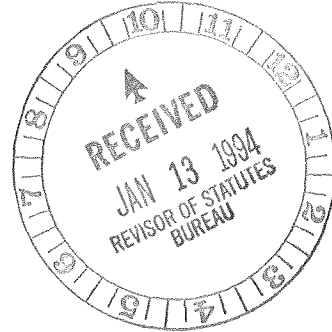


CR 93-46

RULES CERTIFICATE

STATE OF WISCONSIN)
) SS
DEPT. OF INDUSTRY,)
LABOR & HUMAN RELATIONS)



TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carol Skornicka, Secretary of the Department of Industry,

Labor and Human Relations, and custodian of the official records of said department, do hereby certify that

the annexed rule(s) relating to the electrical code, volume 2,
(Subject)

were duly approved and adopted by this department on January 13, 1994
(Date)

I further certify that said copy has been compared by me with the original on file in the department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at 9:00 a.m. in the city of Madison, this 13th day of January A.D. 19 94.

[Signature]
for Secretary

4-1-94

ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s)

101.02(1), 101.63(1), 101.73(1) and 101.82(1)

Stats., the Department of Industry, Labor and Human Relations creates; amends;

repeals and recreates; repeals and adopts rules of Wisconsin Administrative Code chapter(s):

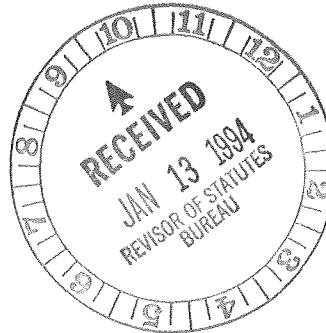
ILHR 16

(Number)

Electrical Code, Volume 2

(Title)

The attached rules shall take effect on the first day of the month following publication in
the Wisconsin Administrative Register pursuant to section 227.22, Stats.



Adopted at Madison, Wisconsin this

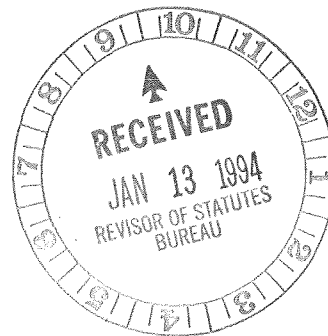
date: January 13, 1994

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN
RELATIONS

Pat Osborne
for Secretary



RULES in FINAL DRAFT FORM



Rule No.: Chapter ILHR 16

Relating to: Electrical Code, Volume 2

Clearinghouse Rule No.: 93-46

The Wisconsin Department of Industry, Labor and Human Relations proposes an order to repeal ILHR 16.20 (1), ILHR 16.21, ILHR 16.22 (1), ILHR 16.24 (2) (a), ILHR 16.25 (8), ILHR 16.30 (1) (a), ILHR 16.31, ILHR 16.38, ILHR 16.39 (2) and ILHR 16.42 (2) and (3); to renumber ILHR 16.43 (1) to (3); to amend ILHR 16.02 (1) (b) and (c), ILHR 16.12 (1), ILHR 16.12 (2) Note, ILHR 16.24 (1) (a), ILHR 16.28 (2) (intro.), ILHR 16.30 (2) and ILHR 16.50 (2) (b); to repeal and recreate ILHR 16.24 (2) (b) and ILHR 16.37; and to create ILHR 16.08 (1) Note, ILHR 16.185, ILHR 16.325, ILHR 16.43 (1) and ILHR 16.43 (3) (a) 3., relating to the electrical code.

Analysis of Proposed Rules

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

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

Chapter ILHR 16, Electrical Code, Volume 2, covers 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.

Chapter ILHR 16 incorporates by reference the National Fire Protection Association (NFPA) standard NFPA 70 - National Electrical Code. In addition, this chapter includes amendments which clarify or supplement the electrical standards contained in the National Electrical Code. The proposed rules consist of an update of chapter ILHR 16, including the incorporation by reference of the 1993 edition of the National Electrical Code (NEC).

The proposed rules contain only those provisions that are being changed relative to the current edition of chapter ILHR 16. The majority of the provisions in chapter ILHR 16 are not being changed and therefore do not appear in the proposed rules. Two provisions on which the department has received a significant amount of comments are the requirements relating to the use of a secondary isolation impedance device and an equipotential plane in agricultural buildings. The current code prohibits the use of the impedance device and requires the use of the equipotential plane.

The following is a summary of the major provisions being changed in chapter ILHR 16.

1. Adding an informational note relating to the federal and state Fair Housing Acts and the federal Americans with Disabilities Act.

2. Deleting the requirement that a receptacle outlet for a garage door opener must be a single receptacle.

3. Clarifying the requirements relating to clearances from buildings for conductors not over 600 volts.

4. Deleting the exception allowing the use of listed ceiling, fixture and cord combinations above suspended ceilings.

5. Deleting the requirement for the installation of the equipotential plane in agricultural buildings.

6. Adding an exception to the listing requirement for permanently-connected, skeleton-type neon signs for interior use.

7. Adding an exception to reflect the rules of the NEC which allow gas tube sign cable up to 4 feet in length.

8. Clarifying the requirement relating to fire alarm system wiring in a raceway.

9. Deleting several rules in the Wisconsin supplement which are covered by changes in the 1993 NEC.

The proposed rules have been developed with the assistance of the Electrical Code Project Committee. The members of that citizen advisory committee are as follows:

<u>Name</u>	<u>Representing</u>
Charles Forster	Wisconsin Electric Cooperative Association
Charles B. Gustafson	Wisconsin Utilities Association, Inc.
Jerry Hill	Wisconsin Builders Association
Philip H. Larson	Wisconsin Healthcare Engineering Association
Ronald E. Maassen	National Electrical Contractors Association, Milwaukee Chapter
Steven Sauer	Department of Agriculture, Trade and Consumer Protection
Lanny L. Smith	Public Service Commission
Raymond W. Weber	International Association of Electrical Inspectors, Wisconsin Chapter
Paul Welnak	Wisconsin State AFL-CIO

SECTION 1. ILHR 16.02 (1)(b) and (c) are amended to read:

ILHR 16.02 (1)(b) Installations of conductors and equipment that connect to the supply of electricity.

(c) Installations of other outside conductors and equipment on the premises.

SECTION 2. ILHR 16.08 (1) Note is created to read:

ILHR 16.08 (1) Note: The federal and state Fair Housing Acts, the federal Americans with Disabilities Act and the Wisconsin Commercial Building Code (Chs. ILHR 50 to 64) contain requirements relating to making buildings accessible to and usable by people with disabilities. Some of those requirements apply to the installation of various electrical devices. For example, in the federal fair housing accessibility guidelines, devices such as light switches, electrical outlets, thermostats and other environmental controls would meet the requirements if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach; or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Complete copies of the federal Fair Housing Accessibility Guidelines or the federal Americans with Disabilities Act Accessibility Guidelines can be obtained from the Superintendent of Documents, New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954.

SECTION 3. ILHR 16.12 (1) is amended to read:

ILHR 16.12 (1) CONSENT TO INCORPORATE. (a) 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, NEC-1990 1993, subject to those changes, additions, or omissions specified in subch. III.

(b) The National Electrical Code, NEC-1990 1993, subject to the changes, additions or omissions specified in subch. III is hereby incorporated by reference into this chapter.

SECTION 4. ILHR 16.12 (2) Note 1 is amended to read:

ILHR 16.12 (2) Note 1: Copies of the National Electrical Code can be obtained from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, telephone 1-800-344-3555.

SECTION 5. ILHR 16.185 is created to read:

ILHR 16.185 [NEC 210-4] MULTIWIRE BRANCH CIRCUITS. This is a department informational note to be used under NEC 210-4 (d):

Note: For 277/480 volt systems, the recommended wire colors are brown, orange and yellow. For 120/208 volt systems, the recommended wire colors are black, red and blue.

SECTION 6. ILHR 16.20 (1) is repealed.

SECTION 7. ILHR 16.21 is repealed.

SECTION 8. ILHR 16.22 (1) is repealed.

SECTION 9. ILHR 16.24 (1)(a) is amended to read:

ILHR 16.24 (1)(a) This is a department rule in addition to the requirements of NEC 225-18:

~~Open-conductors~~ Conductors of not over 600 volts nominal shall have a clearance of at least ~~27~~ 24.5 feet over track rails of railroads.

SECTION 10. ILHR 16.24 (2)(a) is repealed.

SECTION 11. ILHR 16.24 (2)(b) is repealed and recreated to read:

ILHR 16.24 (2)(b) Substitute the following wording for NEC 225-19 (a) Exception No. 4:

Exception No. 4. The requirement for maintaining the vertical clearance 3 feet from the edge of the roof shall not apply to the final conductor span to the building.

SECTION 12. ILHR 16.25 (8) is repealed.

SECTION 13. ILHR 16.28 (2) (intro.) is amended to read:

ILHR 16.28 (2) (intro.) CONDUCTOR CONNECTIONS. A wiring enclosure for alarm and pump circuit connections shall be provided outside of and within 3 feet of the pump chamber, and holding tank as follows:

SECTION 14. ILHR 16.30 (1)(a) is repealed.

SECTION 15. ILHR 16.30 (2) is amended to read:

ILHR 16.30 (2) [NEC Tables 310-16 through 310-19] AMPACITY ADJUSTMENT FACTORS. This is a department exception in addition to the exceptions specified in Note 8 (a) to NEC Tables 310-16 through 310-19:

Exception No. 5 6. The derating factors shown above do not apply to branch circuits supplying an individual dwelling unit.

SECTION 16. ILHR 16.31 is repealed.

SECTION 17. ILHR 16.325 is created to read:

ILHR 16.325 [NEC 336-10] EXPOSED WORK - GENERAL. Substitute the following wording for NEC 336-10 (intro.):

In exposed work, except as provided in sections 336-12 and 336-13, the cable shall be installed as specified in (a) and (b) below.

SECTION 18. ILHR 16.37 is repealed and recreated to read:

ILHR 16.37 [NEC 400-8] USES NOT PERMITTED. This is a department rule in addition to the requirements of NEC 400-8:

Flexible cords and cables shall not be used above suspended ceilings.

SECTION 19. ILHR 16.38 is repealed.

SECTION 20. ILHR 16.39 (2) is repealed.

SECTION 21. ILHR 16.42 (2) and (3) are repealed.

SECTION 22. ILHR 16.43 (1) to (3) are renumbered (2) to (4).

SECTION 23. ILHR 16.43 (1) is created to read:

ILHR 16.43 (1) [NEC 600-4] LISTING REQUIRED. This is a department exception in addition to the requirements of NEC 600-4:

Exception: Listing shall not be required for permanently-connected, skeleton-type neon signs for interior use.

SECTION 24. ILHR 16.43 (3)(a) 3. is created to read:

ILHR 16.43 (3)(a) 3. Exception: Gas tube sign cable not exceeding 4 feet in length between gas tubing and adjacent metal enclosures shall be permitted to be enclosed in continuous glass or other insulating sleeves.

SECTION 25. ILHR 16.50 (2)(b) is amended to read:

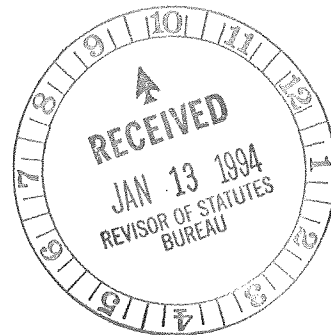
ILHR 16.50 (2)(b) Where a raceway is installed for required fire alarm system wiring, it shall contain no ~~other~~ circuits that are not part of the fire alarm system.

(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.

CODES6:64



Tommy G. Thompson
Governor
Carol Skornicka
Secretary



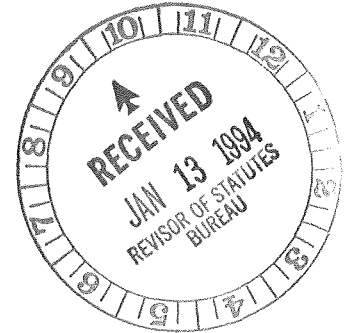
Mailing Address:
201 E. Washington Avenue
Post Office Box 7946
Madison, WI 53707-7946
Telephone (608) 266-7552

State of Wisconsin Department of Industry, Labor and Human Relations

January 13, 1994

Gary Poulson
Assistant Revisor of Statutes
Suite 800
131 W. Wilson St.
Madison, Wisconsin 53703-3233

Douglas LaFollette
Secretary of State
10th Floor
30 West Mifflin Street
Madison, Wisconsin 53703



Dear Messrs. Poulson and LaFollette:

TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO. 93-46

RULE NO. Chapter ILHR 16

RELATING TO: Electrical Code, Volume 2

Pursuant to section 227.20, Stats., agencies are required to file a certified copy of every rule adopted by the agency with the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you:

1. Order of Adoption.
2. Rules Certificate Form.
3. Rules in Final Draft Form.

Pursuant to section 227.114, Stats., a summary of the final regulatory flexibility analysis is included for permanent rules. A fiscal estimate and fiscal estimate worksheet is included with an emergency rule.

Respectfully submitted,


Carol Skornicka
Secretary