

Safety and Buildings Division Instructions for Obtaining Continuing Education Credit Hours for Viewing Online Videos and Correctly Answering Questions

After viewing the videos, you should print this questions/verification document. Fill in the identifying information at the beginning of the questions. Read the questions and circle the correct answers.

Fill in the attendance verification form at the end of the questions.

Make a copy of the filled-in packet to keep for your records.

Send the original answers and the attendance form to Safety and Buildings, PO box 2658, Madison, WI 53701-2658. Enclose a check for \$30 for the class fee.

You will not be sent an acknowledgement of S&B receiving your submission unless you fail to answer at least 70 percent of the questions correctly.

After allowing two weeks for processing, you can check your continuing education records by going online to http://apps.commerce.state.wi.us/SB_Credential/SB_CredentialApp. Enter your S&B customer number in the search box. Double-click "Search." In the search results at the bottom of the page, double-click on your name and you will see the S&B records of continuing education for that credential.

In order to be given credit hours for the continuing education term ending December 31, for renewal of a credential that expires on March 31, your submittal must be postmarked on or before December 31.

If you submit the forms and fees after that date, and do not have sufficient credit hours to renew, you will be sent a letter telling to submit an additional \$25 late fee.

Go to the next page to fill out your customer information and answers questions concerning the video you have viewed.

Questions for **Multipurpose Piping Systems, Course #8882**

\$60 fee for three continuing education credit hours for Commercial Plumbing Inspector, Journeyman Plumber, Journeyman Plumber Restricted Appliance, Master Plumber, Master Plumber Restricted Appliance and UCD-Plumbing Inspectors

Name: _____ License Number: _____ Fiscal Code 7632

Address: _____

Telephone Number: _____ Email: _____

1. Multipurpose Piping System is a type of:
 - a. water service system conveying water to plumbing fixtures and appliances and automatic fire sprinklers with the intention of serving both domestic and fire-protection needs.
 - b. water distribution system conveying water to plumbing fixtures and appliances and automatic fire sprinklers with the intention of serving both domestic and fire-protection needs.
 - c. automatic fire sprinkler system conveying water to automatic fire sprinklers serving both fire-protection needs.
 - d. re-use system conveying water to plumbing fixtures and appliances and turf sprinklers with the intention of serving both domestic plumbing fixtures and lawn sprinkling needs.

2. A control valve on a multipurpose piping system shall be installed on:
 - a. each sprinkler head and each plumbing fixture.
 - b. each cold water branch serving no more than 4 compartments within the dwelling.
 - c. downstream of all plumbing fixtures and fire sprinklers.
 - d. upstream of all plumbing fixtures and fire sprinklers and shall be an indicating valve.

3. The Authority having jurisdiction in the State of Wisconsin is the:
 - a. Department of Commerce
 - b. Department of Health
 - c. local fire marshal
 - d. one and two family UDC building inspector

4. Piping materials approved for multipurpose piping systems are:
 - a. Chlorinated Poly Vinyl Chloride (CPVC) ASTM F-442, Galvanized Steel ASTM A53, Ductile Iron AWWA C115, Copper ASTM B88.
 - b. Chlorinated Poly Vinyl Chloride (CPVC) ASTM F-442, Polyethylene / Aluminum / Polyethylene CSA B137.9, Galvanized Steel ASTM A53, Copper ASTM B88.
 - c. Chlorinated Poly Vinyl Chloride (CPVC) ASTM F-442, Galvanized Steel ASTM A53, Polybutylene PB240; Copper ASTM B88.
 - d. Chlorinated Poly Vinyl Chloride (CPVC) ASTM F-442, Galvanized Steel ASTM A53, Cross linked polyethylene (Pex) ASTM F876, Copper ASTM B88.

5. Pipe fittings and valves in the multipurpose piping system serving sprinklers shall conform to the pipe material standards in Comm 84 or Table 84.30-10 Wis. Adm. Code and NFPA 13D.

True
 False

6. Ordinary temperature-rated residential sprinklers are designed to operate at:

- a. 135⁰ F. – 170⁰ F. (57⁰ C to 77⁰ C)
- b. 175⁰ F. – 225⁰ F. (79⁰ C to 107⁰ C)
- c. 100⁰ F. – 225⁰ F. (51⁰ C to 107⁰ C)
- d. None of the above.

7. Minimum diameter of galvanized steel piping serving sprinklers on a multipurpose piping system is ¾”.

True
 False

8. Sprinklers permitted to have ornamental finishes or paint applied to its surface may have this process done at:

- a. any Ace Hardware or Lowe’s Store.
- b. by the homeowner or any qualified professional painter.
- c. by the manufacturer of the sprinkler and shall be part of the listing
- d. with a brush application only.

9. Water flow alarms and the requirement for such an alarm is:

- a. mandatory for all multipurpose piping systems.
- b. exempted for all multipurpose piping systems.
- c. mandatory for all multipurpose piping systems serving residential sprinkler heads.
- d. can be substituted for a multi-functional home security system.

10. In the State of Wisconsin, a partial multipurpose piping system may be installed in a dwelling and a sign adjacent to the building control valve shall indicate that the system installed is a partial system.

True
 False

11. A multipurpose piping system shall be designed to provide a minimum flow required to produce a discharge density of:

- a. 0.08 gpm per square foot to the design sprinklers.
- b. 0.03 gpm per square foot to the design sprinklers.
- c. 1.3 gpm per square foot to the design sprinklers.
- d. 0.05 gpm per square foot to the design sprinklers.

12. Compartments defined as an area that is enclosed on all sides by walls and a ceiling can include doorways or openings to adjacent rooms, provided:
- the lintel depth is less than 12 inches from the ceiling.
 - the lintel depth is less than 5 inches from the ceiling.
 - there is adequate air flow through each room.
 - the lintel depth is; less than 8 inches from the ceiling.
13. A water service or private water main serving two dwellings with multipurpose piping systems require an additional:
- 10 gpm added to the sprinkler system demand.
 - 20 gpm added to the sprinkler system demand.
 - 5 gpm added to the sprinkler system demand.
 - 2 gpm added to the sprinkler system demand.
14. The design of a MPP system is intended to:
- keep the fire contained, allow occupants enough time to escape, approximately 7 minutes for a one story dwelling less than 2000 square feet or manufactured home, 10 minutes for dwellings greater than 2000 square feet , and prevent the fire from going to flashover.
 - extinguish the fire, allow occupants enough time to escape, and eliminate toxic smoke and heat.
 - keep the fire contained, until the fire department arrives.
 - keep the fire contained with four or less adjacent most demanding sprinkler heads, allow occupants enough time to escape, approximately 7 minutes for a one story dwelling less than 2000 square feet or manufactured home, 20 minutes for dwellings greater than 2000 square feet , and prevent the fire from going to flashover.
15. a. Water supplied from a private well / pressure tank / pump ASME approved is a reliable water source.
b. A stored water source with an automatically operated pump is a reliable water source.
c. Water supplied from a municipal water main is a reliable water source.
d. All of the above.
16. The location of a side wall sprinkler to obstructions such as ceiling fans and lights require a minimum distance of:
- 5 feet center to center, and 3 feet center to center from a pendant sprinkler.
 - 3 feet center to center, and 5 feet center to center from a pendant sprinkler.
 - 8 feet center to center, and 5 feet center to center from a pendant sprinkler.
 - 5 feet center to center, and 7 feet center to center from a pendant sprinkler.
17. a. Cold soldering is a process of; joining pipe and fittings without the use of a torch.
b. Cold soldering is a process of; joining pipe and fittings with compression fittings.
c. Cold soldering occurs; when the minimum distance between sprinklers required by the manufacturer is not met and the discharge spray from one sprinkler interferes with the discharge or spray pattern of the sprinkler adjacent to it.
d. Cold soldering is a process; that enables the installation of sprinklers to be installed on hot water distribution piping.

18. In Chapter 5, according to Table 82.40-6 Type M Copper Tubing, 23 wsfu's on a flush tank water distribution system requires a minimum pipe size of:

- a. 3/4"
- b. 1"
- c. 1 1/4"
- d. 1 1/2"

19. MPP systems for one and two family dwellings are designed for a water demand that has the greater demand, either the plumbing fixtures or the most demanding sprinklers of up to two.

- True
- False

20. In Chapter 6, a Reliable F1RES Side Wall Sprinkler with a 16' X 16' coverage requires:

- a. 19 gpm @ 18.7 psi
- b. 14 gpm @ 10.2 psi
- c. 17 gpm @ 15.0 psi
- d. None of the above.

21. The pressure loss of 10 psi per 100 ft. occurs:

- a. on 1" piping with a 20 gpm flow rate according to the Graph on page 6-6, for Copper Type K Tubing.
- b. on 3/4" piping with a 9 gpm flow rate according to the Graph on page 6-6, for Copper Type K Tubing.
- c. on 1" piping with a 20 gpm flow rate according to the Graph on page 6-6, for Copper Type K Tubing.
- d. on 1 1/4" piping with a 20 gpm flow rate according to the Graph on page 6-6, for Copper Type K Tubing.

22. The compartment in the manual example on page 7-2 has as its two most demanding sprinklers:

- a. the two adjacent sprinklers in the living room.
- b. the two adjacent sprinklers in the living room and dining room.
- c. the two adjacent sprinklers in the dining room and kitchen.
- d. None of the above.

23. Side wall sprinklers in the family room compartment with a sloped ceiling:

- a. shall be installed; with the deflectors parallel to the slope.
- b. shall be installed; with the deflectors vertical to the slope.
- c. are not an approved installation.
- d. shall be installed; with the deflectors removed to allow for proper ceiling coverage.
- e.

24. The requirement to document the MPP system design provides a record of design conditions. This packet of information is required to be given to:

- a. The Fire Marshall within local jurisdiction
- b. The Department of Commerce, Safety & Buildings Division
- c. County Register of Deeds.
- d. The homeowner of the dwelling.

25. A warning sign shall be positioned adjacent to:

- a. the main electrical panel that informs anyone of the presence of a multipurpose piping system installed within the dwelling.
- b. the front entry door that informs anyone of the presence of a multipurpose piping system installed within the dwelling.
- c. the building control valve that informs anyone of the presence of a multipurpose piping system installed within the dwelling.
- d. None of the above.

26. Starting January 1, 2011, sprinklers shall be required in all multi-family dwellings with three or more units, with some exceptions for townhouses as identified in Comm 62.0903(6).

- True
- False

27. A Non-Community Water System as defined in Chapter 11, is a:

- a. Public Water System
- b. Municipal Water System
- c. Private Water System
- d. Other than Municipal Water System

28. Multipurpose piping system defined as plumbing can be installed by:

- a. licensed automatic fire sprinkler fitters.
- b. automatic turf sprinkler installers.
- c. a journeyman and apprentice plumber under the master plumber's responsibility.
- d. master plumbers, master electricians, firefighters, and homeowners.

29. A compartment within a dwelling with more than one design sprinkler requires fire-water calcs and to be sized per the single most demanding sprinkler criteria, and also sized per two most demanding sprinklers.

- True
- False

30. For the basement compartment, the Reliable pendant RFC43 has a flow requirement of:

- a. 12 gpm @ a pressure of 7.8 psi., for a sprinkler spacing area of 18' X 18'
- b. 13 gpm @ a pressure of 9.1 psi., for a sprinkler spacing area of 16' X 16'
- c. 21 gpm @ a pressure of 23.8 psi., for a sprinkler spacing area of 18' X 18'
- d. None of the Above.

31. The Living Room compartment had a "A" value of – 44 with a 40 gpm, 27.4 psi requirement of the two most demanding sprinklers. What steps were taken to calculate an acceptable "A" value of 22?

- a. Replaced sprinkler heads with a higher "K" factor.
- b. Removed the water meter, and provided larger storage tanks.
- c. Reduced the size of the water meter to 5/8" to increase velocity and increased the water service to 1 ¼".
- d. Increased the water meter size to 1" and the water service to 1 ½".

Educational Course Attendance Verification

Safety & Buildings Division
 201 W Washington Avenue
 P O Box 7082
 Madison WI 53707-7082
 Phone: (608) 261-8500
 TTY: (608) 264-8777

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)].

Instructions: Print all information clearly

Attendee's Name (Last, First, Middle Initial):	Course Title/Name:		
Credential Number:		Course ID #:	Course Date (mo/dy/yr):
Cannot process without this information			
Street Address or PO Box:	List the name of each credential held by attendee that is relevant to this course Use space below if needed.		
City, State and Zip Code + 4:			
Daytime Telephone Number (include area code):			
Attendee's Signature:			
	DECLARATION: I believe that the information given on this form is true. I realize that a misstatement could result in disciplinary action under Comm 5.10, Wis. Adm. Code.		

Credit hours obtained at least 90 days prior to the expiration date of a credential apply as credit to the current credential period. Credit hours obtained less than 90 days to the expiration date of a credential are applied as credit to the next credential period.
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