



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Avenue SE  
Washington DC 20590

NOV 05 2018

Mr. David J. Chislea  
Manager of Gas Operations  
Michigan Public Service Commission  
7109 W. Saginaw Highway  
Lansing, MI 48917

Dear Mr. Chislea:

In a May 16, 2018, letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), you requested an interpretation of 49 CFR Part 192. Specifically, you requested interpretation for external corrosion remedial measures to “hot-spot” protected pipelines under § 192.483(c). You provided a summary of PHMSA issued interpretations and requested response for the following questions. PHMSA’s responses follow each question.

**Question 1.** An operator experiences a corrosion leak on an electrically-continuous unprotected steel distribution pipeline. The operator then installs a leak clamp and an anode at this location. Does the operator have to comply with the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in 49 CFR 192.463?

**PHMSA Response 1.** Yes, at a “hot-spot” location, an anode must be installed on an otherwise cathodically-unprotected pipeline. Installation of an anode at this spot makes it cathodically protected. Therefore, as stated in § 192.465(a), unless tests at those intervals are impractical, each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of § 192.463.

In addition, under § 192.465(e), after the initial evaluation required by §§ 192.455(b) and (c) and 192.457(b), each operator must, not less than every 3 years at intervals not exceeding 39 months, reevaluate its unprotected pipelines (in this case, “hot spots”) and cathodically protect them in accordance with this subpart in areas in which active corrosion is found.

PHMSA prepares guidance to assist its stakeholders and the public to understand how it interprets its regulations. Guidance documents describe the practices used by PHMSA pipeline safety investigators and other enforcement personnel in undertaking their compliance, inspection, and enforcement activities. PHMSA’s Corrosion Enforcement Guidance, explains that PHMSA’s regulations require that short sections of separately protected coated and “hot spot” protected bare (ineffectively coated) sections of pipeline be surveyed on an annual 10 percent basis with a different 10 percent checked each subsequent year so that all these sections are

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.

tested in each 10-year period. If the “hot spot” is included in the 3-year monitoring program, transmission operators who are electrically monitoring their entire bare (ineffectively coated) sections of pipeline on a one-third per year basis would not have to include their “hot spot” protected sections of pipeline in a 10 percent monitoring program ([https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Corrosion\\_Enforcement\\_Guidance\\_Part192\\_12\\_7\\_2015.pdf](https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Corrosion_Enforcement_Guidance_Part192_12_7_2015.pdf)).

**Question 2.** An operator experiences external corrosion that did not result in a leak on an electrically continuous unprotected steel distribution pipeline. The operator recoats the pipeline at this location and installs an anode. Does the operator have to comply with the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in 49 CFR 192.463?

**PHMSA Response 2.** Yes, similar to the answer to Question 1, cathodically protected pipelines must comply with §§ 192.463 and 192.465 requirements.

**Question 3.** If so, at what interval does the operator have to monitor the “hot-spot?”

**PHMSA Response 3.** Please refer to response to question 1.

**Question 4.** Does the operator’s threat assessment prioritization through the distribution integrity management plan [DIMP] have an impact on how this would be enforced if these “hot spot” areas are identified and ranked as a corrosion threat? Could the operator’s increased corrosion threat identification in a hot spot area through the integrity management program potentially eliminate the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in § 192.463?

**PHMSA Response 4.** While these requirements are complimentary, an operator is required to comply with both regulations. It is a pipeline operator’s responsibility to prioritize its pipeline system assessment for safety threats. However, the operator must comply with these sections as well as the DIMP requirements.

As to your second question, integrity management cannot be used to eliminate the requirements in §§ 192.465 and 192.463. Relief from those regulations may only be granted under a waiver/special permit according to § 190.341, and would involve alternative safety measures. In 49 CFR, Part 192, subpart P, Gas Distribution Integrity Management outlines in § 192.1007 how to identify, evaluate and implement measures to address risks. Implementation of additional measures to eliminate threats and risks from unprotected “hot spot” areas would not allow the operator to avoid complying with the monitoring requirements in 49 CFR § 192.465 and the level of cathodic protection in 49 CFR § 192.463.

**Question 5.** Are “hot-spot” protected areas on electrically continuous pipeline considered “separately protected?”

**PHMSA Response 5.** Yes, a “hot-spot” is a location where a leak clamp and an anode has been installed on an otherwise cathodically-unprotected pipeline and the “hot spot” must comply with §§ 192.463 and 192.465 requirements. Other examples of pipelines considered separately

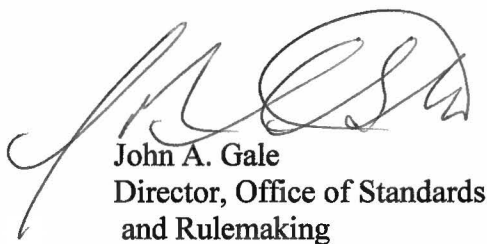
protected would be steel pipelines connected to other pipe materials such as cast iron and a plastic.

**Question 6.** Why were the interpretations in Numbers 4, 5, and 6 removed from PHMSA's website?

**PHMSA Response 6.** The October 28, 1996, PHMSA interpretation was removed because of a regulatory change to § 192.465(e). The September 17, 1976, letter may have been removed during changes to the PHMSA public website. We are looking into the status of this interpretation. The July 15, 1993, letter (PI-93-035) is posted on the PHMSA website, available at <https://www.phmsa.dot.gov/regulations/title49/b/2/1/list?filter=Pipelines>.

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



**MAY 25 2018**

Michigan Public Service Commission  
7109 W. Saginaw Highway  
Lansing, MI 48917

May 16, 2018

Office of Pipeline Safety (PHP-30)  
Pipeline and Hazardous Materials Safety Administration (PHMSA)  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590-0001

Subject: Request for Interpretation of CFR 49 Part §192.483

Dear Sir or Madam,

The Michigan Public Service Commission (MPSC) is formally requesting an interpretation of 49 CFR 192.483 entitled "Remedial measures: General."

49 CFR 192.483(c) states "Except for cast iron or ductile iron pipe, each segment of buried or submerged pipe that is required to be repaired because of external corrosion must be cathodically protected in accordance with this subpart."

Specifically, the MPSC is requesting clarification of the applicability of 49 CFR 192.483(c) to "hot-spot" protected pipelines. A "hot-spot" is a location where an anode has been installed on an otherwise cathodically-unprotected pipeline. The phrase "must be cathodically protected in accordance with this subpart" implies that the monitoring requirements in 49 CFR 192.465 apply to "hot-spots" if the anodes were installed because of external corrosion.

Listed below are interpretations publicly available on PHMSA's website.

**1. Interpretation PI-71-088**  
**Issued December 20, 1971**  
**Rule 192.463**

Interpretation states in part "...we wish to point out that the 10% resurvey per year applies only to separately protected service lines or to separately protected short sections of mains not in excess of 100 feet (Section 192.465). The 10% resurvey does not apply to "hot spot" protection. Monitoring tests of "hot spot" protected sections of electrically continuous pipelines must be made each year. (After all, this would require less work than checking a bare pipeline that is cathodically protected in its entirety using galvanic anodes as described in your statement (b).)"

**2. Interpretation PI-75-001**  
**Issued January 9, 1975**  
**Rule 192.457**

Interpretation states in part "You ask whether installing anodes when leaks detected on the lines are repaired satisfies section 192.457(b)(1)...the method proposed for compliance with section 192.457(b)(1) would be satisfactory only where it is impractical to find areas of active corrosion by electrical survey and instead leak surveys are utilized, and the cathodic protection installed complies with Subpart I, specifically section 192.463."

**3. Interpretation PI-76-035**  
**Issued July 8, 1976**  
**Rule 192.457**

Interpretation states in part "How often must a pipeline that is cathodically protected only in areas of active corrosion be monitored under Section 192.465? Such a pipeline may be divided into protected and unprotected sections. Section 192.465(a) requires that the protected sections must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of Section 192.463. However, Section 192.465(a) further provides that if tests at those intervals are impractical for separately protected service lines and short sections of protected mains, not in excess of 100 feet, these service lines and mains may be surveyed on a sampling basis as set forth in the section. Section 192.465(e) requires that at intervals not exceeding 3 years, unprotected sections must be reevaluated and cathodically protected in areas in which active corrosion is found."

Additionally, there are PHMSA interpretations that are no longer available on PHMSA's website.

**4. Issued October 28, 1996**  
**Rule 192.457**

Interpretation states in part "Hot spot protected areas are subject to the monitoring requirements of §192.465(a) if the anodes were installed to meet the corrosion control requirements of Subpart I of Part 192. The 3-year evaluation required by §192.465(e) applies to the unprotected segments of a hot spot protected pipeline and to any segments protected by voluntarily installed anodes."

**5. Issued September 17, 1976**  
**Rule 192.465**

Interpretation states in part "Your memo of 8/31/76 asks whether, in accordance with Question 6 of the July 1976 Advisory Bulletin, each of 14,747 "hot spot" protected areas on a transmission line must be tested annually. Under 49 CFR 192.465(a), each cathodically protected section of a transmission line must be tested annually."

**6. Issued July 15, 1993  
Rule 192.483**

Interpretation states in part “In contrast, §§192.479(b), 192.481, and 192.483 do not allow operators to exercise discretion in applying protection against corrosion. Operators must apply the prescribed protective measures to all corrosion covered by these standards.”

Based on what is written in Subpart I and the content in the interpretations, the MPSC believes that “hot-spots” on electrically-continuous pipelines are required to be tested annually in accordance with 49 CFR 192.465(a). However, based on responses levied from other states, it appears enforcement on this subject varies from strict adherence to annual monitoring to not requiring monitoring of hot-spots at all.

In response to what is written in 49 CFR 192.483 and the listed interpretations, the MPSC is requesting a formal response to the following:

1. An operator experiences a corrosion leak on an electrically-continuous unprotected steel distribution pipeline. The operator then installs a leak clamp and an anode at this location. Does the operator have to comply with the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in 49 CFR 192.463?
2. An operator experiences external corrosion that did not result in a leak on an electrically-continuous unprotected steel distribution pipeline. The operator recoats the pipeline at this location and installs an anode. Does the operator have to comply with the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in 49 CFR 192.463?
3. If so, at what interval does the operator have to monitor the “hot-spot?”
4. Does the operator’s threat assessment prioritization through the distribution integrity management plan have an impact on how this would be enforced if these “hot spot” areas are identified and ranked as a corrosion threat? Could the operator’s increased corrosion threat identification in a hot spot area through the integrity management program potentially eliminate the monitoring requirements in 49 CFR 192.465 and the level of cathodic protection criteria in Rule 192.463?
5. Are “hot-spot” protected areas on electrically continuous pipeline considered “separately protected?”
6. Why were the interpretations in Numbers 4, 5, and 6 removed from PHMSA’s website?

Your attention to these matters is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Chislea', with a stylized, cursive script.

David J. Chislea  
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Michigan Public Service Commission  
(517) 241-6132