PHMSA Safety of Gas Gathering and Transmission Rule

A.K.A – The “Mega Rule”

TX RRC Pipeline Safety Conference
August 21, 2019
This rulemaking will address the following proposals:

- 6-month grace period for 7-calendar-year reassessment intervals
- Seismicity
- MAOP exceedance reporting
- Material verification, MAOP reconfirmation, & amendments related to §192.619
- Non-HCA assessments and MCA definition
- Related record provisions
Definitions

- Delete "legacy pipe" and "legacy construction"
- Revise the definition for "transmission line" to read as follows:

  *Transmission line* means a pipeline or connected series of pipelines, other than a gathering line, that: (1) transports gas from a gathering line or storage facility to a distribution center, storage facility, or large volume customer that is not down-stream from a distribution center; (2) has an MAOP of 20 percent or more of SMYS; or (3) transports gas within a storage field; or (4) is voluntarily designated by the operator as a transmission line.

Note: A large volume customer may receive similar volumes of gas as a distribution center, and includes factories, power plants, and institutional users of gas.
Definitions

- Include a definition for “distribution center” and consider revising the definition per the definition provided by the industry and read aloud by member Allen during the meeting on March 27, 2018, as follows:

- “Distribution center” means the initial point where gas enters piping used primarily to deliver gas to customers who purchase it for consumption as opposed to customers who purchase it for resale, for example:
  1. at a metering location,
  2. a pressure reduction location, or
  3. where there is a reduction in the volume of gas, such as a lateral off a transmission line.
Definitions

- Moderate Consequence Area (MCA) - as proposed would include; a PIR containing 5 or more BIHOs, an Occupied Site (SEE DEF BELOW); or referenced highways.

- Definition of - Occupied Site - as proposed includes outdoor congregations 5/50/12 & a single building with occupancy by 5 people, 5 days, ten weeks/yr (but without a clear indication of where it will go).
§ 192.67 Records: Materials. Proposal requires operators of transmission lines to acquire and retain for the life of the pipeline the original steel pipe manufacturing records that document tests, inspections, and attributes required by the manufacturing specification in effect at the time the pipe was manufactured, including, but not limited to, yield strength, ultimate tensile strength, and chemical composition of materials for pipe in accordance with § 192.55.
§ 192.127 Records: Pipe design - Proposed new requirement that would require load calculations for every piece of new transmission line. This is not retroactive.

“Each operator of transmission pipelines must make and retain for the life of the pipeline records documenting pipe design to withstand anticipated external pressures and loads in accordance with § 192.103 and determination of design pressure for steel pipe in accordance with § 192.105.”

“
§ 192.607 Verification of Pipeline Material: Onshore steel transmission pipelines - New requirement for transmission to gather data on pipe and components for all lines in HCA and Class 3 & 4 locations where the operator does not have "reliable, traceable, verifiable, and complete records". If you have said materials PIPE & COMPONENTS see next steps!
Material Verification

- § 192.607 (c)(1) Contains the typical pipe characteristics you would expect with two additional ones - Ultimate tensile strength and chemical composition

- § 192.607 (c)(2) Valve investigations must find grade of "pups" for weld ends, and condition of the bevel

- § 192.607 (c)(3) Flanges treated same as valves
Material Verification

- §192.607 (d)(3)(i) Sampling rate is established at
  - (A) 150 excavations; or
  - (B) If the segment is less than 150 miles, a number of excavations equal to the population’s pipeline mileage (i.e., one set of properties per mile), rounded up to the nearest whole number. The mileage for this calculation is the cumulative mileage of pipeline segments in the population without reliable, traceable, verifiable, and complete material documentation.
In proposed paragraph (d):

- Retain the opportunistic approach of obtaining unknown or undocumented material properties when excavations are performed for other repairs or other reasons, using a one-per-mile standard proposed by PHMSA, **but allow operators to use their own statistical approach and submit a notification to PHMSA with their method. Establish a minimum standard of a 95% confidence level for operator statistical methods submitted to PHMSA.**

- Retain flexibility to allow either destructive or non-destructive tests when verification is needed.

- Incorporate language stating that, if an operator does not receive an objection letter from PHMSA within 90 days of notifying PHMSA of an alternative sampling approach, the operator can proceed with their method. PHMSA will notify the operator if additional review time is needed.
Material Verification

• Pipes with “unknown” values in Class 3 & 4 and in HCA’s

• The MOST Expensive Places to Dig!

• Class Location Changes Are Almost Inevitable
Dig In or Out of the HCA?
What Can I Do to Prepare?

- Adherence to Documented Processes and Procedures
- Limitations of Selected Technology
- Preparatory Work
- Consistent and Repeatable Analysis
- Technician Training
What Can I Do to Prepare?

- Thorough Records Analysis for Determining “unknowns”
- Having “known” data from coupon and cylinder destructive tests, purchase records, alignment sheet notes, MTR’s from other locations within the system
- Data Management
- Integration into IM Program
§192.624 New requirement to "re-verify MAOP" if certain conditions are met. Those located in one of the following locations:

(i) An HCA;
(ii) A class 3 or class 4 location; or
(iii) The new MCA areas

(2) Pressure test records for segments in HCA, MCA, and CI 3&4 are not verifiable....

(3) MAOP was established using 192.619(c) and is in one of the 3 areas
MAOP Reconfirmation

- §192.624(b) Identify all pipe described above
  - Develop a plan within 1 year to test all pipe
  - Test 50% within 8 years from effective date of rule
  - Test remaining NTE 15 years from effective date of rule

* Complete within 15 years – asap or 4 years for Class location change affected segments
MAOP Reconfirmation

For Method 5 - \( \leq 8 + \leq 30\% \):

- Delete the size and pressure criteria. The applicability would be based solely on a PIR of \( \leq 150 \) feet.

- Strike ECDA, Crack Analysis Program, odorization, and fracture mechanics analysis requirements.

- Change frequency of patrols and surveys:
  - In class 1 and 2 locations to 4 times per year.
  - In class 3 and 4 locations to 6 times per year.
This rulemaking will address the following proposals:

- Repair criteria (HCA and non-HCA)
- Inspections following extreme events
- Safety features on ILI launchers and receivers
- Management of change
- Corrosion control
- Integrity management clarifications
- Strengthened assessment requirements
§ 192.13 What general requirements apply to pipelines regulated under this part?

PHMSA proposes to include a new (d) which will be requirements for transmission operators to implement MOC processes consistent with ASME B31.8S, Section 11 +

“… that addresses technical, design, physical, environmental, procedural, operational, maintenance, and organizational changes to the pipeline or processes, whether permanent or temporary”.

Corrosion Control

- § 192.478 Internal corrosion control: Onshore transmission monitoring and mitigation Proposes a new requirement for all transmission to have an Internal Corrosion monitoring program, whether there is evidence or past history of IC or not. Specifies sampling and actions to be conducted at intervals 2x yr.

- Modify (b)(1) as follows: “At points where gas with potentially corrosive contaminants enters the pipeline, the use of gas-quality monitoring methods to determine the gas stream constituents.”

- Change frequency of monitoring and program review from twice per year to once per calendar year, not to exceed 15 months.
Data Integration into 192.917 (a)(b)

- Revise the listing of pipeline attributes in 192.917(b)(1) to be more consistent with existing regulations and B31.8S. Add language to require operators collect data that is “pertinent” (and that a prudent operator would collect).

- Implementation timeframe beginning in year 1 with full incorporation by 3 years.

- Address the topic of SME bias by rewording 192.917(b)(2), including elimination of the last sentence (or revising the last sentence).
This rulemaking will address the following proposals:

- Reporting requirements for all gathering lines (regulated or not)
- Safety regulations for certain gas gathering lines in Class 1 locations (8”-12”, >12’-16”, & >16’)
- Definitions related to gas gathering – deferred to future rulemaking
Questions?

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