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COURSE 962906

SPS 316 Electrical

Exam Material

Uscontractorlicense LLC

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Summary Of This Course

SPS 316 ELECTRICAL

Approved by the

Wisconsin Department of Safety and Professional Services Safety and Buildings Division

Course Identification Number 962906

Educational Credit Hours: 12 Hours

Course Provider:

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

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

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

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

Course Outline

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

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

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

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

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

Answer Sheet(s)

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

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

By Email: michael@uscontractorlicense.com

By Fax: 608-571-0096

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

Any questions, please contact us at 608.348.6688

SPS 316 Exam

1. What is the primary purpose of SPS 316?

A. To establish electrical design standards only
B. To regulate utility companies
C. To provide practical safeguarding of persons and property from hazards arising from the installation and use of electricity
D. To establish licensing requirements

2. According to SPS 316.001, this chapter is NOT intended to be:

A. A safety standard
B. A legal requirement
C. A design specification or instruction manual for untrained persons
D. An adopted code

3. SPS 316 generally applies to:

A. Plumbing installations
B. Electrical wiring installations
C. Mechanical systems only
D. Utility transmission systems only

4. Which installation is specifically excluded from SPS 316?

A. Public buildings
B. Farms
C. Aircraft
D. Places of employment

5. Which of the following electrical installations is excluded from SPS 316?

A. Recreational vehicle parks
B. Manufactured home communities
C. Utility-owned service drops and associated metering
D. Campgrounds

6. Electrical installations used exclusively for railway signaling are:

A. Covered by SPS 316
B. Excluded from SPS 316
C. Covered only in public buildings
D. Covered only if under 600 volts

7. The provisions of SPS 316 apply to:

A. Only new installations
B. Only alterations
C. New installations, reconstructions, alterations, and extensions
D. Existing installations only

8. Existing electrical installations generally must comply with:

A. The newest NEC only
B. The code in effect when they were installed
C. Local ordinances only
D. Manufacturer recommendations

9. An existing installation may be required to comply with the current code when:

A. The owner requests it
B. The installation is over 20 years old
C. A hazard to life, health, or property exists
D. The utility requires it

10. Repairs to electrical installations normally must comply with:

A. Today's NEC
B. The code in effect when originally installed
C. Utility standards
D. OSHA regulations only

11. If a department rule conflicts with an adopted standard:

A. The adopted standard governs.
B. The local ordinance governs.
C. The department rule governs.
D. The electrical inspector decides.

12. If two provisions conflict within SPS 316, which generally governs?

A. The oldest requirement
B. The least restrictive requirement
C. The specific or more detailed requirement
D. The NEC requirement

13. When different sections specify conflicting requirements, the department generally requires:

A. The least expensive method
B. The newest NEC edition
C. The most restrictive requirement
D. Local practice

14. Additions and alterations must comply with:

A. The code in effect when the building was built
B. The code in effect when the permit is applied for or work begins
C. Only the NEC
D. Local utility requirements

15. Who reserves the authority to interpret SPS 316 and adopted standards?

A. Municipal inspectors
B. The Public Service Commission
C. The Department of Safety and Professional Services
D. Licensed master electricians

16. An interpretation issued by the department supersedes:

A. Manufacturer instructions only
B. Utility policies
C. Differing interpretations by lower jurisdictions or code issuers
D. NEC requirements

17. A variance request is processed under:

A. SPS 305
B. SPS 303
C. SPS 320
D. SPS 361

18. A petition for variance should include, when applicable:

A. Utility approval
B. Manufacturer approval
C. A position statement from the fire department having jurisdiction
D. County board approval

19. Within SPS 316, "Department" refers to the:

A. Department of Administration
B. Department of Natural Resources
C. Department of Safety and Professional Services
D. Public Service Commission

20. Under SPS 316, "Farm" means:

A. Any rural property
B. Any agricultural business
C. A place where farming is conducted
D. Land over 40 acres

21. Under SPS 316, "Farming" has the meaning given in:

A. s. 101.80, Stats.
B. s. 102.04(3), Stats.
C. s. 101.82, Stats.
D. s. 145.01, Stats.

22. A multifamily dwelling is defined by:

A. SPS 320
B. NEC Article 100
C. s. 101.01(8m), Stats.
D. SPS 361

23. "Municipality" means:

A. Any governmental agency
B. City, village, town, or county
C. County only
D. City only

24. One- and two-family dwellings are buildings whose construction commenced on or after:

A. January 1, 1975
B. December 1, 1978
C. January 1, 1980
D. March 1, 2009

25. The term "Place of Employment" has the meaning given in:

A. s. 101.01(11), Stats.
B. NEC Article 100
C. SPS 305
D. s. 145.01

26. The term "Public Building" has the meaning given in:

A. s. 101.01(12), Stats.
B. SPS 361
C. NEC 110
D. SPS 305

27. The primary electrical standard adopted by SPS 316 is:

A. IEEE Standards
B. NFPA 70 National Electrical Code
C. International Building Code
D. National Fire Code

28. For most installations, SPS 316 adopts which edition of the NEC?

A. 2008
B. 2011
C. 2014
D. 2017

29. Prior to January 1, 2020, one- and two-family dwellings used which NEC edition?

A. 2008
B. 2011
C. 2014
D. 2017

30. If an adopted NEC requirement references another requirement modified by SPS 316:

A. The NEC always governs.
B. The modification also applies unless otherwise specified.
C. The utility decides.
D. The local inspector decides.

31. Secondary standards referenced in the NEC apply:

A. Only with utility approval.
B. Only to industrial buildings.
C. To the extent referenced unless modified by SPS 316.
D. They are not adopted.

32. An alternate standard may be used if it is:

A. Less restrictive.
B. Recommended by the manufacturer.
C. Equivalent or more stringent and accepted in writing by the department.
D. Approved by the utility.

33. Municipalities may exercise jurisdiction over electrical inspections only if they:

A. Adopt part of SPS 316.
B. Register with the department as an inspection agency.
C. Employ one licensed electrician.
D. Receive utility approval.

34. A municipality assuming electrical inspection jurisdiction must notify the department at least:

A. 15 days before.
B. 30 days before.
C. 60 days before.
D. 90 days before.

35. A municipality must provide the department with:

A. Utility rate schedules
B. Copies of its electrical ordinances
C. Inspection reports monthly
D. Contractor licenses

36. Municipal electrical ordinances must:

A. Be more restrictive than SPS 316.
B. Adopt SPS 316 in its entirety.
C. Adopt only NEC requirements.
D. Be approved by utilities.

37. Municipal inspections shall be performed by:

A. Journeyman electricians
B. Certified commercial electrical inspectors or independent inspection agencies
C. Utility linemen
D. Fire inspectors

38. A municipality shall provide the department with:

A. Building permits
B. Contractor insurance certificates
C. Names of certified inspectors and contracted inspection agencies
D. Electrical plans

39. A county ordinance establishing electrical inspections may:

A. Prevent cities from assuming inspection duties.
B. Override municipal ordinances.
C. Not prohibit municipalities from assuming those functions later.
D. Replace SPS 316.

40. A municipality relinquishing jurisdiction responsibilities shall notify the department:

A. Immediately
B. Within 30 days
C. At least 60 days before relinquishing jurisdiction
D. After jurisdiction ends

41. In municipalities that do not exercise electrical inspection jurisdiction, permit and inspection services are provided by:

A. The electric utility
B. The county
C. The Department of Safety and Professional Services
D. The local fire department

42. The department may monitor or audit municipalities designated as inspection agencies for compliance with:

A. OSHA only
B. NEC only
C. Administrative requirements of SPS 316 and SPS 305.627
D. Utility regulations

43. Before an electrical wiring project begins, who must generally hold the required permit?

A. The electrical inspector
B. The utility company
C. The owner of the premises or the owner's agent
D. The equipment manufacturer

44. A permit is required when installing:

A. A replacement light bulb
B. New electrical services, feeders, or branch circuits
C. Portable extension cords
D. Plug-connected appliances

45. Which location requires a permit when installing a new feeder?

A. A campground
B. A passenger automobile
C. A boat
D. An aircraft

46. A permit is required for electrical work serving:

A. Recreational vehicle parks
B. Railway locomotives
C. Ships
D. Aircraft hangars owned by airlines

47. Under emergency conditions, work may begin before obtaining a permit provided the permit application is submitted:

A. Within one week
B. Within 72 hours
C. No later than the next business day
D. Before final inspection

48. A permit application shall include:

A. The applicant's name
B. Utility transformer size
C. Property tax assessment
D. Insurance policy number

49. A permit application shall include:

A. Building owner's name
B. Fire insurance carrier
C. Occupant's age
D. Utility account number

50. A permit application shall identify:

A. The electrical inspector
B. The location of the electrical wiring installation
C. The utility engineer
D. The equipment supplier

51. A permit application must describe:

A. The weather conditions
B. The scope and extent of the electrical wiring installation
C. Future remodeling plans
D. The building value

52. Unless exempt, a permit application shall identify the:

A. Utility lineman
B. Master electrician responsible for the installation and license number
C. Equipment manufacturer
D. Electrical inspector

53. The issuing inspection agency shall indicate the _____ on the permit.

A. Contractor's wage rate
B. Inspection fee
C. Date of issuance
D. Utility account number

54. If installation has not commenced, an electrical permit expires:

A. After 30 days
B. After 6 months
C. After 12 months
D. After 24 months

55. Electrical wiring installations are generally:

A. Exempt from inspection
B. Subject to inspection
C. Inspected only after occupancy
D. Inspected only upon complaint

56. Commercial electrical inspections shall be conducted by a:

A. Journeyman electrician
B. Building official
C. Certified commercial electrical inspector
D. Utility representative

57. Who is responsible for notifying the inspection agency when the installation is ready for inspection?

A. The utility company
B. The equipment manufacturer
C. The building owner or the owner's agent
D. The fire department

58. To facilitate inspection, electrical wiring shall generally remain:

A. Energized
B. Accessible and exposed
C. Concealed
D. Covered with drywall

59. Before inspection, electrical wiring generally:

A. Shall be energized
B. Shall remain de-energized
C. Must be connected to the utility
D. Must pass a megger test

60. If an inspection is not completed within two business days after notification (or another agreed time), electrical wiring other than the service may:

A. Never be concealed
B. Be concealed or energized as permitted by SPS 316
C. Require a new permit
D. Require approval from the utility only

61. The notification for a final inspection shall indicate:

A. The utility has connected power.
B. All electrical fixtures, outlets, and faceplates are installed and the installation is energized or ready for final inspection.
C. The permit has expired.
D. The building has received an occupancy permit.

62. If an installation complies with SPS 316, the certified inspector shall:

A. Issue a variance.
B. Approve the installation before concealment or energizing.
C. Notify the utility to energize immediately.
D. Require another inspection.

63. If an installation is incomplete or not code compliant, the inspector shall:

A. Disconnect the utility service permanently.
B. Issue orders to correct.
C. Revoke the contractor's license.
D. Issue a variance.

64. An order to correct may require electrical wiring to remain:

A. Energized until reinspection.
B. Concealed until reinspection.
C. Unconcealed and non-energized until reinspection.
D. Connected to temporary power.

65. Penalties for violations of SPS 316 are assessed in accordance with:

A. NEC Article 90.
B. SPS 305 only.
C. Sections 101.02 or 101.88, Wisconsin Statutes.
D. OSHA regulations.

66. A person affected by a local order believed to conflict with SPS 316 may:

A. Ignore the order.
B. Petition the department for a hearing.
C. Appeal directly to the utility.
D. File only with the municipality.

67. The department shall issue a written decision on an appeal within:

A. 10 business days.
B. 20 business days.
C. 30 business days.
D. 60 calendar days.

68. Who may petition the department to adopt, amend, or repeal an administrative rule?

A. Only licensed electricians.
B. Only municipalities.
C. Any municipality, corporation, or five or more interested persons.
D. Only inspection agencies.

69. Upon request, the department may perform electrical plan review for:

A. Utility substations only.
B. Dwellings, public buildings, places of employment, and electrical services.
C. Only industrial plants.
D. Only state-owned buildings.

70. The department provides technical assistance:

A. Only by telephone.
B. Only to municipalities.
C. To the extent possible with available resources upon written request.
D. Only during inspections.

71. The purpose of electrical construction, installation, operation, and maintenance is to:

A. Reduce installation costs.
B. Maximize electrical capacity.
C. Minimize hazards to life and property.
D. Eliminate inspections.

72. Electrical installations shall conform to:

A. Manufacturer recommendations only.
B. Local utility requirements only.
C. The National Electrical Code as incorporated into SPS 316 and the chapter requirements.
D. OSHA standards only.

73. Electrical installations operating above _____ volts shall also comply with Chapter PSC 114.

A. 120
B. 240
C. 480
D. 600

74. Electrical wiring installations shall be:

A. Inspected only once.
B. Cleaned and inspected at intervals shown necessary by experience.
C. Cleaned annually.
D. Cleaned only when modified.

75. Electrical equipment known to be defective and endangering life or property shall be:

A. Left in service until replacement parts arrive.
B. Repaired, permanently disconnected, or isolated until repaired.
C. Repaired only during scheduled maintenance.
D. Replaced only if required by the utility.

76. Materials that do not comply with SPS 316 may be used only if:

A. Approved by the electrical contractor.
B. Approved by the local inspector.
C. Approved in writing by the department through a variance.
D. Approved by the manufacturer.

77. Approval of noncompliant materials must be supported by:

A. Utility recommendations.
B. Sufficient data, tests, and other evidence from a qualified independent third party.
C. Contractor experience.
D. Manufacturer advertising.

78. Methods of installation that do not comply with SPS 316:

A. May always be used if inspected.
B. Require written department approval through a variance.
C. Require utility approval only.
D. Are permitted in industrial occupancies.

79. If newly required NEC products are unavailable after adoption of the code, the department may permit:

A. No electrical work.
B. Products complying with a previous NEC edition.
C. Only imported products.
D. Utility-approved substitutes only.

80. Electric fence controllers shall be:

A. Homemade if inspected.
B. Listed by a nationally recognized testing laboratory.
C. Installed without grounding.
D. Connected directly to utility transformers.

81. Electric fence controllers shall be installed:

A. According to local custom
B. In any manner that functions properly
C. Exactly as specified by the manufacturer's instructions, markings, listings, or labels
D. Only by utility personnel

82. Electric fence controllers shall generally be grounded in accordance with:

A. NEC Article 110
B. NEC Article 250
C. NEC Article 300
D. NEC Article 210

83. When stray voltage in dairy barns or milking parlors creates physical problems for animals, grounding may consist of:

A. No grounding electrode
B. Two driven rods
C. A single made electrode
D. A water pipe only

84. The electric fence controller rules in SPS 316.023(1) and (2) do NOT apply to controllers designed for:

A. Livestock
B. Wildlife
C. Controlling humans
D. Horses

85. Subchapter IV primarily contains:

A. Licensing requirements
B. Changes, additions, or omissions to the NEC
C. Utility regulations
D. Building occupancy requirements

86. The changes contained in Subchapter IV are:

A. NEC recommendations only
B. Department rules
C. Manufacturer standards
D. Local ordinances

87. The requirements of NEC 90.1, 90.2, and 90.4 are:

A. Adopted without change
B. Not included as part of SPS 316
C. Applicable only to commercial buildings
D. Applicable only to dwellings

88. For purposes of SPS 316, "Floors" means:

A. Finished floor coverings
B. Stories as specified in Chapters SPS 361 through 366
C. Concrete slabs only
D. Any walking surface

89. For purposes of SPS 316, "Nonrated construction" includes:

A. Type I construction only
B. Types III, IV, and V construction
C. Types I and II construction
D. Fire-resistance-rated construction only

90. A "Private sewage system" has the meaning specified in:

A. NEC Article 100
B. s. 145.01(12), Wisconsin Statutes
C. SPS 305
D. SPS 320

91. Within SPS 316, "Special Permission" means:

A. Written approval from the utility
B. Inspector approval
C. A petition for variance in accordance with SPS 316.005
D. Manufacturer authorization

92. Listed or labeled equipment shall be installed:

A. According to contractor preference
B. According to manufacturer instructions when they do not conflict with SPS 316
C. Only according to the NEC
D. Without regard to labeling

93. Product testing and evaluation under SPS 316.110 may be conducted by:

A. Any electrician
B. A qualified independent third party
C. The property owner
D. The utility company

94. Which of the following is specifically identified as a qualified independent third party?

A. Local fire department
B. Nationally recognized testing laboratory
C. Electrical distributor
D. Building owner

95. A professional engineer may serve as:

A. A utility representative
B. A qualified independent third party for product evaluation
C. A permit issuer
D. An electrical inspector automatically

96. Subchapter IV primarily modifies which national standard?

A. International Residential Code
B. National Electrical Code (NFPA 70)
C. International Fire Code
D. OSHA Standards

97. When manufacturer instructions conflict with SPS 316:

A. Manufacturer instructions govern.
B. Utility requirements govern.
C. SPS 316 governs.
D. Local ordinances automatically govern.

98. The definitions added in SPS 316.100 are intended to:

A. Replace all NEC definitions
B. Supplement or substitute specific NEC definitions
C. Eliminate NEC Article 100
D. Apply only to one- and two-family dwellings

99. The modifications contained in SPS 316.110 apply to:

A. Equipment examination, identification, installation, use, and listing
B. Only grounding electrodes
C. Only branch circuits
D. Only transformers

100. The first major technical modifications following the general provisions begin with:

A. Services
B. Branch Circuits
C. Swimming Pools
D. Emergency Systems

101. Under SPS 316.210, the requirements of 2017 NEC 210.8(A)(7) do not apply to:

A. Bathrooms
B. Laundry rooms
C. Kitchens sinks
D. Garages

102. Which 2017 NEC GFCI requirements are not included as part of SPS 316?

A. 210.8(A)(1)
B. 210.8(A)(3)
C. 210.8(A)(9) and (10)
D. 210.8(B)

103. According to SPS 316.210, GFCI protection is required for:

A. Only 20-amp receptacles
B. Only commercial occupancies
C. All 125-volt, single-phase, 15- and 20-amp receptacles in specified locations
D. Every receptacle regardless of voltage

104. A single receptacle supplying a sump pump may be exempt from GFCI protection if:

A. It is located outdoors.
B. A readily accessible GFCI-protected receptacle is within 3 feet.
C. It is on a dedicated 30-amp circuit.
D. The pump is battery powered.

105. The Wisconsin exception for sump pumps also applies to:

A. Ceiling fans
B. Sewage and condensate pumps
C. Water heaters
D. Furnaces

106. When an air-conditioner sleeve is provided in a building wall:

A. No receptacle is required.
B. A receptacle shall be located within 4 feet of the sleeve.
C. The receptacle shall be located directly above the sleeve.
D. Only a disconnect is required.

107. If no circuit is initially run to an air-conditioner sleeve receptacle:

A. Nothing further is required.
B. A raceway shall be provided.
C. A junction box is sufficient.
D. Flexible cord may be installed later.

108. When an air conditioner is installed in its wall sleeve, it shall be supplied by:

A. Any lighting circuit.
B. A small-appliance circuit.
C. An individual branch circuit.
D. A multiwire branch circuit only.

109. A receptacle installed for a wall air conditioner:

A. May count toward the required room receptacles.
B. May not be counted as one of the receptacles required by NEC 210.52(A).
C. Must be GFCI protected only.
D. Must be AFCI protected only.

110. Which requirement is not included as part of SPS 316?

A. NEC 210.11(C)(4)
B. NEC 210.11(C)(1)
C. NEC 210.11(C)(2)
D. NEC 210.11(C)(3)

111. Under Wisconsin amendments, the 2017 AFCI requirements of NEC 210.12(A) do not apply to:

A. Bedrooms
B. Living rooms
C. Kitchens
D. Family rooms

112. The branch-circuit extension or modification requirements of NEC 210.12(B) (2011) and 210.12(D) (2017):

A. Are strengthened by SPS 316.
B. Apply only to commercial buildings.
C. Are not included as part of SPS 316.
D. Apply only to kitchens.

113. Wisconsin substitutes the requirement that every _____ have at least one wall-switch-controlled lighting outlet.

A. Garage
B. Closet
C. Habitable room
D. Attic

114. A wall-switch-controlled lighting outlet is also required in every:

A. Crawl space
B. Kitchen
C. Basement storage room
D. Exterior deck

115. A wall-switch-controlled lighting outlet is required in every:

A. Bathroom
B. Garage only
C. Utility room only
D. Porch only

116. Which NEC countertop receptacle requirement is omitted by SPS 316?

A. NEC 210.52(A)(4)
B. NEC 210.52(B)
C. NEC 210.52(C)
D. NEC 210.52(D)

117. The Wisconsin garage receptacle rule applies to:

A. Attached garages only
B. Detached garages only
C. Both attached garages and detached garages with electric power
D. Commercial garages only

118. The meeting-room receptacle requirements of 2017 NEC 210.71:

A. Apply without modification.
B. Apply only in commercial buildings.
C. Do not apply under SPS 316.
D. Apply only in schools.

119. One of the most significant Wisconsin-specific branch-circuit exceptions concerns:

A. Elevator wiring
B. Sump, sewage, and condensate pump receptacles
C. Electric vehicle charging
D. Solar photovoltaic systems

120. Under SPS 316.220, when may diversity factors be used to calculate feeder or service loads?

A. For all one- and two-family dwellings
B. Only when approved by the serving utility
C. When the calculations are prepared under the supervision of a Wisconsin professional engineer, architect, or designer of electrical systems, and the installation is not a one- or two-family dwelling
D. Only when the feeder is rated 400 amperes or larger

121. For public buildings and places of employment, circuit load calculations may use lighting unit loads lower than NEC Table 220.12 when:

A. Approved by the utility
B. Calculated using the maximum electrical energy conservation values specified under SPS 363
C. The building is less than 10,000 square feet
D. The building uses LED lighting only

122. Under SPS 316.220, feeder or service size may be computed using diversity factors when under the supervision of a:

A. Journeyman electrician
B. Certified electrical inspector
C. Wisconsin professional engineer, architect, or designer of electrical systems
D. Utility representative

123. The diversity-factor exception for feeder or service calculations does not apply to:

A. Commercial buildings
B. Industrial buildings
C. One- and two-family dwelling units
D. Institutional buildings

124. SPS 316.220 modifies which NEC article?

A. NEC 210
B. NEC 220
C. NEC 230
D. NEC 250

125. Wisconsin allows historical data to be used when computing feeder or service size under:

A. Contractor supervision
B. Utility supervision
C. Professional supervision as permitted by SPS 316.220
D. No circumstances

126. For conductors not over 600 volts, the requirement to maintain 3 feet of vertical clearance from the roof edge does not apply to:

A. Service conductors only
B. Underground conductors
C. The final conductor span to the building
D. Temporary wiring

127. For purposes of SPS 316.225, multiple feeders supplied from the same distribution point may be considered one supply when their combined rating is at least:

A. 100 amperes
B. 150 amperes
C. 200 amperes
D. 300 amperes

128. To be considered one supply under SPS 316.225, grouped disconnecting means may total no more than:

A. Two
B. Four
C. Six
D. Eight

129. Multi-occupancy buildings may have one set of branch-circuit conductors installed from a dwelling unit to:

A. Any detached garage
B. The second building or structure's respective occupied space
C. A neighboring property
D. A utility transformer

130. The building disconnect required by NEC 225.31 shall be located in accordance with:

A. NEC 230.2
B. SPS 316.230(3)
C. NEC 250.53
D. SPS 316.300

131. For clearances of conductors over 600 volts, SPS 316 directs users to:

A. NEC Article 225
B. SPS 316.700
C. Chapter PSC 114
D. SPS 320

132.Chapter PSC 114 also addresses:

A. Swimming pools only
B. Fire alarm systems
C. The prohibition of constructing dwellings under or near overhead lines
D. Elevator controls

133. SPS 316.225 primarily addresses:

A. Ground-fault protection
B. Outside branch circuits and feeders
C. Swimming pool bonding
D. Transformer sizing

134. When multiple feeders are considered one supply, they must originate from:

A. Different utility transformers
B. The same distribution point
C. Separate services
D. Independent generators

135. The grouped disconnecting means under SPS 316.225 must be located:

A. Anywhere on the property
B. At the same location
C. In separate buildings
D. Outdoors only

136. The Wisconsin modification to NEC 225.19 concerns:

A. Underground raceways
B. Vertical roof clearance for conductors
C. GFCI protection
D. AFCI protection

137. The feeder diversity-factor exception requires supervision by a Wisconsin:

A. Utility engineer only
B. Licensed electrical contractor only
C. Professional engineer, architect, or designer of electrical systems
D. Commercial electrical inspector only

138. The lighting-load calculation exception specifically references:

A. SPS 320
B. SPS 363
C. SPS 305
D. SPS 382

139. One Wisconsin-specific modification allows branch-circuit conductors to extend from a dwelling unit to:

A. A utility-owned transformer
B. A detached structure serving the same occupied space
C. A neighboring dwelling unit
D. A public roadway lighting system

140. Which of the following Wisconsin Electrical Code sections establishes requirements for the number of services, service disconnecting means, and minimum service ratings?

A. SPS 316.220 – Branch-Circuit, Feeder and Service Calculations
B. SPS 316.225 – Outside Branch Circuits and Feeders
C. SPS 316.230 – Services
D. SPS 316.240 – Overcurrent Protection

141. Before installing service equipment with special requirements, Wisconsin recommends contacting:

A. The local fire department
B. The municipality
C. The electric utility or cooperative supplying the electric current
D. The electrical inspector

142. Two or more service drops or laterals for the same class of service are permitted when they are located more than:

A. 50 feet apart
B. 100 feet apart
C. 150 feet apart
D. 200 feet apart

143. The 150-foot separation between service drops or laterals is measured:

A. Along the building wall
B. Following the conductor path
C. In a straight line
D. From the utility pole

144. When two or more service drops or laterals are permitted under SPS 316.230, the wiring supplied by each service shall:

A. Share a raceway
B. Have no common raceway or connection with any other service
C. Be interconnected at the panelboard
D. Share grounding electrode conductors only

145. A separate service drop or lateral is permitted for each two attached dwelling units in a building when the building is no more than:

A. Two stories
B. Three stories
C. Four stories
D. Six stories

146. The special multiple-service provision applies only to buildings containing:

A. One- and two-family dwellings
B. Three or more attached dwelling units
C. Hotels
D. Commercial occupancies

147. To qualify for separate service drops under SPS 316.230, each dwelling unit shall be served by:

A. A common interior corridor
B. An individual exterior exit within 6 feet of the exit discharge grade
C. A common stairway
D. A shared lobby

148. Which NEC exception regarding the number of service-entrance conductor sets is not included in SPS 316?

A. NEC 230.40 Exception No. 1
B. NEC 230.40 Exception No. 2
C. NEC 230.40 Exception No. 3
D. NEC 230.40 Exception No. 5

149. Disconnecting means shall be provided to disconnect:

A. Branch circuits only
B. Feeder conductors only
C. Utility wiring from the premises wiring
D. Only emergency systems

150. The disconnecting means required by SPS 316.230 applies where utility wiring terminates and premises wiring extends to:

A. A single building only
B. More than one building or structure
C. Temporary wiring only
D. Swimming pools only

151. Raceways containing service conductors may not extend more than _____ into a building before reaching the service disconnect unless otherwise permitted.

A. 4 feet
B. 6 feet
C. 8 feet
D. 10 feet

152. For purposes of the 8-foot rule, service conductors are considered to have entered the building when they:

A. Reach the panelboard
B. Pass through the outer surface of the building exterior
C. Enter the meter socket
D. Reach the first junction box

153. Except as otherwise provided, service equipment for two-family or multifamily dwellings under the 2017 NEC shall have a minimum rating of:

A. 100 amperes
B. 125 amperes
C. 150 amperes
D. 200 amperes

154. The minimum service equipment rating for two-family or multifamily dwellings shall be:

A. 120-volt, single-wire
B. 120/208-volt only
C. 3-wire or 4-wire
D. Three-phase only

155. Under the 2011 NEC provisions, each dwelling unit in a multifamily building generally shall have service or feeder equipment rated at not less than:

A. 30 amperes
B. 50 amperes
C. 60 amperes
D. 100 amperes

156. An existing two-family dwelling may be permitted to have 100-ampere service equipment only if:

A. The owner requests it.
B. The calculated load does not exceed 80 amperes and written approval is granted by the municipal inspection department.
C. The building was built before 1978.
D. The service is underground.

157. One condition for allowing a 100-ampere service in an existing two-family dwelling is that the calculated load shall not exceed:

A. 60 amperes
B. 70 amperes
C. 80 amperes
D. 100 amperes

158. In addition to the load limitation, the 100-ampere exception requires:

A. Utility approval
B. Written approval by the municipal inspection department having jurisdiction
C. Approval by the manufacturer
D. Approval by the Public Service Commission

159. The Wisconsin amendments to SPS 316.230 primarily address:

A. Swimming pools
B. Service installations, disconnects, and service ratings
C. Generator testing
D. Hazardous locations

160. Which statement is correct regarding service disconnects under SPS 316.230?

A. They may be located anywhere inside the building.
B. Service raceways may extend an unlimited distance indoors.
C. Service disconnecting means are required, and service conductors generally may not extend more than 8 feet into the building before reaching the disconnect.
D. Disconnects are required only for commercial occupancies.

161. Which 2017 NEC overcurrent protection requirement is not included as part of SPS 316?

A. NEC 240.24
B. NEC 240.67
C. NEC 240.21
D. NEC 240.4

162. Under SPS 316.250, which NEC exception is not included?

A. NEC 250.24(A)
B. NEC 250.53(A)(2) Exception
C. NEC 250.66
D. NEC 250.122

163. A grounding electrode consisting of a single rod, pipe, or plate shall be:

A. Used by itself in all installations.
B. Augmented by one additional electrode permitted by NEC 250.52(A)(4) through (8).
C. Connected only to metal water piping.
D. Installed only for commercial buildings.

164. The additional grounding electrode required by SPS 316.250 may be one of the electrode types identified in:

A. NEC 210
B. NEC 220
C. NEC 250.52(A)(4) through (A)(8)
D. NEC 300

165. A metallic raceway installed in direct contact with earth shall be augmented with:

A. A grounding bushing only.
B. A supplemental equipment grounding conductor.
C. A bonding jumper only.
D. No additional grounding method.

166. A supplemental equipment grounding conductor required by SPS 316.250 shall be sized in accordance with:

A. NEC 210.8
B. NEC 230.70
C. NEC 250.122
D. NEC 310.15

167. When an aluminum equipment grounding conductor is used as the supplemental grounding conductor, it shall be:

A. Bare
B. Painted green
C. Insulated
D. Installed in PVC conduit only

168. The Wisconsin grounding modifications primarily affect:

A. Service sizing
B. Supplemental grounding electrodes and equipment grounding conductors
C. AFCI protection
D. Lighting outlets

169. SPS 316.300 contains Wisconsin requirements for electrical installations serving:

A. Swimming pools
B. Private onsite wastewater treatment systems
C. Elevators
D. Emergency systems

170. Effluent pumps shall be supplied by:

A. Any available branch circuit.
B. A separate branch circuit supplying no other loads.
C. A lighting circuit.
D. A multiwire branch circuit shared with the alarm.

171. Alarm wiring for a private onsite wastewater treatment system:

A. May be connected to the pump circuit.
B. Shall not be connected to the pump circuit.
C. Must share the neutral conductor.
D. Must use flexible cord.

172. All aboveground cables and flexible cords serving an effluent pump system shall be:

A. Installed in open air.
B. Enclosed to protect against physical damage.
C. Installed underground.
D. Installed without supports.

173. The neutral conductor for an effluent pump system:

A. May be common to both alarm and pump circuits.
B. Shall not be common to both alarm and pump circuits.
C. Shall always be omitted.
D. Must be connected through the alarm relay.

174. Where the wiring enclosure is outside the pump chamber, openings into the pump chamber shall be:

A. Left open for ventilation.
B. Sealed or plugged to prevent passage of gas or vapor.
C. Filled with insulation only.
D. Covered with screening.

175. A single receptacle located at the pump chamber with an alarm or pump connected:

A. Always requires GFCI protection.
B. Does not require GFCI protection.
C. Requires AFCI protection only.
D. Must be protected by both GFCI and AFCI.

176. SPS 316.300 specifically prohibits using a:

A. Dedicated circuit.
B. Multiwire branch circuit to supply both the alarm and the pump.
C. Grounding electrode conductor.
D. Disconnect switch.

177. The requirements of 2011 NEC 300.4(D) are:

A. Adopted without change.
B. Not included as part of SPS 316.
C. Expanded for commercial buildings only.
D. Applicable only to industrial occupancies.

178. Wisconsin Exception No. 4 to 2017 NEC 300.4(D) provides that the required distance does not need to be maintained within:

A. 2 inches of a box.
B. 4 inches of a splice.
C. 8 inches of a device, junction box, splice, or termination point.
D. 12 inches of a disconnect.

179. The Wisconsin modifications in SPS 316.300 primarily address:

A. Swimming pools and fountains.
B. Wiring methods for private onsite wastewater treatment systems and protection against physical damage.
C. Elevators and escalators.
D. Recreational vehicles.

180. Which statement is correct regarding Wisconsin requirements for private onsite wastewater treatment systems?

A. Alarm and pump circuits may share a neutral conductor.
B. Effluent pumps may share a branch circuit with lighting.
C. Effluent pumps require a dedicated branch circuit, and alarm wiring may not be connected to the pump circuit.
D. GFCI protection is required for every single receptacle at the pump chamber.

181. Under SPS 316.310, the derating factors in NEC Table 310.15(B)(3)(a) generally do not apply to:

A. Industrial feeders
B. Commercial branch circuits
C. Branch circuits supplying an individual dwelling unit
D. Temporary wiring

182. Conductor ampacity adjustment is required when more than two NM cables containing two or more current-carrying conductors pass through:

A. A metal raceway
B. The same opening in wood framing that will be fire- or draft-stopped
C. A junction box
D. A disconnect enclosure

183. The opening in wood framing described in SPS 316.310 must be sealed using:

A. Mortar only
B. Drywall compound
C. Thermal insulation, caulk, or sealing foam
D. Sheet metal

184. Ampacity adjustment is also required when more than two NM cables are installed:

A. In separate conduits
B. In contact with thermal insulation without spacing
C. Outdoors
D. In cable tray

185. The allowable ampacity adjustment for grouped NM cables is determined using:

A. NEC Table 220.12
B. NEC Table 310.15(B)(3)(a)
C. NEC Table 250.66
D. NEC Table 430.52

186. SPS 316.312 modifies requirements for:

A. Flexible cords
B. Cabinets, cutout boxes, and meter socket enclosures
C. Grounding electrodes
D. Services

187. Cables with entirely nonmetallic sheaths may enter an enclosure through one or more nonflexible raceways that are at least:

A. 6 inches long
B. 12 inches long
C. 18 inches long
D. 24 inches long

188. Under SPS 316.312, the maximum permitted length of the nonflexible raceway is:

A. 5 feet
B. 8 feet
C. 10 feet
D. 12 feet

189. Which NEC exception is omitted by SPS 316.312?

A. NEC 312.5(C) Exception paragraph (b) / Exception No. 2
B. NEC 312.5(A)
C. NEC 312.6
D. NEC 314.17

190. A fitting shall be provided:

A. On one end of the raceway only.
B. On each end of the raceway to protect the cable from abrasion.
C. At the midpoint of the raceway.
D. Only where the raceway exceeds 5 feet.

191. SPS 316.314 modifies requirements for:

A. Transformers
B. Outlet, device, pull and junction boxes, conduit bodies, fittings, and handhole enclosures
C. Emergency systems
D. Swimming pools

192. Nonmetallic-sheathed cable is not required to be secured to the box or conduit body when:

A. Installed outdoors.
B. Installed according to the wiring method specified in SPS 316.312.
C. Installed in EMT.
D. Used for temporary wiring.

193. The exception allowing NM cable to enter a box without being secured applies only when installed in accordance with:

A. SPS 316.230
B. SPS 316.250
C. SPS 316.312
D. SPS 316.400

194. In a dwelling unit, a ceiling outlet box located where a ceiling fan could be installed shall be:

A. Plastic only.
B. Listed for ceiling fan support.
C. Metal only.
D. Rated at 30 amperes.

195. The Wisconsin ceiling fan outlet box requirement applies to:

A. Garages only.
B. Kitchens only.
C. Habitable rooms or kitchens where a ceiling fan could be installed.

196. The purpose of requiring a listed ceiling fan support box is to:

A. Reduce voltage drop.
B. Provide adequate structural support for the fan.
C. Eliminate grounding requirements.
D. Increase box fill capacity.

197. Under SPS 316.312, nonmetallic-sheathed cable may enter an enclosure through:

A. Flexible metallic conduit only.
B. One or more nonflexible raceways meeting the specified length requirements.
C. Liquidtight flexible conduit only.
D. Open knockouts without protection.

198. The fittings required on each end of the raceway are intended to protect the cable from:

A. Corrosion.
B. Moisture.
C. Abrasion.
D. Overheating.

199. Wisconsin's modifications to NM cable entry into cabinets primarily concern:

A. Cable color.
B. Raceway length, fittings, and securing requirements.
C. GFCI protection.
D. Grounding electrode size.

200. Which Wisconsin requirement helps ensure a ceiling-mounted fan is safely supported?

A. AFCI protection
B. GFCI protection
C. Installing a ceiling outlet box listed for ceiling fan support where a ceiling fan could be installed
D. Using a metal faceplate

201. SPS 316.334 addresses which wiring method?

A. Rigid metal conduit
B. Armored cable
C. Nonmetallic-sheathed cable (Types NM, NMC, and NMS)
D. Mineral-insulated cable

202. The Wisconsin provisions in SPS 316.334 apply to which cable types?

A. MC cable only
B. AC cable only
C. NM, NMC, and NMS cable
D. UF cable only

203. SPS 316.358 primarily addresses:

A. Grounding methods
B. Uses permitted
C. Service disconnects
D. Swimming pools

204. The title of SPS 316.358 indicates it establishes:

A. Prohibited wiring methods
B. Permitted uses of covered wiring methods
C. Service sizing requirements
D. Electrical inspection procedures

205. SPS 316.400 governs:

A. Flexible cords and cables
B. Service equipment
C. Branch-circuit calculations
D. Grounding electrodes

206. The Wisconsin modifications in SPS 316.400 apply to:

A. Flexible cords and cables
B. Swimming pool wiring
C. Transformer vaults
D. Meter sockets

207. SPS 316.404 modifies requirements relating to:

A. Lighting outlet boxes
B. Switches controlling lighting loads
C. Lighting fixture supports
D. Emergency lighting

208. According to SPS 316.404, the requirements of 2017 NEC 404.2(C):

A. Apply to every occupancy.
B. Do not apply to dwelling units.
C. Apply only to kitchens.
D. Apply only to commercial occupancies.

209. The Wisconsin exception in SPS 316.404 specifically applies to:

A. Commercial buildings
B. Industrial occupancies
C. Dwelling units
D. Agricultural buildings

210. SPS 316.406 addresses:

A. Disconnect switches
B. Receptacles, cord connectors, and attachment plugs
C. Panelboards
D. Feeders

211. Which NEC requirement is not included as part of SPS 316?

A. NEC 406.4(D)(4)
B. NEC 406.9(B)(1)
C. NEC 406.3
D. NEC 406.5

212. A 15- or 20-ampere, 125- or 250-volt receptacle installed in a wet location shall have:

A. A metal cover only.
B. A weatherproof enclosure whether or not a plug is inserted.
C. A GFCI breaker only.
D. A gasket only.

213. The weatherproof enclosure requirement applies to receptacles rated:

A. 15 and 20 amperes
B. 30 amperes only
C. 50 amperes only
D. All amperage ratings

214. The weatherproof enclosure requirement applies to which voltages?

A. 120 volts only
B. 125 volts only
C. 125 and 250 volts
D. 277 volts only

215. The Wisconsin weatherproof enclosure requirement applies when the receptacle is installed in:

A. Damp locations only
B. Wet locations
C. Dry indoor locations
D. Crawl spaces only

216. A weatherproof enclosure complying with SPS 316.406 shall remain weatherproof:

A. Only when no plug is inserted.
B. Only when protected by a roof.
C. Whether or not the attachment plug cap is inserted.
D. Only during inspection.

217. One Wisconsin modification to receptacle requirements concerns:

A. Tamper-resistant receptacles
B. Weatherproof enclosures in wet locations
C. Receptacle spacing
D. AFCI protection

218. The Wisconsin exception regarding NEC 404.2(C) affects:

A. Receptacle installation
B. Switches controlling lighting loads in dwelling units
C. Service equipment
D. Motor controllers

219. The Wisconsin weatherproof enclosure requirement specifically substitutes language for:

A. 2017 NEC 406.9(B)(1)
B. 2017 NEC 406.4(D)(4)
C. 2017 NEC 404.2(C)
D. 2017 NEC 210.8

220. Which statement is correct regarding receptacles installed in wet locations under SPS 316?

A. Only receptacles with plugs inserted must be weatherproof.
B. Weatherproof protection is required only for 125-volt receptacles.
C. Fifteen- and 20-ampere, 125- and 250-volt receptacles shall have weatherproof enclosures whether or not the attachment plug cap is inserted.
D. Weatherproof covers are optional if GFCI protection is provided.

221. SPS 316.450 establishes Wisconsin modifications for:

A. Services
B. Transformers and transformer vaults
C. Emergency systems
D. Grounding electrodes

222. SPS 316.450 adds a department rule to which NEC table?

A. NEC Table 310.15(B)
B. NEC Table 250.66
C. NEC Table 450.3(A), Note 3
D. NEC Table 430.52

223. For transformer overcurrent protection, the qualified person shall be:

A. Any licensed electrician.
B. An employee at that location or an employee contracted for that purpose who is readily available.
C. The utility representative only.
D. The local electrical inspector.

224. The qualified person required under SPS 316.450 shall be:

A. On call within 24 hours.
B. Readily available.
C. Located in the same city.
D. Present only during inspections.

225. Vaults containing oil-insulated transformers shall be located where they can be:

A. Ventilated into the building.
B. Ventilated to the outside air without using flues or ducts.
C. Ventilated through occupied corridors.
D. Ventilated only by mechanical exhaust.

226. A vault containing an oil-insulated transformer may use flues or ducts for ventilation only when:

A. Approved by the utility.
B. Approved by the electrical inspector.
C. A petition for variance has been approved.
D. The transformer is less than 75 kVA.

227. The Wisconsin transformer vault requirements primarily address:

A. Grounding conductors.
B. Ventilation and qualified personnel.
C. Receptacle spacing.
D. AFCI protection.

228. The requirement that a qualified person be readily available is an addition to:

A. NEC Article 210.
B. NEC Table 450.3(A), Note 3.
C. NEC Article 250.
D. NEC Article 300.

229. SPS 316.511 applies to:

A. Agricultural buildings.
B. Commercial garages, repair, and storage occupancies.
C. Swimming pools.
D. Recreational vehicle parks.

230. Which NEC requirement is not included as part of SPS 316 for commercial garages?

A. NEC 511.3(C)(1)(a)
B. NEC 511.12
C. NEC 511.10
D. NEC 511.7

231. Under SPS 316.511, the ceiling area is unclassified when ventilation is provided from a point not more than:

A. 6 inches from the ceiling.
B. 12 inches from the ceiling.
C. 18 inches from the highest point of the ceiling.
D. 24 inches from the ceiling.

232. Ventilation systems for commercial garages shall conform to:

A. The International Plumbing Code.
B. Chapters SPS 361 through SPS 366.
C. SPS 320.
D. NFPA 13 only.

233. The ventilation provisions referenced by SPS 316.511 are found in the adopted:

A. International Residential Code.
B. International Mechanical Code.
C. International Fire Code.
D. International Existing Building Code.

234. The adopted mechanical code provisions referenced by SPS 316.511 specifically prescribe ventilation requirements for repair garages serving:

A. Diesel-powered vehicles only.
B. Electric vehicles only.
C. Natural gas- and hydrogen-fueled vehicles.
D. Propane-powered forklifts only.

235. The Wisconsin modifications to commercial garages primarily affect:

A. Hazardous classifications and ventilation requirements.
B. Service calculations.
C. Dwelling unit wiring.
D. Swimming pool equipment.

236. The substitute language in SPS 316.511 replaces which NEC provision?

A. NEC 511.3(C)(2)(a)
B. NEC 511.10
C. NEC 511.12
D. NEC 511.7

237. The point used to determine whether the ceiling area may be considered unclassified is measured from:

A. The finished floor.
B. The roof deck.
C. The highest point in the ceiling.
D. The top of the walls.

238. Oil-insulated transformer vaults generally shall be ventilated:

A. Into occupied spaces.
B. Through flues.
C. Directly to outside air.

239. A readily available qualified person for transformer overcurrent protection may be:

A. Any building occupant.
B. An employee at the location or a contracted employee.
C. A municipal inspector only.
D. A utility meter reader.

240. Which statement correctly summarizes Wisconsin's changes to transformer vaults and commercial garages?

A. Transformer vaults may always vent through ducts, and commercial garages require no special ventilation.
B. Oil-insulated transformer vaults shall generally vent directly to outside air without flues or ducts, and commercial garage ventilation may allow the ceiling area to be unclassified when ventilation is provided within 18 inches of the highest point of the ceiling.
C. Commercial garages always have classified ceilings regardless of ventilation.
D. Transformer vault ventilation is not addressed by SPS 316.

241. SPS 316.547 primarily establishes Wisconsin electrical requirements for:

A. Manufactured homes
B. Agricultural buildings
C. Swimming pools
D. Commercial garages

242. Electrical installations in agricultural buildings are intended to reduce hazards to:

A. Utility equipment only
B. Livestock, persons, and property
C. Farm machinery only
D. Grain storage bins only

243. One important purpose of equipotential bonding in livestock facilities is to:

A. Increase available fault current
B. Reduce voltage differences animals may contact
C. Increase feeder capacity
D. Eliminate overcurrent protection

244. Metal equipment accessible to livestock should be:

A. Painted only
B. Bonded as required by the electrical code
C. Connected only to the neutral conductor
D. Electrically isolated from the grounding system

245. Agricultural electrical installations should be designed to minimize:

A. Utility demand charges
B. Stray voltage affecting livestock
C. Transformer losses only
D. Seasonal voltage fluctuations

246. Equipment grounding in livestock areas is especially important because it:

A. Improves lighting levels
B. Helps protect animals and people from electric shock
C. Eliminates the need for overcurrent devices
D. Allows smaller conductors to be used

247. Agricultural buildings often require electrical systems capable of withstanding:

A. Office environments only
B. Damp, dusty, and corrosive conditions
C. Residential conditions only
D. Climate-controlled spaces only

248. Bonding metal components in livestock facilities helps maintain:

A. Equal electrical potential
B. Higher service voltage
C. Lower utility bills
D. Larger available fault current

249. Wisconsin's agricultural building provisions emphasize protection of:

A. Computer equipment only
B. Livestock and agricultural operations
C. Utility transformers only
D. Underground utilities only

250. Which statement best summarizes SPS 316.547?

A. It regulates commercial kitchens.
B. It provides Wisconsin electrical requirements for agricultural buildings with emphasis on livestock safety, grounding, and bonding.
C. It governs recreational vehicle parks only.
D. It establishes service calculation methods.

251. SPS 316.551 applies to:

A. Swimming pools only
B. Recreational vehicles and recreational vehicle parks
C. Agricultural buildings only
D. Commercial garages

252. The purpose of SPS 316.551 is to establish electrical requirements for:

A. Utility substations
B. Recreational vehicles and the electrical infrastructure serving them
C. Office buildings
D. Marinas only

253. Electrical equipment installed in recreational vehicle parks shall generally comply with:

A. Manufacturer recommendations only
B. The Wisconsin Electrical Code and adopted NEC requirements
C. Utility standards only
D. OSHA regulations only

254. A recreational vehicle site electrical supply is intended to safely provide power for:

A. Permanent residential occupancies only
B. Recreational vehicles
C. Commercial food trucks only
D. Agricultural equipment

255. Electrical equipment serving recreational vehicle sites should be installed to:

A. Eliminate all grounding conductors
B. Minimize electrical shock hazards
C. Reduce utility transformer loading only
D. Increase campground occupancy

256. Electrical pedestals in recreational vehicle parks are intended to provide:

A. Only lighting circuits
B. Safe power connections for recreational vehicles
C. Utility metering only
D. Telephone service only

257. Grounding and bonding requirements in recreational vehicle parks primarily protect:

A. Utility equipment only
B. Persons using recreational vehicles
C. Campground roads only
D. Landscaping

258. Electrical installations in recreational vehicle parks should be maintained to:

A. Reduce utility demand charges
B. Remain safe and code compliant
C. Maximize campground occupancy
D. Eliminate inspections

259. Wisconsin's recreational vehicle park requirements supplement:

A. Plumbing code only
B. NEC requirements adopted by SPS 316
C. Fire code only
D. Building energy code only

260. Which statement best summarizes SPS 316.551?

A. It regulates commercial garages.
B. It establishes Wisconsin electrical requirements for recreational vehicles and recreational vehicle parks to promote safe electrical installations.
C. It establishes transformer vault ventilation requirements.
D. It governs emergency systems.

261. SPS 316.620 establishes Wisconsin electrical requirements for:

A. Swimming pools
B. Elevators, dumbwaiters, escalators, moving walks, platform lifts, and stairway chairlifts
C. Agricultural buildings
D. Recreational vehicle parks

262. Electrical wiring serving elevators shall comply with:

A. Manufacturer recommendations only
B. The NEC as modified by SPS 316
C. Utility standards only
D. OSHA regulations only

263. The electrical disconnect for elevator equipment shall be:

A. Hidden from view
B. Readily accessible as required by the applicable code
C. Installed in another building
D. Located inside the elevator car

264. The purpose of elevator disconnecting means is to:

A. Increase motor speed
B. Safely disconnect electrical power for maintenance and emergencies
C. Eliminate grounding requirements
D. Reduce starting current

265. Electrical equipment associated with elevators shall be installed to:

A. Reduce maintenance costs only
B. Protect persons and property from electrical hazards
C. Increase passenger capacity
D. Eliminate inspections

266. The Wisconsin provisions of SPS 316.620 apply equally to:

A. Escalators and moving walks
B. Swimming pools only
C. Agricultural buildings only
D. Recreational vehicle parks only

267. Platform lifts and stairway chairlifts are specifically addressed in:

A. SPS 316.511
B. SPS 316.620
C. SPS 316.680
D. SPS 316.700

268. Electrical safety requirements for elevators are intended primarily to protect:

A. Utility personnel only
B. Building occupants and maintenance personnel
C. Manufacturers only
D. Insurance inspectors only

269. The scope of SPS 316.620 includes:

A. Passenger elevators and dumbwaiters
B. Commercial garages only
C. Grain elevators only
D. Wind turbines only

270. Which statement best summarizes SPS 316.620?

A. It governs service calculations.
B. It establishes Wisconsin electrical requirements for elevators and similar conveyance equipment.
C. It regulates swimming pools only.
D. It applies only to residential buildings.

271. SPS 316.675 applies to:

A. Emergency generators
B. Electrically driven or controlled irrigation machines
C. Agricultural grain dryers
D. Commercial garages

272. The purpose of SPS 316.675 is to provide electrical safety requirements for:

A. Irrigation machines
B. Swimming pool pumps
C. Elevator motors
D. Recreational vehicles

273. Electrically driven irrigation machines shall comply with:

A. Utility standards only
B. The Wisconsin Electrical Code and adopted NEC requirements
C. OSHA regulations only
D. Manufacturer instructions only

274. Grounding of irrigation equipment is intended primarily to:

A. Increase motor horsepower
B. Protect persons from electrical shock
C. Improve irrigation coverage
D. Reduce water pressure

275. Electrical disconnects for irrigation equipment provide a means to:

A. Increase pump output
B. Safely isolate equipment for servicing
C. Eliminate grounding conductors
D. Improve irrigation timing

276. Electrical wiring for irrigation machines shall be installed to:

A. Maximize water delivery only
B. Minimize electrical hazards
C. Eliminate inspections
D. Increase irrigation speed

277. One important consideration for irrigation machine wiring is protection against:

A. Physical damage
B. Wind erosion only
C. Soil compaction
D. Crop rotation

278. The Wisconsin irrigation machine provisions supplement:

A. Plumbing regulations only
B. NEC requirements adopted by SPS 316
C. Fire code requirements only
D. Energy conservation requirements only

279. Electrical safety for irrigation machines primarily protects:

A. Utility transformers only
B. Persons, equipment, and property
C. Water pumps only
D. Crops only

280. Which statement best summarizes SPS 316.675?

A. It establishes Wisconsin electrical requirements for electrically driven or controlled irrigation machines to promote safe installation and operation.
B. It regulates transformer vault ventilation.
C. It applies only to emergency systems.
D. It governs recreational vehicle parks.

281. SPS 316.680 establishes Wisconsin electrical requirements for:

A. Agricultural buildings
B. Swimming pools, fountains, and similar installations
C. Elevator installations
D. Commercial garages

282. The primary purpose of SPS 316.680 is to:

A. Increase pool equipment efficiency
B. Reduce electrical shock hazards around pools and similar installations
C. Regulate pool water quality
D. Establish plumbing requirements

283. Electrical equipment associated with swimming pools shall comply with:

A. Manufacturer recommendations only
B. The NEC as adopted and modified by SPS 316
C. Utility requirements only
D. OSHA regulations only

284. An equipotential bonding system is intended to:

A. Increase available fault current
B. Minimize voltage differences in the pool area
C. Improve pump efficiency
D. Reduce water consumption

285. Proper bonding of conductive pool components helps protect:

A. Only electrical equipment
B. Persons using the pool
C. Utility transformers
D. Landscaping

286. Ground-fault protection in swimming pool areas is primarily intended to:

A. Improve lighting levels
B. Reduce the risk of electric shock
C. Increase circuit capacity
D. Eliminate voltage drop

287. Electrical equipment installed near a swimming pool shall be:

A. Installed only for convenience
B. Installed to minimize electrical hazards
C. Connected directly to the utility transformer
D. Installed without grounding

288. Underwater lighting equipment shall be:

A. Installed in accordance with the applicable electrical code requirements
B. Mounted without bonding
C. Connected to an extension cord
D. Installed only in commercial pools

289. Metal parts associated with a swimming pool installation generally shall be:

A. Painted only
B. Bonded together as required by the code
C. Connected only to the grounded conductor
D. Electrically isolated from one another

290. Electrical wiring methods used around swimming pools shall be selected to:

A. Reduce installation costs only
B. Provide safe operation in wet environments
C. Eliminate inspections
D. Increase pump capacity

291. SPS 316.680 also applies to:

A. Fountains
B. Grain elevators only
C. Manufactured homes only
D. Commercial kitchens

292. The provisions of SPS 316.680 are intended to protect:

A. Only maintenance personnel
B. Persons, property, and electrical equipment
C. Utility-owned equipment only
D. Pool chemicals only

293. One of the most important electrical safety concepts addressed by SPS 316.680 is:

A. Voltage drop calculations
B. Equipotential bonding
C. Service load calculations
D. Transformer sizing

294. Pool electrical installations should be inspected to verify:

A. Compliance with applicable code requirements
B. Water chemistry only
C. Pool filtration efficiency
D. Utility billing accuracy

295. The electrical requirements for swimming pools are intended to reduce:

A. Mechanical failures only
B. Electric shock and related hazards
C. Water evaporation
D. Chemical consumption

296. Bonding conductors around swimming pools are intended to:

A. Equalize electrical potential between conductive objects
B. Increase branch-circuit ampacity
C. Improve pump performance
D. Reduce water temperature

297. The Wisconsin swimming pool requirements supplement:

A. Plumbing regulations only
B. The NEC as adopted by SPS 316
C. Fire code regulations only
D. Energy conservation regulations only

298. Electrical equipment in pool areas should be installed and maintained to:

A. Maximize convenience only
B. Maintain safe operating conditions
C. Reduce utility demand charges
D. Increase lighting intensity

299. SPS 316.680 covers electrical installations associated with:

A. Swimming pools and similar installations
B. Only residential pools
C. Only commercial fountains
D. Water treatment plants

300. Which statement best summarizes SPS 316.680?

A. It establishes electrical safety requirements for swimming pools, fountains, and similar installations with emphasis on bonding, grounding, and protection against electric shock.
B. It regulates emergency systems only.
C. It establishes service calculation requirements.
D. It governs recreational vehicle parks.

301. SPS 316.700 establishes Wisconsin electrical requirements for:

A. Swimming pools
B. Emergency systems
C. Agricultural buildings
D. Recreational vehicle parks

302. The primary purpose of an emergency system is to:

A. Reduce electrical demand charges.
B. Automatically supply power to loads essential for life safety during loss of normal power.
C. Provide standby power for convenience loads.
D. Increase service capacity.

303. Emergency systems are intended primarily to protect:

A. Utility equipment only.
B. Life and public safety
C. Computer equipment only.
D. Building appearance.

304. Emergency system wiring shall comply with:

A. Manufacturer recommendations only.
B. The National Electrical Code as adopted and modified by SPS 316.
C. Utility operating practices only.
D. OSHA standards only.

305. Emergency systems are designed to operate when:

A. Utility rates are high.
B. Normal electrical power is interrupted.
C. Building occupancy exceeds capacity.
D. The fire alarm is disabled.

306. Emergency circuits should be installed to:

A. Share raceways with normal power whenever practical.
B. Provide reliable operation during emergencies.
C. Reduce installation costs only.
D. Eliminate overcurrent protection.

307. Emergency power sources are intended to supply:

A. Every load in the building.
B. Designated emergency loads.
C. Utility distribution systems.
D. Temporary construction wiring.

308. Emergency transfer equipment is intended to:

A. Increase transformer capacity.
B. Transfer emergency loads from the normal source to the emergency source.
C. Reduce branch-circuit loading.
D. Provide surge protection.

309. Emergency systems shall be maintained to:

A. Reduce utility bills.
B. Ensure reliable operation when required.
C. Increase service voltage.
D. Eliminate inspections.

310. The Wisconsin emergency system requirements supplement:

A. Plumbing regulations only.
B. The NEC provisions adopted by SPS 316.
C. Fire sprinkler standards only.
D. Elevator codes only.

311. SPS 316.701 establishes requirements for:

A. Emergency systems only.
B. Legally required standby systems.
C. Optional standby systems.
D. Temporary power systems.

312. A legally required standby system differs from an emergency system because it:

A. Is intended to serve legally required loads that are not classified as emergency loads.
B. Never requires an alternate power source.
C. Serves only dwelling units.
D. Is operated manually only.

313. Legally required standby systems shall comply with:

A. Manufacturer instructions only.
B. The NEC as adopted and modified by SPS 316.
C. Utility regulations only.
D. OSHA regulations only.

314. The purpose of a legally required standby system is to:

A. Supply convenience receptacles during outages.
B. Supply power to loads required by law during interruption of normal power.
C. Replace all building electrical systems.
D. Operate recreational vehicle parks.

315. Legally required standby systems are intended to improve:

A. Utility load factor.
B. Building safety and operational continuity.
C. Lighting efficiency only.
D. HVAC efficiency only.

316. Transfer equipment for a legally required standby system is intended to:

A. Disconnect the grounding electrode.
B. Transfer designated standby loads to the alternate power source.
C. Increase service capacity.
D. Eliminate overcurrent devices.

317. Standby system wiring should be installed to:

A. Maximize convenience only.
B. Provide dependable operation during loss of normal power.
C. Eliminate inspections.
D. Reduce conductor size.

318. Legally required standby systems primarily serve:

A. Loads required by applicable laws or codes.
B. Decorative lighting only.
C. Residential appliance circuits.
D. Utility-owned equipment.

319. Emergency systems and legally required standby systems have in common that they:

A. Are intended to provide alternate electrical power to designated loads during loss of the normal source.
B. Serve every branch circuit in a building.
C. Eliminate the need for inspections.
D. Replace grounding requirements.

320. Which statement best summarizes SPS 316.700 and SPS 316.701?

A. They establish Wisconsin requirements for emergency systems and legally required standby systems to ensure reliable alternate power for designated life-safety and legally required loads during interruption of the normal electrical supply.
B. They regulate recreational vehicle parks and swimming pools.
C. They establish service calculation requirements only.
D. They apply exclusively to utility-owned electrical systems.

321. Electrical installations under SPS 316 are primarily intended to:

A. Increase electrical efficiency
B. Reduce installation costs
C. Safeguard persons and property from electrical hazards
D. Standardize utility equipment

322. If a provision of SPS 316 conflicts with an adopted standard, which requirement governs?

A. The adopted standard
B. The manufacturer's instructions
C. The provisions of SPS 316
D. The utility company's standards

323. Electrical work performed under emergency conditions may begin before a permit is obtained if the permit application is submitted:

A. Within 7 days
B. Within 72 hours
C. By the next business day
D. Before final inspection

324. Existing electrical installations that create a hazard to life or property may be required to:

A. Remain unchanged
B. Be brought into compliance with the current code
C. Be inspected every year only
D. Be disconnected permanently

325. Before concealed wiring is covered, it normally shall:

A. Be energized
B. Pass the required inspection
C. Be connected to the utility
D. Be painted

326. Single rod grounding electrodes generally require:

A. No additional electrode
B. A supplemental grounding electrode
C. Utility approval
D. A grounding transformer

327. Effluent pumps serving private onsite wastewater treatment systems shall normally be supplied by:

A. Lighting circuits
B. Small appliance circuits
C. A dedicated branch circuit
D. Multiwire branch circuits

328. Alarm wiring for a POWTS system:

A. May share the pump circuit
B. Shall not be connected to the pump circuit
C. Must use the same neutral
D. Must be GFCI protected

329. Ceiling outlet boxes where ceiling fans may be installed shall be:

A. Plastic only
B. Listed for ceiling fan support
C. Rated 30 amperes
D. Mounted only on joists

330. The Wisconsin exception for sump pumps applies to:

A. Pumps supplied by extension cords
B. Dedicated receptacles serving sump, sewage, or condensate pumps
C. Every basement receptacle
D. Every garage receptacle

331. Two-family and multifamily dwellings under the Wisconsin amendments generally require a minimum service rating of:

A. 100 amperes
B. 125 amperes
C. 150 amperes
D. 200 amperes

332. Service conductors normally may extend no more than _____ inside a building before reaching the disconnect.

A. 4 feet
B. 6 feet
C. 8 feet
D. 10 feet

333. Metallic raceways installed in direct contact with earth require:

A. A supplemental equipment grounding conductor
B. A larger neutral conductor
C. A second disconnect
D. A GFCI breaker

334. Oil-filled transformer vaults normally shall be ventilated:

A. Into occupied spaces
B. Through ducts
C. Directly to outside air
D. Into mechanical rooms

335. Commercial garage ceilings may be considered unclassified when ventilation is provided within:

A. 6 inches
B. 12 inches
C. 18 inches of the highest ceiling point
D. 24 inches

336. Electrical systems in livestock facilities emphasize reducing:

A. Utility demand
B. Stray voltage
C. Voltage drop
D. Harmonic distortion

337. The primary purpose of equipotential bonding around swimming pools is to:

A. Increase available fault current
B. Equalize voltage between conductive objects
C. Improve lighting
D. Reduce service size

338. Emergency systems primarily serve:

A. Convenience loads
B. Life-safety loads
C. Decorative lighting
D. Utility equipment

339. Legally required standby systems primarily serve:

A. Optional loads
B. Loads required by applicable laws or codes
C. Residential appliances
D. Temporary wiring

340. A variance from SPS 316 requirements is processed under:

A. SPS 320
B. SPS 303
C. SPS 305
D. SPS 361

341. Electrical inspections in municipalities exercising jurisdiction are performed by:

A. Utility employees
B. Certified commercial electrical inspectors
C. Fire inspectors
D. Licensed contractors

342. The Wisconsin Electrical Code adopts the:

A. International Residential Code
B. National Electrical Code (NFPA 70)
C. National Fire Code
D. International Plumbing Code

343. Listed electrical equipment shall be installed:

A. According to contractor preference
B. According to its listing and manufacturer instructions unless they conflict with SPS 316
C. According to utility policy
D. Without regard to labeling

344. A single rod grounding electrode requires:

A. Testing only
B. A supplemental electrode
C. Utility approval
D. No bonding

345. Wisconsin modifies NEC requirements for:

A. Branch circuits
B. Utility transmission lines
C. Railroad signal systems
D. Aircraft wiring

346. The Wisconsin Electrical Code is primarily concerned with:

A. Energy efficiency only
B. Electrical safety
C. Utility regulation
D. Labor requirements

347. Electrical permits are generally required before:

A. Occupancy
B. Beginning covered electrical work
C. Utility billing
D. Final inspection only

348. The department may require hazardous existing installations to comply with:

A. Their original code forever
B. Current code requirements
C. Utility recommendations only
D. Local zoning

349. A Wisconsin-specific exception permits certain dedicated sump pump receptacles:

A. Without grounding
B. Without GFCI protection under specified conditions
C. On lighting circuits
D. Without permits

350. Wisconsin requires ceiling fan outlet boxes to be:

A. Plastic
B. Listed for fan support
C. Rated 50 pounds only
D. Grounded separately

351. The Wisconsin Code requires dedicated branch circuits for:

A. Bathroom lighting
B. POWTS effluent pumps
C. Garage receptacles
D. Hallway lighting

352. Emergency transfer equipment functions to:

A. Increase voltage
B. Transfer designated loads to the alternate source
C. Ground the generator
D. Disconnect branch circuits

353. Legally required standby systems differ from emergency systems because they serve:

A. Utility loads
B. Legally required non-life-safety loads
C. Residential lighting only
D. Recreational facilities

354. Commercial garages emphasize safe:

A. Voltage regulation
B. Hazardous-location classification and ventilation
C. Generator sizing
D. Service calculations

355. Agricultural electrical requirements place special emphasis on:

A. Decorative lighting
B. Livestock protection
C. Commercial kitchens
D. Elevators

356. Swimming pool electrical requirements emphasize:

A. Service calculations
B. Bonding and shock protection
C. Utility metering
D. Arc-flash protection

357. The Wisconsin Electrical Code modifies the NEC by:

A. Replacing it entirely
B. Adopting it with Wisconsin additions, deletions, and revisions
C. Using only manufacturer standards
D. Applying only to commercial buildings

358. The authority to interpret SPS 316 rests with the:

A. Utility company
B. Local contractor
C. Department of Safety and Professional Services
D. Building owner

359. The overall purpose of SPS 316 is to:

A. Reduce construction costs
B. Establish safe electrical installation requirements
C. Increase utility revenue
D. Standardize electrical equipment manufacturers

360. Which statement best summarizes SPS 316.001 through SPS 316.701?

A. They establish Wisconsin's adoption and modification of the National Electrical Code to provide practical safeguarding of persons and property through safe electrical installations, inspections, and maintenance.
B. They regulate only utility-owned electrical systems.
C. They apply only to one- and two-family dwellings.
D. They replace all provisions of the National Electrical Code.