RULE REPORT

Department of Commerce

Rule No.: Chapters Comm 16 and 17

Relating to: Electrical Construction and Inspection

Agency contact person for substantive questions:

Name Joe Hertel

Title Program Manager

Telephone Number 266-5649

Agency contact person for internal processing:

Name Ronald Acker

Title Code Consultant

Telephone Number 267-7907

1. Agency statutory authority under which the agency intends to promulgate the rule(s).
Sections 101.02 (1), 101.63 (1), 101.73 (1) and 101.82 (1), Stats.

2. Citation of federal regulations which require adoption or which are relevant to the proposed rule(s).
None known.

3. Citation of court decisions which are applicable to the proposed rule(s).
None known.

4. Description of the proposed rule(s).

The proposed rules consist of an update of chapter Comm 16, Electrical Code, including the incorporation by reference of the 1999 edition of the National Electrical Code (NEC) published by the National Fire Protection Association. The rule proposal also includes moving the electrical inspection requirements from chapter Comm 17 into a subchapter of chapter Comm 16, with no changes in those requirements. The update of chapter Comm 16 involves deleting several current rules that are covered in the 1999 NEC, and adding rules where the NEC needs clarification or reinforcement.

5. Reason for the proposed rule(s).

The proposed rules have been developed in order to keep the state electrical code up-to-date with nationally recognized practices in electrical construction.

FINAL REGULATORY FLEXIBILITY ANALYSIS

Department of Commerce

CLEARINGHOUSE RULE NO.: 99-050

RULE NO.: Chapters Comm 16 and 17

RELATING TO: Electrical Construction and Inspection

Final regulatory flexibility analysis not required. (Statement of determination required.)

Sections 101.63(1), 101.73(1) and 101.82(1), Stats., direct the Department to promulgate rules for the construction and inspection of electrical construction in dwellings, public buildings and places of employment. The proposed rules of Clearinghouse Rule No. 99-050 are minimum requirements to meet the directives of the Statutes, and any exceptions from compliance for small businesses would be contrary to the Statutory objectives which are the basis for the rules.

1. Reason for including or failing to include the following methods for reducing impact of the rule on small businesses: Less stringent compliance or reporting requirements; less stringent schedules or deadlines for compliance or reporting requirements; simplification of compliance or reporting requirements; establishment of performance standards to replace design or operational standards; exemption from any or all requirements.
2. Issues raised by small businesses during hearings, changes in proposed rules as a result of comments by small businesses and reasons for rejecting any alternatives suggested by small businesses.

(Continued on reverse side)

3. Nature and estimated cost of preparation of any reports by small businesses.
4. Nature and estimated cost of other measures and investments required of small businesses.
5. Additional cost to agency of administering or enforcing a rule which includes any of the methods in 1. for reducing impact on small businesses.
6. Impact on public health, safety and welfare caused by including any of the methods in 1. for reducing impact on small businesses.

RESPONSE TO LEGISLATIVE COUNCIL CLEARINGHOUSE REPORT

Department of Commerce

CLEARINGHOUSE RULE NO.: 99-050

RULE NO.: Chapters Comm 16 and 17

RELATING TO: Electrical Construction and Inspection

Agency contact person for substantive questions.

Name: Joe Hertel

Title: Program Manager

Telephone No. 608/266-5649

Legislative Council report recommendations accepted in whole.

Yes

No

1. Review of statutory authority [s. 227.15(2)(a)]

a. Accepted

b. Accepted in part

c. Rejected

d. Comments attached

2. Review of rules for form, style and placement in administrative code [s. 227.15(2)(c)]

a. Accepted

b. Accepted in part

c. Rejected

d. Comments attached

(Continued on reverse side)

3. Review rules for conflict with or duplication of existing rules [s. 227.15(2)(d)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
4. Review rules for adequate references to related statutes, rules and forms [s. 227.15(2)(e)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
5. Review language of rules for clarity, grammar, punctuation and plainness [s. 227.15(2)(f)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
6. Review rules for potential conflicts with, and comparability to, related federal regulations [s. 227.15(2)(g)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
7. Review rules for permit action deadline [s. 227.15(2)(h)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached



State of Wisconsin \ Department of Commerce

RULES in FINAL DRAFT FORM

Rule No.: Chapters Comm 16 and 17

Relating to: Electrical Construction and Inspection

Clearinghouse Rule No.: 99-050

The Department of Commerce proposes an order to repeal Comm 16.04(3), Comm 16.25(3), Comm 16.25(7)(a), Comm 16.28(2) and (3), Comm 16.325, Comm 16.37 and 16.40, Comm 16.42(3), Comm 16.45(1) and (2)(c), Comm 16.47, and ch. Comm 17; to renumber and amend Comm 16.26 and Comm 16.27; to amend ch. Comm 16(title), Comm 16.01(2)Note, Comm 16.04(2), Comm 16.06, Comm 16.10, Comm 16.25(1)(b) and (c), Comm 16.25(4)(intro.) and (a), Comm 16.25(7)(intro.), Comm 16.355, Comm 16.42(title), (1) and (2), and Comm 16.44; to repeal and recreate Comm 16.05, Comm 16.12, and Comm 16.30; to create Comm 16.02(1)(f), Comm 16.06 Note 3, Comm 16.065, Comm 16.17(1)(c), Comm 16.20, Comm 16.21, Comm 16.225, Comm 16.24(3) and (4), Comm 16.28(1)(d) Note 2, Comm 16.435 and 16.437, Table 16.46 item 12m, and Comm 16 subch. IV, relating to electrical construction and inspection.

Analysis of Proposed Rules

Statutory Authority: Sections 101.02(1), 101.63(1), 101.73(1) and 101.82(1), Stats.

Statutes Interpreted: Sections 101.63(1), 101.73(1), 101.82(1) and 101.865, Stats.

Chapter Comm 16, Electrical Code, establishes safety and health requirements for the installation of electrical wiring, communication systems and electrical equipment in places of employment, public buildings, dwellings and other premises such as carnivals, parking lots, mines, trenches, mobile homes and recreational vehicles. The chapter incorporates by reference the National Fire Protection Association (NFPA) standard NFPA 70 – National Electrical Code (NEC). In addition, the chapter includes amendments that clarify or supplement the electrical standards contained in the NEC.

Chapter Comm 17, Electrical Inspection, establishes rules for the electrical inspection of farms, public buildings and places of employment. Those rules are related to the enforcement of chapter Comm 16.

The proposed rules consist of an update of chapter Comm 16, including the incorporation by reference of the 1999 edition of the NEC. The rule proposal also includes moving the electrical inspection requirements from chapter Comm 17 into a subchapter of chapter Comm 16, with no changes in those requirements. The following is a summary of the major changes in the proposed rules.

1. Deleting several amendments to the NEC which are covered as a result of changes in the 1999 edition of the NEC. For example, because of changes in the 1999 NEC relating to isolation of transfer switch equipment, sections Comm 16.45 (1) and 16.47 are being deleted.

2. Adding a requirement for installation of GFCI protection in commercial garages, repair areas and storage areas where electrical diagnostic equipment, electrical hand tools or portable lighting equipment are to be used. [Comm 16.20]

3. Deleting the NEC section that requires arc-fault circuit-interrupter protection after January 1, 2002. [Comm 16.21]

4. Adopting the NEC requirements for installing non-metallic sheathed cable in exposed work. [Comm 16.325]

5. Adding kitchens as areas needing a listed ceiling fan support box for a ceiling lighting fixture where a ceiling fan could be installed. [Comm 16.355]
6. Adopting the NEC exception that allows rigid non-metallic conduit to be used underground at gasoline service stations. [Comm 16.40]
7. Adding requirements relating to wiring of hoistway pumps for elevators and disconnecting means for wheelchair lifts. [Comm 16.435 and 16.437]
8. Adding a rule requiring standby emergency power in day care centers serving 20 or more children during night-time hours. [Comm 16.46]

The proposed rules have been developed with the assistance of the Electrical Code Advisory Council. The members of that citizen advisory council are as follows:

<u>Name</u>	<u>Representing</u>
Ron Jahnke	NECA, Wisconsin Chapter
Ron Janikowski	International Association of Electrical Inspectors
Charles Johansen	Wisconsin Builders Association
James D. Loock	Wisconsin Public Service Commission
Dave McHale	Wisconsin Utilities Association
Ronald E. Maassen	NECA, Milwaukee Chapter
Bill Neitzel	International Association of Electrical Inspectors
Ken Peterson	Wisconsin Electric Cooperative Association
Randall Roth	Associated Builders and Contractors of Wisconsin
Steven Sauer	Department of Agriculture, Trade and Consumer Protection
Paul Welnak	Wisconsin State AFL-CIO

SECTION 1. Chapter Comm 16 (title) is amended to read:

CHAPTER Comm 16
ELECTRICAL, ~~VOLUME 2~~

SECTION 2. Comm 16.01 (2) Note is amended to read:

Comm 16.01 (2) Note: The Wisconsin state electrical code is issued and administered by the department and by the public service commission ~~as part in 2 chapters~~ of the Wisconsin administrative code. The department has the responsibility for issuance and administration of ~~Volume 2 as contained in~~ this chapter, and the public service commission has the responsibility for issuance and administration of ~~Volume 1 as contained in~~ ch. PSC 114.

SECTION 3. Comm 16.02 (1)(f) is created to read:

Comm 16.02 (1)(f) Inspections of electrical construction of farms, public buildings and places of employment.

SECTION 4. Comm 16.04 (2) is amended to read:

Comm 16.04 (2) MUNICIPAL AUTHORITY. Municipalities may exercise jurisdiction over inspection of electrical construction covered by the scope of this chapter. For public buildings and places of employment, s. ~~ILHR 17.13 (2)~~ Comm 16.64 (2) specifies the conditions required for municipalities to exercise this jurisdiction.

SECTION 5. Comm 16.04 (3) is repealed.

SECTION 5M. Comm 16.05 is repealed and recreated to read:

Comm 16.05 Petition for variance. The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. Comm 3. The petition for variance shall include, where applicable, a position statement from the fire department having jurisdiction.

Note: Chapter Comm 3 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 Comm 3 also requires the department to process regular petitions within 30 business days and priority petitions within 10 business days.

Note: Form SBD-9890 is available at no charge from the department at the Safety and Buildings Division, P.O. Box 2509, Madison WI 53701, telephone 608/266-1818.

SECTION 6. Comm 16.06 is amended to read:

Comm 16.06 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.

SECTION 7. Comm 16.06 Note 3 is created to read:

Comm 16.06 Note 3: Section 101.88 (3), Stats., states that except as provided under s. 101.865 (2), Stats., whoever violates subchapter IV of chapter 101, Stats., or any rule promulgated under that subchapter shall forfeit to the state not less than \$25 nor more than \$500 for each violation. Each day that the violation continues shall constitute a separate offense. Section 101.865 (2), Stats., states that any person who violates the provisions of s. 101.865, Stats., shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail not less than 30 days nor more than 6 months.

SECTION 8. Comm 16.065 is created to read:

Comm 16.065 Fees. Fees for petitions for variance and electrical inspections issued under this chapter shall be submitted as specified in ch. Comm 2.

SECTION 9. Comm 16.10 is amended to read:

Comm 16.10 Electrical inspection of public buildings and places of employment. Inspection of electrical construction relating to public buildings and places of employment shall comply with the requirements of ~~ch. II HR-17~~, subch. II IV.

SECTION 10. Comm 16.12 is repealed and recreated to read:

Comm 16.12 Adoption of standards by reference. (1) CONSENT. Pursuant to s. 227.21, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the National Electrical Code specified in sub. (2).

(2) INCORPORATION. The National Electrical Code, NEC-1999, subject to the changes, additions or omissions specified in subch. III, is hereby incorporated by reference into this chapter.

Note: Copies of the National Electrical Code are on file in the offices of the department, the secretary of state and the revisor of statutes.

Note: Copies of the National Electrical Code can be obtained from the National Fire Protection Association, Fulfillment Center, 11 Tracy Drive, Avon, MA 02322-9908, telephone 1-800-344-3555.

SECTION 11. Comm 16.17 (1)(c) is created to read:

Comm 16.17 (1)(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

Comm 16.20 Ground-fault circuit-interrupter protection for personnel. [NEC 210-8] This is a department rule in addition to the requirements of NEC 210-8(b)(1) and (2):

Commercial garages, repair areas and storage areas where electrical diagnostic equipment, electrical hand tools, or portable lighting equipment are to be used.

SECTION 12M. Comm 16.21 is created to read:

Comm 16.21 Arc-fault circuit-interrupter protection. [NEC 210-12] Section NEC 210-12 does not apply in Wisconsin.

SECTION 12R. Comm 16.225 is created to read:

Comm 16.225 Lighting outlets required. [NEC 210-70] Substitute the following wording for NEC 210-70(a)(1):

At least one wall switch-controlled lighting outlet shall be installed in every habitable room, kitchen and bathroom.

SECTION 13. Comm 16.24 (3) and (4) are created to read:

Comm 16.24 (3) NUMBER OF SUPPLIES. [NEC 225-30] This is a department rule in addition to NEC 225-30(a):

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

(4) LOCATION. [NEC 225-32] This is a department rule in addition to the requirements of NEC 225-32:

The building disconnect required by NEC 225-31 shall be located in accordance with s. Comm 16.25 (4).

SECTION 14. Comm 16.25 (1)(b) and (c) are amended to read:

Comm 16.25 (1)(b) Substitute the following wording for ~~NEC 230-2(a), Exception No. 5~~ NEC 230-2(b)(2):

~~Exception No. 5.~~ Two or more service drops or laterals ~~may be installed~~ 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 ~~exception~~ rule in addition to the ~~exceptions~~ requirements of ~~NEC 230-2(a)~~ NEC 230-2(b):

~~Exception No. 8.~~ For rowhouse construction as defined in ch. ~~ILHR Comm~~ 66, a separate service drop or lateral shall be permitted for each 2 attached units.

SECTION 15. Comm 16.25 (3) is repealed.

SECTION 16. Comm 16.25 (4)(intro.) and (a) are amended to read:

Comm 16.25 (4) LOCATION. [NEC 230-70(a)] ~~Substitution the following wording for the first paragraph~~ This is a department rule in addition to the requirements of NEC 230-70(a):

(a) ~~The service disconnecting means shall be installed at a readily accessible location either outside of a building or structure, or inside nearest the point of entrance of the service conductors.~~ Except as provided in par. (b), raceways containing service conductors or cables, or service entrance cable not contained within a raceway, shall 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.

SECTION 17. Comm 16.25 (7)(intro.) is amended to read:

Comm 16.25 (7) RATING OF DISCONNECT. [NEC 230-79] ~~Substitute the following wording for~~ This is a department rule in addition to the requirements of NEC 230-79(c):

SECTION 18. Comm 16.25 (7)(a) is repealed.

SECTION 19. Comm 16.26 is renumbered Comm 16.27 and amended to read:

Comm 16.27 ~~Service equipment.~~ [NEC 250-71] Services. [NEC 250-92] This is a department rule in addition to the requirements of ~~NEC 250-71(b)~~ NEC 250-92(b):

Bonding to other systems shall not be done on or within a metering enclosure unless a means of bonding, intended for intersystem bonding, is furnished as part of a listed joint-use metering enclosure.

SECTION 20. Comm 16.27 is renumbered Comm 16.26 and Comm 16.26 (title), (intro.) and (2) are amended to read:

Comm 16.26 Grounding electrode system. [NEC 250-81 ~~NEC 250-50~~] These are department rules in addition to the requirements of ~~NEC 250-81(a)~~ NEC 250-50(a):

(2) TWO SUPPLEMENTAL ELECTRODES. For one- and two-family dwellings, where the supplemental electrode required by ~~NEC 250-81(a)~~ NEC 250-50(a) consists of made electrodes specified in ~~NEC 250-83~~ NEC 250-52, not less than 2 supplemental made electrodes shall be installed.

SECTION 21. Comm 16.28 (1)(d) Note 2 is created to read:

Comm 16.28 (1)(d) Note 2: See NEC 430-102 for location of disconnects.

SECTION 22. Comm 16.28 (2) and (3) are repealed.

SECTION 23. Comm 16.30 is repealed and recreated to read:

Comm 16.30 Ampacities for conductors rated 0-2000 volts. [NEC 310-15] (1) ADJUSTMENT FACTORS. [NEC 310-15(b)(2)] This is a department exception in addition to the

exceptions specified in NEC 310-15(b)(2)(a):

Exception No. 5: The derating factors shown above do not apply to branch circuits supplying an individual dwelling unit.

(2) 120/240-VOLT, 3-WIRE, SINGLE-PHASE DWELLING SERVICES AND FEEDERS. [NEC 310-15(b)(6)] This is a department rule in addition to the requirements of NEC 310-15(b)(6):

When using Table 310-15(b)(6) and the conductors are installed in a raceway, the raceway trade size shall be a minimum of one inch in diameter.

SECTION 24. Comm 16.325 is repealed.

SECTION 25. Comm 16.355 is amended to read:

Comm 16.355 Outlet boxes. [NEC 370-27] This is a department rule in addition to the requirements of NEC 370-27(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.

SECTION 26. Comm 16.37 and 16.40 are repealed.

SECTION 27. Comm 16.42 (title), (1) and (2) are amended to read:

Comm 16.42 ~~Grounding, bonding and equipotential plane~~ [NEC 547-8] Agricultural buildings. [NEC 547] (1) GROUNDING AND BONDING. [NEC 547-8(a)] SERVICE EQUIPMENT, SEPARATELY DERIVED SYSTEMS, FEEDERS, DISCONNECTING MEANS, AND GROUNDING. [NEC 547-8] (a) This is a department informational note to be used under NEC 547-8(a) ~~Exception No. 1c~~ and (c):

Note: A pole-top disconnect is recognized as the service disconnecting means required by this section.

~~(b) NEC 547-8(a) Exception No. 2 does not apply in Wisconsin.~~

~~(2) CONCRETE EMBEDDED ELEMENTS. [NEC 547-8(b)] BONDING AND EQUIPOTENTIAL PLANE. [NEC 547-9] Substitute the following wording for the first paragraph of NEC 547-8(b) NEC 547-9(b):~~

Wire mesh or other conductive elements, if installed in the concrete floor of livestock confinement areas, shall be bonded to the building grounding electrode system to provide an equipotential plane that ~~has a~~ may have voltage gradient ramps at entrances and exits that are traversed daily by the same livestock. The bonding conductor shall be copper, insulated, covered or bare, and not smaller than No. 8. The means of bonding to wire mesh or conductive elements shall be by pressure connectors or clamps of brass, copper, copper alloy, or an equally substantial approved means.

SECTION 28. Comm 16.42 (3) is repealed.

SECTION 29. Vacant.

SECTION 30. Comm 16.435 and 16.437 are created to read:

**ARTICLE 620 –
ELEVATORS, DUMBWAITERS, ESCALATORS, MOVING WALKS,
WHEELCHAIR LIFTS, AND STAIRWAY CHAIR LIFTS**

Comm 16.435 Wiring methods. [NEC 620-21] This is a department exception in addition to the requirements of NEC 620-21(a)(1):

Exception: The hoistway storm water sump pump motor and the hoist oil recovery pump motor shall be permitted to be cord connected. The cord shall be a hard usage oil resistant type and shall be routed where not subject to physical damage.

Comm 16.437 Disconnecting means. [NEC 620-51] This is a department exception in addition to the requirements of NEC 620-51(a):

Exception: Where a wheelchair lift is supplied by an individual branch circuit the disconnecting means required by NEC 620-51(c)(4) shall be permitted to comply with NEC 430-109 Exception No. 3. This disconnecting means shall be listed and shall be capable of being locked in the open position.

SECTION 31. Comm 16.44 is amended to read:

Comm 16.44 Overhead conductor clearances. [NEC 680-8] ~~Substitute the following wording for~~ This is a department rule in addition to the requirements of NEC 680-8 ~~Exception No. 1:~~

~~Exception No. 1.~~ Structures listed in NEC 680-8 shall be permitted under utility-owned-operated-maintained supply lines or service drops where such installations provide the clearances specified in ch. PSC 114.

SECTION 32. Comm 16.45 (1) and (2)(c) are repealed.

SECTION 33. Comm 16.46 Table 16.46 item 12m. is created to read:

**TABLE 16.46
OCCUPANCIES REQUIRING STANDBY
EMERGENCY POWER
(Partial table)**

Column A Occupancy	Column B Calculated Capacity or Area
12m. Day care centers	20 or more children receiving night-time care between the hours of 6 p.m. and 6 a.m.

SECTION 34. Comm 16.47 is repealed.

SECTION 35. Chapter Comm 16 Subchapter IV is created to read:

SUBCHAPTER IV – ELECTRICAL INSPECTION

Comm 16.60 Purpose. Pursuant to s. 101.82, Stats., the purpose of this subchapter is to establish rules for the inspection of electrical construction of farms, public buildings and places of employment.

Comm 16.61 Scope. This subchapter specifies the electrical construction to be inspected, the inspection procedures to be followed and the procedures for connection of electric service.

Comm 16.62 Application. This subchapter applies to persons, independent inspection agencies, municipalities and state governmental agencies engaged in the inspection of electrical construction for the purposes of administering and enforcing this chapter on farms and in public buildings and places of employment, and to companies or utilities providing connection of electric service.

Comm 16.63 Definitions. In this subchapter:

- (1) “Certified inspector” means a certified commercial electrical inspector.
- (2) “Commercial electrical inspector” means a person who conducts inspections of electrical construction of farms, public buildings and places of employment.
- (3) “Department” means the department of commerce.
- (4) “Electrical construction” means the installation of electrical wiring.
- (5) “Electrical contractor” means any person, firm or corporation engaged in the business of erecting, installing, altering, repairing, servicing or maintaining electrical wiring.

(6) “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 covered by the scope of this chapter.

(7) “Farm” means a place where farming is conducted.

(8) “Farming” has the meaning specified under 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.

(9) “Independent inspection agency” means any corporation, partnership or sole proprietor, other than a municipal corporation, that performs inspections of buildings.

(10) “Municipality” means a city, village, town or county in this state.

(11) “Person” includes all partnerships, associations, and bodies politic or corporate.

(12) “Place of employment” has the meaning specified under 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 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), and also includes the transportation of farm products, supplies or equipment directly to the farm by the operator of said farm or employes 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), or, except for the purposes of s. 101.11, a previously constructed building used as a community-based residential facility, as defined in s. 50.01 (1g), which serves 20 or fewer residents who are not related to the operator or administrator.

(13) “Public building” has the meaning specified under 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) 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).

Comm 16.64 Authority. (1) DEPARTMENTAL AUTHORITY. Pursuant to ss. 101.82 and 101.84, Stats., the department is granted the authority and jurisdiction over the inspection of electrical construction of farms, public buildings and places of employment.

(2) MUNICIPAL AUTHORITY. (a) *Jurisdiction conditions.* Pursuant to s. 101.86 (1), Stats., municipalities may exercise jurisdiction over inspection of electrical construction in public buildings and places of employment by passage of ordinances, providing all of the following conditions are complied with:

1. The municipality's ordinances meet the minimum requirements of this subchapter.
2. The municipality notifies the department at least 30 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 inspectors or independent inspection agencies to perform electrical inspection functions.
6. The municipality provides the department with the names of its certified inspectors or independent inspection agencies employed or contracted by the municipality.
7. The municipality provides the department with any information requested by the department relative to the electrical inspection of public buildings and places of employment.

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

(b) *Joint jurisdiction.* Municipalities may jointly exercise the jurisdiction granted in par. (a).

(c) *Municipal contracts.* A municipality may contract with a certified inspector, independent inspection agency or the department for those inspection services which the municipality does not perform under par. (a) or (b).

(d) *County.* 1. Ordinances enacted by a county under this subsection establishing electrical inspection functions shall apply to all municipalities within that county which have not assumed jurisdiction.

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

(e) *Relinquishing of jurisdiction.* The municipality shall notify the department, in writing, at least 30 days prior to the date upon which the municipality intends to relinquish jurisdiction responsibilities.

Comm 16.65 Inspections. (1) PERSONS AUTHORIZED TO PERFORM INSPECTIONS.

(a) *General*. Inspections performed for a municipality, independent inspection agency or the department for the purpose of administering and enforcing this chapter shall be performed by a certified inspector.

(b) *Right of entry*. A certified inspector performing inspections under par. (a) may, during reasonable hours, enter any building or premises in the discharge of his or her official duties for the purpose of making inspections, re-inspections or testing of electrical construction.

Note: Section Comm 5.63 contains requirements pertaining to the certification of commercial electrical inspectors.

(2) MUNICIPAL INSPECTIONS. (a) *Electrical wiring requiring inspection*. Municipalities exercising jurisdiction under s. Comm 16.64 (2) shall provide for inspection of all electrical wiring in all of the following:

1. New construction, additions, alterations and change of use of public buildings and places of employment requiring submittal of building plans under ss. Comm 50.03 and 50.12 for the classes of occupancies specified under sub. (4) (a).

2. Such other installations as required by the municipality.

(b) *Inspection types*. Inspections required to be performed shall be of all of the following types for the purpose of determining if the electrical construction complies with this chapter:

1. An inspection before the construction is concealed.

2. Re-inspections, as necessary, to confirm compliance and satisfactory completion of all electrical construction.

3. A final inspection.

(c) *Permit required*. 1. Except as provided in subd. 2., no electrical wiring specified in par. (a) may be installed unless an application for a permit and the required fees have been submitted to the municipality exercising jurisdiction under s. Comm 16.64 (2).

2. Under emergency conditions, the necessary electrical construction may be commenced without submitting an application for a permit; however, the person performing the emergency construction shall report the construction to the municipality no later than the next business day. The emergency installation shall conform to this chapter.

(d) *Inspection*. 1. Upon completion of the electrical wiring required to be inspected under par. (a) or before any electrical wiring is to be hidden from view, the person, firm or corporation installing the electrical wiring shall notify the municipality that the installation is ready for inspection.

2. The certified inspector responsible for the inspection shall perform the requested inspection within 2 business days after receiving notification.

3. If upon inspection, it is found that the installation is fully in compliance with this chapter and the municipal ordinances, the certified inspector shall approve the installation and authorize

concealment of the electrical wiring or connection of electric service. For connection of electric service, the certified inspector shall issue the certificate required in s. Comm 16.66 (1).

4. If the installation is incomplete or not in compliance with this chapter or the municipal ordinances, orders to correct shall be issued in accordance with the municipal ordinances.

(3) **INDEPENDENT AGENCY INSPECTIONS.** (a) *Municipalities.* Independent inspection agencies performing inspections for municipalities exercising jurisdiction under s. Comm 16.64 (2) shall provide inspections in accordance with the requirements of sub. (2) for municipalities.

(b) *Department.* Independent inspection agencies performing inspections for the department shall provide inspections as specified in the contract with the department.

(4) **DEPARTMENT INSPECTION PROGRAM.** (a) *Specific inspections.* The department may inspect all electrical wiring in new construction, additions, alterations and change of use of public buildings and places of employment requiring submittal of building plans under ss. Comm 50.03 and 50.12 in all of the following occupancies that are not within the boundaries of municipalities exercising jurisdiction:

1. Nursing homes and health care facilities.
2. Hotels, motels, and other buildings that provide overnight accommodations.
3. Day care centers and schools.
4. Community-based residential facilities.
5. Restaurants having a capacity of 100 or more occupants.
6. All indoor theaters.

(b) *Random inspections.* The department may perform random inspections of electrical wiring in any new construction, additions, alterations and change of use of public buildings and places of employment, that are not within the boundaries of municipalities exercising jurisdiction.

(c) *Requested or complaint inspections.* The department may perform inspection of electrical construction in public buildings or places of employment in any municipality upon written request or complaint.

(d) *Farm inspections.* The department may inspect electrical construction on farms.

Comm 16.66 Connection of electric service. Pursuant to s. 101.865, Stats., the company or utility furnishing electric current shall obtain proof that electrical wiring complies with this chapter before furnishing the service, as follows:

(1) **CERTIFICATE REQUIRED.** The electrical wiring required to be inspected under s. Comm 16.65 (2) (a) may not be connected for use until a certificate is filed with the company or utility furnishing electric current. The certified inspector authorized to perform the inspection shall complete and file the certificate with the company or utility.

(2) STATEMENT REQUIRED. Electrical wiring not requiring a certificate under sub. (1) may not be connected for use until a written statement is filed with the company or utility furnishing electric current indicating that the electrical wiring complies with this chapter. The electrical contractor or other person doing the wiring shall complete and file the written statement with the company or utility.

Comm 16.67 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.

SECTION 36. Chapter Comm 17 is repealed.

(END)

EFFECTIVE DATE

Pursuant to s. 227.22 (2)(intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.
