



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

OCT 17 2012

Mr. Chris A. Paul, Esq.
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1717 S. Boulder, Suite 900
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Dear Mr. Paul:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated December 8, 2011, you requested an interpretation concerning the requirements in 49 CFR Part 195 for pressure testing a segment of pipeline that has been replaced prior to putting that segment in service. Specifically, you asked whether post-installation pressure testing was required for a pipe replacement project involving multiple joints of pre-tested pipe. You also asked whether PHMSA could provide any relevant enforcement guidance documents on this issue.

Pressure testing a pipeline segment before placing it in service is a core requirement of the Federal pipeline safety regulations. Part 195, Subpart E governs the pressure testing of pipeline used in hazardous liquid service. 49 CFR 195.302(a) states:

(a) except as otherwise provided in this section and in § 195.305(b), no operator may operate a pipeline unless it has been pressure tested under this subpart without leakage. In addition, no operator may return to service a segment of pipeline that has been replaced, relocated, or otherwise changed until it has been pressure tested under this subpart without leakage.

The term “pipeline” is defined in § 195.2 as:

“Pipeline or pipeline system means all parts of a pipeline facility through which a hazardous liquid or carbon dioxide moves in transportation, including, but not limited to, line pipe, valves and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.”

The term “pipe” is further defined in § 195.2 as:

“Pipe or line pipe means a tube, usually cylindrical, through which a hazardous liquid or carbon dioxide flows from one point to another.”

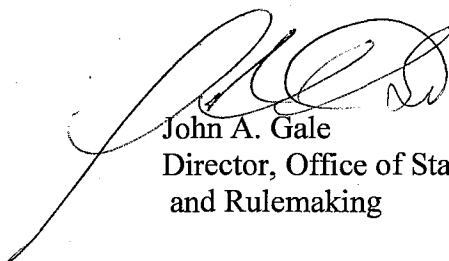
Under these definitions, the term pipe means that section of pipe through which a hazardous liquid will flow from point-to-point and therefore must be pressure tested from point-to-point. No distinction is made as to the length of pipe or the number of welded joints within the replaced pipe segment. Similarly, under § 195.308, a pipe tie-in segment being installed must be pressure tested either with or without the tie-in welds (which themselves require non-destructive testing). Note that the welds connecting several pipe lengths in a section to be tied-in are not tie-in welds. In general, while PHMSA has not required post-installation pressure testing when a single joint of pre-tested pipe is replaced, operators are subject to the pressure testing requirement anytime more than one pipe joint is being replaced.

Regarding your request for enforcement guidance documents, all available PHMSA enforcement guidance materials are posted on the PHMSA website for public viewing at: <http://www.phmsa.dot.gov/foia/e-reading-room>. Once you visit the website, please click on – “III. Staff Manuals and Instructions” to view the enforcement guidance materials. While PHMSA does not have an enforcement guidance document for 49 CFR Part 195, Subpart E- Pressure Testing, we have enclosed an enforcement guidance document dealing with the pressure testing requirement for natural gas pipeline replacement projects under Part 192. While this enforcement guidance is not applicable to hazardous liquid pipelines, it is illustrative of the manner in which PHMSA applies the pressure testing requirement to pipe replacement projects. In relevant part, it states that “the entire replaced segment must be tested...except the tie-in joints” (and notes that the several pipe lengths are not tie-in joints).

Finally, if you have a scenario where you can demonstrate that conducting a post-installation pressure test on a replacement segment is impracticable, you may contact the PHMSA regional office covering the area and submit a proposed alternative in writing for its consideration such as a proposal to perform an appropriate strength test on the segment prior to installation (which PHMSA may elect to witness).

I hope that this information is helpful to you. If I can be of further assistance, please contact me at 202-366-4046.

Sincerely,



John A. Gale
Director, Office of Standards
and Rulemaking

Enclosure

Enforcement Guidance	O&M Part 192
Revision Date	09-28-2011
Code Section	§ 192.719
Section Title	Transmission Lines – Testing of Repairs
Existing Code Language	(a) Testing of replacement pipe. If a segment of transmission line is repaired by cutting out the damaged portion of the pipe as a cylinder, the replacement pipe must be tested to the pressure required for a new line installed in the same location. This test may be made on the pipe before it is installed. (b) Testing of repairs made by welding. Each repair made by welding in accordance with §§ <u>192.713</u>, <u>192.715</u>, and <u>192.717</u> must be examined in accordance with § 192.241.
Origin of Code	Original Code Document, 35 FR 13248, 08-19-1970
Last Amendment	Amdt. 192-54, 51 FR 41635, 11-18-1986.
Interpretation Summaries	Interpretation: PI-94-024 Date: 06-07-1994 <u>Question #2:</u> “Our second question relates to the hydrostatic testing of replacement pipe under § 192.719(a). In a repair situation where several joints of pipe are welded together, does the welded piece have to be hydrostatically tested as a unit? Each joint is pre-tested and the welds are 100% non-destructively tested.” <u>Answer #2:</u> Section 192.719(a) is intended for testing of repairs of transmission pipelines, where the pipe is required to be tested as a new line. The test requirements in Subpart J are applicable to a new segment of pipeline, or the return to service of a segment of pipeline that has been relocated or replaced. In accordance with § 192.503(a) in Subpart J, the entire replaced segment must be tested in accordance with Subpart J and § 192.619, except the tie-in joints that are excepted under § 192.503(d). It should be noted that the joints connecting the several pipe lengths are not tie-in joints. However, if, in

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.

accordance with § 192.505(e), it is not practical to conduct a post installation test, a pre-installation strength test must be conducted on each pipe length or the segment by maintaining the pressure at or above the test pressure for at least 4 hours.

Interpretation: PI-ZZ-037 Date: 04-15-1988

Your letter asks whether mechanical couplers fall under §§ 192.711 – 192.719 of the Federal Gas Pipeline safety Standards (49 CFR Part 192), and whether the Department of Transportation (DOT) must approve your company's product before it may be used in gas pipelines.

Sections 192.711 – 192.719 apply to the field repair of transmission lines. Any mechanical coupler of acceptable design and strength may be used when the use of a weld less joining device is appropriate under §§ 192.711-192.719. The acceptability of couplers is governed by various sections in subparts B, D and F of Part 192.

Prior DOT approval is not required for the use of any type of gas pipeline facility, including mechanical couplers. Operators are free to select and use materials that they determine, either on their own or with the aid of manufacturers' representations, are acceptable under DOT standards. The correctness of these determinations is subject to review by DOT and State agency enforcement personnel during periodic inspection visits.

**Advisory
Bulletin/Alert
Notice
Summaries**

**Other
Reference
Material
& Source**

GPTC Guide Material is available.

Guidance Information	1. The operator must have written procedures for the testing of repairs. 2. Appropriate UT examination of the repair area should be performed to insure the integrity of the planned repair. 3. A pipe segment that is replaced must be pressure tested after installation unless it is not practical, in which case each length of pipe or each segment must be pressure tested. 4. Special attention should be applied to the potential for stresses associated with out-of-roundness, high-low, alignment, and changes in pipe wall or grade. 5. Records documenting pretest of pipe for emergency use must include an audit trail to each specific joint of pipe installed in the pipeline.
Examples of a Probable Violation	1. The lack of procedures is a violation of § 192.605. 2. The lack of records is a violation of § 192.603. 3. The operator did not follow written procedures for testing of repairs. 4. Test records for installed pipe cannot be traced back to the original test documentation. 5. NDT records are not available concerning inspection of welds made on repair fittings and devices.
Examples of Evidence	1. Records regarding the repairs made to the pipeline. 2. Statements from supervisory personnel regarding any missing or incomplete records. 3. Metallurgical reports. 4. Incident reports. 5. The lack of procedures or records.

PI-12-0002

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December 8, 2011

DEC 16 2011

Office of Pipeline Safety (DPS-10)
Pipeline Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
East Building, Second Floor (PH)
Washington, DC 20590

RE: Interpretation/Clarification

Dear Sir or Madam:

Regarding petroleum pipelines in various Pipeline and Hazardous Materials Safety Administration (PHMSA) regions, I understand that there are various interpretations as to the maximum number of joints or length of pre-pressure tested pipe that can be used for a pipeline replacement project before post-installation pressure testing is required for the new pipe (that was already pre-tested).

The normal process is that pre-tested replacement pipe is kept at pipeline facilities to be available in the event replacement of pipe is necessary. This pre-tested replacement pipe is being inserted into an existing pipeline that has previously been pressure tested per 49 CFR §195, Subpart E - Pressure Testing. All new welds associated with the pipe replacement are 100% Non-Destructive Tested per §195.228 Welds and Welding Inspection: Standards of Acceptability.

§195.302 (a) General Requirements states: "Except as otherwise provided in this section and in §195.305(b), no operator may operate a pipeline unless it has been pressure tested under this subpart without leakage. In addition, no operator may return to service a segment of pipeline that has been replaced, relocated, or otherwise changed until it has been pressure tested under this subpart without leakage."

I understand that various Office of Pipeline Regional staff have indicated that this issue is addressed in a PHMSA standard "Enforcement Guidance" document. However, a copy of this has not (to my knowledge) been made available to pipeline operators. In addition it appears that there are apparently various

regional interpretations of how many joints or feet of pre-tested pipe can be replaced before post-pressure testing is required of the entire segment. For example:

- Central Region – between 3 and 5 joints can be replaced without post-pressure testing (this obviously creates an ambiguity).
- Western Region – only 1 joint can be replaced without post-pressure testing.
- Southwest Region – 3 joints can be replaced without post-pressure testing.

I am requesting the following:

1. Clarification as to requirements related to the foregoing.
2. If the nature of the requirements as set forth generally above are being used, what is the reasoning and where in the regulations is the requirement for post-pressure testing the entire new section of tested pipe (regardless of length) is being inserted into the segment?
3. If there is a requirement for maximum number of joints or feet of tested pipe installed, what is allowed in joints or total feet?
4. If there is an Enforcement Guidance document or manual, or other guidance or interpretations, please provide same. If necessary, please consider this fourth request a request under the Freedom of Information Act, 5 U.S.C. § 552.

If you or your staff has questions, feel free to contact me at (918)-574-3037.

Very truly yours,



Chris A. Paul

CAP:sd