**BEFORE THE**
**UNITED STATES DEPARTMENT OF TRANSPORTATION**
**PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**
**WASHINGTON, D.C.**

| | | |
|---|---|---|
| Pipeline Safety: Gas Plastic Pipe Rule | ] | Docket No. PHMSA-2014-0098 |

# PETITION FOR RECONSIDERATION FOR THE PLASTIC PIPE RULE

**AMERICAN GAS ASSOCIATION**

August 23, 2019

## I. Background

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 73 million residential, commercial and industrial natural gas customers in the U.S., of which 95 percent — over 69 million customers — receive their gas from AGA members. Today, natural gas meets more than one-fourth of the United States' energy needs.

AGA coordinated with the Gas Technology Institutes' (GTI) Joint Industry Plastic (JIP) Program to develop these recommendations. The JIP is comprised of natural gas industry stakeholders that focus on addressing gaps in research and development, industry standards, and best practices that are needed to enhance the design, installation and operation of plastic natural gas piping systems.

## II. General Comments

AGA appreciates the time and effort expended by PHMSA during the Pipeline Safety: Plastic Pipe Rule (Final Rule)[1] rulemaking process. AGA supports PHMSA's amendments to federal pipeline regulations which take into consideration advancements in plastic pipe design, manufacturing, and technologies that advance public safety. Below, AGA provides recommendations which clarify the regulatory language which requires all fusions, except for electrofusions, to comply with ASTM F2620-12 *"Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings"*.

AGA does not believe the intent of PHMSA was to exclude other qualified procedures to join polyethylene (PE) pipe and fittings that are equivalent and/or more stringent than the heat fusion procedures detailed in ASTM F2620-12. The natural gas industry has developed and have been using qualified (in accordance with § 192.283) sound heat fusion procedures for many years. The current wording in the final rule that operators "must comply with the heat fusion procedures listed in ASTM F2620-12" could be interpreted to mean that other qualified procedures are no longer acceptable, and could require each operator to spend many hours to re-train employees and re-qualify joining procedures in order to implement these changes into their PE pipe and fitting operating procedures.

## III. Specific Comments

Discussions within the Gas Pipeline Advisory Committee (GPAC) on June 2016[2], as well as the language found within the Plastic Pipe Final Rule Preamble support this recommendation.

During the rulemaking process, AGA submitted comments identifying concerns with PHMSA's proposal to require all types of heat fusion joints to comply with ASTM F2620-12. Specifically, AGA commented that compliance with the ASTM F2620-12 standard would require operators to re-qualify a number of proven joining procedures and eliminating those that differ from the

[1] *Pipeline Safety: Plastic Pipe Rule,* 83 Fed. Reg. 58694 (Nov. 20, 2018).
[2] GPAC meeting transcripts - Docket: PHMSA-2014-0098 page 134 (lines 4 – 16), page 161(lines 15-22), and page 162 (lines 1-10)

standard.[3] PHMSA's response to AGA's submitted comments indicated that compliance to ASTM F2620-12 would only require operators to requalify a number of their sound and proven heat joining procedures if they failed to meet the required standard. Specifically, PHMSA responded that, *"PHMSA would expect that if an operator can demonstrate the differences are sound and provide an equivalent or better level of safety compared to ASTM F2620-12 it could be found acceptable".*[4] In addition, Section (4) Qualifying Persons to Make Joints, includes the following response from PHMSA : *"Regarding concerns on whether operator joining procedures that may differ from ASTM F2620–12 may not be acceptable, it would depend on how they differ. PHMSA would expect that if an operator can demonstrate through an inspection of the procedures that the differences are sound and provide an equivalent or better level of safety compared to ASTM F2620–12 it could be found acceptable. However, if operator procedures are found to be lacking in any way when comparing the operator procedures to ASTM F2620–12,and reviewing results of testing results used to qualify the procedures, they may not be acceptable."*[5] These responses clearly indicate that PHMSA did not intend that compliance to ASTM F2620-12 to replace existing processes that are sound and provide an equivalent or better level or safety compared to ASTM F2620-12.

Moreover, many utilities have been using qualified heat fusion procedures developed by the industry and published by the Plastic Pipe Institute (PPI). Specifically, PPI has published several Technical Reports that reflect the generic heat fusion procedures that most of the PE gas pipe and fitting manufacturers recommend, including T*R-33 "Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe"* and *TR-41 "Generic Saddle Fusion Joining Procedure for Polyethylene Gas Piping"*. The latest edition of ASTM F2620 (2019) now includes a note stating "The parameters and procedures shown for Section 8. Procedure 2—Butt Fusion, were developed and validated using testing documented in Plastic Pipe Institute (PPI) TR-33. The parameters and procedures, shown in Section 9. Procedure 3—Saddle Fusion, were developed and validated using testing documented in PPI TR-41"[6].

Finally, there is a vast body of knowledge and data developed by operators, research organizations, and plastic manufacturers in the development and validation of other heat fusion procedures, that deviate from ASTM F2620, and have been used for many years by natural gas operators to make sound PE joints. These methods provide an equivalent or better level of safety compared to ASTM F2620 and should be considered acceptable.

The revisions below provide the necessary clarification and flexibility that meets the intent of PHMSA's preamble, discussions during the GPAC meetings, and current industry practices:

**§ 192.281 Plastic pipe.**

*"(c) Heat-fusion joints. Each heat fusion joint on a PE pipe or component,*

[3] *Pipeline Safety: Plastic Pipe Rule*, 83 Fed. Reg. 58694 at 58703(Nov. 20, 2018).
[4] *Id.*
[5] *Id* at 58704.
[6] ASTM International. ASTM F2620-12: Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings

*except for electrofusion joints, must comply with ASTM F2620–12 (incorporated by reference in § 192.7)* ***or other procedures qualified in accordance with § 192.283 (i.e., PPI TR33, PPI TR 41)*** *and the following:…"*

**§ 192.285 Plastic pipe: Qualifying persons to make joints.**

*"(i) Tested under any one of the test methods listed under §192.283(a), or for PE heat fusion joints (except for electrofusion joints) visually inspected and tested in accordance with ASTM F2620-12 (incorporated by reference, see §192.7)* ***or other procedures qualified in accordance with § 192.283 (i.e., PPI TR33, PPI TR 41)*** *applicable to the type of joint and material being tested;…"*

## IV. Closing Remarks

AGA supports the enhancements outlined within the Final Rule which continue to enhance pipeline safety. However, many natural gas operators have heat fusion joining procedures that differ from ASTM F2620-12. The current updates to the Federal Code, as written, prohibit these sound alternative qualified procedures from being used. The recommendations offered above provide the clarification needed for operators to apply alternate fusion methods which do not compromise the safety of the gas system or to the public.

Thank you for your consideration of this request. Please contact me if you have any questions.

Respectfully submitted,
Date: August 23, 2019

Christina Sames, *Vice President, Operations and Engineering*
American Gas Association
400 North Capitol Street, NW
Washington, D.C. 20001
(202) 824-7214
csames@aga.org

Sonal Patni, *Director, Operations and Engineering*
American Gas Association
400 North Capitol Street, NW
Washington, D.C. 20001
(202) 824-7328
spatni@aga.org