U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

JUN 12 2013

Mr. Chuck Lionberger
Pipeline Integrity Specialist
Crosstex
8090 Highway 3128
Pineville, LA 71360

Dear Mr. Lionberger:

In two separate letters to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated January 11, 2013, you requested interpretations of the applicability of two of the Federal pipeline safety regulations at 49 CFR Part 192. Specifically, you requested clarification of: (1) the requirement in § 192.109 to verify the nominal wall thickness for steel pipe; and (2) the requirement in § 192.507 for pipe pressure testing.

With respect to § 192.109, you stated that the second sentence in § 192.109(b) appears to contradict the first sentence. You ask, if when conducting digs on old lines to verify pipe data for maximum allowable operating pressure, you must verify all lengths or just 10 percent but not less than 10 lengths?

To explain the requirements of § 192.109, the entire section is reprinted below:

> **§ 192.109 Nominal wall thickness (t) for steel pipe.**
>
> (a) If the nominal wall thickness for steel pipe is not known, it is determined by measuring the thickness of each piece of pipe at quarter points on one end.
> (b) However, if the pipe is of uniform grade, size, and thickness and there are more than 10 lengths, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in § 192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more in outside diameter.

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.

Section 192.109 is under Subpart C of Part 192 which prescribes the minimum requirements for the design of pipe. Therefore, these measurements are generally done and recorded prior to the pipe being installed and buried. Your question involves a scenario where the pipe is of uniform grade, size and thickness and there are more than 10 lengths. While it is true that only 10 percent of the individual lengths, but not less than 10 lengths, need be measured, the thickness of all unmeasured pipes must be verified if you elect to incorporate the thickness of these lengths in determining the nominal wall thickness to be used in your design formula.

With respect to § 192.507, you asked whether a flowing gas test with the maximum test pressure below 20 percent of the pipeline's specified minimum yield strength and the pressure maintained at the designated test pressure could be performed without isolating the section of pipeline being tested. You also ask if this testing method is allowed for either a pressure test or high consequence area (HCA) integrity test.

Section 192.507 is reprinted below:

> **§ 192.507 Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and at or above 100 psi (689 kPa) gage.**
>
> Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at a hoop stress less than 30 percent of SMYS and at or above 100 psi (689 kPa) gage must be tested in accordance with the following:
> (a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested.
> (b) If, during the test, the segment is to be stressed to 20 percent or more of SMYS and natural gas, inert gas, or air is the test medium—
> (1) A leak test must be made at a pressure between 100 psi (689 kPa) gage and the pressure required to produce a hoop stress of 20 percent of SMYS; or
> (2) The line must be walked to check for leaks while the hoop stress is held at approximately 20 percent of SMYS.
> (c) The pressure must be maintained at or above the test pressure for at least 1 hour.

Subpart J prescribes minimum leak-test and strength-test requirements for pipelines, and the provisions of § 192.507 are applicable to tests on new, replaced or relocated pipe. The pipe you would like to test is already in service. You would like to perform a flowing gas pressure test without isolating a segment of the pipeline. Without isolating a segment of the pipeline, any increase in pressure would affect the pipeline downstream from the test location. Therefore, we do not believe that the test procedure you described would achieve the requirement to maintain constant test pressure in the segment being tested for a period of time to ensure discovery of all

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potentially hazardous leaks. You also asked if this testing method is allowed for either a pressure test or HCA integrity test. Again, we do not believe the test procedure you described would satisfy the requirement without isolating the segment of pipeline being tested.

I hope that this information is helpful to you. If we can be of further assistance, please contact Tewabe Asebe of my staff at (202) 366-5523.

Sincerely,

John A. Gale
Director, Office of Standards
and Rulemaking

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CROSSTEX

January 11, 2013

Jeff Wiese
Associate Administrator
US DOT/PHMSA/OPS
PHP-1
1200 New Jersey Avenue, SE
East Bldg, 2nd Floor
Washington, DC 20590

Mr. Wiese,

I would like to get an interpretation of 192.109 (b). The second sentence in this section reads "The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement." The previous statement in this section indicates that under certain conditions not all lengths of pipe need be measured to determine wall thickness. The quoted statement above seems to contradict that statement saying "the lengths not measure must be verified.

When conducting digs on old lines to verify pipe data for MAOP purposes do we have to verify all lengths or just "10 percent but not less than 10 lengths"?

Sincerely,

Chuck Lionberger
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January 11, 2013

Jeff Wiese
Associate Administrator
US DOT/PHMSA/OPS
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Washington, DC 20590

JAN 18 2013

Mr. Wiese,

I would like to get an interpretation of 192.507 (a) & (c). These two sections appear to allow a flowing gas test (test section is not isolated and gas continues to flow to customer during test) as long as the maximum test pressure is not at or above 20% SMYS and the pressure does not drop below the designated test pressure. It also appears to allow leak detection to determine if there is a leak during the test.

Is it possible under 192.507 to perform a pressure test while not isolating a section of pipeline, and increasing the pressure using gas while checking for leaks using leak detection equipment (i.e. flame ionization pack)? The pressure increase would be under 20% and would not exceed MAOP.

Is this allowed for either a Pressure test, or HCA integrity test?

Sincerely,

Chuck Lionberger
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