

Policy Brief: PHMSA Rulemaking for Safety of Gas Transmission and Gathering Pipelines

Docket Number: PHMSA-2011-0023

On March 17th 2016, The Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a [Notice of Proposed Rulemaking](#) (NPRM) aimed at significantly revising current regulations concerning gas gathering and transmission pipelines contained at 49 CFR Parts 191 and 192. The 549-page document is one of the largest NPRM's issued by PHMSA in recent memory, with an estimated compliance cost of \$597 million annually. The proposed rule immediately raised concerns as stakeholders have questioned the agency's cost estimates, the lack of a flexibility analysis for small operators, and the rationale for limiting comments to a sixty day period.

Lawmakers are currently laboring to reauthorize PHMSA through 2019, as the agency has come under continuous scrutiny regarding the enforcement of 16 unfulfilled congressional mandates from the [Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011](#). This proposed rule seeks to fulfill four of the unfulfilled 2011 mandates. Comments are due by June 7th, 2016.

The proposed rule will affect parts 191 and 192 of Title 49 of the Code of Federal Regulations and will be the most extensive changes to the sections since the regulations were issued 40 years ago.

Below is a bulletin summary of the NPRM:

Overview

Integrity Management (IM) Requirements

- Revision of IM repair criteria for pipeline segments located in high consequence areas.
- Adding specificity to performance-based requirements related to the nature and application of risk models.
- Improving requirements for collecting, validating and integrating pipeline data.
- Strengthening requirements for applying knowledge gained through the IM program.
- Strengthening requirements on the selection and use of direct assessment methods.
- Enhancing requirements for internal corrosion and external corrosion management programs.
- Enhancing requirements for management of change.

Non-IM Requirements

- Creates and entirely new “moderate consequence areas” (MCA) definition.
- Strengthened requirements for corrosion control of steel pipelines, such as external protective coating surveys after backfill, interference surveys, and internal corrosion monitoring and mitigation requirements.
- Mandatory integrity assessments.
- Establishing repair criteria for pipeline segments located in segments not located in HCAs.
- Establishing requirements for verification of maximum allowable operating pressure (MAOP) and for verification of pipeline material for certain onshore, steel, gas transmission pipelines.
- Requiring inspections by onshore pipeline operators of areas affected by an extreme weather event such as a hurricane or flood, an earthquake, a natural disaster, or other similar event.
- Extending the 7-year reassessment interval upon written notice.
- Establishing a requirement to report each time an operator exceeds MAOP than the margin (build-up) allowed for operation of pressure limiting or control devices.
- Establishing requirements to ensure consideration of seismicity of the area in identifying and evaluating all potential threats.
- Establishing regulations for in-line inspection, scraper, and sphere facilities.
- Incorporating consensus standards into the regulations for assessing the physical condition of in-service pipelines using in-line inspection, internal corrosion direct assessment, and stress corrosion cracking direct assessment.

Brief Analysis

The issues addressed above can be classified into seven distinct sections:

- Gas gathering lines
 - Increases PHMSA’s scope of authority and enforcement to cover gathering lines which were previously unregulated.
 - The NPRM may not be seen as consistent with a risk-based approach.
 - Provides a phase-in period which will be subject to additional debate.
- Corrosion prevention
 - Provides general requirements on corrosion control.
 - Also addresses corrosion control in High Consequence Areas (HCA’s).

- HCA's and MCA's
 - Includes criteria for repair and methods of assessment, including spike testing among others.
- Record keeping standards
 - Requires complete, reliable, traceable, and verifiable record-keeping.
- Maximum Allowable Operating Pressure (MAOP)
 - The proposed regulations set out verification and testing requirements for MAOP.
 - Increases PHMSA's scope of authority and enforcement.
 - Provides a phase-in period.
 - The provisions also include the following:
 - Spike testing
 - Cracking requirements
 - Fracture mechanics modeling provisions.
- Standards for materials
 - Contains documentation and testing requirements.
 - Increases PHMSA's scope of authority and enforcement.
 - Provides a phase-in period.
- Cost-Benefit Analysis
 - While highly complex and better written than PHMSA's proposed liquid rule, the analysis likely underestimates compliance costs, especially on the gathering side.

Direct Effects

- *Type A* pipelines will be subdivided into Type A, Area 1 and Type A, Area 2.
 - *Type A, Area 1*
New classification for currently regulated Type A gathering lines.
 - *Type A, Area 2*
This classification will now include gathering lines with at least a 8-inch diameter that are located in Class 1 locations. Operators of such pipelines must develop procedures, training, notifications, and carry out emergency plans.
- A reduction of 900-1,500 metric tons of carbon dioxide and 4,600-8,100 metric tons of methane entering the atmosphere due to decreased incident rates.

Impact

- 68,749 miles of gathering lines subjected to Type A, Area 2 guidelines.
- 275,337 miles of gathering lines subjected to additional reporting requirements.
- 344,086 miles of total gathering lines subject to new regulations or reporting requirements.

Costs

The agency estimates the cost of implementation to be \$597 million (\$39.8 million per year) using a 7% discount rate, or \$711 million (\$47.4 million per year) using a 3% discount rate over a period of 15 years. Additional costs to states were estimated to not exceed \$1.5 million per year.

Mandates Fulfilled

According to the Agency, the rulemaking fulfilled:

- Four of the sixteen outstanding 2011 Congressional mandates;
- Six NTSB recommendations;
- One recommendation from the Government Accountability Office.

Future Rulemaking

- Modified definition of a high consequence area (HCA), which is currently defined as “an area or locale where an inadvertent release from pipeline could have the most significant adverse consequences.”
- Tougher remote control valve and leak detection rules for pipeline segments in HCAs; valve spacing and the need for remotely or automatically controlled valves; underground gas storage, and quality management systems.

While PHMSA’s effort to comply with the 2011 Congressional mandates are commendable, issuing a rule of this magnitude without providing adequate time for compliance and a holistic understanding of its impacts will result in difficult and costly enforcement, as well as compromising the effectiveness of the rule. It is imperative rulemakings are created with due consideration given to all stakeholders and done so in a manner which makes it practical to effectively enforce the regulation and enjoy the expected outcome.