



## How Corrosion Control Requirements Will Change Under the PHMSA Final Rule

**These new requirements amend 49 CFR 192 and will take effect on May 24, 2023.**

In August 2022, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a Final Rule regarding the safety of gas transmission pipelines. These new requirements amend 49 CFR 192 and will take effect on May 24, 2023. This final rule updates regulations surrounding integrity management, extreme weather events, management of change and corrosion control.

Here's a summary of what you need to know about the impact of this final rule on protective coatings, cathodic protection (CP) surveys, and internal corrosion monitoring and mitigation.

### Coating Requirements

Coating requirements will be updated, with PHMSA intending to see that any damage incurred during installation does not go unaddressed. Coating assessments/surveys are now required to be completed within six months of a transmission line going in service (with exceptions for geographical, technical or safety reasons). PHMSA recommends direct current voltage gradient (DCVG) or alternating current voltage gradient (ACVG) surveys, but makes allowances for "other technology," which must be reported to PHMSA a minimum of 90 days before use.

If any "severe" damage is detected — defined as a voltage drop greater than 60% for DCVG or 70 dB $\mu$ V for ACGV — it must be repaired within six months of the assessment, or as soon as practicable after obtaining permits, not to exceed six months. Operators are required to make and retain public records of these coating assessments and repairs for the life of the pipe.


The amendments also include language regarding the protective coating having sufficient strength to resist damage from handling, transportation, installation, boring and backfilling. This may imply that protective wraps or abrasion resistant overcoats (AROs) are recommended for trenchless crossings or where particularly abrasive backfill will be used.

### Internal Corrosion Control

Operators will be required to implement a monitoring and mitigation program if any corrosive constituents — such as carbon dioxide, hydrogen sulfide, other forms of sulfur, microbes or water — are in the gas stream. The partial pressures of these constituents must be measured, and their effect on internal corrosion must be determined. PHMSA offers several recommendations that may be useful in a monitoring and mitigation program:

- Sampling
- Injecting inhibitors
- Frequent pigging to clean the pipe
- The use of separators



Annual evaluations and program reviews, not to exceed 15 months, will be required so that adjustments can be implemented as needed. Read more about the overall final rule and how it will implement more significant assessment and survey requirements for corrosion control. 

**READ MORE ABOUT THE COATING REQUIREMENTS TODAY:**

<https://www.usigroups.com/category/industry-news/>



### Preventing Internal Corrosion

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**March 16 and 17**

**Ohio Gas Association Expo**  
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Conference Center (Lewis Center, OH)

**April 5**

**Ohio Corrosion Committee Annual Spring Vendor Show** (Bellville, OH)

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