



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

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

NOV 18 2010

Mr. Raymond N. Burke
Pipestream, Inc.
Executive Vice President and COO
6955 High Life Drive
Houston, TX. 77066

Dear Mr. Burke:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated April 22, 2010, you requested an interpretation of the Federal Pipeline Safety Regulations relating to pipe repairs at 49 CFR §§ 192.309(b), 192.485(a), 192.487(a), 192.713(a)(2) and 192.717(b)(5) and 49 CFR § 195.585(a)(2). You noted that these regulations were amended in 1999 to allow alternative repair of unacceptable damages, dents, imperfections, corrosion, and leaks "...by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe."

You requested information from PHMSA on how the gas and hazardous liquid pipeline safety regulations address the following questions:

1. Do these regulations limit the number of discrete applications or the length of application of alternative repair systems?
2. Can alternative repair systems be used to increase the pressure capacity of a span of pipeline above the original maximum operating pressure in response to revised operating demands?
3. Can alternative repair systems be used to address the need to lower stress levels in the base pipe in response to a change in class location or other revised operating conditions?

Our responses to your questions are as follows:

Response 1: The regulations do not prescribe a particular limit to the number of discrete applications of an alternative repair method. The engineering test data for the material to be used must clearly demonstrate that the alternative repair method will restore the original design strength of the pipe, but will also perform in the pipeline environment in which it is installed, including withstanding secondary stresses of loading, pipe movement, soil movement, and external loads, for the length of service for which it is intended. While the 1999 rule (64 FR 69660, December 14, 1999) allows alternative

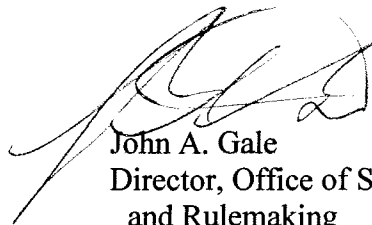
repair methods for individual repairs on corroded or damaged steel pipe in natural gas pipelines or corroded steel pipe in hazardous liquid pipelines where appropriate, an operator of a pipe joint having sufficient defects should carefully consider all reliable methods of repair before installing an excessive number of alternative repairs.

Response 2: No. The regulations require pipeline operators to repair their pipelines as necessary to maintain safety and serviceability. No repair method can be used to increase the original design strength or the pressure of a segment of pipeline above the established maximum operating pressure.

Response 3: No. A change in Class Location is not a repair issue. The stress level and maximum operating pressure of a given section of pipe is based on the original material and design specifications, not the material used to repair the pipe. Therefore, operators must continue to follow the requirements of §§ 192.609 and 192.611 to confirm or revise the MAOP as necessary upon a change in Class Location, regardless of whether an alternative repair method was used to perform a repair.

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

APR 28 2010



PIPESTREAM

Pipestream, Inc.
6955 High Life Drive
Houston, TX 77066

April 22, 2010

Mr. John Gale
Director, Office of Regulations
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety (PHP-30)
East Building, E24-312
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: Request for Interpretation of 49 CFR §§192.309(b), .485(a), .487(a), .713(a)(2) and .717(b)(5) and 49 CFR 195.585(a)(2).

Dear Mr. Gale:

Pipestream Inc. requests a written interpretation of the federal gas and hazardous liquid pipeline safety regulations at 49 CFR §192.309(b), *Repair of steel pipe*; §192.485(a), *Remedial measures: Transmission lines*; §192.487(a), *Remedial measures: Distribution lines other than cast iron or ductile iron lines*; §192.713(a)(2), *Transmission lines: Permanent field repair of imperfections and damages*; §192.717(a)(5), *Transmission lines: Permanent field repair of leaks*; and 49 CFR §195.585(a)(2), *What must I do to correct corroded pipe?* This request is submitted in compliance with §190.11(b)(1), *Availability of Written Interpretations*.

Under the older federal pipeline safety regulations, which are based on standards ASME B31.8 (1968) and ASME B31.4 (1966), gas and hazardous liquid pipeline operators were required to repair pipelines by one of only two methods: 1) replace the pipe, or 2) repair it by installing a full-encirclement split sleeve. These requirements were very prescriptive and discouraged development of new, more efficient repair methods.

In 1999 the Office of Pipeline Safety adopted performance-based requirements for pipeline repair (Final Rule December 14, 1999; 64 FR 69662). Each of the above-cited sections of the pipeline regulations was updated using nearly identical language to allow alternative repair of unacceptable damages, dents, imperfections, corrosion, and leaks

“... by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.”

This language was adopted after years of experience by dozens of gas pipeline companies using the then-new Clock Spring® repair wrap under authority of a waiver. This more permissive language recognized the need for flexibility, encouraged development of new repair technologies, and allowed

pipeline companies to select the most effective repair technique. These changes also placed on the operator the duty to provide full engineering support for the reliability of new repair techniques.

In recent years dozens of new repair techniques have been developed and applied under the new regulations. Most are non-metallic composite wraps with varying capabilities. Most are used to address a spot weakness in a pipe, including dents, gouges, corrosion, and leaks. These repair wrap products are usually only a few feet in length, but can be used in multiple applications over hundreds of feet of pipe. These close-spaced, multiple applications of repair wrap products have not been challenged by state or federal regulators.

The alternative repair language cited above appears to allow any repair method that can restore pipe to its original capability, provided it is supported by "reliable engineering tests and analyses." This appears to encompass both non-metallic and metallic repair methods. Therefore, the rule does not appear to limit the application of these techniques, but rather is a general performance rule applicable to spot repairs, to multiple spot repairs, or to continuous repairs along hundreds of feet of pipe.


Among new methods for repairing and restoring pipe to full functionality is our Pipestream® XHab™ technology. It is a high-strength steel composite wrap that can be applied as a spot repair wrap or as a longer wrap in up to 200 foot increments. Multiple wrap applications can restore pipe to full pressure capacity over extended lengths of pipeline. XHab™ expands the toolbox of repair techniques available to pipeline operators. More information on Pipestream® is available on our website: www.pipestream.com.

We believe the use of metallic composite repair methods (or any qualified repair method) are allowable under the regulations and are not limited by length of application or number of applications. Nevertheless, to ensure clarity we request a Letter of Interpretation of the above-cited sections of the gas and hazardous liquid pipeline safety regulations to address the following questions:

1. Do these regulations limit the number of discrete applications or the length of application of alternative repair systems?
2. Can alternative repair systems be used to increase the pressure capacity of a span of pipeline above the original maximum operating pressure in response to revised operating demands?
3. Can alternative repair systems be used to address the need to lower stress levels in the base pipe in response to a change in class location or other revised operating conditions?

Thank you for your consideration of this request. We look forward to clarification of these important and timely regulatory issues.

Sincerely,



Raymond N. Burke
Executive Vice President and COO

cc: Mr. Jeff Wiese
Associate Administrator for Pipeline Safety
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety (PHP-1)
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Washington, DC 20590-0001