

# ***EXAM***

## ***Course 13909 Plumbing Continuing Education***

### ***Definitions and Standards [SPS 381] Lead in Construction Trenching & Excavations***



**USCONTRACTORLICENSE LLC dba Kevin Wunderlin  
PO Box 268  
Platteville, Wisconsin 53818  
608-348-6688**

**Email: [michael@uscontractorlicense.com](mailto:michael@uscontractorlicense.com)**

**This Course has been approved by the Wisconsin Department  
of Safety and Professional Services for the following  
Certifications, Registrations or License.**

***Effective October 15, 2010 you may not retake the same training session for credit more than once during the 1, 2 or 4 year term of a specific credential. You may take the same course in a different education cycle.***

KEVIN WUNDERLIN LLC  
PO BOX 268  
PLATTEVILLE, WI 53818

**Course: 13909 PLUMBING DEFINITIONS & STANDARDS; LEAD; TRENCHING & EXCAVATIONS**

**This course is valid for these credentials:**

<b>Credential Description</b>	<b>Cred Code</b>	<b>Credit Hours</b>
Commercial Plumbing Inspector	CPI	12.0
Cross Connection Control Tester	CCCT	6.0
Journeyman Plumber	PJ	12.0
Journeyman Plumber-Restricted Appliance	PJRA	9.0
Journeyman Plumber-Restricted Service	PJRS	3.0
Master Plumber	PM	12.0
Master Plumber-Restricted Appliance	PMRA	9.0
UDC-Plumbing Inspector	UPI	12.0
Utility Contractor	UC	3.0



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We would like to thank you for ordering Course 13909. This course has been approved for continuing education by the Wisconsin Department of Safety and Professional Services for the following:.

<b>Certification, Registration or License</b>	<b>Continuing Education Credits</b>
<b>Commercial Plumbing Inspector</b>	<b>12 Hours</b>
<b>UDC- Plumbing Inspector</b>	<b>12 Hours</b>
<b>Master Plumber</b>	<b>12 Hours</b>
<b>Journeyman Plumber</b>	<b>12 Hours</b>
<b>Master Plumber-Restricted Appliance</b>	<b>9 Hours</b>
<b>Journeyman Plumber-Restricted Appliance</b>	<b>9 Hours</b>
<b>Cross Connection Control Tester</b>	<b>6 Hours</b>
<b>Journeyman Plumber-Restricted Service</b>	<b>3 Hours</b>
<b>Utility Contractor</b>	<b>3 Hours</b>

This course is broken out into three sections and is intended to familiarize individuals with the current plumbing codes and regulations:

1. Plumbing Definitions and Standards (SPS 381)
2. Lead in Construction (OSHA)
3. Trenching and Excavations (OSHA)

**Materials included**

1. REVIEW MATERIALS
2. EXAM
3. Answer Sheet
4. Misc. Information

**Once you complete the course**

**Return the bubble answer sheets to our company. Fax: (608) 571-0096**

**E-mail: [michael@uscontractorlicense.com](mailto:michael@uscontractorlicense.com)**

**US Mail: Above address**

**We will grade your exam and notify you of the results and will notify the State of Wisconsin of your successful completion of the course.**

**The State of Wisconsin requires that you attain a passing score of 70%. In the event that you did not attain the required score we will notify you of the incorrect answers. You will need to retake only the incorrect questions and resubmit them to us for grading purposes.**

**After you are notified that you passed the course**

**Save the Certificate of Completion for your records. The State of Wisconsin will notify you approximately 30 days prior to the expiration of your certification of the procedures to renew. *If you do not receive a notification, contact the Wisconsin Department of Safety and Professional Services at 608-266-2112 or by e-mail: [DspsSbCredentialing@wi.gov](mailto:DspsSbCredentialing@wi.gov) to request the form.***

**Please feel free to contact us with any questions and/or suggestions on improving this course or future educational courses you would like to see us offer.**

**Thank you for your business!**

**Plumbing 381 Definitions and Standards**  
**SPS 381.01(1) to 381.01(60e) for questions 1 to 28**

1. \_\_\_\_\_ means a specification, standard, guideline or procedure in the field of plumbing or related thereto, generally recognized and accepted as authoritative documented through national standards or specifications.
  - a. Authorization for
  - b. Accepted engineering practice
  - c. Acknowledge practice
  - d. Accepted standard
  
2. \_\_\_\_\_ means the unwanted reverse flow of liquids, solids or gases.
  - a. Back pressure
  - b. Inductive reversal
  - c. Backflow
  - d. Suction
  
3. Accessible” when applied to a \_\_\_\_\_, means having access for maintenance, but which first may require the removal of an access panel or similar obstruction.
  - a. fixture or valve
  - b. appliance and pipe
  - c. fixture, appliance, pipe, fitting
  - d. fixture, appliance, pipe, fitting, valve or equipment
  
4. \_\_\_\_\_ means a type of cross connection control device which consists of 2 independently acting check valves, internally force-loaded to a normally closed position and separated by an intermediate chamber with a means for automatically venting to atmosphere where the venting means is internally force-loaded to a normally open position. The terms “backflow preventer” or “dual check valve type with atmospheric port backflow preventer” has the same meaning as backflow preventer with intermediate atmospheric vent.
  - a. Backflow preventer with intermediate atmospheric vent
  - b. Backflow vent with an atmospheric vent
  - c. Backflow intermediate vent
  - d. Backflow atmospheric dual vent
  
5. \_\_\_\_\_ means a piping arrangement for a drain system where the wastes from a fixture, appliance, appurtenance or device discharge by means of indirect or local waste piping terminating in a receptor at a point below the flood level rim of the receptor and above the outlet of the trap serving the receptor.
  - a. Circuit-Vent
  - b. Air-break
  - c. Diverter
  - d. Standpipe

6. “Back siphonage” means the creation of a backflow as a result of positive pressure.

- a. True
- b. False

7. \_\_\_\_\_ means a unit for the treatment of wastewater which utilizes molecular oxygen in the absence of free oxygen for biological respiration and decomposition.

- a. Anaerobic treatment component
- b. Aerobic treatment component
- c. Anaerobic component
- d. Ambient treatment and component

8. \_\_\_\_\_ means a water supply valve opened or closed by means of a float or similar device used to supply water to a tank.

- a. Ball adapter
- b. Ballcock
- c. Ball float
- d. Ballast

9. \_\_\_\_\_ means a manufactured device or prefabricated assembly of component parts which is an adjunct to a plumbing product or plumbing system.

- a. Accessory
- b. Appurtenance
- c. Appliance
- d. Aerator

10. “Battery of fixtures” means any group of \_\_\_\_\_ that discharge into the same horizontal branch drain.

- a. 4 or more fixtures
- b. 3 or less fixtures
- c. 2 or more fixtures
- d. 6 or more fixtures

11. “Areawide water quality management plan” means those plans prepared by the \_\_\_\_\_, including those plans prepared by agencies designated by the governor under the authority of ss. 281.11, 281.12 (1), 281.15, and 283.83, Stats., for the purpose of managing, protecting and enhancing groundwater and surface water of the state.

Note: See ch. SPS 382 Appendix for a list of water quality management agencies and their addresses.

- a. Department of Safety and Professional Services
- b. Department of Natural Resources
- c. Department of Health
- d. None of the above [a,b or c]

12. \_\_\_\_\_ means rock that is exposed at the earth's surface or underlies soil material and includes:

- (a) Weathered in-place consolidated material, larger than 2 mm in size and greater than 50% by volume; and
- (b) Weakly consolidated sandstone at the point of increased resistance to penetration of a knife blade.

- a. Solid Rock
- b. Base
- c. Bedrock
- d. Foundation

13. \_\_\_\_\_ means a watertight receptacle built to arrest sediment of surface, subsoil or other waste drainage, and to retain oily or greasy wastes, so as to prevent their entrance into the building drain or building sewer.

- a. Wash basin
- b. Catch basin
- c. Sink basin
- d. Hand basin

14. \_\_\_\_\_ means wastewater contaminated by human body waste, toilet paper and any other material intended to be deposited in a receptor designed to receive urine or feces.

- a. Blackwater
- b. Gray water
- c. Clear water
- d. None of the above [a, b or c]

15. \_\_\_\_\_ means a method of venting 2 to 8 traps or trapped fixtures without providing an individual vent for each trap or fixture.

- a. Course vent
- b. Expulsion vent
- c. Circuit vent
- d. Common vent

16. Bell" means the portion of a pipe that is enlarged to receive the end of another pipe of the \_\_\_\_\_ for the purpose of making a joint.

- a. Larger diameter
- b. Smaller diameter
- c. Same diameter
- d. Minor diameter

17. \_\_\_\_\_ means a part of a piping system other than a riser, main or stack.
- Bough
  - Branch
  - Stem
  - Vent system
18. \_\_\_\_\_ means a structure for support, shelter or enclosure of persons or property.
- Accessory structure
  - Building
  - Structure
  - Composition
19. \_\_\_\_\_ means a vent serving more than one fixture drain.
- Vent system
  - Vent stack
  - Vent header
  - Branch vent
20. \_\_\_\_\_ means an accessible opening in a drain system used for the removal of obstructions.
- Cleanout
  - Drain
  - Drum trap
  - Desanco fitting
21. \_\_\_\_\_ means wastewater other than storm water, having no impurities or where impurities are below a minimum concentration considered harmful by the department, including but not limited to noncontact cooling water and condensate drainage from refrigeration compressors and air conditioning equipment, drainage of water used for equipment chilling purposes and cooled condensate from steam heating systems or other equipment.
- Clear water
  - Graywater
  - Blackwater
  - None of the above [a, b or c]
22. \_\_\_\_\_ means a building drain which conveys wastewater consisting in part of domestic wastewater.
- Cesspool
  - Building drain, sanitary
  - Catch basin
  - Cistern



23. "Cold water" means water at a temperature less than \_\_\_\_\_.

- a. 85° F.
- b. 90° F.
- c. 95° F.
- d. 100° F.

24. \_\_\_\_\_ means a private water main that serves a fire protection system and any number of plumbing fixtures.

- a. Combination main
- b. Private water main
- c. Combination private water main
- d. Dual water main

25. \_\_\_\_\_ means any written permission from a municipality that allows construction to commence on a structure.

- a. Construction permit
- b. Building permit
- c. Permit
- d. Occupancy permit

26. \_\_\_\_\_ means a branch vent connecting at or downstream from the junction of 2 fixture drains and serving as a vent for those fixture drains.

- a. Common vent
- b. Vent
- c. Vent stack
- d. Vent system

27. "Building sewer, storm" means a building sewer which conveys storm water and clear water, but not both simultaneously.

- a. True
- b. False

28. "Burr" means a roughness or metal protruding from the walls of a pipe usually as the result of cutting the pipe.

- a. True
- b. False

**Review SPS 381.01(61) to 381.01(114) for questions 29 to 53**

29. \_\_\_\_\_ means the length of pipe line measured along the centerline of the pipe and fittings.

- a. Developed piece
- b. Developed span
- c. Developed extent
- d. Developed length

30. \_\_\_\_\_ means a drain pipe inside the building which conveys storm water from a roof to the storm drain or storm sewer.

- a. Culvert
- b. Conductor
- c. Closet Bend
- d. Directional T Plumbing

31. \_\_\_\_\_ means in reference to a pipe the nominal inside diameter of the pipe.

- a. Diameter
- b. Breadth
- c. OD
- d. Girth

32. "Continuous pressure" means a pressure greater than atmospheric and exerted for a period of more than \_\_\_\_\_ continuous hours.

- a. 4
- b. 8
- c. 10
- d. 12

33. \_\_\_\_\_ means a connection or potential connection between any part of a water supply system and another environment containing substances in a manner that, under any circumstances, would allow the substances to enter the water supply system by means of back siphonage or back pressure.

- a. Check Valve
- b. Cross Union
- c. Cross tie
- d. Cross connection

34. "Domestic wastewater" means the type of wastewater, including storm water, normally discharged from or similar to that discharged from plumbing fixtures, appliances and devices including, but not limited to sanitary, bath, laundry, dishwashing, garbage disposal, cleaning wastewaters and storm water.

- a. True
- b. False

35. "Dead end" means a branch leading from a drain pipe, vent pipe, building drain or building sewer and terminating at a developed length of \_\_\_\_\_ by means of a plug, cap or other closed fitting.

- a. 1 foot or less
- b. 2 feet or more
- c. 1 foot or more
- d. 2 feet or less

36. "Cross connection control device" means any mechanical device which \_\_\_\_\_ prevents backflow from a contaminated source into a potable water supply system.

- a. automatically
- b. manually
- c. electronically
- d. mechanically

37. "Drain" means any pipe that carries \_\_\_\_\_ .

- a. only wastewater
- b. only water- borne wastes
- c. wastewater or water- borne wastes
- d. None of the above [a, b or c]

38. "Department" means the \_\_\_\_\_.

- a. Department of Safety and Professional Services
- b. Department of Health
- c. Department of Regulation and Licensing
- d. Department of Natural Resources

39. \_\_\_\_\_ means a structure, or that part of a structure, which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.

- a. Dwelling
- b. Building
- c. Residence
- d. Abode

40. "Effluent" means \_\_\_\_\_ discharged from a process, device, appurtenance or piping system.

- a. fluid
- b. gaseous
- c. liquid
- d. semi-liquid

41. "Fixture unit, supply" or "sfu" means a measure of the probable hydraulic demand on the \_\_\_\_\_ by various types of plumbing fixtures.

- a. water supply
- b. gas supply
- c. sewer supply
- d. None of the above [a ,b, or c]

42. "Engineered system" means a system designed to meet the \_\_\_\_\_ of the code but not the enumerated specifications of the state plumbing code.

- a. objective
- b. intent
- c. goal
- d. purpose

43. "Experimental system" or "Experimental plumbing system" means a type of plumbing system from which valid and reliable data are being sought to demonstrate compliance with the intent of chs. SPS 382 to 384.

- a. True
- b. False

44. "Estimated wastewater flow" means the typical quantity of domestic wastewater generated \_\_\_\_\_ by a dwelling, building or facility.

- a. daily
- b. weekly
- c. monthly
- d. yearly

45. \_\_\_\_\_ means a receptor for the discharge from indirect or local waste piping installed with its flood level rim even with the surrounding floor.

- a. Floor grate
- b. Floor drain
- c. Floor sink
- d. Floor float

46. \_\_\_\_\_ means a device which discharges a predetermined quantity of water to fixtures for flushing purposes and is closed by direct water pressure.

- a. Fixture supply
- b. Flapper valve
- c. Flushometer valve
- d. Float ball

47. \_\_\_\_\_ means the effluent from the last POWTS treatment component.

- a. Final effluent
- b. Final liquid
- c. Final sewage
- d. Final runoff

48. “Freeze resistant sanitary yard hydrant” means a type of device serving as a hose bibb that has design features that minimize the risk of freezing, prevent groundwater contamination and provide backflow protection. The term “freeze resistant sanitary yard hydrant with backflow protection” has the same meaning as freeze resistant sanitary yard hydrant.

- a. True
- b. False

49. \_\_\_\_\_ means a subsoil drain that serves the area of the foundation of a building.

- a. French drain
- b. Fixture branch drain
- c. Fixture drain
- d. Foundation drain

50. “Fixture supply connector” means that portion of water supply piping which connects a \_\_\_\_\_ to the water distribution system.

- a. plumbing fixture
- b. appliance and plumbing fixture
- c. appliance or a piece of equipment
- d. plumbing fixture, appliance or a piece of equipment

51. \_\_\_\_\_ means wastewater contaminated by waste materials, exclusive of urine, feces or industrial waste, deposited into plumbing drain systems.

- a. Blackwater
- b. Graywater
- c. Clear water
- d. None of the above [a, b or c]

52. "Fixture unit, drainage" or "dfu" means a measure of the probable discharge into the drain system by various types of plumbing fixtures. The drainage fixture unit value for a particular fixture depends \_\_\_\_\_ .

- a. on its volume rate of drainage discharge
- b. on the time duration of a single drainage operation
- c. on the average time between successive operations
- d. All the above [a, b and c]

53. \_\_\_\_\_ means a receptacle designed to intercept and retain or remove grease or fatty substances.

- a. French drain
- b. Grease drain
- c. Grease interceptor
- d. House trap

**Review SPS 381.01(115) to 381.01(172) for questions 54 to 74**

54. "Health care plumbing appliance" means a plumbing appliance, the function of which is \_\_\_\_\_ health care activities.

- a. unique to
- b. exclusive of
- c. distinctive to
- d. typical of

55. "Infiltration component" means the plane within a treatment or dispersal component at which effluent is applied to in situ soil or engineered soil.

- a. True
- b. False

56. "In situ soil" means soil naturally formed or deposited in its present location or position and includes soil material that has been plowed using normal tillage implements and depositional material resulting from \_\_\_\_\_.

- a. erosion
- b. flooding
- c. erosion or flooding
- d. None of the above [a, b or c]

57. \_\_\_\_\_ means a situation where the water supply system could be contaminated with a toxic substance or solution so as to make the water unsuitable for the designated use.
- a. High groundwater
  - b. High hazard
  - c. High exposure
  - d. High vulnerability
58. \_\_\_\_\_ means a plumbing appliance, the function of which is unique to scientific experimentation or research activities.
- a. Scientific plumbing appliance
  - b. Research plumbing appliance
  - c. Experimental plumbing appliance
  - d. Laboratory plumbing appliance
59. \_\_\_\_\_ means a watertight receptacle for the collection and holding of wastewater.
- a. Holding tank
  - b. Holding cistern
  - c. Holding reservoir
  - d. None of the above [a, b or c]
60. "Hot water" means water at a temperature of \_\_\_\_\_ or more.
- a. 95° F
  - b. 100° F
  - c. 105° F
  - d. 110° F
61. "Leader" means a pipe or channel outside a building which conveys storm water from the roof or gutter drains to a \_\_\_\_\_.
- a. storm drain
  - b. storm sewer
  - c. grade
  - d. All the above [a, b and c]
62. "Local vent" means a pipe connecting to a fixture and extending to outside air through which \_\_\_\_\_ is removed from the fixture.
- a. vapor
  - b. foul air
  - c. vapor or foul air
  - d. wastewater

63. “Human health hazard” has the meaning specified under s. 254.01 (2), Stats.  
Note: Section 254.01 (2), Stats., reads: “Human health hazard” means a substance, activity or condition that is known to have the potential to cause acute or chronic illness or death if exposure to the \_\_\_\_\_ is not abated.
- substance
  - activity
  - condition
  - All the above [a, b and c]
64. \_\_\_\_\_ means the principal pipe artery to which branches may be connected.
- Manifold
  - Multipurpose piping system
  - No-Hub connector
  - Main
65. “Manhole” means an opening constructed to permit or deny access by a person to a sewer or any exposed above ground portion of a plumbing system.
- True
  - False
66. \_\_\_\_\_ means drain piping which does not connect directly with the drain system, but which discharges into the drain system by means of an air break or air gap into a receptor.
- P-trap
  - Pressure vacuum breaker assembly
  - Indirect waste piping
  - Interceptor
67. \_\_\_\_\_ means a connection between pipes, fittings or pipes and fittings by means of a device, coupling, fitting or adapter where compression is applied around the center line of the pieces being joined, but which is not caulked, threaded, soldered, solvent cemented, brazed or welded.
- Plumbing Y-branch
  - Mechanical joint
  - Malleable fitting
  - Vitreous joint
68. “Occasional occupancy” means occupying a building that is served by a POWTS for less than \_\_\_\_\_ calendar days per year.
- 120
  - 145
  - 160
  - 180



69. "Negative pressure" means a pressure \_\_\_\_\_ atmospheric.

- a. more than
- b. less than
- c. equal to
- d. All the above [a, b and c]

70. "Multipurpose piping system" means a water distribution system conveying water to plumbing fixtures and appliances and automatic fire sprinklers with the intention of serving \_\_\_\_\_.

- a. domestic needs
- b. fire protection needs
- c. both domestic and fire protection needs
- d. None of the above [a, b or c]

71. "Oil interceptor" means a device designed to intercept and \_\_\_\_\_.

- a. retain oil
- b. lubricating grease
- c. other similar materials
- d. All the above [a, b and c]

72. "Patient area plumbing fixture" means a plumbing fixture that is accessible to patients in a health care facility and is intended to be used for \_\_\_\_\_.

- a. culinary purposes
- b. hygienic purposes
- c. culinary and hygienic purposes
- d. culinary, hygienic or domestic purposes

73. "Peak flow, stormwater" means the \_\_\_\_\_ anticipated flow from a given storm event.

- a. median
- b. largest
- c. smallest
- d. nominal

74. "Nonpublic" means, in the classification of plumbing fixtures, those fixtures in \_\_\_\_\_, and other places where the fixtures are intended for the use by a family or an individual to the exclusion of all others.

- a. residences
- b. apartments
- c. living units of hotels and motels
- d. All the above [a, b and c]

**Review SPS 381.01(173) to 381.01(227) for questions 75 to 90**

75. "Pitch" means the gradient or slope of a line of pipe in reference to a vertical plane.

- a. True
- b. False

76. "Prefabricated plumbing" means open drain piping, vent piping or water supply or a combination of these types of piping, contained in a concrete building component, which will be visible for inspection when delivered to the final site of installation.

- a. True
- b. False

77. "POWTS" means a \_\_\_\_\_.

- a. public onsite water treatment system
- b. private onsite water treatment system
- c. private onsite wastewater treatment system
- d. public onsite wastewater treatment system

78. "Plumbing fixture" means a receptacle or device which meets \_\_\_\_\_ of the following:

- (a) Is either permanently or temporarily connected to the water supply system of the premises, and demands a supply of water from the system;
- (b) Discharges wastewater or waste materials either directly or indirectly to the drain system of the premises.
- (c) Requires both a water supply connection and a discharge to the drain system of the premises.

- a. at least one
- b. two
- c. all
- d. None of the above answers [a, b or c]

79. "Private interceptor main sewer" means a sewer serving \_\_\_\_\_ or more buildings and not part of the municipal sewer system.

- a. one
- b. two
- c. three
- d. four

80. "Public sewer" means a sewer \_\_\_\_\_.

- a. Owned by a public authority
- b. Controlled by a private authority
- c. Owned and controlled by a private authority
- d. Owned and controlled by a public authority

81. "Safing" means a membrane or material installed \_\_\_\_\_ a fixture to prevent leakage from escaping to the floor, ceiling or walls.

- a. beneath
- b. within
- c. inside
- d. around

82. "Scrub sink" means a plumbing fixture used for hand and arm washing prior to surgery or other medical procedures.

*Note: A scrub sink may also be referred to as a surgeon washup sink.*

- a. True
- b. False

83. "Private water main" means a water main serving \_\_\_\_\_ or more buildings and not part of the municipal water system.

- a. One
- b. Two
- c. Three
- d. Four

84. "Service sink" means a fixture designed to be used for building or facility maintenance.

*Note: A service sink may also be referred to as a \_\_\_\_\_.*

- a. Mop sink
- b. Mop basin
- c. Janitor's sink
- d. All of the above [a, b and c]

85. "Public water main" means a water supply pipe for public use \_\_\_\_\_.

- a. owned by a private authority
- b. owned and controlled by a public authority
- c. owned and controlled by a private authority
- d. controlled by a public authority

86. "Sewage" means wastewater containing fecal coliform bacteria exceeding 200 CFU, colony forming units, per 100 ml.

- a. True
- b. False

87. \_\_\_\_\_ means a connection in which one pipe slips into another, the joint of which is made tight with a compression type fitting.

- a. Slip-joint
- b. Creep-joint
- c. Straight cross
- d. Sweating

88. \_\_\_\_\_ means a commercial establishment or business place with a maximum daily wastewater flow rate of less than 5,000 gallons per day as determined from the design criteria of the state plumbing code. Small commercial establishment includes a farm, including a residence on a farm, if the residence is occupied by a person who is an operator of the farm and if the maximum daily wastewater flow rate of the farm and the residence on the farm is less than 5,000 gallons-per-day as determined from the design criteria of the state plumbing code.

- a. Small commercial establishment
- b. Median commercial establishment
- c. Large commercial establishment
- d. None of the above [a, b or c]

89. \_\_\_\_\_ means a vent which permits additional circulation of air in or between drain and vent systems.

- a. Revent
- b. Reamer vent
- c. Relief vent
- d. Saddle vent

90. "Roughing in" means the installation of all parts of the plumbing system which can be completed prior to the installation of fixtures including \_\_\_\_\_ and the necessary fixture supports.

- a. Drain
- b. Water supply
- c. Vent piping
- d. All the above [a, b and c]

**Review SPS 381.01(228) to 381.01(289) for questions 91 to 111**

91. \_\_\_\_\_ means the end of a pipe which fits into a bell or hub.
- a. Valve
  - b. Faucet
  - c. Spout
  - d. Spigot
92. “Tempered water” means water ranging in temperature from \_\_\_\_\_.
- a. 80° F to less than 115° F
  - b. 85° F to less than 110° F
  - c. 90° F to less than 115° F
  - d. None of the above [a, b or c]
93. \_\_\_\_\_ means a drain or vent pipe that extends vertically one full story or more.
- a. Standpipe
  - b. Stack
  - c. Trap
  - d. Sleeve
94. \_\_\_\_\_ means a drain pipe serving as a receptor for the discharge wastes from indirect or local waste piping.
- a. Standpipe
  - b. Stack
  - c. Trap
  - d. Sleeve
95. \_\_\_\_\_ means a combination relief valve designed to function as both a temperature relief and pressure relief valve.
- a. Temperature valve
  - b. Pressure relief valve
  - c. Temperature and pressure relief valve
  - d. Combination valve
96. “State plumbing code” means chs. \_\_\_\_\_.
- a. SPS 380 to 385
  - b. SPS 381 to 386
  - c. SPS 380 to 387
  - d. SPS 381 to 387

97. \_\_\_\_\_ means that part of a trap that forms a dam over which wastes must flow to enter the drain piping.

- a. Trap weir
- b. Trip lever
- c. Tap Tee
- d. Tee

98. \_\_\_\_\_ means a fitting, device or arrangement of piping so designed and constructed as to provide, when properly vented, a liquid seal which prevents emission of sewer gases without materially affecting the flow of wastewater through it.

- a. Trap
- b. Trip lever
- c. Tee
- d. Tap tee

99. "Sump pump" means a manually activated device located outside of a sump, pit or high point that is designed to elevate storm water, groundwater, sewage or clear water.

- a. True
- b. False

100. \_\_\_\_\_ means a pipe, other than a pipe located inside a building, that carries any of the following: storm water, groundwater or clear water.

- a. Subsoil drain
- b. Storm sewer
- c. Soil stack
- d. Service tee

101. \_\_\_\_\_ means a part of the plumbing system used to equalize pressures and ventilate the system.

- a. Venturi
- b. Valve seat
- c. Vent
- d. Vacuum

102. \_\_\_\_\_ means an assembly of fittings designed to eliminate the possibility of back siphonage in a system by allowing air to enter through a tee fitting.

- a. Vacuum relief valve
- b. Valve seat
- c. Vacuum breaker tee
- d. Valve relief valve

103. \_\_\_\_\_ means a branch vent which connects 2 or more stack vents or vent stacks or both and extends to the outside air.

- a. Trap weir
- b. Vent header
- c. Trap tee
- d. Valve seat

104. "Sump" means a \_\_\_\_\_ that receives wastewater that must be emptied by mechanical means.

- a. tank
- b. pit
- c. tank or pit
- d. None of the above [a, b or c]

105. \_\_\_\_\_ means a water closet attached to a wall in such a way that it does not touch the floor.

- a. Washdown water closet
- b. Wall hydrant
- c. Wall mounted water closet
- d. None of the above [a, b or c]

106. "Vent stack" means a vertical vent pipe that provides air for a drain stack of \_\_\_\_\_ or more branch intervals.

- a. 2
- b. 3
- c. 4
- d. 5

107. \_\_\_\_\_ means that portion of a vent pipe that receives the discharge from other fixtures.

- a. Waste header
- b. Vent stack
- c. Wet vent
- d. Vent header

108. "Water distribution system" means that portion of a water supply system from the building control valve to the connection of a \_\_\_\_\_, water using equipment or other piping systems to be served.

- a. Plumbing appliance
- b. Plumbing fixture
- c. Fixture supply connector
- d. All the above [a, b and c]

109. "Wastewater" means \_\_\_\_\_, domestic wastewater, industrial wastewater or any combination of these.

- a. Sewage
- b. Storm water
- c. Clear water
- d. All the above [a, b and c]

110. \_\_\_\_\_ means a vent connected to a drain stack for the purpose of preventing pressure changes in the drain stack.

- a. Wye
- b. Yoke vent
- c. Waste arm
- d. Wet vent

111. \_\_\_\_\_ means any heating device with piping connections to the water supply system that is intended to supply hot water for domestic or commercial purposes other than space heating.

- a. Water heater
- b. Water service
- c. Water closet
- d. Water system

**Review SPS 381.20 (Incorporation of Standards by Reference)**  
**for questions 112 to 120**

SPS 381.20 Incorporation of standards by reference. (1) CONSENT. (a) Pursuant to s. 227.21 (2), Stats., the attorney general has consented to the incorporation by reference of the standards listed in sub. (3).

(b) The codes and standards that are referenced in this chapter, and any additional codes and standards that are subsequently referenced in those codes and standards, shall apply to the prescribed extent of each such reference, except as modified by this chapter.

*Note: Copies of the adopted standards are on file in the offices of the department and the legislative reference bureau. Copies of the standards may be purchased through the respective organizations listed in Tables 381.20-1 to 381.20-13.*

**(3) ADOPTION OF STANDARDS.** The standards referenced in Tables 381.20-1 to 381.20-13 are hereby incorporated by reference into this chapter.

*Note: The tables in this section provide a comprehensive listing of all of the standards adopted by reference in this code. For requirements or limitations in how these standards are to be applied, refer to the code section that requires compliance with the standard.*



(4) DEPARTMENT AUTHORITY. A department interpretation of an adopted standard under this chapter shall supersede any differing interpretation by either a lower level jurisdiction or an issuer of the adopted standard.

112. Through which Organization/Company would you find the referenced standards for Plastic Water Closet Bowls and Tanks?

- a. Association of Home Appliance Manufacturers
- b. American National Standards Institute, Inc.
- c. American Society of Sanitary Engineering
- d. American Society of Mechanical Engineers

113. Through which Organization/Company would you find the referenced standards for Stainless Steel Pipe?

- a. American Society of Mechanical Engineers
- b. ASTM International
- c. American Water Works Association
- d. NSF International

114. Through which Organization/Company would you find the referenced standards for Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures?

- a. Steel Tank Institute
- b. Underwriters Laboratories Inc.
- c. American Society of Sanitary Engineering
- d. Factory Mutual Research Corp.

115. Through which Organization/Company would you find the referenced standards for the Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings, Specifications?

- a. Underwriters Laboratories Inc.
- b. American Water Works Association
- c. American National Standards Institute, Inc.
- d. ASTM International

116. Through which Organization/Company would you find the referenced standards for the Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings?

- a. American Water Works Association
- b. ATSM International
- c. American Welding Society
- d. American National Standards Institute, Inc.

117. Through which organization/Company would you find the referenced standards for Polyethylene Pressure Pipe and Fittings, 4 in. through 62 in., for Water Distribution?

- a. ASTM International
- b. American Society of Mechanical Engineers
- c. American National Standards Institute, Inc.
- d. American Water Works Association

118. Through which Organization/Company would you find the referenced standards for the Standard for the Installation of Private Fire Service Mains and Their Appurtenances?

- a. American National Standards Institute, Inc.
- b. American Society of Mechanical Engineers
- c. National Fire Protection Association
- d. ASTM International

119. Through which Organization/Company would you find the referenced standards for Plumbing Supply fittings?

- a. Canadian Standards Association
- b. Factory mutual Research Corp.
- c. Cast Iron Soil Pipe Institute
- d. NSF International

120. Through which Organization/Company would you find the referenced standards for Residential Wastewater Treatment Systems?

- a. Canadian Standards Association
- b. NSF International
- c. Steel Tank Institute
- d. ASTM International

**FOR QUESTIONS 121 to 160 REFER TO LEAD IN CONSTRUCTION**

121. HEALTH HAZARDS OF LEAD EXPOSURE: Lead can damage the \_\_\_\_\_.

- a. kidneys
- b. hematological and reproductive system
- c. cardiovascular and central nervous system
- d. All of the above

122. REPRODUCTIVE RISKS: Lead can alter the structure of sperm cells and there is evidence of miscarriage and stillbirth in women exposed to lead or whose partners have been exposed.

- a. True
- b. False

123. PERCENT OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS BY COUNTY – WISCONSIN, 2008: In 2008 Wisconsin had \_\_\_\_\_ counties with children that had an elevated blood lead levels of 1.8 -2.8% percent.

- a. One
- b. Two
- c. Three
- d. Four

124. WORKER EXPOSURE: A significant portion of the lead inhaled or ingested gets into the bloodstream. Once in the bloodstream, lead circulates through the body and \_\_\_\_\_. Some of this lead is filtered out of the body quickly and excreted, but some remains in the blood and tissues. As exposure continues, the amount stored will increase if the body absorbs more lead than it excretes.

- a. stored in organs only
- b. stored in body tissue only
- c. stored in organs and body tissue
- d. is filtered out

125. HOW WIDESPREAD IS LEAD BASED PAINT IN HOUSING? \_\_\_\_\_ of homes built during 1940 to 1959 have lead based paint components.

- a. 87%
- b. 69%
- c. 24%
- d. None of the above

126. MOST VULNERABLE WORKERS: Workers potentially at risk for lead exposure include those involved in iron work; demolition work; painting; lead-based paint abatement; plumbing; heating and air conditioning maintenance and repair; electrical work; and carpentry, renovation, and remodeling work. \_\_\_\_\_ are among those workers most exposed to lead.

- a. Plumbers
- b. Welders
- c. Painters
- d. All of the above

127. EXPOSURE LIMITS: PEL is the abbreviation for:

- a. Permissible Exposure Limit
- b. Probable Exposure Limit
- c. Possible Exposure Limit
- d. None of the above

128. EXPOSURE LIMITS: AL is the abbreviation for:

- a. Allowable level
- b. Appropriate level
- c. Action Level
- d. Accountability level

129. WORKER PROTECTION: Because lead is a cumulative and persistent toxic substance and health effects will result from a onetime exposure, employers may use these precautions where feasible to maximize employee exposure to lead.

- a. True
- b. False

130. ELEMENTS OF A COMPLIANCE PROGRAM: For each job where employee exposure is below the PEL, the employer can implement a compliance program to increase employee exposure to stay under the PEL.

- a. True
- b. False

131. INITIAL EMPLOYEE EXPOSURE ASSESSMENT: According to the Wisconsin Dept. of Health Services (DHS 163) "Lead exposure" means a level of lead in the blood of 10 or more micrograms per \_\_\_\_\_.

- a. 100 milliliters of blood
- b. 125 milliliters of blood
- c. 150 milliliters of blood
- d. 200 milliliters of blood

132. BIOLOGICAL MONITORING TESTS: Analysis of blood lead samples must be conducted by an OSHA approved lab and be accurate (to a confidence level of 95 percent) \_\_\_\_\_, or 6 µg/dl, whichever is greater.

- a. within plus or minus 10 percent
- b. within plus or minus 15 percent
- c. within plus or minus 20 percent
- d. within plus or minus 25 percent

133. TEST RESULTS SHOWING NO OVEREXPOSURES: If the initial assessment indicates that no employee is exposed above the AL, the employer may discontinue monitoring.

- a. True
- b. False

134. **EMPLOYEE NOTIFICATION OF MONITORING RESULTS:** The employer must notify each employee in writing of employee exposure assessment results within \_\_\_\_\_ of receiving them.

- a. ten working days
- b. ten days days
- c. five working days
- d. five days

135. **MEDICAL SURVEILLANCE:** When an employee's airborne exposure is at or above the AL for more than 30 days in any consecutive 12 months, an immediate medical consultation is required when the employee notifies the employer that he or she:

- a. Has developed signs or symptoms commonly associated with lead-related disease;
- b. Has demonstrated difficulty in breathing during respirator use or a fit test;
- c. Desires medical advice concerning the effects of past or current lead exposure on the employee's ability to have a healthy child.
- d. All of the above

136. **WHEN MONITORING SHOWS NO EMPLOYEE EXPOSURES ABOVE THE AL:** Which renovation activity creates the most airborne lead dust?

- a. Hand Sanding
- b. Interior Demolition
- c. Power Sanding
- d. All of the above

137. **WORKER PROTECTIONS AND BENEFITS:** The employer must provide up to 6 months of medical removal protection (MRP) benefits only the first time an employee is removed from lead exposure or medically limited.

- a. True
- b. False

138. **RECORDS REQUIREMENTS INVOLVING MEDICAL REMOVAL:** In the case of medical removal, the employer's records must include:

- a. The worker's name and social security number,
- b. The date of each occasion that the worker was removed from current exposure to lead and the date when the worker was returned to the former job status,
- c. A brief explanation of how each removal was or is being accomplished, and a statement indicating whether the reason for the removal was an elevated blood lead level.
- d. All of the above

139. EMPLOYER REQUIREMENTS: The employer must maintain any employee exposure and medical records to document ongoing employee exposure, medical monitoring, and medical removal of workers. This data provides a baseline to evaluate the employee's health properly.

- a. True
- b. False

140. EMPLOYER REQUIREMENTS RELATED TO OBJECTIVE DATA: The employer must maintain the record of objective data relied on for \_\_\_\_\_.

- a. at least 7 years
- b. at least 15 years
- c. at least 20 years
- d. at least 30 years

141. WHEN CLOSING A BUSINESS: When an employer ceases to do business, the successor employer must receive and retain all required records. If no successor is available, these records must be sent to the Director of NIOSH.

- a. True
- b. False

142. EXHAUST VENTILATION: Equip power tools used to remove lead-based paint with dust collection shrouds or other attachments so that paint is exhausted through a \_\_\_\_\_.

- a. Central Air vacuum system
- b. high-efficiency particulate air (HEPA) vacuum system
- c. Shop vac system
- d. None of the above

143. ENCLOSURE OR ENCAPSULATION: One way to reduce the lead inhalation or ingestion hazard posed by lead-based paint is to encapsulate it with a material that bonds to the surface, such as \_\_\_\_ (1) \_\_\_\_\_ or flexible wall coverings. Another option is to enclose it using systems such as gypsum wallboard, plywood paneling, and aluminum, \_\_\_\_ (2) \_\_\_\_\_. Floors coated with lead-based paint can be covered using \_\_\_\_ (3) \_\_\_\_\_.

	1	2	3
a.	acrylic and epoxy coating	vinyl tile or linoleum	carpeting
b.	vinyl tile or linoleum	fiber cement siding	6 mil plastic
c.	vinyl or wood exterior siding	or Tyvek	fiber cement
d.	acrylic or epoxy coating	vinyl or wood exterior siding	vinyl tile or linoleum

144. SUBSTITUTION: Using a paint stripper containing methylene chloride is a prohibited practice in Wisconsin.

- a. True
- b. False

145. PROCESS OR EQUIPMENT MODIFICATION: When using a heat gun to remove lead-based paints in \_\_\_\_\_, be sure it is of the flameless electrical softener type. Heat guns should have electronically controlled temperature settings to allow usage below 700 degrees F. Equip heat guns with various nozzles to cover all common applications and to limit the size of the heated work area.

- a. Commercial units
- b. Residential housing units
- c. Commercial and residential units
- d. None of the above

146. HOUSEKEEPING PRACTICES: An effective housekeeping program involves a regular schedule to remove accumulations of lead dust and lead-containing debris.

- a. True
- b. False

147. HOUSEKEEPING PRACTICES: Put all lead-containing debris and contaminated items accumulated for disposal into \_\_\_\_\_. Label bags and containers as lead-containing waste.

- a. Sealed, impermeable bags only
- b. closed impermeable containers only
- c. Sealed, impermeable bags or other closed impermeable containers
- d. None of the above

148. PERSONAL HYGIENE PRACTICES: Provide and ensure that workers \_\_\_\_\_ washing facilities.

- a. are aware of
- b. know about
- c. are informed about the
- d. use

149. CHANGE AREAS: The employer \_\_\_\_\_ provide a clean change area for employees whose airborne exposure to lead is above the PEL. The area \_\_\_\_\_ be equipped with storage facilities for street clothes and a separate area with facilities for the removal and storage of lead-contaminated protective work clothing and equipment.

- a. must/must
- b. may / can
- c. should/ may
- d. can/ may

150. PERSONAL PRACTICES: In all areas where employees are exposed to lead above the \_\_\_\_\_, employees must observe the prohibition on the presence and consumption or use of food, beverages, tobacco products, and cosmetics.

- a. AL
- b. PEL
- c. MSDS
- d. None of the above

151. END-OF-DAY PROCEDURES: Employers must ensure that workers who are exposed to lead above the permissible exposure limit follow these procedures at the end of their workday:

- a. Place contaminated clothes, including work shoes and personal protective equipment to be cleaned, laundered, or disposed of, in a properly labeled closed container.
- b. Take a shower and wash their hair. Where showers are not provided, employees must wash their hands and face at the end of the work shift.
- c. Change into street clothes in clean change areas.
- d. All of the above

152. EMPLOYER REQUIREMENTS: Employers must provide workers who are exposed to lead above the PEL or for whom the possibility of skin or eye irritation exists with clean, dry protective work clothing and equipment that are appropriate for the hazard. Employers must \_\_\_\_\_ to employees.

- a. provide these items at no cost
- b. offer these items at a reduced rate
- c. provide a vendor name
- d. None of the above

153. PREVENTING HEAT STRESS: When heat stress is a concern, the employer should choose lighter, less insulating protective clothing over heavier clothing, as long as it provides adequate protection. Other measures the employer \_\_\_\_\_ take include: discussing the possibility of heat stress and its signs and symptoms with all workers; using appropriate work/rest regimens; and providing heat stress monitoring that includes measuring employees' heart rates, body temperatures, and weight loss.

- a. shall
- b. will
- c. can
- d. must



154. RESPIRATORY PROTECTION: Respirators also must be provided upon employee request. A requested respirator is included as a requirement to provide increased protection for those employees who wish to reduce their lead burden below what is required by the standard, particularly if they intend to have children in the near future. In addition, respirators must be used when performing previously indicated high exposure or "trigger" tasks, before completion of the initial assessment.

- a. True
- b. False

155. PROVIDING ADEQUATE RESPIRATORY PROTECTION: Before any employee first starts wearing a respirator in the work environment, the employer must perform a fit test. For all employees wearing \_\_\_\_\_ tight-fitting face piece respirators, the employer must perform either qualitative or quantitative fit tests using an OSHA-accepted fit testing protocol.

- a. only negative pressure
- b. only positive pressure
- c. negative or positive pressure
- d. None of the above

156. SELECTING A RESPIRATOR: A NIOSH-certified respirator may be selected and may be used in compliance with the conditions of its certification.

- a. True
- b. False

157. WARNING SIGNS: Employers are required to post warning signs in each work area where employee exposure to lead is above the PEL:

- a. Warning / Lead Work Area
- b. Poison / No Smoking or Eating
- c. Both a. and b. are needed
- d. No special signs are needed

158. CONSULTATION ASSISTANCE: Consultation assistance is available on request to employers who want help establishing and maintaining a safe and healthful workplace. Funded largely by OSHA, the service is provided \_\_\_\_\_ to small employers and is delivered by state authorities through professional safety and health consultants.

- a. for a minimal fee
- b. at no cost
- c. at a \$25.00 per hour fee
- d. in conjunction with a larger employer

159. COOPERATIVE PARTNERSHIPS: OSHA has learned firsthand that voluntary, cooperative partnerships with employers, employees, and unions can be a useful alternative to traditional enforcement and an \_\_\_\_\_ way to reduce worker deaths, injuries, and illnesses. This is especially true when a partnership leads to the development and implementation of a comprehensive workplace safety and health management system.

- a. effective
- b. forceful
- c. weak
- d. unproductive

160. BLOOD LEAD LABORATORIES – WISCONSIN (AS OF 2/17/2012): Monitoring \_\_\_\_\_ for lead and zinc protoporphyrin (or free erythrocyte protoporphyrin) in blood. The employer is required to have these analyses performed by a laboratory that meets accuracy requirements specified by OSHA.

- a. must be provided
- b. can be provided
- c. should be provided
- d. may be provided

**FOR QUESTIONS 161 to 200 REFER TO TRENCHING AND EXCAVATIONS**

*Working Safely In Trenches*

161. A safe means of egress shall be provided within \_\_\_\_\_ of workers in a trench.

- a. 20 feet
- b. 25 feet
- c. 30 feet
- d. 35 feet

*Trenching and Excavation Safety*

162. OSHA defines an excavation as any \_\_\_\_\_, or depression in the earth's surface formed by earth removal.

- a. man-made cut
- b. cavity
- c. trench
- d. All of the above

163. A trench is defined as a narrow underground excavation that is deeper than it is wide, and no wider than \_\_\_\_\_.

- a. 15 feet
- b. 20 feet
- c. 25 feet
- d. None of the above

164. Trenches 5 feet (1.5 meters) deep or greater require a protective system unless the excavation is made entirely in stable rock.

- a. True
- b. False

165. OSHA standards require that trenches be inspected \_\_\_\_\_ by a competent person prior to worker entry to ensure elimination of excavation hazards.

- a. only as conditions change
- b. daily and as conditions change
- c. weekly or monthly, depending on the work being performed
- d. weekly and as conditions change

166. Safe access and egress devices \_\_\_\_\_ be located within 25 feet (7.6 meters) of all workers.

- a. should
- b. may
- c. can
- d. must

### Excavations

167. Examples of general Trenching and Excavation Rules:

- a. Know where underground utilities are located.
- b. Test for low oxygen, hazardous fumes and toxic gases.
- c. Inspect trenches following a rainstorm.
- d. All of the above

168. OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal. This can include excavations for anything from cellars to highways.

- a. True
- b. False

169. Cave-ins pose \_\_\_\_\_ and are \_\_\_\_\_ than other excavation-related accidents to result in worker fatalities.

- a. the greatest risk/ much more likely
- b. a minimal risk / less likely
- c. no risk / not as likely
- d. a slight risk / statistically less likely

## Excavation and Trenching Standard

170. The OSHA Evacuation and Trenching Standard Rule applies to small excavations made in the earth's surface, excluding trenches.

- a. True
- b. False

171. The standard does not apply to house foundation/ basement excavations, including those that become trenches by definition when constructing formwork, foundations, or walls. For this exemption to apply, which of the following conditions must exist?

- a. No water, surface tension cracks, or other environmental conditions reduce the excavation's stability;
- b. Soil, equipment, and material surcharge loads are no closer to the top edge of the excavation than the excavation is deep. When you use front-end loaders to dig the excavations, place the soil surcharge load as far back from the edge of the excavation as possible, but never closer than 2 feet (.61 meters);
- c. The fewest crew members possible are performing the work; and Workers spend the minimum time possible in the excavation.
- d. All of the above

## Preplanning

172. Many on-the-job accidents result directly from inadequate initial planning. Waiting until after the work has started to correct mistakes in shoring or sloping slows down the operation, adds to the cost, and increases the possibility of a cave-in or other excavation failure.

- a. True
- b. False

173. Ask the utility companies or owners to find the exact location of underground installations. If they cannot respond within \_\_\_\_\_ (unless the period required by state or local law is longer) or cannot find the exact location of the utility installations, you may proceed with caution.

- a. 48 hours
- b. 36 hours
- c. 24 hours
- d. 12 hours

174. When you share the details of your safety and health program with employees, it is important to emphasize the critical role you expect them to play in keeping the jobsite safe. You \_\_\_\_\_ emphasize specific rules to help reduce the risk of on-the-job injuries.

- a. have to
- b. are required to
- c. may want to
- d. obligated to

## Protective Systems

175. You are \_\_\_\_\_ the most practical design approach for any particular circumstance.

- a. required to choose
- b. free to choose
- c. obligated to choose
- d. None of the above

176. All simple slope excavations \_\_\_\_\_ deep should have a maximum allowable slope of 1-1/2:1.

- a. 30 feet or more
- b. 30 feet or less
- c. 20 feet or more
- d. 20 feet or less

177. At least one copy of the data, including the identity of the registered professional engineer who approved it, \_\_\_\_\_ be kept at the worksite during construction of the protective system. After the system is completed, the data may be stored away from the jobsite, but a copy \_\_\_\_\_ be provided upon request to the Assistant Secretary of Labor for OSHA.

- a. must/ can
- b. must/ must
- c. can / must
- d. can / should

178. OSHA standards permit the use of a trench shield (also known as a welder's hut) if it provides the same level of protection or more than the appropriate shoring system.

- a. True
- b. False

179. Excavations under sidewalks and pavements are \_\_\_\_\_ you provide an appropriately designed support system or another effective means of support.

- a. discouraged even if
- b. prohibited even if
- c. prohibited unless
- d. never approved even if

180. The standard requires you to provide support systems such as shoring, bracing, or underpinning to ensure that adjacent structures such as \_\_\_\_\_ remain stable.

- a. buildings and walls
- b. sidewalks
- c. pavement
- d. All of the above

181. In addition, the standard permits excavation of \_\_\_\_\_ below the bottom of the members of a support or shield system of a trench if the system is designed to resist the forces calculated for the full depth of the trench. In addition, there must be no indications, while the trench is open, of a possible cave-in below the bottom of the support system.

- a. 3 feet or less
- b. 2 feet or more
- c. 2 feet or less
- d. 4 feet or less

182. Defective and damaged materials and equipment \_\_\_\_\_ failure of a protective system and other excavation hazards.

- a. may cause
- b. can cause
- c. will cause
- d. are known to cause

### *Additional Hazards and Protections*

183. In addition to cave-ins and related hazards, workers involved in excavation work also are exposed to hazards involving falls, falling loads, and mobile equipment.

- a. True
- b. False

184. Prohibit employees from standing or working under loads being handled by lifting or digging equipment. \_\_\_\_\_ to stand away from vehicles being loaded or unloaded to protect them from being struck by any spillage or falling materials.

- a. Suggest to workers
- b. Ask workers
- c. Require workers
- d. None of the above

185. OSHA standards also require the use of diversion ditches, dikes, or other suitable means to prevent surface water from entering an excavation and to provide \_\_\_\_\_ of the adjacent area.

- a. some drainage
- b. adequate drainage
- c. protection
- d. coverage

186. \_\_\_\_\_ any excavation deeper than 4 feet (1.22 meters) or where an oxygen deficiency or a hazardous atmosphere is present or could reasonably be expected, such as a landfill or where hazardous substances are stored nearby, before an employee enters it.

- a. A competent person can test
- b. A competent person should test
- c. A competent person may test
- d. A competent person must test

187. If unhealthful atmospheric conditions exist or develop in an excavation, you \_\_\_\_\_ provide emergency rescue equipment such as a breathing apparatus, safety harness and line, and basket stretcher and ensure that it is readily available. This equipment \_\_\_\_\_ be attended when in use.

- a. must/must
- b. must/ should
- c. should/ should
- d. should/ must

188. OSHA requires you to provide safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations \_\_\_\_\_ or deeper. These devices must be located in the excavation within \_\_\_\_\_ of all workers.

- a. 3 feet/ 25 feet
- b. 3 feet / 20 feet
- c. 4 feet / 25 feet
- d. 4 feet / 20 feet

189. An employee who enters a bell-bottom pier hole or similar deep and confined footing excavation may wear a harness with a lifeline. The lifeline should be attached securely to the harness and can be separate from any line used to handle materials.

- a. True
- b. False

190. The standard requires that a competent person inspect an excavation and the areas around it \_\_\_\_\_ for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions.

- a. daily
- b. weekly
- c. bi-weekly
- d. as needed (no regular schedule)

191. Larger and more complex operations should have a \_\_\_\_\_ safety official who makes recommendations to improve implementation of the safety plan. In a smaller operation, the safety official may be \_\_\_\_\_ and usually will be a supervisor.

- a. full-time / full-time
- b. part-time / part-time
- c. full-time / part-time
- d. part-time / full-time

### OSHA Assistance, Services and Programs

192. OSHA can provide extensive help through a variety of programs, including assistance about safety and health programs, \_\_\_\_\_, and more.

- a. state plans & strategic partnerships
- b. training and education
- c. workplace consultation & voluntary protection programs
- d. All of the above

193. State plans are OSHA-approved job safety and health programs operated by individual states or territories instead of Federal OSHA. There are 26 state plans: 23 cover both private and public (state and local government) employment, and 3 (Connecticut, New Jersey, and New York) cover only the public sector.

- a. True
- b. False

194. In addition to helping employers identify and correct specific hazards, OSHA's consultation service provides \_\_\_\_\_, onsite assistance in developing and implementing effective workplace safety and health management systems that emphasize the prevention of worker injuries and illnesses.

- a. low cost
- b. free
- c. flat fee
- d. sliding scale (depending on the size of the company)

195. What does VPP stand for?

- a. Voluntary Partnership Program
- b. Vocational Provisionary Partnership
- c. Voluntary Protection Program
- d. Visionary Partnership Plan



196. OSHA Strategic Partnerships are alliances among labor, management, and government to foster improvements in workplace safety and health. These partnerships are federally regulated/mandated relationships between OSHA, employers, employee representatives, and others such as trade unions, trade and professional associations, universities, and other government agencies. OSPPs are the some of the oldest of OSHA's regulatory compliance programs.

- a. True
- b. False

197. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual worksites, most strategic partnerships seek to have a broader impact by building cooperative relationships \_\_\_\_\_.

- a. with groups of employers only.
- b. with groups of employees only.
- c. with groups of employers and employees.
- d. None of the above

198. OSHA's \_\_\_\_\_ are full-service centers offering a variety of informational services such as personnel for speaking engagements, publications, audiovisual aids on workplace hazards, and technical advice.

- a. 43 area offices
- b. 53 area offices
- c. 63 area offices
- d. 73 area offices

199. OSHA Regional offices. States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard. Which regional office / region is Wisconsin part of?

- a. Region VII / Kansas City
- b. Region V / Chicago
- c. Region III / Philadelphia
- d. Region VIII / Denver

200. OSHA Area Offices. Wisconsin has \_\_\_\_\_ area office(s).

- a. four
- b. three
- c. two
- d. one