

AGENDA

STATE BUILDING CODE TECHNICAL REVIEW BOARD

Friday, February 11, 2022 - 10:00am  
Henrico County Tuckahoe Area Library  
1901 Starling Drive, Henrico, Virginia 23229

- I. Roll Call **(TAB 1)**
- II. Approval of September 17, 2021 Minutes **(TAB 2)**
- III. Interpretation Request No. 22-01 **(TAB 3)**
  - In Re: Richard Grace (Fairfax County)
    - Use of PEX/AL/PEX piping for gas piping within or under a building
- IV. Public Comment
- V. Secretary's Report
  - a. 2022 Meeting Calendar **(TAB 4)**
  - b. March meeting update
  - c. No update from the City Building Official for the Grant case;  
City has further approved to Circuit Court

STATE BUILDING CODE TECHNICAL REVIEW BOARD

**James R. Dawson, Chair**  
(Virginia Fire Chiefs Association)

**W. Shaun Pharr, Esq., Vice-Chair**  
(The Apartment and Office Building Association of Metropolitan Washington)

**Vince Butler**  
(Virginia Home Builders Association)

**J. Daniel Crigler**  
(Virginia Association of Plumbing-Heating-Cooling Contractors and the Virginia Chapters of the Air Conditioning Contractors of America)

**Alan D. Givens**  
(Virginia Association of Plumbing-Heating-Cooling Contractors and the Virginia Chapters of the Air Conditioning Contractors of America)

**David V. Hutchins**  
(Electrical Contractor)

**Christina Jackson**  
(Commonwealth at large)

**Joseph A. Kessler, III**  
(Associated General Contractors)

**R. Jonah Margarella, AIA, NCARB, LEED AP**  
(American Institute of Architects Virginia)

**Eric Mays**  
(Virginia Building and Code Officials Association)

**Joanne D. Monday**  
(Virginia Building Owners and Managers Association)

**Elizabeth C. White**  
(Commonwealth at large)

**Aaron Zdinak, PE**  
(Virginia Society of Professional Engineers)

**Vacant**  
(Virginia Building and Code Officials Association)

**STATE BUILDING CODE TECHNICAL REVIEW BOARD**  
**MEETING MINUTES**  
**September 17, 2021**

**Henrico County Twin Hickory Area Library**  
**5001 Twin Hickory Road, Glen Allen, Virginia 23059**

Members Present

Members Absent

Mr. James R. Dawson, Chairman  
 Mr. W. Shaun Pharr, Esq., Vice-Chairman  
 Mr. Vince Butler  
 Mr. Daniel Crigler  
 Mr. Alan D. Givens  
 Mr. David V. Hutchins  
 Mr. Joseph Kessler  
 Ms. Joanne Monday  
 Mr. Aaron Zdinak, PE  
 Ms. Elizabeth White

Ms. Christina Jackson  
 Mr. Eric Mays, PE  
 Mr. J. Kenneth Payne, Jr., AIA  
 Mr. Richard C. Witt

7 Call to Order                       The meeting of the State Building Code Technical Review Board  
 8   ("Review Board") was called to order at approximately 10:00 a.m. by  
 9   Secretary Travis Luter.

11 Roll Call                             The roll was called by Mr. Luter and a quorum was present. Mr. Justin  
 12 I. Bell, legal counsel for the Board from the Attorney General's Office,  
 13 was also present.

15 Approval of Minutes             The draft minutes of the May 21, 2021 meeting in the Review Board  
 16 members' agenda package were considered. Mr. Crigler moved to  
 17 approve the minutes as presented. The motion was seconded by Mr.  
 18 Zdinak and passed with Mses. White and Monday abstaining.

20   The draft minutes of the July 16, 2021 meeting in the Review Board  
 21 members' agenda package were considered. Ms. Monday moved to  
 22 approve the minutes as presented. The motion was seconded by Mr.  
 23 Pharr and passed with Messrs. Butler, Hutchins, and Kessler and Ms.  
 24 White abstaining.

26 Final Order                         Appeal of Monica and Michael Davis: Appeal No. 21-02:  
 27  
 28 After review and consideration of the final order presented in the  
 29 Review Board members' agenda package, Mr. Kessler moved to  
 30 approve the final order as presented. The motion was seconded by Mr.  
 31 Butler and passed with Mses. White and Monday abstaining.

33   Appeal of Anthony T. Grant Jr.: Appeal No. 21-03:  
 34

**State Building Code Technical Review Board**  
**September 17, 2021 Minutes - Page 2**

35 After review and consideration of the final order presented in the  
36 Review Board members' agenda package, Mr. Kessler moved to  
37 approve the final order as presented. The motion was seconded by Mr.  
38 Crigler and passed with Mses. White and Monday abstaining.

39  
40 Public Comment Chair Dawson opened the meeting for public comment. Mr. Luter  
41 advised that no one had signed up to speak. With no one coming  
42 forward, Chair Dawson closed the public comment period.

43  
44 Secretary's Report Mr. Luter provided a copy of the 2018 Interpretation Booklet to the  
45 Review Board making them aware that the Booklet was completed and  
46 in the process of being published.

47  
48 Mr. Luter informed the Board of the current caseload for the upcoming  
49 meeting scheduled for November 19, 2021.

50  
51 Attorney Bell provided legal updates to the Board.

52  
53 Adjournment There being no further business, the meeting was adjourned by proper  
54 motion at approximately 11:00 a.m.

55  
56  
57 Approved: February 11, 2022

58  
59  
60 \_\_\_\_\_  
61 Chairman, State Building Code Technical Review Board

62  
63  
64 \_\_\_\_\_  
65 Secretary, State Building Code Technical Review Board

**REQUEST FOR INTERPRETATION**

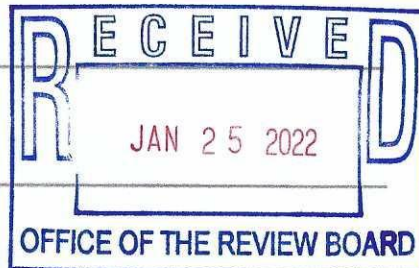
TO: OFFICE OF THE STATE BUILDING CODE TECHNICAL REVIEW BOARD  
VIRGINIA DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT  
Main Street Centre  
600 E. Main Street, Suite 300  
Richmond, Virginia 23219-1321  
Tel: (804) 371-7150 Fax: (804) 371-7092  
Email: sbco@dhcd.virginia.gov

From: Richard Grace on behalf of Jay Riat, Building Official Fairfax County

Phone Number: 703-324-1687

Email Address: richard.grace@fairfaxcounty.gov

Applicable Code: 2018 VFGC and 2018 VRC



Code Section(s): 112.2, 112.3, 403.3/G2414.3, 404.17.1/G2415.17.1

Submitted by (signature):

A handwritten signature in black ink, appearing to be "Richard Grace", written over a horizontal line.

Date: January 25, 2022

QUESTION(S):

(this question is preceded by two attached documents)

Is PEX-AL-PEX pipe, listed under ICC-ES Product Certificate PMG-1588, and proposed for use as fuel gas piping within or under a building, at least equivalent in safety and suitability, to other pipe materials listed for such use in the Virginia Fuel Gas Code and the Virginia Residential Code?

## SBCTRB Interpretation Request

### Summary

An existing water piping material called PEX-AL-PEX (cross-linked polyethylene/aluminum/crosslinked polyethylene) is being introduced in Virginia for use as an indoor fuel gas piping system. PEX-AL-PEX is recognized by our adopted codes for use as a water service pipe, a water distribution pipe and a hydronic pipe only, and conforms to ASTM F1281, *Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe*. Our codes do not specifically recognize PEX-AL-PEX as a pipe for use with fuel gas. The VFGC and VRC require polyethylene plastic pipe and tubing used for fuel gas to conform with ASTM D2513 and aluminum-alloy pipe and tubing used for fuel gas to conform with ASTM B241 (or B210). PEX-AL-PEX does not conform to either of these standards.

The proponents introducing this material as a fuel gas pipe in Virginia have provided an ICC-ES PMG Product Certificate (PMG-1588). This certificate indicates compliance with ASTM F1281-2017 and AS 4176.8-2010.

ASTM F1281-2017 states the following in Section 1.1 of its Scope:

“The pipe covered by this specification is intended for use in potable water distribution systems for residential and commercial applications, water service, underground irrigation systems, and radiant panel heating systems, baseboard, snow- and ice-melt systems, and gases that are compatible with the composite pipe and fittings.”

Note, “fuel gas” is not specifically listed in this scope. The term “gases” is included in this context with a laundry list of potable water uses and doesn’t imply fuel gas. Additionally, the term “gases” (or gas) is used only this one time throughout this standard.

AS 4176.8-2010 is an Australian modified version of ISO 17484-2006. ISO 17484 is comprised of two parts. Part 1 is Specifications for Systems. Part 2 is Code of Practice, which includes important safety provisions. AS 4176.8-2010 incorporates a modified version of Part 1 and completely excluded all of Part 2.

### Code Sections

VFGC 403.3/VRC G2414.3, *Other materials*. Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service and, in addition, shall be recommended for that service by the manufacturer and shall be *approved* by the *code official*.

VFGC 404.17.1/VRC G2415.17.1, *Limitations*. Plastic pipe shall be installed outdoors underground only. Plastic pipe shall not be used within or under any building or slab or be operated at pressures greater than 100 psig (689 kPa) for natural gas or 30 psig (207 kPa) for LP-gas.

USBC 112.2, *Alternative methods and materials*. When generally recognized standards of performance are not available, this section and other applicable requirements of this code provide for acceptance of materials and methods whose performance is substantially equal in safety to those specified on the basis of reliable test and evaluation data presented by the proponent.

USBC 112.3, *Documentation and approval*. Approval shall be issued when the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code and that the material, *equipment*, device, assembly or method of *construction* offered is, for the purpose intended, at least the equivalent of that prescribed by the code.

Question

Is PEX-AL-PEX pipe, listed under ICC-ES Product Certificate PMG-1588, and proposed for use as fuel gas piping within or under a building, at least equivalent in safety and suitability, to other pipe materials listed for such use in the Virginia Fuel Gas Code and the Virginia Residential Code?



Effective Date: October 2021

This listing is subject to re-examination in one year.

[www.icc-es-pmg.org](http://www.icc-es-pmg.org) | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

CSI: DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)  
Section: 23 11 00—Facility Fuel Piping

### Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: Jones Stephens PEX-AL-PEX Gas Pipe and Fitting System

Listee: Jones Stephens Corp.  
12500 Jefferson Avenue  
Newport News, VA 23602  
[www.ferguson.com](http://www.ferguson.com)

### Compliance with the following codes:

2021, 2018, 2015, 2012 and 2009 *International Fuel Gas Code*® (IFGC)  
2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)  
2021, 2018, 2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*

\*Copyrighted publication of the International Association of Plumbing and Mechanical Officials.

### Compliance with the following standards:

ASTM F1281-2017, Standard Specification for Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Pressure Pipe  
AS 4176.8-2010, Metal-Plastic Multilayer Pipes and Brass Fittings for Conveying Combustible Gases for System in Pressure Up to 5 bar.

### Identification:

**Pipe:** The Jones Stephens PEX-AL-PEX pipe shall be marked every 5 feet (1.5 m) with the following: company name or trademark, material (PEX-AL-PEX), nominal size (for example, 1216), temperature and pressure ratings, ASTM F1281 designation, production code, and the ICC-ES PMG listing mark.

**Fittings:** Fittings shall be marked with manufacturer's name or trademark, and the ICC-ES PMG listing mark.

### Installation:

Jones Stephens PEX-AL-PEX pipes must be installed in accordance with the manufacturer's published installation instructions, the applicable codes and this listing.



## Models:

Jones Stephens PEX-AL-PEX gas pipe is manufactured from cross-linked polyethylene (PEX) and aluminum materials satisfying ASTM F1281. Jones Stephens Gas pipe are yellow in color for gas applications.

Fittings of the following sizes can only be used on Jones Stephens PEX-AL-PEX gas pipe; fittings cannot be used with pipe from other manufacturer.

CODE	DESCRIPTION
PGP16328	16MM X 100M PIPE COIL
PGP20328	20MM X 100M PIPE COIL
PGP26164	26MM X 50M PIPE COIL
PGP32164	32MM X 50M PIPE COIL
PMPT16	16 X 2 X 1/2 MPT ADAPTER
PMPT20	20 X 2 X 1/2 IN ADAPTER MPT
PMPT26	26 X 3/4 IN ADAPTER MPT
PMPT32	32 X 1 IN ADAPTER MPT
PFPT16	16 X 2 X 1/2 IN ADAPTER FPT
PFPT20	20 X 2 X 1/2 IN ADAPTER FPT
PFPT26	26 X 3/4 IN ADAPTER FPT
PFPT32	32 X 1 IN ADAPTER FPT
PC16	16 X 16 COUPLING
PC20	20 X 20 COUPLING
PC26	26 X 26 COUPLING
PC32	32 X 32 COUPLING
PT16	16 X 16 X 16 TEE
PT20	20 X 20 X 20 TEE
PT26	26 X 26 X 26 TEE
PT32	32 X 32 X 32 TEE
PT162016	16 X 20 X 16 REDUCING TEE
PT201616	20 X 16 X 16 REDUCING TEE
PT201620	20 X 16 X 20 REDUCING TEE
PT202016	20 X 20 X 16 REDUCING TEE
PT202620	20 X 26 X 20 REDUCING TEE
PT261626	26 X 16 X 26 REDUCING TEE
PT262026	26 X 20 X 26 REDUCING TEE
PT321632	32 X 16 X 32 REDUCING TEE
PT262020	26 X 20 X 20 REDUCING TEE
PT262620	26 X 26 X 20 REDUCING TEE
PT322626	32 X 26 X 26 REDUCING TEE
PT322032	32 X 20 X 32 REDUCING TEE
PT322632	32 X 26 X 32 REDUCING TEE
PE916	16 X 16 90 DEG ELBOW
PE920	20 X 20 90 DEG ELBOW
PE926	26 X 26 90 DEG ELBOW
PE932	32 X 32 90 DEG ELBOW
PDE916D	16 X 1/2 IN FPT WB ELBOW
PDE920D	20 X 1/2 IN FPT WB ELBOW
PDE920F	20 X 3/4 IN FPT WB ELBOW
PDE926F	26 X 3/4 IN FPT WB ELBOW
PFPT916D	16 X 1/2 IN FPT ELBOW
PFPT920D	20 X 1/2 IN FPT ELBOW
PFPT920F	20 X 3/4 IN FPT ELBOW
PFPT926G	26 X 1 IN FPT ELBOW
PFPT926F	26 X 3/4 IN FPT ELBOW
PFPT932G	32 X 1 IN FPT ELBOW
PFWM16D	16 X 1/2 IN WALL/FLOOR MOUNT
PFWM20D	20 X 1/2 IN WALL/FLOOR MOUNT
PFWM20F	20 X 3/4 IN WALL/FLOOR MOUNT

PFWM26F	26 X 3/4 IN WALL/FLOOR MOUNT
PFWM26G	26 X 1 IN WALL/FLOOR MOUNT
PFWM32G	32 X 1 IN WALL/FLOOR MOUNT

Conditions of Listing:

1. During placement of cover over the pipe, the pipe must be maintained at the greater of 1<sup>1/2</sup> times the proposed maximum working pressure, but not less 3 psig (20 kPa gauge), irrespective of design pressure.
2. The Jones Stephens PEX-AL-PEX pipe and fittings recognized in this listing shall be installed as a system and fittings shall be not used on pipes from other manufacturer.
3. The Authority Having Jurisdiction for the area in which this product is to be installed, shall have the final decision for compliance to Section G2415.17 of the IRC, Section 404.17 of the IFGC, and 1210.1.7 of the UPC.
4. The pipe installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative.
5. When installation is in fire-resistance-rated assemblies, evidence must be provided to the code official of compliance with *International Building Code*<sup>®</sup> (IBC) Section 713 (penetrations), *Uniform Building Code* (UBC) Section 709 (walls and partitions) or UBC Section 710 (floor/ceiling or roof/ceiling), as applicable.
6. The pipe must not be used as a source of electrical ground.
7. Pipe bends must be installed in accordance with the manufacturer's published installation instructions.
8. When the system is embedded in concrete, piping must be covered a minimum of 3/4 inch (19.1 mm) and installation must comply with IBC Section 1906.3 or UBC Section 1906.3, as applicable.
9. Pipe and Fittings recognized in this listing are under a quality control program with surveillance inspections two times per year by ICC-ES.

## 112.2 ALTERNATIVE METHODS OR MATERIALS.

### **112.2 Alternative methods or materials.**

In accordance with § 36-99 of the Code of Virginia, where practical, the provisions of this code are stated in terms of required level of performance so as to facilitate the prompt acceptance of new building materials and methods. When generally recognized standards of performance are not available, this section and other applicable requirements of this code provide for acceptance of materials and methods whose performance is substantially equal in safety to those specified on the basis of reliable test and evaluation data presented by the proponent. In addition, as a requirement of this code, the building official shall require that sufficient technical data be submitted to substantiate the proposed use of any material, equipment, device, assembly or method of construction. The building official may consider nationally recognized guidelines in making a determination.

## 112.3 ALTERNATIVE METHODS OR MATERIALS.

### **112.3 Documentation and approval.**

In determining whether any material, *equipment*, device, assembly or method of construction complies with this code, the building official shall approve items *listed* by nationally recognized testing laboratories, when such items are *listed* for the intended use and application, and in addition, may consider the recommendations of RDPs. Approval shall be issued when the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code and that the material, *equipment*, device, assembly or method of construction offered is, for the purpose intended, at least the equivalent of that prescribed by the code. Such approval is subject to all applicable requirements of this code and the material, *equipment*, device, assembly or method of construction shall be installed in accordance with the conditions of the approval and their listings. In addition, the building official may revoke such approval whenever it is discovered that such approval was issued in error or on the basis of incorrect information, or where there are repeated violations of the USBC.

#### **112.3.1 Conditions of listings.**

Where conflicts between this code and conditions of the listing or the manufacturer's installation instructions occur, the provisions of this code shall apply.

**Exception:** Where a code provision is less restrictive than the conditions of the listing of the *equipment* or *appliance* or the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

## CHAPTER 4 GAS PIPING INSTALLATIONS

### **403.3 Other materials.**

Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service, and, in addition, shall be recommended for that service by the manufacturer and shall be *approved* by the code official.

## CHAPTER 24 FUEL GAS

### **G2414.3 (403.3) Other materials.**

Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service, and, in addition, shall be recommended for that service by the manufacturer and shall be *approved* by the *code official*.

## 404.17.1 LIMITATIONS.

### 404.17.1 Limitations.

Plastic pipe shall be installed outdoors underground only. Plastic pipe shall not be used within or under any building or slab or be operated at pressures greater than 100 psig (689 kPa) for natural gas or 30 psig (207 kPa) for LP-gas.

#### Exceptions:

1. Plastic pipe shall be permitted to terminate above ground outside of buildings where installed in premanufactured anodeless risers or service head adapter risers that are installed in accordance with the manufacturer's instructions.
2. Plastic pipe shall be permitted to terminate with a wall head adapter within buildings where the plastic pipe is inserted in a *piping* material for fuel gas use in buildings.
3. Plastic pipe shall be permitted under outdoor patio, walkway and driveway slabs provided that the burial depth complies with [Section 404.12](#).

## G2415.17.1 (404.17.1) LIMITATIONS.

### **G2415.17.1 (404.17.1) Limitations.**

Plastic pipe shall be installed outdoors underground only. Plastic pipe shall not be used within or under any building or slab or be operated at pressures greater than 100 psig (689 kPa) for natural gas or 30 psig (207 kPa) for LP-gas.

#### **Exceptions:**

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2. Plastic pipe shall be permitted to terminate with a wall head adapter within buildings where the plastic pipe is inserted in a *piping* material for *fuel gas* use in buildings.
3. Plastic pipe shall be permitted under outdoor patio, walkway and driveway slabs provided that the burial depth complies with [Section G2415.12](#).



# Commonwealth of Virginia 2022 Pay and Holiday Calendar

## MEETING DATES

### State Holidays

- January 17**  
Martin Luther King, Jr. Day
- February 21**  
George Washington Day
- May 30**  
Memorial Day
- June 20**  
Juneteenth (Observed)
- July 4**  
Independence Day
- September 5**  
Labor Day
- October 10**  
Columbus Day & Yorktown Victory Day
- November 8**  
Election Day
- November 11**  
Veterans Day
- November 23**  
4 hours additional holiday time
- November 24**  
Thanksgiving
- November 25**  
Day After Thanksgiving
- December 23**  
8 hours additional holiday time
- December 26**  
Christmas (Observed)

Please note: In some agencies, the holiday and payday schedule may vary from what is shown here. If you have questions, see your agency human resources officer.

Denotes Payday

Denotes Holiday

Denotes Additional Time Off 8 hrs 4 hrs

Denotes Payday on Holiday or Time Off

Published by the Virginia Department of Human Resource Management. An equal opportunity employer.

Published by Commonwealth of Virginia April 2021



### January

S	M	T	W	T	F	S
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### February

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### April

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### June

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### August

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### September

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### November

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### December

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