MARYLAND REGISTER

Proposed Action on Regulations

Transmittal Sheet **PROPOSED OR REPROPOSED** **Actions on Regulations**	**Date Filed with AELR Committee** 06/28/2016	**TO BE COMPLETED BY DSD** Date Filed with Division of State Documents Document Number Date of Publication in MD Register

1. Desired date of publication in Maryland Register: 8/5/2016

2. COMAR Codification

Title	Subtitle	Chapter	Regulation
09	20	01	01-.05

3. Name of Promulgating Authority

Department of Labor, Licensing, and Regulation

4. Name of Regulations Coordinator — **Telephone Number**
Jessica V Carter — 410-230-6112

Mailing Address

500 N. Calvert Street, Suite 406

City	State	Zip Code
Baltimore	MD	21202

Email
jessica.carter1@maryland.gov

5. Name of Person to Call About this Document — **Telephone No.**
Robin Bailey — 410-230-6160

Email Address
robin.bailey@maryland.gov

6. Check applicable items:

_ New Regulations

X- Amendments to Existing Regulations

Date when existing text was downloaded from COMAR online: June 1, 2016.

_ Repeal of Existing Regulations

_ Recodification

_ Incorporation by Reference of Documents Requiring DSD Approval

_ Reproposal of Substantively Different Text:

: Md. R

(vol.) (issue) (page nos) (date)

Under Maryland Register docket no.: --P.

7. Is there emergency text which is identical to this proposal:

_ Yes **X-** No

8. Incorporation by Reference

X- Check if applicable: Incorporation by Reference (IBR) approval form(s) attached and 18 copies of documents proposed for incorporation submitted to DSD. (Submit 18 paper copies of IBR document to DSD and one copy to AELR.)

9. Public Body - Open Meeting

X- OPTIONAL - If promulgating authority is a public body, check to include a sentence in the Notice of Proposed Action that proposed action was considered at an open meeting held pursuant to General Provisions Article, §3-302(c), Annotated Code of Maryland.

X- OPTIONAL - If promulgating authority is a public body, check to include a paragraph that final action will be considered at an open meeting.

10. Children's Environmental Health and Protection

_ Check if the system should send a copy of the proposal to the Children's Environmental Health and Protection Advisory Council.

11. Certificate of Authorized Officer

I certify that the attached document is in compliance with the Administrative Procedure Act. I also certify that the attached text has been approved for legality by Sloane Fried Kinstler, Assistant Attorney General, (telephone #410-230-6119) on June 13, 2016. A written copy of the approval is on file at this agency.

Name of Authorized Officer

Robin Bailey

Title	**Telephone No.**
Executive Director	410-230-6160

Date

June 13, 2016

Title 09
DEPARTMENT OF LABOR, LICENSING, AND REGULATION
Subtitle 20 BOARD OF PLUMBING
09.20.01 State Plumbing Code

Authority: Business Occupations and Professions Article, §§ 12-205 and 12-207, Annotated Code of Maryland

Notice of Proposed Action

[]

The State Board of Plumbing proposes to amend Regulations .01 through .04 and to add new regulation .05 under COMAR 09.20.01 State Plumbing Code.
This action was considered at a public meeting of the Maryland Board of Plumbing held on May 19, 2016, notice of which was provided by posting on the Board of Plumbing's website pursuant to General Provisions Article, § 3-302(c), Annotated Code of Maryland.

Statement of Purpose

The purpose of this action is to incorporate by reference the 2015 National Standard Plumbing Code Illustrated, the 2015 National Fuel Gas Code (ANSI Z223.1, NFPA 54) and the 2014 Liquefied Petroleum Gas Code (NFPA 58). The Board further proposes to adopt revised Maryland modifications to the National Standard Plumbing Code Illustrated, the National Fuel Gas Code (ANSI Z223.1, NFPA 54) and the Liquefied Petroleum Gas Code (NFPA 58).

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Robin Bailey, Executive Director, Mechanical Licensing Boards, Department of Labor, Licensing and Regulation, 500 North Calvert Street, Second Floor, Baltimore, MD 21202, or call 410-230-6160, or email to robin.bailey@maryland.gov, or fax to 410-244-0977. Comments will be accepted through October 7, 2016. A public hearing has not been scheduled.

Open Meeting

Final action on the proposal will be considered by Board of Plumbing during a public meeting to be held on October 20, 2016, at 500 North Calvert Street, Third Floor, Baltimore, Maryland 21202.

Economic Impact Statement Part C

A. Fiscal Year in which regulations will become effective: FY 2017
B. Does the budget for the fiscal year in which regulations become effective contain funds to implement the regulations?
No
C. If 'yes', state whether general, special (exact name), or federal funds will be used:

D. If 'no', identify the source(s) of funds necessary for implementation of these regulations:
No funds are required for implementation of these regulations.
E. If these regulations have no economic impact under Part A, indicate reason briefly:
The purpose if the proposed regulations is to is to adopt updated codes, which are published every three years, for the provision of plumbing and gas services.
F. If these regulations have minimal or no economic impact on small businesses under Part B, indicate the reason and attach small business worksheet.
Providers of plumbing and gas services may be required to purchase new code books, as the codes are updated every three years.
G. Small Business Worksheet:
Small Business Analysis Worksheet

This worksheet is designed to assist the agency in determining if and how the proposal impacts small businesses. Quantify the number of affected small businesses and estimates of costs and benefits to small businesses if possible. State Government Article, §2-1505.2, includes the following definitions which are relevant to the analysis:

“Economic impact analysis” means an estimate of the cost or the economic benefit to small businesses that may be affected by a regulation proposed by an agency pursuant to Title 10, Subtitle 1 of this article.

“Small business” means a corporation, partnership, sole proprietorship, or other business entity, including its affiliates, that: (i) is independently owned and operated;
(ii) is not dominant in its field; and (iii) employs 50 or fewer full-time employees.

1a. Intended Beneficiaries. Who are the intended beneficiaries of the proposed regulation? Are these intended beneficiaries primarily households or businesses?

Master plumbers and plumbing contractors as well as consumers who rely on such service providers for the safe provision of plumbing services are the intended beneficiaries.

1b. Intended Beneficiaries: Households. If households are the primary intended beneficiaries, will the proposal affect their income or purchasing power such that the volume or patterns of their consumer spending will change? If so, what directions of change would you anticipate? Will these expected spending changes have a disproportionate impact on small businesses? Can you descriptively identify the industries or types of business activities that are impacted?

Homeowners in the jurisdictions under the Board's authority will be affected to extent that they rely on, and will have, qualified plumbing contractors to provide plumbing services in compliance with the updated codes.

1c. Intended Beneficiaries: Businesses. If businesses are the intended beneficiaries, identify the businesses by industry or by types of business activities. How will businesses be impacted? Are these Maryland establishments disproportionately small businesses? If so, how will these Maryland small businesses be affected? Can you identify or estimate the present number of small businesses affected? Can you estimate the present total payroll or total employment of small businesses affected?

Consumers of plumbing services and service providers can have confidence that plumbing services provided in compliance with the updated codes will be consistent with state requirements and should, therefore, pass applicable mechanical inspections.

2a. Other Direct or Indirect Impacts: Adverse. Businesses may not be the intended beneficiaries of the proposal. Instead, the proposal may direct or otherwise cause businesses to incur additional expenses of doing business in Maryland. Does this proposal require Maryland businesses to respond in such a fashion that they will incur additional work-time costs or monetary costs in order to comply? Describe how Maryland establishments may be adversely affected. Will Maryland small businesses bear a disproportionate financial burden or suffer consequences that affect their ability to compete? Can you estimate the possible number of Maryland small businesses adversely affected? (Note that small business compliance costs in the area of regulation are the sum of out-of-pocket (cash) costs plus time costs — usually expressed as payroll, akin to calculations for legislative fiscal notes. Precise compliance costs may be difficult to estimate, but the general nature of procedures that businesses must accomplish to comply can be described.)

None.

2b. Other Direct or Indirect Impacts: Positive. Maryland businesses may positively benefit by means other than or in addition to changed consumer spending patterns. How may Maryland businesses be positively impacted by this initiative? Will Maryland small businesses share proportionately or disproportionately in these gains? Can you estimate the possible number of Maryland small businesses positively affected?

None.

3. Long-Term Impacts. There are instances where the longer run economic impact effect from regulations differ significantly from immediate impact. For example, regulations

may impose immediate burdens on Maryland small businesses to comply, but the overall restructuring of the industry as a consequence of monitoring and compliance may provide offsetting benefits to the affected small businesses in subsequent years. Can you identify any long run economic impact effects on Maryland small businesses that over time (a) may compound or further aggravate the initial economic impact described above, or (b) may mitigate or offset the initial economic impact described above?
There is no long-term economic impact as the proposed regulations are expected to be periodically updated to reflect the adoption of the codes which are regularly updated every three years to improve the efficiency and safety of plumbing services.
4. Estimates of Economic Impact. State Government Article, §2-1505.2 requires that an agency include estimates, as appropriate, directly relating to: (1) cost of providing goods and services; (2) effect on the work force; (3) effect on the cost of housing; (4) efficiency in production and marketing; (5) capital investment, taxation, competition, and economic development; and (6) consumer choice.
(1) There is no anticipated effect on the cost of providing goods and services; (2) There is no anticipated effect on the work force; (3) There may be a positive effect on the cost of housing by the use of more efficient and safer materials; (4) There may be a positive effect on efficiency in production and marketing by the use of more efficient methods and materials; (5) There is no anticipated capital investment, taxation, competition, and economic development; and (6) There is no anticipated effect on consumer choice.

Attached Document:

Title 09 DEPARTMENT OF LABOR, LICENSING AND REGULATION

Subtitle 20 Board of Plumbing

Chapter .01 State Plumbing Code

Authority: Business Occupations and Professions Article, §§12-205 and 12-207

Annotated Code of Maryland

.01 Incorporation by Reference.
A. In this chapter, the following documents are incorporated by reference, as modified by Regulation .02.
B. Documents Incorporated.
(1) **[**2012**]** *2015* National Standard Plumbing Code Illustrated (National Association of Plumbing-Heating-Cooling Contractors).
(2) National Fuel Gas Code, ANSI Z223.1, NFPA 54, **[**2012**]** *2015* Edition.
(3) Liquefied Petroleum Gas Code, NFPA 58, **[**2011**]** *2014* Edition.

.02 Modifications to the National Standard Plumbing Code Illustrated.
A. (text unchanged)
B. Basic Principles Section.
(1)—(3) (text unchanged)

(4) Add a new Principle No. 23—INSTALLATION OF GAS APPLIANCES GAS PIPING, which shall read: "All installations of gas appliances gas piping shall conform to requirements contained in the codes promulgated by the National Fire Protection Association, ANSI, National Fuel Gas Code, Z223.1, NFPA 54, **[**2012**]** *2015*, and the Liquefied Petroleum Gas Code, NFPA 58, **[**2011**]** *2014*, which are incorporated by reference."

C. Chapter 1 DEFINITIONS — Section 1.2 DEFINITION OF TERMS.

(1)—(2) (text unchanged)

(3) On page 37, insert a new definition after the definition of **[**"House Trap"**]** *"IDR"*. The new defined term is: "Incidental Plumbing Services: Repair of faucets, ball-cock valves, and shutoff valves; cleaning of choked drain lines and repairing of minor leaks. Incidental Plumbing Services does not include replacement of any plumbing fixture, new installation, or any work, including repairs of faucets, ball-cock valves, and shutoff valves, cleaning of choked drain lines, and repairing of minor leaks, that requires a permit from a local administrative authority."

(4) (text unchanged)

(5) On page **[**42**]** *41*, insert a new definition after the definition of "Medical Vacuum Systems". The new defined term is: "Minor Repair Services: Repair or replacement of faucets, ball-cock valves, and shut-off valves; cleaning of choked drain lines; and repairing leaks in piping and fixtures that do not require changes in sizes, types of materials, or pipe configuration. Minor Repair Services does not include complete replacement of any plumbing fixture, new installation, or any work described in this paragraph if a permit is required from the local administrative authority."

(6) On page **[**45**]** *44*, insert at the end of the definition "Plumbing System", the language, "within the property line." Add this sentence to the end of the definition: "It does not include the mains of a public sewer system or private or public sewage treatment or disposal plant outside the property line."

(7) On page **[**50**]** *49*, insert a new definition after the definition "Sanitary Sewer". The new defined term is: "Scavenger: Any person engaged in the business of cleaning and emptying septic tanks, seepage pits, privies, or any other sewage disposal facility."

(8) On page **[**50**]** *49*, insert a new definition after the definition **[**"Seepage Well or Pit"**]** *"Self-draining"*. The new defined term is: "Separator: See Interceptor".

(9) On page **[**58**]** *56*, insert a new definition after **[**"Vacuum Breaker, Spillproof"**]** *"Vacuum Breaker, Spill-resistant (SVB)"*. The new definition is: "Vacuum Intake: A vacuum intake has no trap or mechanical device to keep gasses from leaving the sewer line. An intake is a vertical pipe installed to provide circulation of air to the drainage system. No intake terminal shall be located directly beneath any door, window or other ventilating opening of the building or of an adjacent building, nor shall any such intake terminal be within 10 feet horizontally of such an opening unless it is at least 2 feet above the top of such opening."

D. Chapter 2 GENERAL REGULATIONS.

(1) On page 86, after Section 2.30, add the following:

2.31 PLUMBING IN FLOOD HAZARD AREAS

a. Plumbing in buildings and structures that are located in flood hazard areas shall comply with the requirements of the Maryland regulations for the design and construction of utility systems in flood-prone areas.

b. In new construction or substantial improvement, no plumbing shall be installed on or above the lowest floor level until the constructed elevation of the lowest floor has been inspected, measured, verified for compliance, documented, and accepted by the Authority Having Jurisdiction.

c. Plumbing work shall not be installed on or penetrate through walls that are designed to break away under flood conditions.

d. Underground piping for water service, building drains, and building sewers shall be installed according to ASCE 24, Section 7.3.1.

e. Plumbing piping, fixtures, and equipment within a building or structure shall be installed at or above the required base flood elevation (BFE) or design flood elevation (DFE) as indicated in ASCE 24, Table 7-1. Plumbing piping includes piping for water service, water distribution, sanitary drainage, venting, and storm water drainage.

f. Sanitary drain piping and vent piping shall be installed according to ASCE 24, Section 7.3.4 to prevent infiltration from or discharge into floodwater.

g. Vertical piping from underground to above the flood level elevation shall be supported from a flood-protected building structural member and covered to protect it from damage by debris according to ASCE 24, Section 7.3.2.

h. Water heaters shall be installed at an elevation at or above the required BFE or DFE protection level in ASCE 24, Table 7-1. If installed in an attic or unfinished area, they shall have adequate structural support, access for maintenance and replacement, and a drip pan per NSPC Section 10.15.9 with drainage.

i. Where a plumbing fixture or piping has a drain or vent opening below the required BFE or DFE protection level in ASCE 24, Table 7-1 that is subject to backflow or infiltration, it shall be protected according to ASCE 24, Section 7.3.3.

j. Manhole covers shall be sealed unless elevated to or above the required BFE or DFE protection level in ASCE 24, Table 7-1.

[D.**]** *E.* Chapter 3 MATERIALS.

(1) On page **[**89] *88,* under Section 3.1 MATERIALS, add new Subsection 3.1.6 which would be defined as:

"3.1.6 Adoption of Uniform Color

All subsurface pipes must be permanently marked or completely colorized for easy identification as follows:

a. YELLOW—gas, oil, steam, petroleum, or gaseous materials;

b. BLUE—water;

c. PURPLE—reclaimed water."

(2) On page 90, revise Section 3.4.2 Water Service Piping as indicated below:

"a. Water service pipe and fittings to the point of entrance into the building through a foundation wall or floor shall be of materials listed in Table 3.4 and shall be water pressure rated not less than 160 psi at 73 deg F. Water service pipe and pipe fittings shall comply with NSF 61.

b. The working pressure rating of certain approved plastic water piping varies depending on the pipe size, material composition, wall thickness, and methods of joining. Refer to Table 3.4.2.

c. Copper piping for water service shall be ASTM B88, Type L or K."

(3) On page 91, revise Section 3.4.6.a to read as indicated below:

"a. Materials used in potable water supply systems, including piping, valves, faucets, and other items with contact to potable water for human consumption shall be "lead-free" if required by COMAR 09.20.01.03 Limit on Lead Content."

[(2)] *(4)* On page [95] *94,* under Section 3.12 ALTERNATE MATERIALS AND METHODS, add the following subsection:

"3.12.6 Fire Rating

a. All pipe penetrating a fire-rated wall or ceiling shall meet the integrity of the wall or ceiling.

b. Conformance to this requirement shall be evidenced by a test report from a nationally recognized fire testing laboratory."

(5) On page 104, Table 3.4 MATERIALS FOR POTABLE WATER PIPING, revise Item 2 as indicated below:

"2. Copper Tube, seamless, Type K, L, or M

Note: Type M is not approved for water service"

[E.**]** *F.* Chapter 5 TRAPS, CLEANOUTS AND BACKWATER VALVES.

On page **[**143**]** *141,* in Section 5.1 SEPARATE TRAPS FOR EACH FIXTURE, paragraph **[**d(3)**]** *c(3),* add the words: ", one compartment is not more than 6 inches deeper than the other, and neither outlet is equipped with a food-waste grinder", after the word "inlet".

[F.**]** *G.* Chapter 6 LIQUID WASTE TREATMENT EQUIPMENT.

(text unchanged)

[G.**]** *H.* Chapter 7 PLUMBING FIXTURES, FIXTURE FITTINGS AND PLUMBING APPLIANCES.

(1) On page **[**174**]** *173,* in Subsection 7.4.5 Water Closet Seats, add a new paragraph: (text unchanged)

(2) On page **[**192**]** *191,* in Section 7.21 MINIMUM NUMBER OF REQUIRED FIXTURES, Subsection 7.21.4 Separate Facilities, add the following after EXCEPTION (4):

(text unchanged)

[H.**]** *I.* Chapter 9 INDIRECT WASTE PIPING AND SPECIAL WASTE.

On page **[**215**]** *214,* add a new subsection:

(text unchanged)

[I.**]** *J.* Chapter 10 WATER SUPPLY AND DISTRIBUTION.

(1) On page 219, in Section 10.4 PROTECTION OF POTABLE WATER SUPPLY, replace existing subsection 10.4.6 as indicated below:

"10.4.6 Used Water Return

Potable water used for cooling equipment and other applications shall not be returned for reuse in a potable water system. The used water shall be discharged to a drainage system through an air gap or may be used for other approved non-potable applications having required backflow prevention."

[(1)**]** *(2)* (text unchanged)

[(2)**]** *(3)* (text unchanged).

[(3)**]** *(4)* (text unchanged)

(5) On page 236, add subsection 10.6.6 as indicated below:

"10.6.6 Water Service Tracer Wiring

a. Underground non-metallic water service piping shall be made detectable by the installation of tracer wiring that complies with Public Utilities Article, §12-129 of the Annotated Code of Maryland.

b The wire shall be an insulated copper tracer wire suitable for direct burial, at least 10 AWG, or equivalent. Insulation shall be 30 mil minimum thickness, HMWPE or HDPE polyethylene, color coded blue. The wire shall be installed in the same trench as the piping, tied or taped to the pipe every 5 to 8 feet in the 3 o'clock position or installed within 12 inches of the pipe in fill. One end of the wire shall terminate within five feet of the building served, at or above grade, accessible for use, and resistant to physical damage.

c. Tracer wiring installations shall be tested by location with line tracing equipment upon completion of rough grading and again prior to final acceptance."

[(4)**]** *(6)* On page **[**235**]** *237*, in Subsection 10.8.6 Tank Drain Pipes, add the following Table 10.8.6 to this paragraph: "SIZE OF DRAINPIPES FOR WATER TANKS"

(text unchanged)

[(5)**]** *(7)* On page **[**236**]** *238*, in Section 10.10 WATER SUPPLY SYSTEM MATERIALS, add a new subsection:

"10.10.1 Water Service Pipe

Copper tube when used underground may not be less than type L. All threaded ferrous pipe and fittings shall be galvanized or cement lined, and, when used underground in corrosive soil or filled ground, shall be coal-tar enamel coated, or its equivalent, and threaded points shall be coated and wrapped when installed."

(8) On page 250, change subsection 10.15.2 to read as follows:

"10.15.2 Hot Water Supply Temperature Maintenance

a. Where the developed length of the hot water supply piping to any hot water outlet exceeds 100 feet from the hot water source, the system shall maintain the temperature of the hot water to within 25 feet of that outlet.

b. Where temperature maintenance is required by Section 10.15.2.a, the hot water temperature within the piping shall be maintained by recirculation or heat tracing of the hot water piping. The temperature of the hot water in the piping shall be maintained by automatic controls with manual auto-off.

c. Hot water sources shall include hot water heaters and hot water supply piping that is recirculated or heat traced from a hot water source.

d. Recirculated hot water shall be returned to the hot water source through dedicated hot water return piping. Return piping shall have means of adjusting the water flow rate in each section of recirculated supply piping.

EXCEPTION: A demand-controlled hot water supply unit serving an individual plumbing fixture shall be permitted to return water to that fixture's cold water supply until hot water reaches the fixture and the demand cycle stops.

e. The requirements of this section for temperature maintenance shall also apply to tempered water supply piping."

(9) On page 253, change subsection 10.15.7 to read as follows:

"10.15.7 Thermal Expansion Control

a. Where a water pressure regulator (with or without an internal thermal expansion bypass), a backflow preventer, or a check valve is installed such that a closed system is created between hot water heating equipment and the incoming water service, a thermal expansion tank shall be provided.

EXCEPTIONS: (1) Instantaneous water heaters. (2) Well systems with water pressure tanks.

b. Thermal expansion tanks shall be the adjustable pre-charged type for potable water, ASME steel construction with a flexible bladder or bellows, rated for not less than 125 psig and 200 deg F, and sized to limit the water system pressure to no higher than 100 psig. Tanks shall be sized, installed, and adjusted in accordance with the manufacturer's instructions.

c. Thermal expansion tanks shall be connected to the cold water supply piping for the hot water heating equipment, between the heating equipment and its cold water shutoff valve."

[(6)**]** *(10)* On page **[**255**]** *256*, in Section 10.16 SAFETY DEVICES FOR PRESSURE VESSELS, Subsection 10.16.6, add a new paragraph: "h. All water heaters, first floor and above, shall have a pan with a drain to an approved drainage point, unless a variance is granted by the local [Administrative] Authority Having Jurisdiction."

[J.**]** *K.* Chapter 11 SANITARY DRAINAGE SYSTEMS. *(1)* On page **[**261**]** *263*, in Section 11.2 Building Sewers and Building Drains, Subsection 11.2.3 Building Sewer and Building Drain Size, add a new sentence after "11.5.1A": "The minimum size of the building sewer shall be 3 inches."

(2) On page 263, add subsection 11.2.4 as indicated below:

"11.2.4 Building Sanitary Sewer Tracer Wiring

a. Underground building sanitary sewer non-metallic piping shall be made detectable by the installation of tracer wiring that complies with Public Utilities Article, §12-129 of the Annotated Code of Maryland.

b The wire shall be an insulated copper tracer wire suitable for direct burial, at least 10 AWG, or equivalent. Insulation shall be 30 mil minimum thickness, HMWPE or HDPE polyethylene, color coded green. The wire shall be installed in the same trench as the piping, tied or taped to the pipe every 5 to 8 feet in the 3 o'clock position or installed within 12 inches of the pipe in fill. One end of the wire shall terminate within five feet of the building served, at or above grade, accessible for use, and resistant to physical damage.

c. Tracer wiring installations shall be tested by location with line tracing equipment upon completion of rough grading and again prior to final acceptance."

L. Chapter 13 STORM WATER DRAINAGE

(1) On page 319, revise subsection 13.1.4 as indicated below:

"13.1.4 Building Storm Sewer Tracer Wiring

a. Underground building storm sewer non-metallic piping shall be made detectable by the installation of tracer wiring that complies with Public Utilities Article, §12-129 of the Annotated Code of Maryland.

b The wire shall be an insulated copper tracer wire suitable for direct burial, at least 10 AWG, or equivalent. Insulation shall be 30 mil minimum thickness, HMWPE or HDPE polyethylene, color coded green. The wire shall be installed in the same trench as the piping, tied or taped to the pipe every 5 to 8 feet in the 3 o'clock position or installed within 12 inches of the pipe in fill. One end of the wire shall terminate within five feet of the building served, at or above grade, accessible for use, and resistant to physical damage.

c. Tracer wiring installations shall be tested by location with line tracing equipment upon completion of rough grading and again prior to final acceptance."

[K.**]** *M.* Chapter 15 TESTS AND MAINTENANCE. On page **[**342**]** *339*, in Section 15.6 METHODS OF TESTING WATER SUPPLY SYSTEM, add a new subsection e. containing the following sentence: (text unchanged)

[L.**]** *N.* Chapter 16 REGULATIONS GOVERNING INDIVIDUAL SEWAGE DISPOSAL SYSTEMS FOR HOMES AND OTHER ESTABLISHMENTS WHERE PUBLIC SEWAGE SYSTEMS ARE NOT AVAILABLE. **[**Delete all sections of this chapter in its entirety on pages 345—358 . Insert below the heading " Refer to COMAR 26.04.02".**]** *On pages 341—354, delete subsections 16.1 through 16.12 and insert the following:*

"16.1 GENERAL PROVISIONS

The use and maintenance of an on-site sewage disposal system is governed by Title 9 of the Environmental Article of the Annotated Code of Maryland and Chapters 26.04.02 and 26.04.03 of the Code of Maryland Regulations. These State of Maryland Regulations are herein adopted by reference.

16.2 DESIGN OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS

The system shall consist of a septic tank, including Best Available Technology (BAT), discharging into a conventional or non-conventional on-site sewage disposal system within an approved on-site disposal area, if found adequate as such and approved by the Director of the Department of Environmental Protection and Sustainability or the Director's Designee.

16.3 CAPCITY OF SEPTIC TANKS

16.3.1 Liquid Capacity

a. The liquid capacity of septic tanks for single dwelling units having up to five bedrooms shall be not less than 1500 gallons. An additional 250 gallons of capacity shall be provided for each bedroom in excess of five. Single dwelling units having three or more bedrooms shall be served by septic tanks having two compartments.

b. Required septic tanks capacities for buildings other than single dwelling units shall be determined by the Director of the Department of Environmental Protection and Sustainability, or the Director's designee, based on the projected peak sewage flow or other pertinent criteria.

16.3.2 Depth of Septic Tank

The top of the septic tank shall be brought to within 24 inches of the finished grade. An access manhole must be extended to the finished grade.

16.4 ABSORPTION TRENCHES

16.4.1 Filter Material

The filter material shall cover the absorption lines and extend the full width of the trench and shall be not less than 6 inches deep beneath the bottom of the absorption lines, and 2 inches above the top of the absorption lines. The filter material may be washed gravel, crushed stone, slag, or clean bank-run gravel ranging from 1/2 to 2-1/2 inches. The filter material shall be covered with burlap, filter cloth, 2 inches of straw, or equivalent permeable material prior to backfilling the excavation.

16.4.2 Absorption Lines

Absorption lines shall be 4 inch perforated plastic pipe conforming to approved standards. Vertical observation pipes shall be provided at the end of each absorption line that is 4 feet or more in depth. Observation pipes shall be perforated within the entire depth of the filter material. The portion of observation pipes that is above the filter material shall be solid extending to 4 inches minimum above grade and be closed with a removable cap."

O. Chapter 17 PRIVATE WATER SUPPLY WATER SUPPLY SYSTEMS

(1) On pages 355— 361, delete subsections 17.1 through 17.15 and insert the following:

"17.1 GENERAL REQUIREMENTS

Water well construction in the State of Maryland is regulated under authority of Title 9, Subtitle 13, of the Environmental Article of the Annotated Code of Maryland and Chapter 26.04.04 of the Code of Maryland Regulations (COMAR). Additionally, non-community potable water systems are governed by COMAR Chapter 26.04.02. These regulations are herein adopted by reference.

17.2 QUANTITY OF WATER REQUIRED

a. The quantity of water required shall be subject to the requirements in COMAR 26.04.04.04.p, which are adopted herein by reference.

b. Where the available primary source of water does not meet the requirements of Section 17.2.a, one of the following secondary water supply sources shall be provided:

1) a pressure storage tank of sufficient size.

2) a gravity storage tank of sufficient size and a pressure booster pump system.

17.3 WELL TERMINALS

Well terminals shall be subject to the requirements of COMAR 26.04.04.07.5, which are adopted herein by reference.

17.4 INTERCONNECTIONS

a. There shall be no connections between a private potable water supply system and a public water supply system.

b. No private water supply system shall serve more than one property unless approved by the Authority Having Jurisdiction."

[M.**]** *P.* Chapter 18 MOBILE HOME AND TRAVEL TRAILER PARK PLUMBING REQUIREMENTS.

(1) On page 367, revise Section 18.4.2 to read as indicated below:

"18.4.2 Limitations on Wet Venting

Wet vented drain piping shall only serve trailer sites. Drainage from any buildings or other facilities on the site shall not be connected to drain piping from trailer sites that is wet vented."

(2) On page **[**371**]***367*, in Subsection 18.4.9, change the section heading, "Wet Vented Branch Drain Lines" to "Wet Venting", insert "a." before "No", and add the following paragraphs:

"b. The drainage system of a utility or other building may not discharge into a wet-vented line. A house sewer may not discharge into a wet-vented line.

c. A house sewer or part of a house sewer may not function as a wet-vent."

[N.**]** *Q.* Add a new Chapter **[**19**]** *18-1* INSTALLATION OF GAS APPLIANCES AND GAS PIPING, new Subsection **[**19.1**]** *18-1.1* REQUIREMENTS FOR THE INSTALLATION OF GAS APPLIANCES AND GAS PIPING along with the following paragraph:

*"*The requirements contained in the National Fire Protection Association, ANSI, National Fuel Gas Code, Z223.1, NFPA 54, **[**2011**]** *2015*, and the Liquefied Petroleum Gas Code, NFPA 58, **[**2012**]** *2014*, which are being incorporated by reference under Basic Principle #23, are hereby adopted as the installation of gas appliances and gas piping requirements, provided, however, that this regulation may not be construed to prevent incorporated gas companies from making connections of gas appliances for domestic purposes."

R. Chapter 19 REFERENCED STANDARDS

On page 372, in Table 19.1, add the following before "ASHRAE Standard 18 – 2008 (R2013)" as indicated below:

ASCE 24 – 2014	*Flood Resistant Design and Construction*	*2.31*

[O.**]** *S.* (text unchanged)

.03 Limit on Lead Content.

A.—D. (text unchanged)

E. Components.

(1) Potable water **[**system**]** *supply* components that are within the scope of NSF 61 for drinking water system components and are required to be lead-free shall comply with NSF 61 and **[**:

(a) Annex G to NSF 61; or

(b)**]** NSF 372.

(2)—(3) (text unchanged)

F.—H. (text unchanged)

.04 Modifications to the National Fuel Gas Code, ANSI Z223.1, NFPA 54.

A. Chapter 2 REFERENCED PUBLICATIONS

On page 54-8, under 2.3.3 CSA America Publications, after "ANSI LC 1/CSA 6.26, Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST)," delete "2005" and substitute "2014".

B. Chapter 5 GAS PIPING SYSTEM DESIGN, MATERIALS, AND COMPONENTS

On page 54-18, under 5.6.3.4 Corrugated Stainless Steel, add the following subsections:

"5.6.3.4.1 Corrugated stainless steel tubing (CSST) shall be listed in accordance with ANSI LC 1/CSA 6.26, Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST).

5.6.3.4.2 CSST with an arc resistant jacket shall also be listed for compliance with ANSI LC 1/CSA 6.26, Clause 5.16 - Arc Resistant Jacket or Covering, including its manufacturing and production tests for resistance to extreme temperature cycles, resistance to corrosion, robustness against arcing, and resistance to installation damage.

5.6.3.4.3 Arc resistant CSST shall be listed for installation without the additional electrical bond required by Section 7.13.2 for CSST that is not arc resistant.

5.6.3.4.4 CSST shall be installed in accordance with this Code and the manufacturer's instructions."

[A.**]** *C.* Chapter 7 GAS PIPING INSTALLATION. **[**On page 63 in**]** *under* Section 7.13 ELECTRICAL BONDING AND GROUNDING:

(1) *On page 54-62,* **[**In**]** *in* subsection 7.13.1, change the section heading "Pipe and Tubing Other Than CSST" to "Gas Piping and Tubing, including CSST" and, in both instances, delete the words "other than CSST";

(2) *On page 54-62,* **[**In**]** *in* subsection 7.13.2, **[**add to the heading "CSST" the words, "with an Arc-Resistant Jacket". Delete**]** *delete* the paragraph under subsection 7.13.2, and insert the following:

"*(a) CSST with Arc-Resistant Jacket:* A gas piping system that contains one or more segments of CSST without an arc-resistant jacket shall be bonded in accordance with this section. CSST gas piping without an arc-resistant jacket shall require an additional bond to the electrical service grounding electrode system. The bonding jumper shall connect

to a metallic pipe or fitting between the point of gas delivery and the first downstream CSST fitting. The bonding jumper shall not be less than 6 AWG copper wire or equivalent;

(b) CSST Other than Arc-Resistant. Gas piping systems with any CSST that is not arc resistant shall be bonded to the electrical service grounding electrode system or, where provided, to a lightning protection grounding electrode system."

(3) *On page 54-63,*[Add] *add* a new section as 7.13.3 with the heading, "CSST with an Arc-resistant Jacket" and the following paragraph:

"CSST gas piping with an arc-resistant jacket that is listed by an approved agency for installation without the direct bonding required by section 7.13.2 shall be installed in accordance with section 7.13.1 and the manufacturer's installation instructions.";

(4) *On page 54-63,***[**Renumber**]** *renumber* section "7.13.3 Prohibited Use" to "7.13.4" with the same heading; **[**and**]**

(5) On page 54-63, change subsections 7.13.3 and 7.13.4 to read as follows:

"7.13.3 Arc-Resistant CSST. All CSST in an arc resistant gas piping system shall be arc resistant. Each portion of an arc resistant CSST gas piping system shall be electrically continuous and bonded to an effective ground-fault current path. Arc-Resistant CSST gas piping shall be considered to be bonded when it is connected to appliances that are connected to the appliance grounding conductor of the circuit supplying electrical power to that appliance.

7.13.4 Prohibited Use. Gas piping shall not be used as a grounding conductor or electrode."; and

[(5)**]** *(6)* Renumber section "7.13.4 Lightning Protection Systems" to "7.13.5", with the same heading **[**and insert the words, "in a building" after "installed"**]**.

.05 Modifications to the Liquefied Petroleum Gas Code, NFPA 58.

A. The following sections are omitted in their entirety:

(1) Under Chapter 5 LP-Gas Equipment and Appliances, Section:

(a) 5.20 Appliances;
(b) 5.21 Vaporizers, Tank Heaters, Vaporizing Burners, and Gas Air Mixers;
(c)5.22 Vehicle Fuel Dispensers;

(2) Under Chapter 6 Installation of LP-Gas Systems, Section:

(a) 6.2 Location of Containers;
(b) 6.19 Bulk Plant and Industrial Plant LP-Gas Systems;
(c) 6.20 LP-Gas Systems in Buildings or in building Roofs or Exterior Balconies;
(d) 6.21 Installation of Appliances;
(e) 6.22 Installation of Indirect-Fired Vaporizers;
(f) 6.23 Ignition source Control;
(g) 6.24 LP-Gas Systems on Vehicles (Other Than Engine Fuel Systems);
(h) 6.25 Vehicle Fuel Dispenser and Dispensing Stations;
(i) 6.26 Containers for Stationary Engineers;
(j) 6.27 Fire Protection; and
(k) 6.28 Alternate Provisions for Installation of ASME Containers.

B. The following chapters are omitted in their entirety:

(1) Chapter 7 LP-Gas Liquid Transfer;
(2) Chapter 8 Storage of Cylinders Awaiting Use, Resale, or Exchange;
(3) Chapter 9 Vehicular Transportation of LP-Gas;
(4) Chapter 10 Buildings or Structures Housing LP-Gas Distribution Facilities;
(5) Chapter 11 Engine Fuel Systems;
(6) Chapter 12 Refrigerated Containers;
(7) Chapter 13 Marine Shipping and Receiving; and
(8) Chapter 14 Operations and Maintenance.

C. Chapter 1 ADMINISTRATION.

On page 58-7, under Section 1.3 Application:

(1) Subsection 1.3.1 should be changed to read:

"1.3.1 Application of Code. This code is limited to the installation and operation of containers, piping, and associated equipment, when delivering LP-Gas to a building or structure for use as a fuel gas. This code does not apply to portions of LP-Gas systems covered by NFPA 54 (ANSI Z223.1), National Fuel Gas Code."; and includes the following:

(1) —(4) text unchanged;

(2) Add the following to subsection 1.3.2:

(12) Highway transportation of LP-Gas;

(13) The design, construction, installation, and operation of marine terminals whose primary purpose is the receipt of LP-Gas for delivery to transporters, distributers, or users; and

(14) The design, construction, installation, and operation of pipeline terminals that receive LP-Gas from pipelines under the jurisdiction of the U.S. Department of Transportation (DOT).".

D. Chapter 4 GENERAL REQUIREMENTS.

(1) On page 58-14, under Section 4.4 Qualification of Personnel, add subsection 4.4.5 as indicated below:

"4.4.5 Persons installing LP-Gas service within the scope of this Code shall be qualified for the installation and operation of the containers, piping, and associated equipment for delivering LP-Gas to a building or structure for use as its fuel gas by being certified for Certification Areas 1.0, 4.1, and 4.2 of the Certified Employee Training Program (CETP) of the National Propane Gas Association."

MICHAEL J. KASTNER, JR.
Chair
Board of Plumbing