Exterior Plumbing Definition Quiz Part 3

Instructions: **$20**

1. Print these pages…..all reference materials are included.
2. Review and answer the simple questions in each **mini section**.
3. Circle the correct answers and transfer them to the answer sheets below.
4. Page down to the last page for the verification forms, answer sheets and mailing instructions.

This 2 hours course is approved for the following Credentials

1. Master Plumber
2. Journeymen Plumber
3. Master Plumber Restricted Service
4. Journeymen Plumber Restricted Service
5. POWTS Inspector
6. POWTS Maintainer
7. UDC Plumbing Inspector
8. Commercial Plumbing Inspector
9. Soil Tester
10. Utility Contractor

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(4) CONTROL VALVES. (a) *Private water mains.* Private water mains shall be provided with control valves as specified in this subsection.
1. 'Corporation cocks.' a. If a private water main 2" or less in diameter connects to a public water main, a corporation cock shall be installed at the connection to the public water main.
b. If a private water main 2−1/2" or larger in diameter connects to a public water main, a corporation cock shall be installed not more than 8 feet from the connection to the public water main.
2. 'Curb stops.' a. Except as provided in subd. 2. b., if a private water main connects to public water main, a curb stop shall be installed in the private water main between the corporation cock and the property line.
b. If a private water main 2−1/2" or larger in diameter connects to a public water main, one control valve may serve as the corporation cock and the curb stop. The control valve shall be located not more than 8 feet from the connection to the public water main and shall be accessible for operation.
(b) *Water services.* Water services shall be provided with control valves as specified in this subsection.
1. 'Corporation cocks.' a. If a water service 2" or less in diameter connects to a public water main, a corporation cock shall be installed at the connection to the public water main.
b. If a water service 2−1/2" or larger in diameter connects to a public water main, a corporation cock shall be installed not more than 8 feet from the connection to the public water main.
2. 'Curb stops.' a. Except for water services serving farm buildings and farm houses, a curb stop shall be installed in each water service which connects to a private water main. The curb stop shall be located outside the building served by the water service.
b. Except as provided in subd. 2. c., a curb stop shall be installed in each water service which connects to a public water main. The curb stop shall be located between the corporation cock and the property line.
c. If a water service 2−1/2" or larger in diameter connects to a public water main, one control valve may serve as the corporation cock and the curb stop. The control valve shall be located not more than 8 feet from the connection to a public water main and shall be accessible for operation.

1. If a private water main 2−1/2" or larger in diameter connects to a public water main, a corporation cock shall be installed not more than ___ feet from the connection to the public water main.
   a. 6
   b. 8
   c. 10
   d. 12

2. If a private water main 2" or less in diameter connects to a public water main, a corporation cock shall be installed not more than ___ feet from the connection to the public water main.

a. 6
b. 8
c. 10
d. none of the above

3. Except for water services serving _____, a curb stop shall be installed in each water service which connects to a private water main. The curb stop shall be located outside the building served by the water service.

a. farm buildings
b. farm houses
c. both a & b
d. neither a or b

4. If a private water main connects to public water main, a _____ shall be installed in the private water main between the corporation cock and the property line.

a. curb stop
b. corporation cock
c. both a or b
d. neither a or b

5. Private water mains may be provided with control valves as specified in this subsection.

a. true
b. false

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3. 'Building control valves.' If a water service serves a building, a building control valve shall be provided in the water service as specified in this subsection.

a. If the water service connects to a public water supply or to a private water supply which has an external pressure tank, the building control valve shall be installed inside the building and located within 3 feet of developed length from the point where the water service first enters the building. If a water meter is provided, the building control valve shall be located upstream of the water meter.

b. If a private water supply includes an internal pressure tank, the building control valve shall be installed inside the building and located within 3 feet of developed length downstream from the internal pressure tank. **Note:** See Appendix for further explanatory material.

(c) *Water distribution systems.* 1. Control valves shall be installed in water distribution systems serving public buildings as specified in this subdivision.

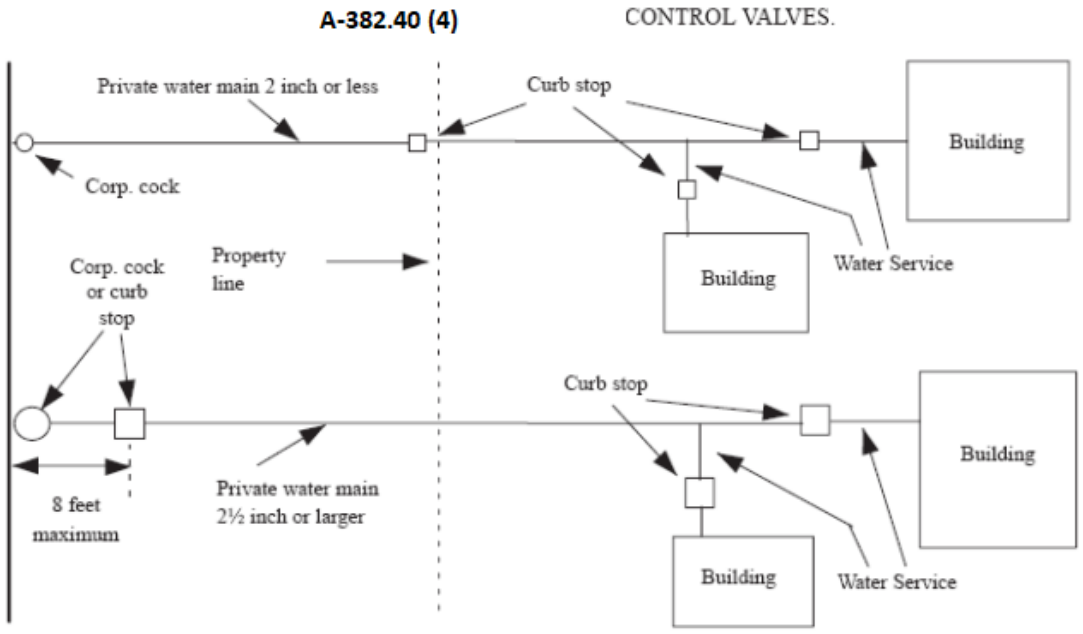
a. If a water meter is provided, a control valve shall be installed within 3 feet of developed length downstream from the outlet of the water meter. If bypass piping is provided around a water meter, a control valve shall be installed in the bypass piping. **Note:** See sub. (8) (d) 3. for the requirements relating to the bypassing of water meters.

b. A control valve shall be installed in the supply piping to each water heater and water treatment device and in the fixture supply to each plumbing fixture, plumbing appliance and piece of equipment. The control valve may be part of the bypass piping or an internal part of a water treatment device. When the valve is an internal part of the water treatment device, the device shall be removable for service.

c. If a hot water circulation system is provided, a control valve shall be installed on both the inlet and outlet piping to the circulation pump. If a hot water circulation system has 2 or more return pipe lines, a balancing control valve shall be installed in each return piping line.

d. The water distribution system for buildings with more than 4 dwelling units or living units shall be provided with control valves in such numbers and at such locations so that the water supplied to all the units within the building can be isolated into groups of 4 of less units. **Note:** See sub. (8) (g) for the valve requirements for water temperature control.

2. Control valves shall be installed in water distribution systems serving one− and 2−family dwellings as specified in this subdivision.
a. If a water meter is provided, a control valve shall be installed within 3 feet of developed length downstream from the outlet of the water meter. If bypass piping is provided around a water meter, a control valve shall be installed in the bypass piping. **Note:** See sub. (8) (d) 3. for the requirements relating to the bypassing of water meters.
b. A control valve shall be installed in the supply piping to each water heater and water treatment device and in the fixture supply to each water closet, exterior hose bibb, plumbing appliance and piece of equipment. When the valve is an internal part of the water treatment device, the device shall be removable for service.
c. If a hot water circulation system is provided, a control valve shall be installed on both the inlet and outlet piping to the circulation pump. If a hot water circulation system has 2 or more return pipe lines, a balancing control valve shall be installed in each return piping line.



6. If the water service connects to a public water supply or to a private water supply which has an external pressure tank, the building control valve shall be installed inside the building and located within ___ feet of developed length from the point where the water service first enters the building.
   a. 2
   b. 3
   c. 5
   d. none of the above
7. If a water meter is provided, the building control valve shall be located _____ of the water meter.
   a. downstream of
   b. upstream of
   c. between
   d. all of the above
8. The water distribution system for buildings with more than 4 dwelling units or living units shall be provided with control valves in such numbers and at such locations so that the water supplied to all the units within the building can be isolated into groups of ___ of less units.
   a. 2
   b. 3
   c. 4
   d. any of the above

9. Control valves shall be installed in water distribution systems serving public buildings as specified in this subdivision. If a water meter is provided, a control valve shall be installed within ___ feet of developed length downstream from the outlet of the water meter.

a. 2
b. 3
c. 5
d. none of the above

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(7) SIZING OF WATER SUPPLY PIPING. The sizing of the water supply system shall be based on the empirical method and limitations outlined in this subsection or on a detailed engineering analysis acceptable to the department.

(a) *Methodology.* The determination of minimum pipe sizes shall take into account the pressure losses which occur throughout the entire water supply system and the flow velocities within the water distribution system. Calculations for sizing a water distribution system shall include:

1. The load factor in water supply fixture units or gallons per minute on the piping;
2. The minimum pressure available from the water main or pressure tank;
3. The pressure loss due to the differences in elevation from the:

a. Water main or pressure tank to the building control valve; and
b. Building control valve to the controlling plumbing fixture;

4. The pressure losses due to flow through water heaters, water treatment devices, water meters and backflow preventers;
5. The minimum flow pressure needed at the controlling plumbing fixture; and
6. The pressure losses due to flow friction through piping, fittings, valves and other plumbing appurtenances. This pressure loss may be calculated in terms of equivalent lengths of piping.

The equivalent length of piping to a controlling plumbing fixture, including fittings, valves and other appurtenances, may be obtained by multiplying the developed length by 1.5. **Note:** See Appendix for further explanatory material.

(b) *Private water mains and water services.* Private water mains and water services shall be designed to supply water to the water distribution systems to maintain the minimum flow pressures specified in par. (d), but shall not be less than ¾" in diameter.

10. The determination of minimum pipe sizes shall take into account the pressure losses which occur throughout the entire water supply system and the flow velocities within the water distribution system. Calculations for sizing a water distribution system shall include:

a. The load factor in water supply fixture units or gallons per minute on the piping
b. The maximum pressure available from the water main or pressure tank
c**.** 4. The pressure losses due to flow through water heaters, water treatment devices, water meters and backflow preventers
d. both a & c

11. The determination of minimum pipe sizes shall take into account the pressure losses which occur throughout the entire water supply system and the flow velocities within the water distribution system. Calculations for sizing a water distribution system shall include: The pressure loss due to the differences in elevation from the:

a. Water main or pressure tank to the building control valve
b. Building control valve to the controlling plumbing fixture
c. both a & b
d. neither a or b

12. Private water mains and water services shall be designed to supply water to the water distribution systems to maintain the minimum flow pressures specified in par. (d), but shall not be less than ___" in diameter.

a. ½
b. ¾
c. 1
d. none of the above

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(8) INSTALLATION. (a) *Frost protection.* 1. Adequate measures shall be taken to protect all portions of the water supply system from freezing. All private water mains and water services shall be installed below the predicted depths of frost specified in SPS 382.30 (11) (c) 2. d., Figure 382.30−1 and Table 382.30−6, unless other protective measures from freezing are taken.
2. A hose bibb or a hydrant that penetrates an exterior wall of a heated structure shall be a frost proof and self−draining type. **Note:** See SPS 382.41 (4) (m) relative to cross connection control devices.
(b) *Location.* 1. Exterior water supply piping may not be located in, under or above sanitary sewer manholes, or POWTS treatment, holding or dispersal components.
2. Except as provided in subd. 3., exterior water supply piping shall be located at least 10 feet horizontally away from a non−pressurized POWTS component.
3. If a private water main or a water service crosses a sanitary sewer, the water piping within 5 feet of the point of crossing shall be installed in accordance with any of the following requirements:
a. The water piping shall be installed at least 12 inches above the top of the sewer.
b. The water piping shall be installed at least 18 inches below the bottom of the sewer.
c. The water or sewer piping shall be installed within a waterproof sleeve made of materials as specified for sanitary building sewers in s. SPS 384.30 (2).
4. Except as permitted in subd. 5., private water mains and water services shall be installed at least 5 feet horizontally from any sanitary sewer. **Note:** The Department of Natural Resources has limitations for the separation of water mains and sanitary sewers.
5. Private water mains and water services may be installed less than 5 feet horizontally from a sanitary sewer if any of the following conditions are met:
a. The bottom of the water piping is installed at least 12 inches above the sewer.
b. The sewer is constructed of materials listed in Table 384.30−2.
c. The water service is 2 inches or less in diameter and is located more than 24 inches from the sewer.
6. The portion of a private water main or water service within 5 feet of developed length from the point where the water service first enters the building may be less than 12 inches above the sewer and within 24 inches of the sewer.
7. No private water main or water service may be installed within 6” of a storm sewer. **Note:** See Appendix A−382.30 (11) (d) for setback distance from yard hydrant to well.
8. Except as provided in subd. 3., no private water main or water service may be installed within 15 feet of a pressurized sanitary sewer or POWTS pump discharge piping.
9. No underground water supply storage tank shall be installed within 8 feet of a storage vessel containing a substance of a higher hazard than that contained in the water supply storage tank.

13. Except as provided in subd. 3., exterior water supply piping shall be located at least ___ feet horizontally away from a non−pressurized POWTS component.

a. 3
b. 5
c. 8
d. 10

14. If a private water main or a water service crosses a sanitary sewer, the water piping within 5 feet of the point of crossing shall be installed in accordance with any of the following requirements: a. The water piping shall be installed at least ___ inches above the top of the sewer.

a. 6
b. 12

c. 18
d. 24

15. If a private water main or a water service crosses a sanitary sewer, the water piping within 5 feet of the point of crossing shall be installed in accordance with any of the following requirements: The water piping shall be installed at least ___ inches below the bottom of the sewer.

a. 6
b. 12
c. 18
d. 24

16. If a private water main or a water service crosses a sanitary sewer, the water piping within 5 feet of the point of crossing shall be installed in accordance with any of the following requirements: The water or sewer piping shall be installed within a _____ made of materials as specified for sanitary building sewers in SPS 384.30 (2).

a. pipe in a pipe
b. waterproof sleeve
c. concrete encasement
d. all of the above

17. Private water mains and water services may be installed less than 5 feet horizontally from a sanitary sewer if any of the following conditions are met:

a. The bottom of the water piping is installed at least 24 inches above the sewer.
b. The sewer is constructed of materials listed in Table 382.30−2.
c. The water service is 2 inches or less in diameter and is located more than 12 inches from the sewer.
d. none of the above

18. No private water main or water service may be installed within ___" of a storm sewer.

a. 6
b. 12
c. 18
d. 24

19. Except as provided in subd. 3., no private water main or water service may be installed within ___ feet of a pressurized sanitary sewer or POWTS pump discharge piping.

a. 6
b. 12
c. 15
d. 24

20. No underground water supply storage tank shall be installed within ___ feet of a storage vessel containing a substance of a higher hazard than that contained in the water supply storage tank.

a. 6
b. 12
c. 8
d. 24

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(8) INSTALLATION. (c) *Limitations.* No private water main or water service may pass through or under a building to serve another building unless one of the following conditions are met:

1. The private water main or water service serves farm buildings or farm houses, or both that are all located on one property.
2. The private water main or water service serves buildings that are located on the same property and a document which indicates that the piping and distribution arrangement for the property and buildings will be recorded with the register of deeds no later than 90 days after installation.

(d) *Water distribution piping.* 1. Water distribution piping shall be supported in accordance with SPS 382.60.
2. Provisions shall be made to evacuate all water out of the water distribution system.
3. a. Except where parallel water meters are installed, water distribution piping shall be provided to bypass a water meter 1 1/2" or larger.
b. The minimum diameter of water distribution piping serving as a meter bypass shall be one nominal pipe size smaller than the meter.
4. Except as provided in subds. 5. and 6., a bypass shall be provided to serve a water treatment device. The bypass piping may be an internal part of the water treatment device.
5. A bypass shall not be required when a water treatment device serves no more than 2 fixtures or outlets.
6. A bypass shall be prohibited for a water treatment device installed to reduce a contaminant in order to comply with the provisions in SPS 382.70 (3).
(e) *Valves.* 1. All control valves installed in a water service, except a valve serving only as a corporation cock, shall be accessible.
2. Stop− and waste−type control valves may not be installed underground except in the following situations:
a. Fire hydrants intended for fire fighting.
b. Two−inch and larger diameter hydrants serving municipal wastewater treatment plants.
c. Emergency fixtures.
3. All control valves and fixture stop valves installed in a water distribution system shall be accessible. Control valves for the individual plumbing fixtures and appliances within dwelling units shall be accessible from within the dwelling unit.

21. Stop− and waste−type control valves may not be installed underground except in the following situations:

a. Fire hydrants intended for fire fighting.
b. Two−inch and larger diameter hydrants serving municipal wastewater treatment plants.
c. Non-Emergency fixtures.
d. only a & b

22. No private water main or water service may pass through or under a building to serve another building unless one of the following conditions are met:

1. The private water main or water service serves farm buildings or farm houses, or both that are all located on either property.
2. The private water main or water service serves buildings that are located on the same property and a document which indicates that the piping and distribution arrangement for the property and buildings will be recorded with the register of deeds no later than 120 days after installation.
c. both a & b
d. none of the above

23. Except where parallel water meters are installed, water distribution piping shall be provided to bypass a water meter _____" or larger.

a. 1
b. 1 ¼
c. 1 ½
d. 2

24. All control valves installed in a water service, including a valve serving only as a corporation cock, shall be accessible.

a. true
b. false

(f) *Water hammer arrestors.* All plumbing fixtures, appliances and appurtenances with 3/8" or larger inlet openings and with solenoid actuated quick closing valves shall be provided with water hammer arrestors. Water hammer arrestors shall be installed in the fixture supplies serving the fixtures, appliances or appurtenances. Water hammer arrestors shall be accessible.
(g) *Temperature control.* The water temperature to all showers in public buildings shall be controlled by thermostatic or combination thermostatic−pressure balanced mixing valves or by individually controlled pressure balanced mixing valves. A thermostatic or combination thermostatic−pressure balanced mixing valve may not be bypassed.
(h) *Fittings and connections.* The drilling and tapping of water supply piping shall be prohibited except for:
1. Corporation cocks for a water service or a private water main; and
2. Self−tapping valves which serve individual plumbing appliances.
(i) *Flushing and disinfection of potable water supply systems.* 1. a. Before a newly constructed water supply system is to be put into use, the piping of the system shall be filled with water and allowed to stand for at least 24 hours. After 24 hours each water outlet shall be flushed beginning with the outlet closest to the building control valve and then each successive outlet in the system. The flushing at each water outlet shall continue for at least one minute and until the water appears clear at the outlet.
b. Each portion of a water supply system which is altered or repaired shall be flushed for at least one minute and until the water appears clear.
2. New private water mains and extensions to private water mains shall be disinfected prior to use in accordance with AWWA C651 or the following method:
a. The pipe system shall be flushed with clean water until no dirty water appears at the points of outlet.
b. The system or part thereof shall be filled with a solution of water and chlorine containing at least 50 parts per million of chlorine and the system or part thereof shall be valved off and allowed to stand for 24 hours or the system or part thereof shall be filled with a solution of water and chlorine containing at least 200 parts per million of chlorine and allowed to stand for 3 hours.
c. Following the allowed standing time, the system shall be flushed with clean potable water.
d. The procedures shall be repeated if it is shown by a bacteriological examination that contamination still exists in the system.
3. The department may require a water quality analysis to be done for a new or repaired water supply system. The analysis shall be performed in accordance with acceptable nationally recognized laboratory practices. If the water supply system has been disinfected, water samples for the analysis may not be taken sooner than 24 hours after disinfection. **Note:** See SPS 384.30 (1) regarding the bending of pipe and protection from puncture.
4. New or repaired combination water services or combination private water mains shall be flushed and disinfected prior to use in accordance with NFPA 24.
(j) *Water softeners.* Ion exchange water softeners used primarily for water hardness reduction that, during regeneration, discharge a brine solution shall be of a demand initiated regeneration type equipped with a water meter or a sensor unless a wastewater treatment system downstream of the water softener specifically documents the reduction of chlorides.
(k) *Locating requirements.* 1. A means to locate buried non−metallic water services and private water mains connected to municipal supply systems shall be provided in accordance with the options under s. SPS 382.30 (11) (h), except as provided in subds. 2. and 3.
2. Tracer wire insulation color for non−metallic, potable water pipe shall be blue.
3. Tracer wire insulation color for non−metallic, non−potable water pipe shall be purple.

25. The drilling and tapping of water supply piping shall be prohibited except for:
    a. Corporation cocks for a water service
    b. Corporation cocks a private water main
    c. Self−tapping valves which serve individual plumbing appliances

d. all of the above

26. Before a newly constructed water supply system is to be put into use, the piping of the system shall be filled with water and allowed to stand for at least ___ hours.

a. 6
b. 12
c. 18
d. 24

27. After required time each water outlet shall be flushed beginning with the outlet furthest to the building control valve and then each successive outlet in the system.

a. true
b. false

28. Each portion of a water supply system which is altered or repaired shall be flushed for at least _____ and until the water appears clear.

a. one hour
b. one minute
c. one day
d. none of the above

29. New private water mains and extensions to private water mains shall be disinfected prior to use in accordance with AWWA C651 or the following method:

a. The pipe system shall be flushed with clean water until slightly dirty water appears at the points of outlet.
b. The system or part thereof shall be filled with a solution of water and chlorine containing at least 20 parts per million of chlorine and the system or part thereof shall be valved off and allowed to stand for 12 hours or the system or part thereof shall be filled with a solution of water and chlorine containing at least 100 parts per million of chlorine and allowed to stand for 2 hours.
c. both a or b
d. none of the above

30. New private water mains and extensions to private water mains shall be disinfected prior to use in accordance with AWWA C651 or the following method:

a. Following the allowed standing time, the system shall be flushed with clean potable water.
b. The procedures shall be repeated if it is shown by a bacteriological examination that contamination still exists in the system.
c. both a or b
d. none of the above

31. If the water supply system has been disinfected, water samples for the analysis may not be taken sooner than ___ hours after disinfection

a. 6
b. 12
c. 18
d. 24

32. Tracer wire insulation color for non−metallic, potable water pipe shall be _____.

a. green
b. purple
c. blue
d. brown

33. Tracer wire insulation color for non−metallic water pipe shall be _____.

a. green
b. purple
c. blue
d. brown

CROSS CONNECTION CONTROL HISTORY TABLE

Application	Date	Code or Interpretation
Atmospheric vacuum breaker installation	1954	4 inch elevation above flood level of fixtures
	1979	6 inch elevation above flood level of fixtures
Shampoo Sinks	1977	ASSE 1001 6 inches above the flood level rim ASSE 1013 or ASSE 1012 serving several sinks
	3/1/94	Individual CCC required for each sink ASSE 1001 6 inches above highest point of use (19 inches) ASSE 1013 or ASSE 1056 12 inches above highest use ASSE 1014 approved faucet
Boilers	1977	ASSE 1012 for low pressures: 15 psig steam 30 psig water
	February 1986	ASSE 1012 for boilers: Pressure $\leq$ 160 psig Rated working temperature $\leq$ 250 degrees Actual temperature $\leq$ 160 Pressure relief valve set at 30 psig max. Non–toxic additives Must not be in a hospital (hospital boilers require ASSE 1013)
	3/1/94	ASSE 1012 for low pressure (same) and non–toxic in mixed condition ASSE 1013 for high pressure or toxic
	12/1/04	Chemical pot feeder creates high hazard situation automatically
Laundry trays	1977	Residential – no CCC required on hose threads Commercial – ASSE 1001 required at 7′6″
	1987	Residential without hose threads – no additional device required Residential with hose threads – AS‘SE 1011 Commercial – ASSE 1001 @ 7′6″or ASSE 1011
	3/1/94	Residential without hose threads – no additional device required Residential with hose threads – ASSE 1011, ASSE 1001 @ 7′6″ or ASSE 1052 Commercial – used for building maintenance with or without hose threads, same as residential with hose threads
Hose bibb for maintenance	1987	ASSE 1011 or ASSE 1001 @ 7′6″
	3/1/94	ASSE 1011 or ASSE 1019
Hose reels	1977	ASSE 1001 with stipulations or ASSE 1013
	3/1/94	ASSE 1020 (exterior only) with stipulations ASSE 1056 with stipulations or ASSE 1013
Sink overhead	1987	ASSE 1012 **or** Spring making cross connection impossible
Heat exchangers	1986	Double wall draining to atmosphere with toxic heat transfer fluids Single wall when non–toxic heat transfer fluids
Yard hydrants	July 1987	Sanitary hydrant with ASSE 1011 **or** ASSE 1012 serving only that hydrant and label hydrant as “non–potable” and hose threads protected with ASSE 1011
	9/1/01	Must be sanitary hydrant **without below ground bleed**
ASSE 1012	3/1/94	Limited to low degree of hazard

Yard hydrants today must comply with ASSE 1011 or 1052. Hydrants that bleed into the ground or hydrants that are flushed @ grade are prohibited

Application	Date	Code or Interpretation
ASSE 1019	3/1/94	Exterior wall hydrants must be frost proof and self draining The backflow protection must be integral to the hydrant
Dental units	October 1987	ASSE 1012 for each individual dental unit
	3/1/94	ASSE 1013 (high hazard designation)
Existing fire protection	2/1/94	Allow existing CCC to remain unless increase in diameter of H2O dist, or remove or replace CCC

A PARTIAL TABLE FOR THE SELECTION OF BACKFLOW PROTECTION *

Yard hydrants[9]	High			X								X		

*Any situation may be subject to an alternate approval.

[1] If less than 15 pounds steam or 30 pounds water and nontoxic chemicals.

[2] If greater than 15 pounds steam or 30 pounds water and toxic chemicals.

[3] Requires backflow protection even if there is a plain end spout.

[4] Requires separate water supply terminating without a hose thread, or the manufacturer must provide a bleed device to connect to the janitor sink faucet spout.

[5] Or, provide bottled water conversion unit.

[6] For outlets other than the required ASSE 1019 hydrants.

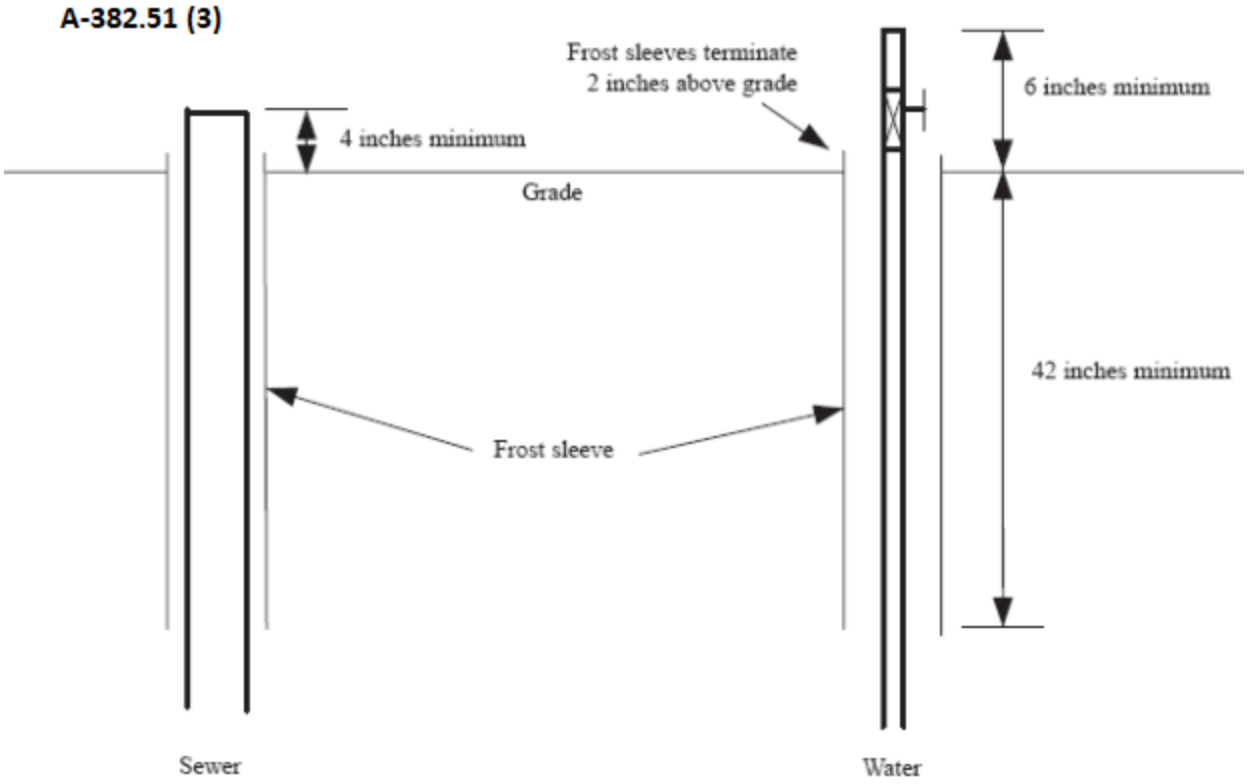
[7] If provided with hose threads or serrated nipple.

[8] Faucet meeting ASME A112.18.1M that includes backflow protection requirements.

[9] Hydrants that bleed into the ground and hydrants that are flush with the grade are prohibited.

34. Yard hydrants install prior to July 1987 must be protected in accordance to:
    a. sanitary hydrant with ASSE 1011
    b. sanitary hydrant with ASSE 1012 serving only that hydrant and labeled as non potable and the hose threads protected with ASSE 1011
    c. must be installed without below grade bleed
    d. none of the above
35. Yard hydrants install after July 1987 and before 9/1/01 must be protected in accordance to:
    a. sanitary hydrant with ASSE 1011
    b. sanitary hydrant with ASSE 1012 serving only that hydrant and labeled as non potable and the hose threads protected with ASSE 1011
    c. must be installed without below grade bleed
    d. both a or b
36. Yard hydrants install after 9/1/01 must comply with:
    a. ASSE 1011
    b. ASSE 1052
    c. Hydrants that bleed into the ground or hydrants that are flushed @ grade are prohibited
    d. all of the above

MOBILE HOME SITES AND PARKS. Mobile home building sewer and water service connections.



SPS 382.51 Manufactured homes and manufactured home communities. (1) DRAIN SYSTEMS. Except as provided in pars. (a) and (b), the building sewers and private interceptor main sewers serving a manufactured home or manufactured home community shall comply with SPS 382.30.

(a) The minimum slope of the aboveground building sewer shall be 1/8 inch per foot.

(b) For manufactured homes, the most upstream point of the building sewer shall be determined at the connection with the building drain installed by the manufactured home manufacturer prior to delivery.

(c) The above ground building sewer shall be constructed of materials suitable for above ground drain and vent as specified in SPS 384.30 (2) (a).

(2) WATER SUPPLY SYSTEMS. (a) Except as provided in pars. (b) and (c), the water services and private water mains for a manufactured home or manufactured home community shall comply with SPS 382.40.

(b) The above ground water service shall be constructed of materials approved for water distribution as specified in SPS 384.30 (4) (e).

(c) The curb stop serving an individual manufactured home shall terminate outside the perimeter of the manufactured home.

(d) For manufactured homes, the most downstream point of the water service shall be determined at the connection with the water distribution piping by the manufactured home manufacturer prior to delivery.

(3) MANUFACTURED HOME CONNECTIONS. (a) Frost sleeves for plumbing serving a manufactured home shall conform to all of the following:

1. Water service and building sewer connections shall be provided with frost sleeves extending to within 6 inches of the top of the below ground horizontal building sewer or water service, or to a depth at least 6 inches below the predicted depth of frost in accordance with Table 382.30−6.
2. The frost sleeve shall terminate at least 2 inches above grade.
3. The sleeve shall be constructed of material approved for building drain or building sewer material as specified in SPS 384.30 (2).

(b) Termination of the water service and building sewer shall conform to all of the following:

1. The manufactured home water service for connection to the manufactured home shall terminate a minimum of 6 inches above the surrounding finished grade.
2. The manufactured home building sewer for connection to the manufactured home shall terminate a minimum of 4 inches above the surrounding finished grade and may not terminate higher than the water service.
(c) The manufactured home water service and building sewer shall be capped or plugged when not connected to a manufactured home.

37. For manufactured homes, the _____ point of the water service shall be determined at the connection with the water distribution piping by the manufactured home manufacturer prior to delivery.
a. most upstream
b. most downstream
c. lot line
d. connection
38. The curb stop serving an individual manufactured home shall terminate _____ the perimeter of the manufactured home.
a. inside
b. outside
c. within
d. none of the above
39. The minimum slope of the aboveground building sewer shall be ____ inch per foot.
a. 1/16
b. 1/8
c. ¼
d. ½
40. For manufactured homes, the most upstream point of the building sewer shall be determined at the connection with the building drain installed by the manufactured home manufacturer _____ delivery.
a. after the
b. during the
c. prior to
d. any of the above
41. Termination of the water service and building sewer shall conform to all of the following:
a. The manufactured home water service for connection to the manufactured home shall terminate a minimum of 4 inches above the surrounding finished grade.
b. The manufactured home building sewer for connection to the manufactured home shall terminate a minimum of 6 inches above the surrounding finished grade and may not terminate higher than the water service.
c. both a & b
d. none of the above
42. The manufactured home water service and building sewer shall be _____ when not connected to a manufactured home.
a. capped
b. plugged
c. both a or b
d. none of the above

SPS 384.14 Chemical or biochemical treatments
for private sewage systems. Chemical or biochemical treatments for private sewage systems shall function and perform in accordance with the assertions submitted to the department. Chemical or biochemical treatments for private sewage systems may not directly or indirectly adversely affect

bacterial action in the systems, soil hydraulic conductivity in the absorption areas, or groundwater quality beneath the systems.

43. Chemical or biochemical treatments for private sewage systems may directly or indirectly adversely affect bacterial action in the _____.

a. systems
b. soil hydraulic conductivity in the absorption areas
c. groundwater quality beneath the systems
d. none of the above

SPS 384.10 Department approval. No fixture, appliance, appurtenance, material, device or product may be sold for use in a plumbing system or may be installed in a plumbing system, unless it is of a type conforming to the standards or specifications of SPS 382 and 383 and this chapter and ch. 145, Stats.
(1) ALTERNATE OR EXPERIMENTAL PRODUCT APPROVAL. If it is alleged that the approval of a fixture, appliance, appurtenance, material, device or product under this section would result in an adverse health effect or potentially adverse health effect on the waters of the state, the department may require an alternate or experimental product approval under SPS 384.50.
(2) PRODUCT REVIEW AND APPROVAL. (a) 1. Each type of plumbing product which falls into one of the categories specified in Table 384.10 shall be approved by the department in accordance with this subsection before the product may be sold for use in a plumbing system or installed in a plumbing system.
2. Specifications and plans or drawings for each type of product shall be submitted to the department for review. The submittal shall be accompanied by sufficient data and information to determine if the product and its performance comply with the provisions of SPS 382, 383 and this chapter and ch. 145, Stats.
(b) The department may require that a submitter of a product for review have the product tested and its performance certified by an approved testing laboratory.
(c) If, upon review, the department determines that a product conforms to the provisions of SPS 382, 383 and this chapter and ch. 145, Stats., the department shall issue an approval in writing.
The department may impose specific conditions in granting an approval. Violations of the conditions under which an approval is granted shall constitute a violation of this chapter.
(d) If, upon review, the department determines that a product does not conform to provisions of SPS 382, 383 and this chapter and ch. 145, Stats., the request for approval shall be denied in writing.
(e) The department shall review and make a determination on an application for a product approval within 40 business days of receipt of all fees, plans, drawings, specifications and other information required to complete the review.
(f) If an approved plumbing product is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
(g) Approvals for plumbing products issued by the department prior to November 1, 1985, shall expire 30 months after the effective date of this section.
(h) Approvals for plumbing products issued by the department after November 1, 1985, shall expire at the end of the 60th month after the date of approval issuance.

44. Each type of plumbing product which falls into one of the categories specified in Table _____ shall be approved by the department in accordance with this subsection before the product may be sold for use in a plumbing system or installed in a plumbing system.

a. 381.10
b. 382.10
c. 383.10
d. 384.10

45. If it is alleged that the approval of a fixture, appliance, appurtenance, material, device or product under this section would result in an adverse health effect or potentially adverse health effect on the waters of the state, the department may require an _____ product approval under SPS 384.50.

a. alternate
b. experimental
c. both a or b
d. none of the above

46. The department may require that a submitter of a product for review have the product tested and its performance certified by _____.

a. a state plumbing consultant
b. an approved testing laboratory
c. the department
d. none of the above

47. The department shall review and make a determination on an application for a product approval within ___ business days of receipt of all fees, plans, drawings, specifications and other information required to complete the review.

a. 14
b. 30
c. 40
d. 60

48. If an approved plumbing product _____ are made, the approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.

a. is modified
b. has additional assertions of function or performance
c. c. both a or b
d. none of the above

49. Approvals for plumbing products issued by the department prior to November 1, 1985, shall expire ____ months after the effective date of this section.

a. 14
b. 30
c. 40
d. 60

50. Approvals for plumbing products issued by the department after November 1, 1985, shall expire at the end of the ____th month after the date of approval issuance.

a. 14
b. 30
c. 40
d. 60

Table 384.10 SUBMITTALS TO DEPARTMENT

	Product Categories
1.	Chemical or biochemical treatments for POWTS
2.	Health care plumbing appliances
3.	Physical restoration processes for POWTS
4.	Prefabricated holding or treatment components for POWTS
5.	Prefabricated plumbing
6.	Water treatment devices or bottled water vending machines not listed by a nationally recognized listing agency as complying with NSF Standard 44
7.	Wastewater treatment devices used to meet the requirements in s. Comm 82.70

51. Prefabricated holding of treatment components for POWTS would be submittal to the department using table _____.

a. 381.10
b. 382.10
c. 383.10
d. 384.10

(b) Each request for approval shall be made on a form provided by the department.

Note: See appendix for a reprint of the form and addresses of the department where the form may be obtained.

(c) The submittal shall be accompanied by sufficient data and information to determine if the method or technology complies with the provisions of SPS 381, 382 and 383, and this chapter. The submittal shall include, but not be limited to, all of the following:

1. Plans and specifications.
2. Theory of operation.
3. Testing protocol.
4. Testing data.
5. Limits of reliable operation.
6. Installation requirements and procedures.
7. Inspection checklist and worksheet.
8. Inspection requirements and procedures.
9. Operation and maintenance requirements.
10. Operation and maintenance schedule.
11. Operation and maintenance checklist and worksheet.

(d) 1. The department shall review a submittal under this subsection with input from a technical advisory committee.

2. The members on the technical advisory committee under subd. 1. shall be appointed by the department for staggered 3−year terms and shall include representatives of at least the following groups or organizations:

a. The department of natural resources.

b. Local governmental unit.
c. POWTS designer.
d. Academic or scientific community.
e. Plumber.
f. Environmental group.
g. POWTS component manufacturer.
(e) 1. After review by the technical advisory committee under par. (d) but prior to issuing an approval under par. (f), the department shall seek public comments on a submittal under this subsection.
2. a. The department shall place the notice requesting public comment under subd. 1. in the official state newspaper.
Note: The official state newspaper at the time this rule goes into effect, July 1, 2000, is the Wisconsin State Journal.
b. The department shall include a time limit for public comment in each notice.
3. If the department receives a significant amount of public comment under subd. 2., the department may elect to recognize the specific method or technology through the rule−making process under ch. 227, Stats., and to cite the recognition in SPS 383.61.
(f) 1. If, upon review, the department determines that the method or technology conforms to the provisions of SPS 381, 382 and 383 and this chapter, the department shall issue an approval in writing.
2. The department may impose specific conditions in granting an approval, including a provision to provide training to POWTS installers and POWTS inspectors.
3. Violations of the conditions under which an approval is granted shall constitute a violation of this chapter.
(g) If, upon review, the department determines that the method or technology does not conform to the provisions of SPS 381, 382 and 383 and this chapter, the request for approval shall be denied in writing.
(h) The department shall review and make a determination on an application for a method or technology approval within 3 months of receipt of all fees, plans, drawings, specifications and other information required to complete the review, unless the department elects to review the method or technology as part of the rule−making process under ch. 227, Stats.
(i) If an approved method or technology is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
(4) REVOCATION. The department may revoke any approval issued under this section for any false statements or misrepresentation of facts on which the approval was based, or as a result of the product's failure, or if data indicate a health hazard or threat to the waters of the state.
(5) LIMITATIONS. An approval of a plumbing product by the department may not be construed as an assumption of any responsibility for defects in design, construction or performance of any product nor for any damages that may result. All products shall be installed in accordance with the manufacturer's printed instructions and as specified in SPS 382 to 384. If there is a conflict between the manufacturer's printed instructions and requirements of SPS 382 to 384, the requirements of SPS 382 to 384 shall take precedence.
(6) FEES. Fees for product approval review shall be submitted in accordance with SPS 302.66.

52. The submittal shall be accompanied by sufficient data and information to determine if the method or technology complies with the provisions of SPS 381, 382 and 383, and this chapter. The submittal shall include, but not be limited to, the following:

a. Installation recommendations
b. Inspection checklist and worksheet.
c. Inspection requirements and procedures
d. only b & c

53. The department shall review a submittal under this subsection with input from a _____.
    a. local official
    b. local inspector
    c. technical advisory committee
    d. all of the above

54. The members on the technical advisory committee under subd. 1. shall be appointed by the department for staggered __ year terms.
    a. 1
    b. 2
    c. 3
    d. 4

55. The members on the technical advisory committee under subd. 1. shall be appointed by the department nd shall include representatives of at least the following groups or organizations:
    a. The department of natural resources.
    b. Local governmental unit.
    c. POWTS component manufacturer
    d. all of the above

56. The official state newspaper at the time this rule goes into effect, July 1, 2000, is the_____ Journal.
    a. Wisconsin State
    b. Milwaukee
    c. Municipal
    d. none of the above

57. If, upon review, the department determines that the method or technology conforms to the provisions of SPS 381, 382 and 383 and this chapter, the department shall issue an approval in writing. The department may impose specific conditions in granting an approval, including a provision to provide training to _____.
    a. POWTS installers
    b. POWTS inspectors
    c. the local sanitary district
    d. both a & b

58. If, upon review, the department determines that the method or technology does not conform to the provisions of SPS 381, 382 and 383 and this chapter, the request for approval shall be Denied _____.
    a. by phone call
    b. by email
    c. in writing
    d. any of the above

59. The department may revoke any approval issued under this section for any false statements or misrepresentation of facts on which the approval was based, or as a result of the product's failure, or if data indicate a health hazard or threat to the _____.
    a. sub-soils
    b. waters of the state
    c. both a or b
    d. none of the above

60. An approval of a plumbing product by the department may not be construed as an assumption of any _____.
    a. responsibility for defects in design
    b. construction of any product nor for any damages that may result
    c. performance of any product nor for any damages that may result
    d. all of the above

Exterior Plumbing Quiz Part 3

1	a	b	c	d	21	a	b	c	d	41	a	b	c	d
2	a	b	c	d	22	a	b	c	d	42	a	b	c	d
3	a	b	c	d	23	a	b	c	d	43	a	b	c	d
4	a	b	c	d	24	a	b	c	d	44	a	b	c	d
5	a	b	c	d	25	a	b	c	d	45	a	b	c	d
6	a	b	c	d	26	a	b	c	d	46	a	b	c	d
7	a	b	c	d	27	a	b	c	d	47	a	b	c	d
8	a	b	c	d	28	a	b	c	d	48	a	b	c	d
9	a	b	c	d	29	a	b	c	d	49	a	b	c	d
10	a	b	c	d	30	a	b	c	d	50	a	b	c	d
11	a	b	c	d	31	a	b	c	d	51	a	b	c	d
12	a	b	c	d	32	a	b	c	d	52	a	b	c	d
13	a	b	c	d	33	a	b	c	d	53	a	b	c	d
14	a	b	c	d	34	a	b	c	d	54	a	b	c	d
15	a	b	c	d	35	a	b	c	d	55	a	b	c	d
16	a	b	c	d	36	a	b	c	d	56	a	b	c	d
17	a	b	c	d	37	a	b	c	d	57	a	b	c	d
18	a	b	c	d	38	a	b	c	d	58	a	b	c	d
19	a	b	c	d	39	a	b	c	d	59	a	b	c	d
20	a	b	c	d	40	a	b	c	d	60	a	b	c	d

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2. Fill in all fields applicable. **$20**
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4. We'll take care of crediting with the state and mailing back to you the quiz results.

Send by mail

1. Answer sheets and below form.
2. Fill out this form below completely.
3. Applicable fees by check payable to our business name: **GaryKlinka.com**
4. Mail to: **GaryKlinka.com** at 1316 Cardinal Circle, Neenah, WI 54956.

Live Support at 920-381-6714 or tmklinka@hotmail.com

----------Educational Course Attendance Verification Form ----------

Attendee's Name_____Date_____

Address_____

Credential Number_____Phone#_____

Course Title and Name Exterior Plumb Quiz Part 3

List each credential held by attendee_____

_____Credited Hours 2 hrs **$20**

Email address_____Fax#_____

To be completed by GaryKlinka.com

Course Password_____Course ID# 13084

Attendee passed the course with a greater than 70% score on Date_____

Instructor Signature_____