

1200 New Jersey Avenue, SE Washington, DC 20590

Pipeline and Hazardous Materials Safety Administration

September 1, 2021

Mr. Bryan Louque Vice President Pipeline Integrity Audubon Field Services 9920 E. 42nd Street Tulsa, OK 74146

Dear Mr. Louque:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), dated March 10, 2021, you requested an interpretation of the 49 Code of Federal Regulation (CFR) Part 195. Specifically, you requested an interpretation on the term "nominal diameter" as it relates to the requirements of § 195.11(a).

You asked for clarification on the size of pipelines intended for inclusion in § 195.11 and that PHMSA consider adding a definition to § 195.3.

The nominal pipe size (NPS) is related to the inside diameter in inches, and NPS 12 and smaller pipe has outside diameter greater than the designated size. Therefore, a 6 inches nominal diameter pipe is a 6 %-inches nominal outside diameter pipe and an 8-inches nominal diameter pipe is an 8 %-inches nominal outside diameter pipe. However, for NPS 14 and larger, the NPS is the same as the nominal outside diameter. That is, a 14-inch nominal diameter pipe is the same as a 14-inch nominal outside diameter pipe. API Specification 5L, Specification for Line Pipe, 45th Edition incorporated by reference in 49 CFR § 195.3(b)(13) (API 5L) uses "specified outside diameter" for the nominal outside diameter of pipe. Sections 195.2 (gathering line) and 195.11(a) reference terms "nominal diameter" or "nominal outside diameter" for pipe, with both references being the same nominal outside diameter for pipe that is referenced in API 5L. In addition, the Research and Special Programs Administration (RSPA) (the predecessor to PHMSA) clarified and addressed this issue in a 1994 final rule. Also, it should be clear that outside diameters are furnished by pipe mills in nominal outside diameters that are not in whole numbers for less than or equal to 12-inches pipe diameters. For example, pipe with an outside diameter of 2 \(^3\)/8-inches is used by pipe mills for a nominal outside diameter of 2-inches. Other examples include 8 \(^{8}\)-inches instead of 8 inches, and 10 \(^{3}\)-inches instead of 10-inches.

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¹ RSPA published the final rule in the Federal Register on Tuesday, June 28, 1994 [59 FR 33388]. The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety provides written clarifications of the Regulations (49 CFR Parts 190-199) in the form of interpretation letters. These letters reflect the agency's current application of the regulations to the specific facts presented by the person requesting the clarification. Interpretations do not create legally-enforceable rights or obligations and are provided to help the public understand how to comply with the regulations.

Therefore, PHMSA has addressed this issue by regulation as explained by the June 28, 1994, final rule which added using both $6\frac{5}{8}$ -inches and $8\frac{5}{8}$ -inches pipe nominal diameters under the \$ 195.11(a) requirements as pipe outside diameters.

If we can be of further assistance, please contact Tewabe Asebe at 202-366-5523.

Sincerely,

John A. Gale Director, Office of Standards and Rulemaking John A. Gale
Director, Office of Standards and Rulemaking
Office of Pipeline Safety (PHP-30)
PHMSA
US Department of Transportation
1200 New jersey Avenue SE
Washington, DC 20590-0001

Dear Sir,

I am writing to request clarification of §195.11(a)(1) which defines the diameter of rural gathering line pipe to which 195.11 is applicable. Clarification is requested on the use of term 'nominal diameter' in combination with the stated range of values associated with pipeline outside diameter (OD) dimensions.

§195.2 – **Definitions** does not define the term "nominal diameter". However, it does include a definition for a gathering line.

"Gathering Line – Gathering lines means a pipeline 8 5/8 inch or less nominal outside diameter that transports petroleum from a production facility".

This definition clearly refers to the pipeline outside diameter (OD) whereas this is not clearly stated in 195.11(a)(1).

§195.11(a) states that a regulated rural gathering line means an onshore gathering line in a rural area that meets all of the following criteria-

§195.11(a)(1) Has a nominal diameter from 6 5/8 inches (168 mm) to 8 5/8 inches (219.1 mm).

Nominal diameter or nominal pipe size as employed in pipeline standards incorporated by reference under §195.3 (ASTM A53, ASTM A106 and ASTM A333) is a whole number. For example, the nominal diameter or nominal pipe size of a 6-inch pipeline is 6 inches. The 6-inch pipeline nominal diameter is less than the 6 5/8 inch requirement and therefore would be excluded by 195.11.

An 8-inch pipeline nominal diameter or nominal pipe size is 8 inches, which is greater than 6 5/8 inch and less than the 8 5/8 inch requirement and therefore would be included by 195.11. Therefore, we can conclude that 195.11 is solely applicable to 8" nominal diameter rural gathering pipelines.

There are various technical standards incorporated by PHMSA which include definitions of pipeline nominal diameter, outside diameter, etc. However, the terminology is inconsistent, which leads to further opportunity for interpretation.

Examples provided below:

ASME/ANSI B31.4-2006, "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids", October 20, 2006, defines nominal pipe size:

A400.2 - Definitions

Nominal pipe size (NPS): see ASME B36.10M p.1 for definition.

ASME B36.10M - 2004 - "Welded and Seamless Wrought Steel Pipe":

2.0 Size

The size of all pipe is identified by the nominal pipe size.

The manufacture of pipe Nominal Pipe Size (NPS) 1/8 (DN 6) to NPS 12 (DN 300), inclusive, is based on a standardized outside diameter (OD). This OD was originally selected so that pipe with a standard OD and having a wall thickness that was typical of the period would have an inside diameter (ID) approximately equal to the nominal size. Although there is no such relation between the existing standard thickness – OD and nominal size – these nominal sizes and standard ODs continue in use as "standard."

The manufacture of pipe NPS 14 (DN 350) and larger proceeds on the bases of an OD corresponding to the nominal size.

ASME B31.8 – "Gas Transmission and Distribution Piping Systems" November 30, 2007:

804.223 – NPS (nominal pipe size) is a dimensionless designator of pipe. It indicates a standard pipe size when followed by the appropriate number (e.g., NPS 1½, NPS 12).

804.224 – Diameter or nominal outside diameter is the as-produced or as-specified outside diameter of the pipe, not to be confused with the dimensionless NPS. For example, NPS 12 pipe has a specified outside diameter of 12.750 inches, NPS 8 has a specified outside diameter of 8.625 inches, and NPS 24 pipe has a specified outside diameter of 24.000 inches.

I am requesting that PHMSA provide clarification on the size of pipelines intended for inclusion in 195.11 and that PHMSA consider adding a definition to 195.3 to eliminate confusion on this matter in the future.

Respectfully,

Bryan Louque Vice-President Pipeline Integrity Audubon Field Services