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Governor Scott Walker Secretary Dave Ross

**TELECONFERENCE/VIRTUAL MEETING
ELECTRICAL CODE ADVISORY COMMITTEE MEETING
Room 121C, 1400 East Washington Avenue, Madison
Contact: Dale Kleven (608) 261-4472
September 26, 2016**

The following agenda describes the issues that the Committee plans to consider at the meeting. At the time of the meeting, items may be removed from the agenda. Please consult the resulting meeting minutes for a description of the recommendations of the Committee.

AGENDA

9:00 A.M.

CALL TO ORDER – ROLL CALL

- A. Adoption of Agenda (1)**
- B. Approval of Minutes of August 29, 2016 (2-4)**
- C. Department Update**
- D. Review and Discussion of Changes to the NEC (5-21)**
 - 1) Recommendation Concerning Self-Contained Emergency and Exit Lights (5)
 - 2) Update on Certified Amending Motions for the NEC (6-20)
 - 3) Tentative Interim Amendment Revising NEC 690.56 (C) (21)
 - 4) Wisconsin Considerations and Committee Recommendations
- E. Review and Discussion of SPS 305 and 316 Draft Rule Language (22-49)**
 - 1) Consider Approval of Draft Rule Language
- F. Public Comments**
- G. Adjournment**

**SPS 316 ELECTRICAL CODE ADVISORY COMMITTEE MEETING
MEETING MINUTES
August 29, 2016**

PRESENT Steven Bacalzo, Joseph Bembnister, Brad Gruenewald, Paul Gruettner, David Helgeson, Gene Jacobson, Charles Johansen, Bill Neitzel, James Rugg

EXCUSED Shannon Clark, John Nikolai

STAFF Dale Kleven, Rules Coordinator; Jeff Grothman, Policy Advisor; Anthony Tadysak, DIS Engineering Consultant; Nifty Lynn Dio, Bureau Assistant; and other Department staff

CALL TO ORDER

Bill Neitzel, called the meeting to order at 9:04 a.m. A quorum of nine (9) members was confirmed.

ADOPTION OF AGENDA

MOTION: Gene Jacobson moved, seconded by Brad Gruenewald, to adopt the agenda as published. Motion carried unanimously.

APPROVAL OF MINUTES

Amendments to the Minutes

- *Add Joseph Bembnister to PRESENT section*

MOTION: Gene Jacobson moved, seconded by Joseph Bembnister, to approve the minutes of July 28, 2016 as amended. Motion carried unanimously.

REVIEW AND DISCUSSION OF CHANGES TO THE NEC

Division of Industry Services Update Concerning SPS 316.680 Relating to Pools

MOTION: Joseph Bembnister moved, seconded by Gruettner, to use the NEC 70 definitions for Permanently Installed and Storable Pools in place of the recommended language for SPS 316.680. Motion carried unanimously.

NEC Code Revisions

MOTION: David Helgeson moved, seconded by Joseph Bembnister, to accept the DSPS recommended language for SPS 316.511 as presented at the meeting. Motion carried unanimously.

Wisconsin Considerations and Committee Recommendations

SPS 316.210 (4) – Branch Circuit Extensions or Modifications

MOTION: David Helgeson moved, seconded by Charles Johansen, to accept the DSPS recommended language for SPS 316.210(4) as presented at the meeting. Motion carried unanimously.

The statement below was presented by Charles Johansen at the meeting:

One of the most difficult challenges facing the housing industry is the delicate balance between safety and affordability. With today's increased technology in all facets of home construction that challenge becomes even greater. The increase use of arc fault interrupters and ground fault interrupters in the 2014 and 2017 National Electrical Code further strains that balance.

SPS 316.406 – Receptacles, Cord Connectors, and Attachment Plugs

MOTION: David Helgeson moved, seconded by Charles Johansen, to keep the existing language in SPS 316.406 as discussed at the meeting. Motion carried. Opposed: Bacalzo

Selective Coordination of Overcurrent Devices

MOTION: Paul Gruettner moved, seconded by David Helgeson, to not modify the selective coordination provisions in the 2017 NEC as discussed at the meeting. Motion carried unanimously.

Review and Discussion of SPS 305 and 316 Draft Rule Language

MOTION: David Helgeson moved, seconded by Joseph Bembnister, to include SPS 316.930 and 316.960 in subchapter II of chapter SPS 316 as revised by department staff. Motion carried unanimously.

MOTION: Charles Johansen moved, seconded by Gene Jacobson, to request DSPS staff draft language relating to a minimum of 9 month delay of effective date in SPS 305.629(1) and a minimum of 18 month delay of effective date in SPS 316.011(1)1., SPS 316.012 and SPS 316.013 without a lapse in current provisions. Motion carried unanimously

ADJOURNMENT

MOTION: Charles Johansen moved, seconded by Gene Jacobson, to adjourn the meeting. Motion carried unanimously.

The meeting adjourned at 2:08 p.m.

DRAFT

I would like to put something in place to limit the number of self contained pieces of "Unit Equipment" in commercial occupancy's. As you know testing all those batteries monthly never happens and when the battery life is gone they never get replaced. This could result in a life safety issue trying to get out of the building with no EM or EXIT lights. I would recommend a maximum number then make them do an online inverter system with a central control with remote heads, generator or maybe the new self-testing units. In large buildings that do not want the cost of the generator an inverter could be installed for each floor.

We would have to decide on the maximum number and the IBC occupancy buildings that do not require a generator for installation.

Ron Janikowski

BADGER STATE CONSULTING, LLC

Update on Certifying Amending Motions

CAM 70-3: This motion passed at the NFPA Technical Meeting, but did not achieve an affirmative vote from the Code-Making Panel. As a result, the text reverts back to the 2014 NEC. This means the 2017 NEC does not include NEC 225.30 (F).

CAM 70-7: This motion passed at the NFPA Technical Meeting, but did not achieve an affirmative vote from the Code-Making Panel. As a result, NEC 250.122 (B) reverts back to the text in the 2014 NEC.

CAM 70-13: This motion failed at the NFPA Technical Meeting, but this action was overturned on appeal by the Standards Council. As a result, the motion was passed and the text of NEC 370.80 has been revised accordingly.

CAM 70-25: This motion passed at the NFPA Technical Meeting, but did not achieve an affirmative vote from the Code-Making Panel. As a result, NEC 625.17 (B) reverts back to the text in the 2014 NEC.



Motion Seq#	Certified Amending Motion: Accept an Identifiable Part of Public Comment No. 793
70-3	<p>Recommended Text if Motion Passes:</p> <p>225.30 (F) One- or Two-Family Dwelling Unit(s). For a one- or two-family dwelling unit(s) with multiple feeders, it shall be permissible to install not more than six disconnects grouped at one location where the feeders enter the building, provided the feeder conductors are sized 1/0 or larger and originate at the same switchboard, panelboard, or overcurrent protective device location.</p> <hr/> <p>Recommended Text if Motion Fails:</p> <p>225.30 (F) One- or Two-Family Dwelling Unit(s). For a one- or two-family dwelling unit(s) with multiple feeders, it shall be permissible to install not more than six disconnects grouped at one location where the feeders enter the building, provided the feeder conductors are sized 1/0 or larger and originate at the same switchboard, panelboard, or overcurrent protective device location.</p>



National Fire Protection Association

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MEMORANDUM

(AMENDMENT)

TO: NEC® Correlating Committee
FROM: Yvonne Smith, *Project Administrator*
DATE: July 14, 2016
SUBJECT: NFPA 70, Letter Ballot on Amendment 70-3 (Accept an Identifiable Part of Public Comment No. 793)

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-3: Accept an Identifiable Part of Public Comment No. 793

The Amendment did NOT achieve the necessary 2/3rds affirmative vote of the NEC Code-Making Panel 4. As a result, the recommendation of the Panel is to revert to previous edition text, if any exists.

Pursuant to section 4.6 and Table 1 of the *Regulations Governing the Development of NFPA Standards (Regs)*, this Amendment is being submitted for ballot of the Correlating Committee to determine if any correlation issues will be created from the recommendation to revert to previous edition text, if any exists.

Please review this item, complete the attached ballot, and return it to NFPA as soon as possible, but no later than **July 21, 2016**. **If you Disagree or Abstain on an Amendment please indicate your reason(s) for doing so.**

NOTE:

The Panel ballot and applicable Comments are attached for your convenience.

The transcripts from the Annual 2016 NFPA Technical Meeting (Tech Session) are available at: www.nfpa.org/techsession.

Note: Please remember that the return of ballots is required in accordance with Section 3.1.3.1 of the *Regulations Governing the Development of NFPA Standards*.



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MEMORANDUM (AMENDMENT)

TO: NEC® Correlating Committee

FROM: Yvonne Smith, Administrator, Technical Projects

DATE: July 22, 2016

SUBJECT: **Final Results** – Amendment 70-3 Letter Ballot to Accept an Identifiable Part of PC No. 793 of NFPA 70

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-3: Accept and Identifiable Part of Public Comment No. 793

This Amendment did **NOT** achieve the necessary 2/3rds majority of the Code-Making Panel 4. As a result, the recommendation of the Panel is to revert to previous edition text.

The Correlating Committee was asked to vote as to whether or not there are any correlation issues with the Code-Making Panel recommendation to revert to previous edition text.

The final results of balloting are as follows:

12	Members Eligible to Vote
1	Ballot not Returned (Manche)
11	Agree
0	Disagree
0	Abstentions

According to 4.6 of the *Regulations Governing the Development of NFPA Standards (Regs)*, the final results show the Amendment **HAS** achieved the 3/4 affirmative vote needed to **NOT** recommend approval of the Association Action by the Correlating Committee. As a result, the recommendation to the Standards Council is that there are no correlation issues created by reverting to previous edition text.

The number of votes needed to recommend approval of the Association Action is **9**.

(12 eligible to vote - 1 not returned - 0 abstentions = $11 \times 0.75 = 8.25$)

Note: Please remember that the return of ballots is required in accordance with Section 3.1.3.1 of the *Regulations Governing the Development of NFPA Standards*.



Motion Seq#	Certified Amending Motion: Reject an Identifiable Part of Second Revision No. 1223
70-7	<p>Recommended Text if Motion Passes:</p> <p>250.122. ...</p> <p>(B) Increased in Size. If ungrounded conductors are increased in size <u>for any reason from the minimum size that has sufficient ampacity for the intended installation before the application of any adjustment or correction factor(s) to account for voltage drop</u>, wire-type equipment grounding conductors shall be increased in size. The increase in size shall be at least in the same proportion as the increase in the size of the ungrounded conductors using their circular mil area.</p> <hr/> <p>Recommended Text if Motion Fails:</p> <p>250.122. ...</p> <p>(B) Increased in Size. If ungrounded conductors are increased in size to account for voltage drop, wire-type equipment grounding conductors shall be increased in size. The increase in size shall be at least in the same proportion as the increase in the size of the ungrounded conductors using their circular mil area.</p>



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MEMORANDUM

(AMENDMENT)

TO: NEC® Correlating Committee
FROM: Diane Matthews, Administrator, Technical Projects
DATE: July 15, 2016
SUBJECT: NFPA 70, Letter Ballot on Amendment 70-7 (Reject an Identifiable Part of Second Revision No. 1223)

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-7: Reject an Identifiable Part of Second Revision No. 1223

The Amendment did NOT achieve the necessary 2/3rds affirmative vote of the NEC Code-Making Panel 5. As a result, the recommendation of the Panel is to revert to previous edition text, if any exists.

Pursuant to section 4.6 and Table 1 of the *Regulations Governing the Development of NFPA Standards (Regs)*, this Amendment is being submitted for ballot of the Correlating Committee to determine if any correlation issues will be created from the recommendation to revert to previous edition text, if any exists.

Please review this item, complete the attached ballot, and return it to NFPA as soon as possible, but no later than **Friday, July 22, 2016**. **If you Disagree or Abstain on an Amendment please indicate your reason(s) for doing so.**

NOTE:

The Panel ballot and applicable Comments are attached for your convenience.

The transcripts from the Annual 2016 NFPA Technical Meeting (Tech Session) are available at: www.nfpa.org/techsession.

Note: Please remember that the return of ballots is required in accordance with Section 3.1.3.1 of the *Regulations Governing the Development of NFPA Standards*.



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MEMORANDUM (AMENDMENT)

TO: NEC® Correlating Committee

FROM: Diane Matthews, Administrator, Technical Projects

DATE: July 25, 2016

SUBJECT: Final Results – Amendment 70-7 Letter Ballot on the Proposed 2017 edition of NFPA 70

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-7: Reject an Identifiable part of Second Revision No. 1223

This Amendment did NOT achieve the necessary 2/3rds majority of the Code-Making Panel 5. As a result, the recommendation of the Panel was to revert to previous edition text.

The Correlating Committee was asked to vote as to whether or not there would be any correlation issues with the Code-Making Panel recommendation for reverting to previous edition text.

The final results of balloting are as follows:

12	Members Eligible to Vote
1	Ballot not Returned (Manche)
11	Agree
0	Disagree
0	Abstentions

According to 4.6 of the *Regulations Governing the Development of NFPA Standards (Regs)*, the final results show the Amendment **HAS** achieved the 3/4 affirmative vote needed to **not** recommend approval of the Association Action by the Correlating Committee. As a result, the recommendation to the Standards Council will be that there will be no correlation issues being created by reverting to previous edition text.

The number of votes needed to recommend approval of the Association Action is 9.

(12 eligible to vote - 1 not returned - 0 abstentions = $11 \times 0.75 = 8.25$)

Note: Please remember that the return of ballots is required in accordance with Section 3.1.3.1 of the *Regulations Governing the Development of NFPA Standards*.



<p>Motion Seq#</p>	<p>Certified Amending Motion: Reject Second Revision No. 2110</p>
<p>70-13</p>	<p>Recommended Text if Motion Passes:</p> <p>370.80 Ampacity of Conductors.</p> <p>(A) Ampacity of Single Insulated Conductors. The ampacity of conductors in cablebus shall be in accordance with Table 310.15(B)(17) and Table 310.15(B)(19) for installations up to and including 2000 volts, or with Table 310.60(C)(69) and Table 310.60(C)(70) for installations 2001 to 35,000 volts.</p> <p>(B) Ampacity of Cables Rated 2000 Volts or Less. In cablebus that terminates at equipment with conductor temperature limitations, the allowable ampacity of single-conductor cables shall be as permitted by 310.15(A)(2). The adjustment factors of 310.15(B)(3) (a) shall not apply to the ampacity of cables in cablebus. The ampacity of single-conductor cables, nominally rated 2000 volts or less, shall comply with the following:</p> <p>(1) The ampacities for 600 kcmil and larger single-conductor cables in ventilated cablebus shall not exceed 75 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).</p> <p>(2) Where cablebus are continuously covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 600 kcmil and larger cables shall not exceed 70 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).</p> <p>(3) The ampacities for 1/0 AWG through 500 kcmil single-conductor cables in ventilated cablebus shall not exceed 65 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).</p> <p>(4) Where cablebus are continuously covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 1/0 AWG through 500 kcmil cables shall not exceed 60 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).</p> <p>(C) Ampacity of Type MV and Type MC Cables Rated 2001 Volts or Over. The ampacity of Type MV and Type MC cables, nominally rated 2001 volts or over, in cablebus shall comply with the following:</p> <p>(1) The ampacities for 1/0 AWG and larger single-conductor cables in ventilated cablebus shall not exceed 75 percent of the allowable ampacities in Table 310.60(C)(69) and Table 310.60(C)(70).</p> <p>(2) Where the cablebus are covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 1/0 AWG and larger single-conductor cables shall not exceed 70 percent of the allowable ampacities in Table 310.60(C)(69) and Table 310.60(C)(70).</p> <p>Informational Note No. 1: See 110.14(C) for conductor temperature limitations due to termination provisions for installations up to and including 2000 volts.</p> <p>Informational Note No. 2: See 110.40 for conductor temperature limitations due to termination provisions for installations 2001 to 35,000 volts.</p> <hr/> <p>Recommended Text if Motion Fails:</p> <p>370.80 Ampacity of Conductors.</p> <p>(A) Ampacity of Single Insulated Conductors. The ampacity of conductors in cablebus shall be in accordance with Table 310.15(B)(17) and Table 310.15(B)(19) for installations up to and including 2000 volts, or with Table 310.60(C)(69) and Table 310.60(C)(70) for installations 2001 to 35,000 volts.</p> <p>(B) Ampacity of Cables Rated 2000 Volts or Less. In cablebus that terminates at equipment with conductor temperature limitations, the allowable ampacity of single-conductor cables shall be as permitted by 310.15(A)(2). The adjustment factors of 310.15(B)(3)</p>

70-13
Cont'd

(a) shall not apply to the ampacity of cables in cablebus. The ampacity of single-conductor cables, nominally rated 2000 volts or less, shall comply with the following:

(1) The ampacities for 600 kcmil and larger single conductor cables in ventilated cablebus shall not exceed 75 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19) .

(2) Where cablebus are continuously covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 600 kcmil and larger cables shall not exceed 70 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19) .

(3) The ampacities for 1/0 AWG through 500 kcmil single conductor cables in ventilated cablebus shall not exceed 65 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).

(4) Where cablebus are continuously covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 1/0 AWG through 500 kcmil cables shall not exceed 60 percent of the allowable ampacities in Table 310.15(B)(17) and Table 310.15(B)(19).

(C) Ampacity of Type MV and Type MC Cables Rated 2001 Volts or Over.

The ampacity of Type MV and Type MC cables, nominally rated 2001 volts or over, in cablebus shall comply with the following:

(1) The ampacities for 1/0 AWG and larger single-conductor cables in ventilated cablebus shall not exceed 75 percent of the allowable ampacities in Table 310.60(C)(69) and Table 310.60(C)(70).

(2) Where the cablebus are covered for more than 1.8 m (6 ft) with solid unventilated covers, the ampacities for 1/0 AWG and larger single-conductor cables shall not exceed 70 percent of the allowable ampacities in Table 310.60(C)(69) and Table 310.60(C)(70).

Informational Note No. 1: See 110.14(C) for conductor temperature limitations due to termination provisions for installations up to and including 2000 volts.

Informational Note No. 2: See 110.40 for conductor temperature limitations due to termination provisions for installations 2001 to 35,000 volts.



Dawn Michele Bellis
Secretary, Standards Council

8 August 2016

To: Interested Parties

Subject:

Standards Council Decision (Final):	D#16-9
Standards Council Agenda Item:	SC#16-8-3-f
Date of Decision*:	4 August 2016
NFPA 70®, <i>National Electrical Code</i> ®, 2017 Edition	

Dear Interested Parties:

At its meeting of August 3 – 4, 2016, the Standards Council considered an appeal on the above referenced matter. The Council's Final decision is now available and is attached herewith.

Sincerely,

A handwritten signature in cursive script that reads "Dawn Michele Bellis".

Dawn Michele Bellis
Secretary, NFPA Standards Council

cc: D. Berry, S. Everett, L. Fuller, W. Burke, M. Earley
Members, NEC Code-Making Panel 8 (NEC-P08)
Members, NEC Correlating Committee (NEC-AAC)
Members, NFPA Standards Council (AAD-AAA)
Individuals Providing Appeal Commentary

*NOTE: Participants in NFPA's codes and standards making process should know that limited review of this decision may be sought from the NFPA Board of Directors. For the rules describing the available review and the method for petitioning the Board for review, please consult section 1-7 of the Regulations Governing the Development of NFPA Standards and the NFPA Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council. Notice of the intent to file such a petition must be submitted to the Clerk of the Board of Directors within 15 calendar days of the Date of Decision noted in the subject line of this letter.



Standards Council Decision (Final):	D#16-9
Standards Council Agenda Item:	SC#16-8-3-f
Date of Decision*:	4 August 2016
NFPA 70® , <i>National Electrical Code</i> ®, 2017 Edition	

SUMMARY OF ACTION (for convenience only; not part of official decision): *The Standards Council voted to uphold the appeals to overturn the Association action on CAM 70-13 and Reject Second Revision No. 2110.*

DECISION:

At its meeting of August 3 – 4, 2016, the Standards Council considered the appeals of Amy Cronin of Strategic Code Solutions representing Cable Bus Manufacturers Association and Frederic P. Hartwell of Hartwell Electrical Services, Inc. The appeals request that Standards Council overturn the Association action on CAM 70-13 and Reject Second Revision No. 2110 for the 2017 Edition of NFPA 70®, *National Electrical Code*®. Specifically, the appeals seek the rejection of the amended text within Section 370.80 as proposed for the 2017 Edition of NFPA 70®, *National Electrical Code*® thereby returning the requirements for ampacity of cable bus conductors to previous edition text.

As background, Code-Making Panel 8 passed Second Revision No. 2110 thereby recommending inclusion in the 2017 edition of the NEC®. Appellant Frederic Hartwell filed a Notice of Intent to Make a Motion (NITMAM) that was certified by the Motions Committee as CAM 70-13. CAM 70-13 failed on the floor of the NFPA Technical Meeting. Appellants each filed an appeal for the Council’s consideration and determination.

The text sought by Appellants did not gain the necessary support within the standards development process for inclusion in the 2017 Edition of NFPA 70®, *National Electrical Code*®. The appeals request that the Council overturn the results yielded by the standards development process. On appeal, the Council accords great respect and deference to the NFPA standards development process. In conducting its review, the Council will overturn the results of that process only where a clear and substantial basis for doing so is demonstrated. The Council has reviewed the entire record concerning this matter and has considered all the arguments put forth in these appeals. In the view of the Council, these appeals present clear and substantial basis on which to overturn the results yielded by the NFPA standards development process. Accordingly, the Council has voted to uphold the appeals. The effect of this action is that Section 370.80 of the 2017 Edition of NFPA 70®, *National Electrical Code*® will return to previous edition text.

In upholding these appeals, the Council has considered all arguments advanced by the Appellants and, without commenting on each and every one, notes the following. The parties at the appeal hearing each acknowledge that there have been no reported safety issues involving the free air ampacity requirements for cable bus installations under the existing language of the NEC®. In addition, the Appellants and the NEC® Correlating Committee Chair, in particular, were amenable to the creation of a task group to delve further into this issue. Therefore, the Council, in addition to upholding the appeals, is directing NEC® Correlating Committee Chair, Mike Johnston, to assemble a task group to review the cable bus requirements in the NEC®. Specifically, the task group should include representatives of the cable bus industry.

Appellant Cable Bus Manufacturers Association additionally requests cable bus manufacturers or their representatives be included as code making panel members in the next revision cycle. The Council notes that following the completion of the revision cycle of the NEC®, membership on all CMPs is reviewed. Every effort is made to ensure that CMP members represent industries and interests impacted by the related standards development activity. The Council encourages all those with such interest to apply for CMP membership.



Motion Seq#	Certified Amending Motion: Accept Public Comment No. 1719; Accept Public Comment No. 1509; Accept Public Comment No. 1097; Accept Public Comment No. 1461
70-25	<p>Recommended Text if Motion Passes:</p> <p>625.17(B) (1) Output Cable to the Electric Vehicle. The output cable to the electric vehicle shall be Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Table 400.4. The output cable shall have an ampacity as specified in Table 400.5(A)(1) or, for 8 AWG and larger, in the 60°C columns of Table 400.5(A)(2). <u>Exception to (B)(1): Listed electric vehicle supply equipment may incorporate output cables having ampacities greater than the ampacities in the 60°C columns of Table 400.5(A)(2) based on the permissible temperature limits for the components and the cable.</u></p> <hr/> <p>Recommended Text if Motion Fails:</p> <p>625.17(B) (1) Output Cable to the Electric Vehicle. The output cable to the electric vehicle shall be Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Table 400.4. The output cable shall have an ampacity as specified in Table 400.5(A)(1) or, for 8 AWG and larger, in the 60°C columns of Table 400.5(A)(2).</p>



National Fire Protection Association

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MEMORANDUM

(AMENDMENT)

TO: NEC® Correlating Committee

FROM: Kelly Carey, *Project Administrator*

DATE: July 15, 2016

SUBJECT: NFPA 70, Letter Ballot on Amendment 70-25 (Multiple Notices for a Single Motion: Accept Public Comment Nos. 1719, 1509, 1091 and 1461)

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-25: Multiple Notices for a Single Motion: Accept Public Comment Nos. 1719, 1509, 1091 and 1461.

The Amendment did NOT achieve the necessary 2/3rds affirmative vote of the NEC Code-Making Panel 12. As a result, the recommendation of the Panel is to revert to previous edition text, if any exists.

Pursuant to section 4.6 and Table 1 of the *Regulations Governing the Development of NFPA Standards (Regs)*, this Amendment is being submitted for ballot of the Correlating Committee to determine if any correlation issues will be created from the recommendation to revert to previous edition text, if any exists.

Please review this item, complete the attached ballot, and return it to NFPA as soon as possible, but no later than **July 22, 2016**. **If you Disagree or Abstain on an Amendment please indicate your reason(s) for doing so.**

NOTE:

The Panel ballot and applicable Comments are attached for your convenience.

The transcripts from the Annual 2016 NFPA Technical Meeting (Tech Session) are available at: www.nfpa.org/techsession.

Note: Please remember that the return of ballots is required in accordance with Section 3.1.3.1 of the *Regulations Governing the Development of NFPA Standards*.



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**MEMORANDUM
(AMENDMENT)**

TO: NEC® Correlating Committee

FROM: Kelly Carey, *Project Administrator*

DATE: July 25, 2016

SUBJECT: Final Results – Amendment 70-25 Letter Ballot on the Proposed 2017 edition of NFPA 70

At the NFPA Technical Meeting (Tech Session), held June 16, 2016, NFPA 70 was amended by the acceptance of the following:

Amendment 70-25: Accept Public Comment No. 1719, Accept Public Comment No. 1509, Accept Public Comment No. 1097 and Accept Public Comment No. 461

This Amendment did NOT achieve the necessary 2/3rds majority of the Code-Making Panel 12. As a result, the recommendation of the Panel was to revert to previous edition text.

The Correlating Committee was asked to vote as to whether or not there would be any correlation issues with the Code-Making Panel recommendation for reverting to previous edition text.

The final results of balloting are as follows:

12 Members Eligible to Vote
1 Ballot not Returned (*Pierce*)
11 Agree
0 Disagree
0 Abstentions

According to 4.6 of the *Regulations Governing the Development of NFPA Standards (Regs)*, the final results show the Amendment HAS achieved the 3/4 affirmative vote needed to not recommend approval of the Association Action by the Correlating Committee. As a result, the recommendation to the Standards Council will be that there will be no correlation issues being created by reverting to previous edition text.

The number of votes needed to recommend approval of the Association Action is **9**.

(12 eligible to vote - 1 not returned - 0 abstentions = $11 \times 0.75 = 8.25$)



Tentative Interim Amendment

NFPA 70[®]

National Electrical Code[®]

2017 Edition

Reference: 690.56(C)
TIA 17-1
(SC 16-8-15 / TIA Log #1233)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. *Revise 690.56(C) to read as follows:*

(C) Buildings with Rapid Shutdown. Buildings with PV systems shall have permanent labels as described in 690.56(C)(1) through (C)(3).

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(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo)

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Chapter SPS 316

ELECTRICAL

Except as otherwise noted, these rule changes will take effect on the first day of the month following publication

Subchapter I — ~~Administration and Enforcement~~ Purpose, Scope, and Application

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

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

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

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

~~SPS 316.002 **Scope. (1)** COVERED. This chapter covers:~~

~~(a) Installations of electric and communication conductors and equipment in places of employment, within or on public and private buildings or other structures, including mobile homes, recreational vehicles, and floating buildings; and other premises such as yards, carnivals, parking and other lots, mines, trenches and tunnels, and industrial substations.~~

~~(b) Installations of conductors and equipment that connect to the supply of electricity.~~

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

~~(d) Installations of optical fiber cable.~~

~~(e) Installations in buildings used by the electric utility, such as office buildings, warehouses, garages, machine shops and recreational buildings, that are not an integral part of a generating plant, substation or control center.~~

~~(f) Inspections of electrical construction of farms, public buildings and places of employment.~~

~~**(2)** NOT COVERED. This chapter does not cover:~~

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

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

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

~~(d) Installations, including associated lighting, under the exclusive control of electric utilities for the purpose of communications, metering, generation, control, transformation, transmission or distribution of electric energy. Such installations shall be located in buildings used exclusively by utilities for such purposes; outdoors on property owned or leased by the utility; on or along public highways, streets, roads or similar public thoroughfares; or outdoors on private property by established rights such as easements.~~

~~(e) Installations for the purpose of street or area lighting owned and under exclusive control of electrical utilities or municipal electric departments where located outdoors on property owned or leased by the utility; on or along public highways, streets, roads or similar public thoroughfares; or outdoors on private property by established rights such as easements, where such installations are in compliance with ch. PSC 114.~~

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

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

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

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

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

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

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

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

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

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

(f) Installations for the purpose of street or area lighting owned and under exclusive control of electrical utilities or municipalities where located outdoors on property owned or leased by the utility; on or along public highways, streets, roads or similar public thoroughfares; or outdoors on private property by established rights such as easements shall comply with this chapter or ch. PSC 114.

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

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

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

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

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

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

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

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

Note: This chapter does not nullify any exclusions specified in the standards adopted under s. SPS 316.014 316.007.

~~SPS 316.004 **Authority.** (1) DEPARTMENT AUTHORITY. Under s. 101.02 (1), Stats., the department reserves the right to interpret the requirements in this chapter and in all adopted codes and standards.~~

~~**Note:** Section 101.02 (1) of the Statutes reads: "The department shall adopt reasonable and proper rules and regulations relative to the exercise of its powers and authorities and proper rules to govern its proceedings and to regulate the mode and manner of all investigations and hearings."~~

~~(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. SPS 316.920 (2) specifies the conditions required for municipalities to exercise this jurisdiction.~~

~~**Note:** Section SPS 320.02 (1) (a) prohibits any municipality from adopting an ordinance establishing restrictions on the electrical construction of one and two family dwellings covered by the Uniform Dwelling Code.~~

~~**Note:** Section SPS 361.03 (5) (b) prohibits any municipality from adopting an ordinance establishing restrictions on the electrical construction of multifamily dwellings as defined in s. SPS 362.0202.~~

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

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

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

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

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

~~SPS 316.006 **Penalties.** Penalties for violations of this chapter shall be assessed in accordance with s. 101.02 (12) and (13), or s. 101.88 (3), Stats.~~

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

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

SPS 316.006 **Definitions.** In this chapter:

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

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

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

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

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

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

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

(5) “Multifamily dwelling” has the meaning given in s. 101.971 (2), Stats.

Note: Under s. 101.971 (2), Stats., “multifamily dwelling” means an apartment building, rowhouse, town house, condominium or manufactured building, as defined in s. 101.71 (6), that does not exceed 60 feet in height or 6 stories and that consists of 3 or more attached dwelling units the initial construction of which is begun on or after January 1, 1993. ‘Multifamily dwelling’ does not include a facility licensed under ch. 50.”

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

(7) “One- and 2- family dwelling” means any building that contains one or 2 dwelling units that construction of which commenced on or after December 1, 1978.

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

Note: Under s. 101.01 (11), Stats., “place of employment” includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by 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 employees for use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, “place of employment” does not include an adult family home, as defined in s. 50.01 (1), 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.

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

Note: Under s. 101.01 (12), Stats., “public building” means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy or use by the public or by 3 or more tenants. When used in relation to building codes, “public building” does not include a previously constructed building used as a community-based residential facility as defined in s. 50.01 (1g) 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).

~~SPS 316.007—Fees.~~ Fees for petitions for variance, electrical plan review and electrical inspections issued under this chapter shall be submitted as specified in ch. SPS 302.

SPS 316.007 **Adoption of standards by reference.** (1) PRIMARY STANDARDS. The following standard is hereby incorporated by reference into this chapter, subject to the modifications specified in this chapter:

(a) National Fire Protection Association® (NFPA), One Batterymarch Park, Quincy, MA 02169-7471, telephone 800-344-3555, www.nfpa.org; *NFPA 70 National Electrical Code® (NEC®) – 2017*.

Note: Copies of the standard are on file in the offices of the Department and the Legislative Reference Bureau. A copy of the code may be purchased from the organization listed or may be reviewed on the organization’s website at not no cost if the person is a registered user for the site.

(b) If a requirement in the standard adopted in par. (a) contains a cross-reference to another requirement modified by this chapter, the modification shall apply to the cross-reference unless specified otherwise in this chapter.

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

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

~~SPS 316.008 **Appeals.** (1) APPEAL OF LOCAL ORDER. Any person affected by a local order which may be in conflict with a provision of this chapter may petition the department for a hearing on the grounds that the local order is unreasonable and in conflict with the provision of this chapter. All appeals shall be acted on and a decision in writing shall be issued by the department within 30 business days of receiving an appeal.~~

~~Note: Section 101.01 (1) (f), Stats., defines "local order" as any ordinance, order, rule or determination of any common council, board of aldermen, board of trustees or the village board, of any village or city, or the board of health of any municipality, or an order or direction of any official of such municipality, upon any matter over which the department has jurisdiction.~~

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

Subchapter II — Administration and Enforcement

Note: The creation of SPS 316.011 (2), 316.012, and 316.013 occurs on the first day of the 19th month beginning after the rules are published.

SPS 316.011 **Administration.** (1) MUNICIPAL ADMINISTRATION. (a) *Jurisdiction conditions.* Pursuant to s. 101.86 (1), Stats., municipalities may exercise jurisdiction over the inspection of electrical wiring installations at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks provided the municipality complies with all of the following:

1. As of the first day of the 9th month beginning after publication [LRB inserts date], the municipality holds a registration issued by the department as an inspection agency for the purpose of issuing permits and inspecting electrical wiring at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks.

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

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

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

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

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

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

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

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

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

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

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

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

SPS 316.012 **Permits.** (1) (a) Except as provided in par. (b), no electrical wiring project may commence unless the owner of the premises where the installation is to occur or their agent holds a permit from the designated inspection agency if the project involves the installation of new or an addition to any electrical service, feeder or branch circuit serving any of the following:

1. A farm.

2. A public building.

3. A place of employment.

4. A campground.
5. A manufactured home community.
6. A public marina, pier, dock, or wharf.
7. A recreational vehicle park.

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

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

- (a) The name of the applicant.
- (b) The name of the building or property owner.
- (c) The location of the electrical wiring installation.
- (d) The scope and extent of the electrical wiring installation.
- (e) 1. The name of the person responsible for the installation.

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

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

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

SPS 316.013 Inspections. (1) Electrical wiring installations shall be subject to inspection.

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

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

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

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

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

1. Electrical wiring shall remain accessible and exposed for inspection purposes.
2. Electrical wiring may not be energized.

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

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

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

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

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

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

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

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

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

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

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

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

Subchapter H III — General Requirements

~~SPS 316.009~~ 316.020 **Construction and operation.** (1) GENERAL. All electrical power and communication equipment and lines shall be constructed, installed, operated and maintained so as to minimize hazards to life and property. All electrical installations shall conform to the 2017 National Electrical Code®, incorporated by reference in this chapter, and the requirements specified in this chapter.

Note: The federal and state Fair Housing Acts, the federal Americans with Disabilities Act and the Wisconsin Commercial Building Code (chs. SPS 361 to 366) contain requirements relating to making buildings accessible to and usable by people with disabilities. Some of those requirements apply to the installation of various electrical devices. For example, in the federal fair housing accessibility guidelines, devices such as light switches, electrical outlets, thermostats and other environmental controls would meet the requirements if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach; or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Complete copies of the federal Fair Housing Accessibility Guidelines or the federal Americans with Disabilities Act Accessibility Guidelines can be obtained from the Superintendent of Documents, New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954.

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

~~SPS 316.010~~ 316.021 **Inspection and maintenance Maintenance.** All electrical installations and equipment shall be cleaned and inspected at intervals as experience has shown to be necessary. Any equipment or electrical installation known to be defective so as to endanger life or property shall be promptly repaired, permanently disconnected, or isolated until repairs can be made. ~~Construction, repairs, additions, and changes to electrical equipment and conductors shall be made by qualified persons only.~~

~~SPS 316.011 **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 subch. IV.~~

~~SPS 316.012~~ 316.022 **Use of approved materials and construction methods.** (1) MATERIALS. Materials, equipment and products that do not comply with the requirements of this chapter shall not be used unless approved in writing by a petition for variance issued by the department. Approval of materials, equipment, and products shall be based on sufficient data, tests, and other evidence that prove the material, equipment, or product meets the intent of the requirements of this chapter. Data, tests, and other evidence shall be provided by a qualified independent third party.

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

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

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

~~SPS 316.013~~ 316.023 **Electric fences.** The following are department rules in addition to the requirements of the *NEC®*:

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

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

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

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

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

~~SPS 316.014 **Adoption of standards by reference.** (1) PRIMARY STANDARDS.~~ The following standard is hereby incorporated by reference into this chapter, subject to the modifications specified in this chapter:

~~(a) National Fire Protection Association® (NFPA), One Batterymarch Park, Quincy, MA 02169-7471, telephone 800-344-3555, www.nfpa.org: *NFPA 70 National Electrical Code® (NEC®) 2011.*~~

Note: Copies of the standard are on file in the offices of the Department and the Legislative Reference Bureau. A copy of the code may be purchased from the organization listed or may be reviewed on the organization's website at not cost if the person is a registered user for the site.

~~(b) If a requirement in the standard adopted in par. (a) contains a cross reference to another requirement modified by this chapter, the modification shall apply to the cross reference unless specified otherwise in this chapter.~~

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

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

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

SPS ~~316.015~~ 316.080 **Changes, additions or omissions to NEC®.** Changes, additions or omissions to the *National Electrical Code® (NEC®)* are specified in this subchapter and are rules of the department and not requirements of the NEC®.

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

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

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

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

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

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

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

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

(2) SUBSTITUTIONS. The following department definitions ~~are~~ is a substitutions for the respective definitions in NEC 100:

~~(a) "Building" means a structure that stands alone or is separated from adjoining structures by fire walls having not less than a 3 hour fire resistance rating with all openings in the wall protected with 3 hour rated fire door assemblies.~~

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

~~(b) "Special permission" means a petition for variance in accordance with s. SPS 316.005.~~

~~SPS 316.110 **Requirements for electrical installation.** Substitute the following wording for the requirements in NEC 110.3 (B): Listed or labeled equipment shall be installed or used, or both, in accordance with any instructions included in the listing or labeling, provided the instructions, listing or labeling do not conflict with this chapter.~~

SPS 316.110 **Examination, identification, installation, use, and listing of equipment.** This is a department exception to the requirements of NEC 110.3 (C):

Exception: As provided under s. SPS 316.022 (1), product testing and evaluation may be conducted by a qualified independent third party, including a nationally recognized testing laboratory or a professional engineer.

~~SPS 316.210 **Branch circuits. (1) IDENTIFICATION FOR BRANCH CIRCUITS.** This is a department informational note to be used under NEC 210.5 (C):~~

~~**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.~~

~~**(2)(1) GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.** This is a department exception to the requirements in NEC 210.8 (A) and (B).~~

~~Exception: Ground-fault circuit-interrupter protection shall not be required for a single receptacle providing power for sump, or sewage, or condensate pumps where an accessible ground-fault circuit-interrupter protected receptacle is located within 900 mm (3 ft) of the non-GFCI protected receptacle.~~

~~**(3) BRANCH CIRCUITS REQUIRED.** This is a department rule in addition to the requirements of NEC 210.11: Where an air conditioner sleeve is provided in a building wall, a receptacle outlet shall be located within 4 feet of the sleeve. If a circuit is not run to the outlet, a raceway shall be provided. When the air conditioner is installed in the sleeve, it shall be supplied by an individual branch circuit. A receptacle outlet installed for an air conditioner may not be counted as one of the receptacles required by NEC 210.52 (A).~~

~~**(4)(2) BRANCH CIRCUIT EXTENSIONS OR MODIFICATIONS — DWELLING UNITS.** The requirements in NEC 210.12 ~~(B)~~ (D) are not included as part of this chapter.~~

~~**(5) LIGHTING OUTLETS REQUIRED.** 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.~~

~~**(6)(3) COUNTERTOP RECEPTACLES.** The requirements in NEC 210.52 (A) (4) are not included as part of this chapter.~~

(4) PENINSULAR COUNTERTOP SPACES. Substitute the following wording for NEC 210.52 (C) (3): At least one receptacle outlet must be installed at each peninsular countertop long dimension space with a long dimension of 2 feet or greater, and a short dimension of one foot or more, measured from the connected peninsular wall. A wall countertop space receptacle can serve as the receptacle for a peninsular countertop space where the spaces are contiguous and the receptacle is within 6 feet of the outside edge of the peninsular countertop.

(5) MEETING ROOMS. The requirements in NEC 210.71 do not apply to existing buildings.

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

~~(2) EXCEPTION.~~ This is a department exception to the requirements in NEC 220.40:

Exception: Under the supervision of a Wisconsin professional engineer, architect or designer of electrical systems, the feeder or service size may be computed using diversity factors or historical data of a similar type of building, other than one- and 2-family dwelling units.

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

~~(2)~~**(1)** NUMBER OF SUPPLIES. The following are department rules in addition to the requirements in NEC 225.30:

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

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

~~(3)~~**(2)** LOCATION. 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. SPS 316.230 (3).

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

~~(4)~~**(3)** CLEARANCES OVER ROADWAYS, WALKWAYS, RAIL, WATER AND OPEN LAND. Substitute the following wording for the note to NEC 225.60 (C):

Note: For clearances of conductors of over 600 volts, see ch. PSC 114.

~~(6)~~**(4)** CLEARANCES OVER BUILDINGS AND OTHER STRUCTURES. Substitute the following wording for the note to NEC 225.61 (B):

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

SPS 316.230 **Services.** **(1) NUMBER OF SERVICES.** (a) ~~These are~~ This is a department informational notes to be used under NEC 230.2 (intro.):

~~**Note:** See definition of building in s. SPS 316.100 (2) (a).~~

Note: It is recommended that the electric utility or cooperative supplying electric current be contacted prior to service equipment installations for any special requirements.

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

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

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

(3) SERVICE EQUIPMENT — DISCONNECTING MEANS. (a) *General.* This is a department rule in addition to the requirements of NEC 230.70: Disconnecting means shall be provided to disconnect the utility wiring from the premises wiring at any point where utility wiring terminates and premises wiring extends overhead or underground to more than one building or structure.

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

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

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

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

- ~~1. The load computed in accordance with NEC 220 does not exceed 80 amperes.~~
- ~~2. Specific written approval is granted by the municipal inspection department having jurisdiction.~~

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

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

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

SPS 316.300 **Wiring methods. (1) ELECTRICAL REQUIREMENTS FOR PRIVATE SEWAGE SYSTEMS.** These department rules apply to private sewage systems and are in addition to the requirements of NEC 300:

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

1. Effluent pumps shall be supplied by a separate branch circuit supplying no other loads.
2. Alarm wiring may not be connected to the pump circuit.
3. All aboveground cables and flexible cords shall be enclosed to protect against physical damage.
4. The neutral conductor may not be common to both alarm and pump circuits.
5. Where the wiring enclosure for the alarm and pump circuit is located outside the pump chamber, any openings into the pump chamber for circuit wiring shall be sealed or plugged to prevent the passage of gas or vapor into the wiring enclosure.

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

Note: See NEC 430.102 for location of disconnects.

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

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

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

SPS 316.310 **Conductors for general wiring.** This is a department rule in addition to the requirements in NEC 310.15 (B) (3) (a): The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit, ~~except under the following conditions:~~

~~Exception No. 6: The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit except under the following conditions:~~

~~**(1)** Where more than two NM cables containing two or more current carrying conductors are installed, without maintaining spacing between the cables, through the same opening in wood framing that is to be fire or draft stopped using thermal insulation, caulk or sealing foam, the allowable ampacity of each conductor shall be adjusted in accordance with Table 310.15 (B) (3) (a) and the provisions of 310.15 (A) (2) shall not apply.~~

~~**(2)** Where more than two NM cables containing two or more current carrying conductors are installed in contact with thermal insulation without maintaining spacing between cables, the allowable ampacity of each conductor shall be adjusted in accordance with Table 310.15 (B) (3) (a).~~

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

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

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

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

SPS 316.314 **Outlet, device, pull and junction boxes; conduit bodies; fittings; and handhole enclosures. (4) CONDUCTORS ENTERING BOXES, CONDUIT BODIES, OR FITTINGS.** ~~This is a department exception to the requirements of NEC 314.17 (B) and (C):~~

Exception: Nonmetallic sheathed cable is not required to be secured to the box or conduit body where it is installed in accordance with the wiring method specified in s. SPS 316.312.

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

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

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

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

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

SPS 316.400 **Flexible cords and cables.** This is a department exception in addition to the exception in NEC ~~400.8~~ 400.12 (4):

Exception No. 2: Flexible cords and cables permitted by NEC ~~400.7~~ 400.10 (A) that are connected to sources other than busways may be attached to adequately supported equipment or building surfaces provided the type of cord or cable, the attachment to the building and equipment, and the support comply with the provisions of NEC 368.56 (B).

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

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

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

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

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

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

SPS 316.511 **Commercial garages, repair and storage.** **(1)** Substitute the following wording for "Extent of Classified Location" in NEC Table 511.3 (C) under which the floor area of a major repair garage is considered unclassified: Up to 450 mm (18 in.) above floor level of the room where the room is provided with ventilation from a point not more than 300 mm (12 in.) from the lowest point of the floor area and the ventilation conforms to chs. SPS 361 to 366.

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

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

SPS 316.547 **Agricultural buildings.** This is a department exception to the requirements in NEC 547.5 (G):
Exception: Ground-fault circuit-interrupter protection is not required for a single receptacle providing power for an electric fence controller used for livestock containment where an accessible ground-fault circuit-interrupter protected receptacle is located within 900 mm (3 ft) of the non-GFCI protected receptacle.

SPS 316.620 **Elevators, dumbwaiters, escalators, moving walks, platform lifts and stairway chairlifts.** ~~**(4)**~~ This is a department exception to the requirements in NEC 620:

Exception: Wherever NEC 620 requires disconnecting means with overcurrent protection to be located in an elevator machine room, control room, machinery space or control space and the elevator does not have such a room or space directly accessible from a building floor level, such devices shall be located instead in lockable cabinets or electrical rooms accessible only to qualified persons.

~~**(2)** This is a department informational note to be used under NEC 620.25:~~

~~**Note:** See NEC 620.53, 620.54 and 620.55 for additional requirements.~~

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

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

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

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

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

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

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

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

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

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

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

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

Subchapter ~~IV~~ V — Electrical Inspection

Note: Subchapter V is repealed on the first day of the 19th month beginning after the rules are published.

SPS 316.900 **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.

SPS 316.905 **Scope.** This subchapter specifies the electrical construction to be inspected, the inspection procedures to be followed and the procedures for connection of electric service.

SPS 316.910 **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.

SPS 316.915 **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 safety and professional services.~~

~~**(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.:~~

(11) "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 the farm or employees for use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, "place of employment" does not include any of the following:

(a) An adult family home, as defined in s. 50.01 (1).

(b) 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.

(c) A home-based business, as defined by the department by rule.

(13) "Public building" has the meaning specified under s. 101.01 (12), Stats.

Note: Under s. 101.01 (12), Stats.:

(12) "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 any of the following:

(a) 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.

(b) An adult family home, as defined in s. 50.01 (1).

(c) A home-based business, as defined by the department by rule.

SPS 316.920 **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 that 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.

~~SPS 316.930 **Electrical plan review.** Upon request, the department may perform electrical plan review for dwellings, public buildings, places of employment and electrical services.~~

SPS 316.940 **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 SPS 305.63 contains requirements pertaining to the certification of commercial electrical inspectors.

(2) MUNICIPAL INSPECTIONS. (a) *Electrical wiring requiring inspection.* Municipalities exercising jurisdiction under s. SPS 316.920 (2) shall provide for inspection of all electrical wiring in all of the following:

1. New construction, additions, alterations and changes of use of public buildings and places of employment requiring submittal of building plans under s. SPS 361.30 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., electrical wiring as specified in par. (a) may not be installed until an application for a permit and the required fees have been submitted to the municipality exercising jurisdiction under s. SPS 316.920 (2).

2. Under emergency conditions, the necessary electrical construction may be commenced without submitting an application for a permit. The person performing the emergency electrical construction shall report the construction to the municipality no later than the next business day. The emergency electrical construction 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. SPS 316.950 (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. SPS 316.920 (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 s. SPS 361.30 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.

SPS 316.950 Connection of electric service. 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. SPS 316.940 (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.

~~SPS 316.960 **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.~~

TEXT OF RULE

SECTION 1. SPS 305.01 (4) (j) is created to read:

SPS 305.01 (4) (j) Inspection agency.

SECTION 2. SPS Table 305.02, line 37s., is created to read:

**Table 305.02
(Partial Table)
FEES**

	License, Certification or Registration Category	Type	Application Fee	Examination Fee	License, Certification or Registration Fee
37s.	Inspection Agency	Registration	\$15	NA	\$40

SECTION 3. SPS Table 305.06, line 32s., is created to read:

**Table 305.06
(Partial Table)
TERMS**

	License, Certification or Registration Category	Term	Expiration Date
32s.	Inspection Agency	4 years	Date of Issuance

SECTION 4. SPS 305.62 (6) is repealed and recreated to read:

SPS 305.62 (6) RESPONSIBILITIES. A person who inspects electrical construction work as a certified commercial electrical inspector shall do all of the following:

- (a) Maintain a record of the inspections made including the dates and the findings of the inspections.
- (b) Document any compliance deficiencies in the inspection report, and include the specific code reference or citation relative to the deficiency.
- (c) Provide a copy of the inspection report to the property owner or his or her agent.
- (d) Make inspection records available to the department upon request.
- (e) Contact and indicate to the electrical utility, cooperative, or other entity furnishing electric current when an electrical service installation complies with ch. SPS 316 within 2 business days of the determination of compliance.

SECTION 5. SPS 305.629 is created to read:

SPS 305.629 Inspection agency. (1) GENERAL. Effective on the first day of the 9th month beginning after publication [LRB inserts date], no person or municipality may engage in or offer to engage in providing plan review, permit issuance, or inspections regarding electrical wiring under the scope of ch. SPS 316 unless the person or municipality holds a registration from the department as a registered inspection agency.

(2) APPLICATION FOR REGISTRATION. A person applying for an inspection agency registration shall submit all of the following:

- (a) An application in accordance with s. SPS 305.01.
- (b) An application fee and registration fee in accordance with s. SPS 305.02, Table 305.02.

(3) QUALIFICATIONS FOR REGISTRATION. The person applying for an inspection agency registration shall be one of the following:

- (a) If a municipality, the department head of the agency administering the electrical program.
- (b) If not a municipality, the owner of the business, a partner in the business applying on behalf of a partnership, or the chairman of the board or chief executive officer applying on behalf of a corporation.

(4) RESPONSIBILITIES. A person or municipality who is responsible for facilitating plan review, permit issuance, or inspection regarding electrical wiring under ch. SPS 316 as a registered inspection agency shall be responsible for all of the following:

- (a) Utilizing persons appropriately certified under s. SPS 305.62 to conduct the inspections.
- (b) Maintaining a record of the electrical permits issued under ch. SPS 316.012.
- (c) Making the records relative to permit issuance and inspections available to the department upon request.
- (d) Providing inspection services for all inspections required under ch. SPS 316.013.
- (e) Cooperating with the department in any program monitoring, enforcement activities, and investigations related to electrical wiring under the scope of ch. SPS 316.
- (f) Following all procedures established by the department for enforcement.

(5) RENEWAL. (a) A person may renew his or her registration as an inspection agency.

(b) An inspection agency registration shall be renewed in accordance with s. SPS 305.07.

SECTION 6. SPS 305.63 (5) is repealed and recreated to read:

SPS 305.63 (5) RESPONSIBILITIES. (a) A person who inspects one- and 2-family dwellings as a certified UDC-construction inspector, certified UDC-electrical inspector, certified UDC-HVAC inspector, certified UDC-plumbing inspector, or certified soil erosion inspector shall do all of the following:

1. Maintain a record of the inspections made including the dates and the findings of the inspections.

2. Document any compliance deficiencies in the inspection report, and include the specific code reference or citation relative to the deficiency.

3. Provide a copy of the inspection report to the property owner or his or her agent.

4. Make inspection records available to the department upon request.

(b) A person who inspects one- and 2- family dwellings as a certified UDC-electrical inspector shall contact and indicate to the electrical utility, cooperative, or other entity furnishing electric current when an electrical service installation complies with ch. SPS 316 within 2 business days of the determination of compliance.

SECTION 7. Subchapter I (title) of ch. SPS 316 is repealed and recreated to read:

Subchapter I – Purpose, Scope, and Application

[Note to LRB: Subchapter I includes ss. SPS 316.001 to 316.007.]

SECTION 8. SPS 316.002 is repealed and recreated to read:

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

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

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

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

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

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

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

1. Consist of service drops or service laterals, and associated metering.
2. Are located in legally established easements or right-of-ways designated by public service commissions, utility commissions, or other regulatory agencies having jurisdiction for such installations.
3. Are on property owned or leased by the electric utility for the purpose of communications, metering, generation, control, transformation, transmission, storage, or distribution of electric energy.

(f) Installations for the purpose of street or area lighting owned and under exclusive control of electrical utilities or municipalities where located outdoors on property owned or leased by the utility; on or along public highways, streets, roads or similar public thoroughfares; or outdoors on private property by established rights such as easements shall comply with this chapter or ch. PSC 114.

SECTION 9. SPS 316.003 (6) is created to read:

SPS 316.003 (6) ADDITIONS AND ALTERATIONS. Additions and alterations to electrical systems covered by this code shall comply with all provisions of this code at the time of permit application or, if no permit is required, the beginning of the project.

SECTION 10. SPS 316.003 (Note) is amended to read:

SPS 316.003 (**Note**) This chapter does not nullify any exclusions specified in the ~~standard~~ standards adopted under s. ~~SPS 316.014~~ 316.007.

SECTION 11. SPS 316.004 is repealed and recreated to read:

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

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

SECTION 12. SPS 316.006 is renumbered SPS 316.014.

SECTION 13. SPS 316.006 is created to read:

SPS 316.006 Definitions. In this chapter:

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

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

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

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

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

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

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

(5) “Multifamily dwelling” has the meaning given in s. 101.971 (2), Stats.

Note: Under s. 101.971 (2), Stats., “multifamily dwelling” means an apartment building, rowhouse, town house, condominium or manufactured building, as defined in s. 101.71 (6), that does not exceed 60 feet in height or 6 stories and that consists of 3 or more attached dwelling units the initial construction of which is begun on or after January 1, 1993. ‘Multifamily dwelling’ does not include a facility licensed under ch. 50.”

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

(7) “One- and 2- family dwelling” means any building that contains one or 2 dwelling units that construction of which commenced on or after December 1, 1978.

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

Note: Under s. 101.01 (11), Stats., “place of employment” includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by 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 employees for use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, “place of employment” does not include an adult family home, as defined in s. 50.01 (1), 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.

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

Note: Under s 101.01 (12), Stats., “public building” means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy or use by the public or by 3 or more tenants. When used in relation to building codes, “public building” does not include a previously constructed building used as a community-based residential facility as defined in s. 50.01 (1g) 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).

SECTION 14. SPS 316.007 is repealed.

SECTION 15. SPS 316.008 is renumbered SPS 316.015.

SECTION 16. Subchapter II of ch. SPS 316 is renumbered subch. III of ch. SPS 316.

SECTION 17. SPS 316.009 and 316.010 are renumbered SPS 316.020 and 316.021 and amended to read:

SPS 316.020 Construction and operation. (1) GENERAL. All electrical power and communication equipment and lines shall be constructed, installed, operated and maintained so as to minimize hazards to life and property. All electrical installations shall conform to the 2017 National Electrical Code, incorporated by reference in this chapter, and the requirements specified in this chapter.

Note: The federal and state Fair Housing Acts, the federal Americans with Disabilities Act and the Wisconsin Commercial Building Code (chs. SPS 361 to 366) contain requirements relating to making buildings accessible to and usable by people with disabilities. Some of those requirements apply to the installation of various electrical devices. For example, in the federal fair housing accessibility guidelines, devices such as light switches, electrical outlets, thermostats and other environmental controls would meet the requirements if operable parts of the controls are located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach; or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Complete copies of the federal Fair Housing Accessibility Guidelines or the federal Americans with Disabilities Act Accessibility Guidelines can be obtained from the Superintendent of Documents, New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954.

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

SPS 316.021 ~~Inspection and maintenance~~ Maintenance. All electrical wiring installations and equipment shall be cleaned and inspected at intervals as experience has shown to be necessary. Any equipment or electrical wiring installation known to be defective so as to endanger life or property shall be promptly repaired, permanently disconnected, or isolated until repairs can be made. ~~Construction, repairs, additions and changes to electrical equipment and conductors shall be made by qualified persons only.~~

SECTION 18. SPS 316.011 is repealed.

SECTION 19. SPS 316.012 is renumbered SPS 316.022 and amended to read:

SPS 316.022 Use of approved materials and construction methods.

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

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

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

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

SECTION 20. SPS 316.013 is renumbered SPS 316.023.

SECTION 21. SPS 316.014 is renumbered SPS 316.007 and amended as renumbered to read:

SPS 316.007 Adoption of standards by reference. (1) PRIMARY STANDARDS. The following standard is hereby incorporated by reference into this chapter, subject to the modifications specified in this chapter:

(a) National Fire Protection Association (NFPA), One Batterymarch Park, Quincy, MA 02169-7471, telephone 800-344-3555, www.nfpa.org (NEC) – ~~2014~~ 2017.

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

(b) If a requirement in the standard adopted in par. (a) contains a cross-reference to another requirement modified by this chapter, the modification shall apply to the cross-reference unless specified otherwise in this chapter.

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

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

SECTION 22. SPS 316.015 is renumbered SPS 316.080.

SECTION 23. Subchapter II of ch. SPS 316 is created to read:

Subchapter II – Administration and Enforcement

SPS 316.011 Administration (1) MUNICIPAL ADMINISTRATION. (a) *Jurisdiction conditions.* Pursuant to s. 101.86 (1), Stats., municipalities may exercise jurisdiction over the inspection of electrical wiring installations at farms, public buildings, places of employment, campgrounds,

manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks provided the municipality complies with all of the following:

1. As of the first day of the 9th month beginning after publication [LRB inserts date], the municipality holds a registration issued by the department as an inspection agency for the purpose of issuing permits and inspecting electrical wiring at farms, public buildings, places of employment, campgrounds, manufactured home communities, public marinas, piers, docks, or wharves and recreational vehicle parks.
2. The municipality notifies the department at least 60 days prior to the date upon which the municipality intends to assume the jurisdiction.
3. The municipality provides the department with a copy of its electrical ordinances and subsequent revisions to the ordinances.
4. The municipality's ordinances adopt this chapter in its entirety.
5. The municipality employs or contracts with certified commercial electrical inspectors or independent inspection agencies to perform electrical inspection activities.
6. The municipality provides the department with the names of its certified commercial electrical inspectors and independent inspection agencies employed or contracted by the municipality, if applicable.

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

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

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

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

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

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

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

SPS 316.012 Permits. (1) (a) Except as provided in par. (b), no electrical wiring project may commence unless the owner of the premises where the installation is to occur or their agent holds a permit from the designated inspection agency if the project involves the installation of new or an addition to any electrical service, feeder or branch circuit serving any of the following:

1. A farm.
2. A public building.
3. A place of employment.
4. A campground.
5. A manufactured home community.
6. A public marina, pier, dock, or wharf.
7. A recreational vehicle park.

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

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

- (a) The name of the applicant.
- (b) The name of the building or property owner.
- (c) The location of the electrical wiring installation.
- (d) The scope and extent of the electrical wiring installation.
- (e) 1. The name of the person responsible for the installation.
2. The name and license number of the master electrician or residential master electrician responsible for the installation on or after April 1, 2014, unless exempted under s. 101.862 (4), Stats.

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

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

SPS 316.013 Inspections. (1) Electrical wiring installations shall be subject to inspection.

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

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

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

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

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

1. Electrical wiring shall remain accessible and exposed for inspection purposes.
2. Electrical wiring may not be energized.

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

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

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

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

SECTION 24. SPS 316.023 (3) is created to read:

SPS 316.023 (3) EXCEPTION. Subsections (1) and (2) do not apply to electric fence controllers designed and manufactured for the purpose of controlling humans.

SECTION 25. Chapter SPS 316 subch. III is renumbered ch. SPS 316 subch. IV.

SECTION 26. SPS 316.100 (1) (a) is repealed.

SECTION 27. SPS 316.100 (1) (b) to (d) are renumbered SPS 316.100 (a) to (c).

SECTION 28. SPS 316.100 (2) (intro.) and (b) are consolidated, renumbered SPS 316.100 (2) and amended to read:

SPS 316.100 (2) SUBSTITUTIONS. The following department definitions are substitutions ~~definition is a substitution~~ for the respective ~~definitions~~ definition in NEC 100: ~~(b)~~ "Special permission" means a petition for variance in accordance with s. SPS 316.005.

SECTION 29. SPS 316.100 (2) (a) is repealed.

SECTION 30. SPS 316.110 is repealed and recreated to read:

SPS 316.110 Examination, identification, installation, use, and listing of equipment.
This is a department exception to the requirements of NEC 110.3 (C):

Exception: As provided under s. SPS 316.022 (1), product testing and evaluation may be conducted by a qualified independent third party, including a nationally recognized testing laboratory or a professional engineer.

SECTION 31. SPS 316.210 (1) is repealed.

SECTION 32. SPS 316.210 (2) is renumbered SPS 316.210 (1) and amended to read:

SPS 316.210 (1) GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. This is a department exception to the requirements in NEC 210.8 (A) and (B).

Exception: Ground-fault circuit-interrupter protection shall not be required for a single receptacle providing power for sump, ~~or~~ sewage, or condensate pumps where an accessible ground-fault circuit-interrupter protected receptacle is located within 900 mm (3 ft) of the non-GFCI protected receptacle.

SECTION 33. SPS 316.210 (3) is repealed.

SECTION 34. SPS 316.210 (4) is renumbered SPS 316.210 (2) and amended to read:

SPS 316.210 (2) BRANCH CIRCUIT EXTENSIONS OR MODIFICATIONS — DWELLING UNITS. The requirements in NEC 210.12 ~~(B)~~ (D) are not included as part of this chapter.

SECTION 35. SPS 316.210 (5) is repealed.

SECTION 36. SPS 316.210 (6) is renumbered SPS 316.210 (3).

SECTION 37. SPS 316.210 (4) and (5) are created to read:

SPS 316.210 (4) PENINSULAR COUNTERTOP SPACES. Substitute the following wording for NEC 210.52 (C) (3): At least one receptacle outlet must be installed at each peninsular countertop long dimension space with a long dimension of 2 feet or greater, and a short dimension of one foot or more, measured from the connected peninsular wall. A wall countertop space receptacle can serve as the receptacle for a peninsular countertop space where the spaces are contiguous and the receptacle is within 6 feet of the outside edge of the peninsular countertop.

(5) MEETING ROOMS. The requirements in NEC 210.71 do not apply to existing buildings.

SECTION 38. SPS 316.220 (1) and (2) (title) are repealed.

SECTION 39. SPS 316.220 (2) is renumbered SPS 316.220.

SECTION 40. SPS 316.225 (1) is repealed.

SECTION 41. SPS 316.225 (2), (3), (4), and (6) are renumbered SPS 316.225 (1), (2), (3), and (4).

SECTION 42. SPS 316.230 (1) (a) (intro.) is amended to read:

SPS 316.230 (1) (a) (intro.) ~~These are~~ This is a department informational notes note to be used under NEC 230.2 (intro.):

SECTION 43. SPS 316.230 (1) (a) (Note 1) and (c) are repealed.

SECTION 44. SPS 316.230 (4) (intro.) and (a) are consolidated, renumbered SPS 316.230 (4) and amended to read:

SPS 316.230 (4) RATING OF SERVICE DISCONNECTING MEANS. This is a department rule in addition to the requirements of NEC 230.79: ~~(a) Two or multi family dwellings. Except as provided in par. (b), for~~ For 2-family or multi-family dwellings, the service equipment shall have a rating of not less than 150 amperes, 3-wire or 4-wire. ~~Where the combined rating of all service disconnecting means is 150 amperes or larger, the service or feeder equipment rating for each dwelling unit shall have a rating of not less than 60 amperes.~~

SECTION 45. SPS 316.230 (4) (b) is repealed.

SECTION 46. SPS 316.250 (3) is created to read:

SPS 316.250 (3) TYPES OF EQUIPMENT GROUNDING CONDUCTORS. This is a department rule in addition to the requirements of NEC 250.118: A metallic raceway installed in direct contact with earth, in concrete slabs or floors poured on earth, or in exterior concrete walls below grade shall be augmented with a supplemental equipment grounding conductor identified in NEC 250.118 (1). This supplemental conductor shall be sized in accordance with NEC 250.122. An aluminum equipment grounding conductor used for this purpose shall be insulated.

SECTION 47. SPS 316.300 (2) is repealed and recreated to read:

SPS 316.300 (2) PROTECTION AGAINST PHYSICAL DAMAGE. This is a department exception in addition to the exceptions under NEC 300.4 (D):

Exception No. 4: This distance does not need to be maintained within 8 inches of a device, junction box, splice, or termination point.

SECTION 48. SPS 316.310 (intro.) is renumbered SPS 316.310 and amended to read:

SPS 316.310 Conductors for general wiring. This is a department rule in addition to the requirements in NEC 310.15 (B) (3) (a): The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit ~~except under the following conditions:~~

~~Exception No. 6: The derating factors shown in NEC Table 310.15 (B) (3) (a) do not apply to branch circuits supplying an individual dwelling unit except under the following conditions:~~

SECTION 49. SPS 316.310 (1) and (2) are repealed.

SECTION 50. SPS 316.312 (2) and (3) are amended to read:

SPS 316.312 (2) OMISSION. The requirements specified in NEC 312.5 (C) Exception ~~paragraph (b) number 2~~ are not included as part of this chapter.

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

SECTION 51. SPS 316.314 (1) (title) and (2) are repealed.

SECTION 52. SPS 316.314 (1) is renumbered SPS 316.314.

SECTION 53. SPS 316.400 is amended to read:

SPS 316.400 Flexible cords and cables. This is a department exception in addition to the exception in NEC ~~400.8~~ 400.12 (4):

Exception No. 2: Flexible cords and cables permitted by NEC ~~400.7~~ 400.10 (A) that are connected to sources other than busways may be attached to adequately supported equipment or building surfaces provided the type of cord or cable, the attachment to the building and equipment, and the support comply with the provisions of NEC 368.56 (B).

SECTION 54. SPS 316.511 is repealed and recreated to read:

SPS 316.511 Commercial garages, repair and storage. (1) Substitute the following wording for “Extent of Classified Location” in NEC Table 511.3 (C) under which the floor area of a major repair garage is considered unclassified: Up to 450 mm (18 in.) above floor level of the room

where the room is provided with ventilation from a point not more than 300 mm (12 in.) from the lowest point of the floor area and the ventilation conforms to chs. SPS 361 to 366.

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

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

SECTION 55. SPS 316.620 (1) is renumbered SPS 316.620.

SECTION 56. SPS 316.620 (2) is repealed.

SECTION 57. SPS 316.675 is amended to read:

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

SECTION 58. SPS 316.680 is repealed.

SECTION 59. Subchapter IV of Chapter SPS 316 is renumbered subch. V of ch. SPS 316.

SECTION 60. SPS 316.915 (3), (6), (7), (8), (10), (12), and (13) are repealed.

SECTION 61. SPS 316.930 is renumbered SPS 316.016.

SECTION 62. SPS 316.960 is renumbered SPS 316.017.

SECTION 63. Subchapter V of ch. SPS 316 is repealed.

SECTION 64. EFFECTIVE DATE. Pursuant to s. 227.22 (2) (intro.) and (b), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register, except the treatment of ss. SPS 316.011 (2), 316.012, and 316.013 in SECTION 23 and subch. V of ch. SPS 316 in SECTION 63, which shall take effect on the first day of the 19th month beginning after publication.

END