From: Pelham Pipeline Awareness [mailto:pelhampipelineawareness@gmail.com]
Sent: Thursday, June 30, 2016 8:10 AM
To: Burack, Thomas; Honigberg, Martin; Jeffery Rose; Scott, Robert; Bailey, Kate; Muzzey, Elizabeth; Victoria Sheehan; Patty Weatherby; Rachel Whitaker; Brian Buonamano; Monroe, Pamela
Subject: comments re SEC rule improvements regarding gas pipeline and infrastructure and PHMSA rules

Dear Commissioners and Committee members,

During my comments and follow up letter to you on June 22 and June 24th, I noted my concerns that the deadline of July 7th for submitting the NH SEC new rules is the same date for deadline for public comment regarding the development of new PHMSA (Pipeline and Hazardous Materials Safety Administration) rules. (Rules that have not been updated since the Administration was developed in the late 1970's).

My concern is that the NH SEC will not have an opportunity to include the new PHMSA rules into our NH SEC document concerning gas pipelines and infrastructure.

I am therefore forwarding to you recent information sent by the Pipeline Safety Trust (PST) regarding their comments on the new PHMSA rules. The Pipeline Safety Trust is a non-profit, developed after the 1999 explosion in Bellingham WA that killed two children http://pstrust.org/about/history-of-the-pipeline-safety-trust/,

In general the comments made by the Pipeline Safety Trust are quite clear that the massive upswing in the amount and severity of pipeline incidents is of great concern. In their review of the drat PHMSA rules, they applaud many of the changes, I must add that one of their statements in their document regarding talking points for public comment on page 4 gave me great pause ...

§192.607 Verification of pipeline material

This proposal relates to the same issue as many others: Section 23 of the 2011 reauthorization act requires PHMSA to require verification of records used to establish MAOP. PHMSA determined through information gathered in annual reports that many miles of pipelines do not have adequate records to establish MAOP or adequately describe the physical and operational characteristics of the pipelines. PHMSA proposes to require operators to verify pipeline characteristics whenever pipes are exposed, and to propose criteria for material verification in higher risk areas of HCAs, class 3 and 4 areas. The proposal further requires creation and maintenance of traceable, verifiable and complete records relating to this verification. While we support this rule, we are frankly quite horrified at the number of miles of pipeline that are subject to integrity management rules for which operators have no verifiable information about their characteristics. To put it bluntly, they don't know what's in the ground. IM rules require a threat identification and risk assessment as the foundation of an integrity management plan. On what foundation have operators been developing integrity management plans for over a decade when they have no records of what they've got in the ground? (my underline)

This statement (and others in the document) has stimulated me to say that SEC rules re gas pipelines and their infrastructure should include language that echoes or mirrors PHMSA standards or better.

There is too much at stake regarding public and environmental health and safety to not have NH eyes via SEC rules squarely on the industry. It is verified that the industry, that - for better or worse - in good faith or not - is under great pressure financially to move product from the newly developed shale fields. That involves racing to get pipes laid to get to export markets where profits are higher and in the process, cutting corners in methods, materials or maintenance. It is not enough to simply refer to PHMSA rules, but SEC rules should include these and other good strong standards as well. Redundancy where safety is concerned is a good practice. NH rules can serve not only to insure best practices by the industry, but also should serve to inform the current SEC committee and those who follow, and thereby help the SEC to be better vigilant, informed and involved - as is their mandate to protect the health and safety of NH residents and its environmental and community resources.

Thank you for your attention. As a member of the Pelham Pipeline Awareness Outreach Subcommittee who works to serve over 500 residents of our town, I know that I can speak for all of them when I say that we appreciate your work. We understand that you are all busy - and that this committee is not the only thing demanding your attention since you serve to lead other NH agencies and organizations and so your work on this is all the more appreciated. As I mentioned, I am attaching above my signature the Pipeline Safety Trust (PST) Talking Points, PHMSA slides re synopsis of changes and Pipeline Safety Trust reminder and notes re talking points.

Regards,

Julia Steed Mawson

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Pelham, NH 03076
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if you think you are too small
to make a difference,
try sleeping with a mosquito.
Dalai Lama

From: Rebecca Craven <rebecca@pstrust.org>
Sent: Wednesday, June 29, 2016 2:21 PM
To: Douglas Whitbeck
Subject: PHMSA Gas Pipeline Safety Rule Comments due July 7!

Just a friendly reminder that comments are **due July 7** on PHMSA's proposed rule on the Safety of Natural Gas Transmission and Gathering Pipelines. You can find the rule, all the supporting documents and quite a few comments that have already been filed
here: https://www.regulations.gov/docketBrowser?rpp=25&so=DESC&sb=commentDueDate&po=0&D=PHMSA-2011-0023
That is also the place you can file your comments online (click the "Comment Now!" button) or find instructions for submitting them by mail.
Here's a quick review of things you might consider including in your comments. Please also see our talking points for more details.
1) Most importantly, finalize the rule. This proposal is infinitely better than the regulatory silence on these issues from PHMSA for the past 6 years, and even this proposal will be strongly challenged by the industry. It is important to get these incremental improvements adopted into the regulations as soon as possible.
2) PHMSA should require gathering lines not only to file annual and incident reports (a newly proposed requirement that we strongly support), but also to participate in the National Pipeline

Mapping System and mandatory one-call (call before you dig) systems throughout the country. We also urge PHMSA to require gathering line compliance with construction and operating standards.

3) Corrosion still causes way too many failures, and is entirely within the control of the operators. We strongly support the changes PHMSA is proposing that will require more frequent and better monitoring of corrosion controls and pipeline condition.

4) The NTSB recommended that the "grandfather clause" exempting many pre-1970 pipelines from being strength tested should be rescinded. PHMSA has proposed some rule changes to require strength verification of some, but not all lines exempted by the grandfather clause. We support full implementation of the NTSB recommendation.

5) By mandating the identification of "moderate consequences areas", PHMSA is proposing to require in-line inspection of pipelines in some less highly populated areas where the stronger safety rules of the integrity management program don't currently apply. We support this in general. However, PHMSA is proposing to give operators 15 years to complete that task and then requires inspection only once every 20 years. While we support bringing these lines under stronger rules, implementation should be faster, re-inspection intervals should be shorter, and the operators should first complete a full threat assessment to know what kinds of risks are facing those pipeline segments. Without a threat assessment, the operator could choose the wrong assessment tool or method and yet be in compliance with the proposed regulation.

6) We strongly support the emphasis that PHMSA is placing on improving the recordkeeping habits of operators in several sections of the proposed rule. Records for critical information about pipelines should be kept for the lifetime of the pipeline. Information in these records must be retained and available for

continuing integration into operating plans.
7) Automatic and remote control shut off valves and leak detection standards should be a part of this rule. There is no need to wait for further incidents to know that they are still needed to reduce the damages from a pipeline failure and allow first responders to more quickly access a pipeline explosion scene.

Rebecca Craven
Program Director
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NPRM: Safety of Gas Transmission & Gathering Pipelines

(Docket: PMHSA-2011-0023)

Published - April 8, 2016
Comment period ends - July 7, 2016

June 2016

Timeline

- Advance Notice of Proposed Rulemaking (ANPRM) published on August 25, 2011, “Pipeline Safety: Safety of Gas Transmission Pipelines” (PHMSA-2011-0023)
- PHMSA sought public comment on 15 topics (122 questions)
- 103 comment letters received
- Included topics covering NTSB recommendations from San Bruno and Marshall, MI accidents, and Mandates from 2011 Pipeline Safety Act.

Summary of Proposed Changes

PHMSA proposing rule changes in the following areas for gas transmission and gas gathering pipelines -

1. Require Assessments for Non-HCA's
2. Strengthen repair criteria for HCA and Non-HCA
3. Strengthen requirements for Assessment Methods
4. Clarify requirements for validating & integrating pipeline data
5. Clarify functional requirements for risk assessments
6. Clarify requirement to apply knowledge gained through IM
7. Strengthen corrosion control requirements
8. Add requirements for selected P&M measures in HCAs to address internal corrosion and external corrosion

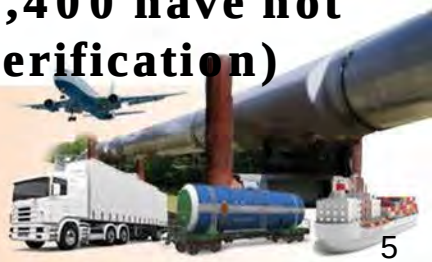
Summary of Proposed Rule

9. Management of change
10. Require pipeline inspection following extreme external events
11. Include 6 month grace period (w/notice) to 7 year reassessment interval (Act § 5(e))
12. Require reporting of MAOP exceedance (Act § 23)
13. Incorporate provisions to address seismicity (Act § 29)
14. Add requirement for safety features on launchers and receivers
15. Gathering lines- Require reporting for all & some regulatory requirements
16. Grandfather clause/Inadequate records - Integrity Verification Process (IVP)

1. Require Assessment for Non-HCAs

- **ISSUE** – Non-HCA pipelines are not currently required to be assessed. Accidents do happen in non-HCAs.
- **PHMSA IS PROPOSING** to require integrity assessments for the following non-HCA segments: <u>All Class 3 and 4 Locations and newly defined Moderate Consequence Area's that are piggable</u>.
  - –Initial assessment within 15 years
  - – Periodic reassessment every 20 years thereafter
  - – Operators can take credit for prior assessments of MCA segments that were conducted in conjunction with and HCA assessment without performing another initial assessment

- **BASIS:**
  - **19,872 miles of GT pipe in HCAs.**
  - **30,591 miles in MCAs must be assessed (of which 7,400 have not had a prior assessment and do not require MAOP verification)**



1. Require Assessment for Non-HCAs (cont.)

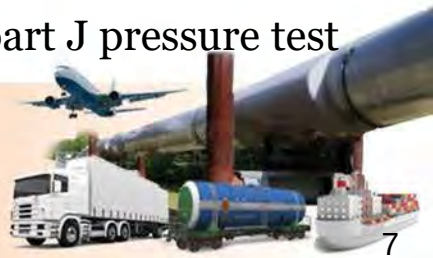
- **Moderate Consequence Area (MCA):**
  - Non-HCA pipe that are populated in PIR (proposed 5 or more houses or occupied site)
  - House count and occupied site definition same as HCA, except for 5 houses or 5 persons at a site (instead of 20)
  - Also, if interstate highway ROW is within PIR

2. Revise Repair Criteria in HCAs & Apply Same Criteria to Non HCAs**

- **ISSUE -** Greater assurance is needed that injurious anomalies and defects are repaired before the defect can grow to a size that leads to a leak or rupture.
- **PHMSA IS PROPOSING** to add repair criteria to be consistent with HL rule
  - 80% metal loss (immediate)
  - Corrosion near seam (immediate)
  - Areas of general corrosion > 50% wt (one year**)
  - Metal loss calculation that shows a FPR (one year**): ≤ less than or equal to 1.25 for Class 1 locations, ≤ 1.39 for Class 2 locations, ≤ 1.67 for Class 3 locations, and ≤ 2.00 for Class 4 locations.
  - Additional dent criteria (one-year**)
  - Selective Seam Corrosion (SSWC)/Significant SCC (immediate)
  - All other SCC and crack-like defects (one-year**)

** Except that response time for non-immediate conditions would be tiered. Defects requiring a <u>one-year response for HCAs</u> would require a <u>two-year response in non-HCAs.</u>

- **BASIS:**
  - Addresses NTSB P-12-3 (Marshall, MI) for SCC and crack-like defects
  - Addresses existing gaps in repair criteria
  - Would require repairs be made for any defect predicted to fail a Subpart J pressure test



3. Strengthen Requirements on Selection and Use of Assessment Methods

- **ISSUE** - Current rule is silent on a number of issues that impact the quality and effectiveness of ILI assessments (except for a general reference to ASME B31.8S)
- **PHMSA IS PROPOSING to:**
  - Clarify selection and conduct of ILI per new mandatory reference to NACE, API, and ASNT standards
  - Clarify consideration of uncertainties in ILI reported results.
  - Add the following allowed methods:
    - GWUT in accordance with criteria in a new Appendix F
    - Excavation and *in situ* direct examination
    - "Spike" hydrostatic pressure test
  - Allow Direct Assessment only if line is not piggable.
- **BASIS:**
  - Following the San Bruno accident, determined that Direct Assessment was relied upon by PG&E even when not effective for the specific application
  - Include additional assessment methods known to be effective for specific situations (e.g., GWUT for crossings) or threats (e.g., Spike hydro for SCC)

4. Improving Rqts. for Collecting, Validating & Integrating Pipeline Data

- **ISSUE -** Operators are collecting much information but an integrated and documented analysis is often inadequate.

- **PHMSA IS PROPOSING TO:**
  - Clarify that data be verified and validated
  - Clarify requirements for integrated analysis of data & information
  - Establish minimum pipeline attributes that must be included
  - Require use of validated, objective data whenever practical
  - Address requirements for use of SME input
- **BASIS:**
  - San Bruno highlighted weakness in this area
  - Congressional mandate to validate data

5. Add Specific Functional Requirements for Risk Models

- **ISSUE** – More specificity is needed for the nature and application of risk models to improve the usefulness of these analyses to control risks from pipelines.
- **PHMSA IS PROPOSING** to enhance requirements for performance-based risk assessments to:
  - Add a new definition for "quantitative risk assessment" that adequately evaluates the effects of:
    - interacting threats.
    - Identify the contribution to risk of each risk factor
    - Account for uncertainties in the risk model and data used
  - Require validation of risk models in light of incident, leak, and failure history & other historical information [codifies NTSB P-11-29 recommendation to PG&E]
- **BASIS:**
  - Addresses NTSB recommendations and lessons learned from the San Bruno accident investigation
  - Address input from July 2011 Risk Management workshop

6. Strengthen Requirements for Applying Knowledge Gained Through the IM Program

- **ISSUE** - Strengthening requirements related to operators' use of insights gained from its IM program is prudent to ensure effective risk management.

- **PHMSA IS PROPOSING to:**
  - Clarify expectation that operators use knowledge from risk assessments to establish and implement adequate Preventive & Mitigative measures
  - Provide more explicit examples of the type of P&M measures to be evaluated
  - Clarify requirement that risk models adequately reflect data integration analyses and are validated against incident and failure experience

- **BASIS:**
  - Stronger rule emphasis on fundamental goal of risk based IM
  - Address NTSB recommendations following San Bruno

7. Strengthen Corrosion Control

- **ISSUE -** Current rules for external & internal corrosion need strengthening

- **PHMSA IS PROPOSING to require:**
  - Expansion of corrosion controls required in Subpart I
  - Specific Preventive and Mitigative measures for HCAs to address both external and internal corrosion
    - Similar to measures required for pipe segments operating under the alternate MAOP rule per 192.619

- **BASIS:**
  - Disbonded coating and corrosion were significant contributing factors in the Marshall, MI & Sissonville, WV incidents

8. Add P&M Requirements to Address Ext. Corrosion and Int. Corrosion in HCAs

- **ISSUE -** Prescriptive preventive and mitigative measures are needed to assure that public safety is enhanced in HCAs and affords greater protections for HCAs.

- **PHMSA IS PROPOSING to require:**
  - Enhance internal & external corrosion control programs in HCAs to provide additional protection from corrosion commensurate with Alt MAOP pipelines
  - Consider other measures, such as additional right-of-way patrols and hydrostatic tests in areas where material has quality issues or lost records
  - Address seismicity in evaluating P&M measures for outside force damage

- **BASIS:**
  - Disbonded coating and corrosion were significant contributing factors in the Marshall, MI & Sissonville, WV incidents
  - Implement Act § 29 (seismicity)

9. Management of Change

- **ISSUE -** Codifying the specific attributes of the Management of Change process will enhance the visibility and emphasis on these important program elements.

- **PHMSA IS PROPOSING to:**
  - Codify the specific attributes of the Management of Change process from ASME/ANSI B31.8S, Section 11 (already incorporated by reference).
  - Require operators to develop and follow a Management of Change process and address risk as part of the general requirements of Part 192.

- **BASIS:**
  - Address lessons learned from San Bruno and Marshall, MI with respect to operational and other decision-making that affects risk.

10. Require Pipeline Inspection Following Extreme Events

- **ISSUE –** Current rules do not address extreme events that can damage pipelines or disrupt pipeline operations

- **PHMSA IS PROPOSING to:**
  - Clarify that inspection (visual +ILI or other) of pipeline and right-of-way for "other factors affecting safety and operation" includes extreme weather events, man-made, and natural disasters, and similar events
  - Specify the timeframe for performing inspections & remedial actions

- **BASIS:**
  - Recent example of extreme event (Yellowstone River scouring caused by flooding) that resulted in pipeline incident

11. Include 6-month Grace Period to 7-Year Reassessment Interval

- **ISSUE -** Subsection 5(e) of the Pipeline Act of 2011 identifies a technical correction to Title 49 of the United States Code.

- **PHMSA IS PROPOSING to:**
  - Clarify that periodic reassessments must occur, at a minimum of once every 7 calendar years, but that the Secretary may extend such deadline for an additional 6 months if the operator submits written notice to the Secretary with sufficient justification of the need for the extension.

- **BASIS:**
  - This codifies Act § 5(e) technical correction.

12. MAOP Exceedance Reporting

- **ISSUE -** Section 23 of the Act requires PHMSA to promulgate rules for reporting exceedance of the maximum allowable operating pressure (MAOP).

- **PHMSA IS PROPOSING to:**
  - Require operators to report each exceedance of the MAOP that exceeds the build-up allowed for operation of pressure-limiting or control devices.

- **BASIS:**
  - This codifies the specific requirement from Act § 23.

13. Incorporate Provisions to Address Seismicity

- **ISSUE -** Section 29 of the Act states that in identifying and evaluating all potential threats to each pipeline segment, an operator of a pipeline facility shall consider the seismicity of the area.

- **PHMSA IS PROPOSING to:**
  - Include seismicity in evaluating P&M measures for the threat of outside force damage.
  - Include seismicity of the area in the data gathering and integration of information about pipeline attributes and other relevant information.

- **BASIS:**
  - This codifies the specific requirement from Act § 29.

14. Add Requirements for Safety Features on Launchers and Receivers

- **ISSUE -** Current regulations for liquid pipelines (Part 195) contain safety requirements for scraper and sphere facilities. Part 192 does not explicitly address this area.

- **PHMSA IS PROPOSING to add a new section to:**
  - Require launchers & receivers be equipped with a device (safety valve) capable of safely relieving pressure in the barrel before insertion or removal of inline inspection tools, scrapers, or spheres.
  - Require use of a suitable device to indicate that pressure has been relieved in the barrel or must provide a means to prevent opening if pressure has not been relieved.

- **BASIS:**
  - Some incidents have occurred at launchers and receiver stations.

15. Expand Requirements for Onshore Gas Gathering Lines

- **ISSUE -** PHMSA determined additional information about gathering lines is needed to fulfill its statutory obligations. Also, recent developments in the field of gas exploration and production, such as shale gas, indicate that the existing framework for regulating gas gathering lines may no longer be appropriate.

- **PHMSA IS PROPOSING to:**
  - Repeal exemption for all gas gathering line operators to report incidents, safety related conditions, & annual pipeline data.
  - Repeal use of API RP 80 for determining gathering lines and add a new definition for "production facility or production operation" and a revised definition for "gathering line".
  - Extend regulatory safety requirements to Type A lines in Class 1 locations (8" or greater).

- **BASIS:**
  - API RP 80 contains conflicting and ambiguous language.
  - Shale gas gathering lines operate at higher pressures and are a greater hazard than typical legacy gathering lines.

16. Integrity Verification Process (IVP)

- Statutory Mandates and NTSB Rec.
- Records
- Material Documentation
- MAOP Determination

"Grandfathered" Pipe & Related Issues

- ***PSA of 2011 - §23(a) 60139(d) mandate "Testing Regulations"*** - pressure testing or alternative equivalent means such as ILI program for all Gas Transmission pipe (Class 3, 4 and all HCAs) not previously tested;
- ***NTSB P-11-14 "Delete Grandfather Clause"*** - recommends all grandfathered pipe be pressured tested, including a "spike" test;
- ***NTSB P-11-15 "Seam Stability"*** - recommends pressure test to 1.25 x MAOP before treating latent manufacturing and construction defects as "stable."
- ***NTSB P-11-17 "Piggable Lines"*** - Configure all lines to accommodate smart pigs, with priority given to older lines

Basic Principles of IVP Approach

- **IVP is based on 4 principles**
  1. Apply to high risk locations
     - High Consequence Areas (HCAs), Class 3 and 4 Locations and Moderate Consequence Areas (MCAs)
  2. Screen segments for categories of concern (e.g., "Grandfathered" segments; bad records)
  3. Assure adequate material and documentation
  4. Perform assessments to establish MAOP

Principle #1
Apply to High Risk Locations

- **High Consequence Areas (HCAs)**: 19,872 miles
- **Class 3 and 4 - Non-HCA:** 17,767 miles
- **Class 1 and 2; MCA:**
  - Piggable: 12,824 miles
  - Non-piggable: 8,623 miles

Principle #2
Screen for Categories of Concern

- **Apply process to pipeline segments with:**
  - Grandfathered Pipe
    - HCA/Class 3 locations/Class 4 locations and Piggable MCA lines
  - Lack of Material Documentation and Pressure Test Records
    - HCA/Class 3 and Class 4 Locations
  - History of Failures Attributable to M&C Defects
    - HCA/Class 3 locations/Class 4 locations and Piggable MCA lines
  - *PHMSA estimates approximately 8,089 miles of GT pipe (approximately 3% of total GT mileage) would meet screening criteria & require IVP assessment to establish MAOP*

Principle #3
Know & Document Pipe Material

- **If Missing or Inadequate Validated Traceable Material Documentation, in HCA or Class 3 or 4 Location then Establish Material Properties by an approved process:**
  - Cut out and Test Pipe Samples (Code approved process)
  - *In Situ* Non-Destructive Testing (if validated and Code approved)
  - Field verification of code stamp for components such as valves, flanges, and fabrications
  - Other verifications

Principle #4
Methods to Establish MAOP

- Allow Operator to Select Best Option to Establish MAOP
- **Main Options for Establishing MAOP**
  - Pressure test with Spike Test
  - Pressure Reduction
  - Engineering Critical Assessment
  - Replace

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MAOP Determination

- **§ 192.624 (c) MAOP Determination**
  - Method 1: Pressure Test
    - 1.25 or class location test factor times MAOP
    - Spike test segments w/ reportable in-service incident due to legacy pipe/construction, SSC, SSC, etc.
    - Estimate remaining life, segments w/crack defects
  - Method 2: Pressure Reduction
    - Reduce pressure by MAOP divided by 1.25 or class location test factor
    - Estimate remaining life, segments w/crack defects

MAOP Determination

- **§ 192.624 (c) MAOP Determination**
  - Method 3: Engineering Critical Assessment (ECA)
    - ECA analysis - MAOP based upon lowest predicted failure pressure (PFP)
      - Segment specific technical and material documentation issues
      - Analyze crack, metal loss, and interacting defects remaining in the pipe, or could remain in the pipe, to determine PFP
      - MAOP established at the lowest PFP divided by the greater of 1.25 or the applicable factor listed in § 192.619(a)(2)(ii) or § 192.620(a)(2)(ii)

MAOP Determination

- **§ 192.624 (c) MAOP Determination**
  - Method 4: Pipe Replacement
  - Method 5: Small PIR
  - Method 6: Alternative Approach

Compliance Deadlines

- **§ 192.624 (b) Compliance Deadlines**
  - Develop plan – 1 year
  - 50% mileage by end of Year 8
  - 100% mileage by end of Year 15
  - Operational or environmental constraints limit meeting deadlines may petition AA of OPS for 1-year extension
  - Reassessments maximum of 20 Year Interval

Fracture Mechanics Modeling

- **§ 192.624 (d) Fracture mechanics modeling for failure stress and cyclic fatigue crack growth analysis**
  - Pipe susceptible to cracks or crack-like defects…
  - Fatigue analysis techniques
  - Analyze microstructure(ductile/brittle or both), location and type of defect, and operating conditions/pressure cycling
  - 2nd re-evaluation before 50% of the remaining life has expired, but within 7 years
  - Results confirmed by an independent 3rd party expert

Spike Test (192.506)

- **Applies to those pipelines that:**
  - Are required to be assessed, have a hoop stress of 30% SMYS and have integrity threats that cannot be otherwise addressed by ILI ; or
  - Have their MAOP established in accordance with Method 1, Pressure Test, in 192.624 and the pipeline includes legacy pipe or segments that has had certain incidents (e.g., crack, manufacturing, or installation related, see 192.624(c)(1)(ii)).
- **Test method**
  - Spike Test minimum of the lessor of:
    - 1.50 times MAOP, or 105% SMYS
  - Spike Duration: 30-minutes
  - Total Test Duration: 8-hours

Any Questions

Pipeline Safety TRUST

Credible. Independent. In the public interest.

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Talking points for Preparing Comments on PHMSA's Proposed Rules on the Safety of Gas Transmission and Gathering Pipelines
Docket no: PHMSA-2011-0023

Comments are due July 7 on an extensive set of proposed rule changes relating to gas transmission and gathering pipelines. PHMSA issued an Advanced Notice of Proposed Rulemaking (ANPRM) in 2011, raising many issues and asking many questions about what rules needed to be improved and what practices operators already employ. Along with Congress, the National Transportation Safety Board and other offices of the Department of Transportation recommended changes to the rules relating to gas transmission lines following the rupture and explosion of a PG&E transmission line in San Bruno, California in 2010.

PHMSA then prepared a proposed rule that was published in April 2016, responding to some, but not all of those recommendations.

In an effort to support the efforts of those members of the public and other groups who may want to submit comments, we've prepared this outline of what the agency is proposing, and a short description of how we intend to comment on each section. We will be posting our full comments before the deadline so that you can see the full details of our response and make use of them in preparing your own, if you choose to.

To prepare this outline and our own comments, we will proceed through the proposal following the Section-by-Section Analysis, which appears in Section V of the proposal, starting on page 20806 of the Federal Register notice of April 8, 2016. The Section numbers refer to regulations appearing in Part 49 of the Code of Federal Regulations. There are a few minor changes that we don't comment on here, although we may include something about them in our full comments.

§191.1 Scope
This proposed change will require operators of onshore gas gathering lines to submit incidents, safety related conditions, and annual summary data reports. The rule will accomplish this by eliminating certain exemptions under which gathering lines currently operate. We support this change, as it will provide the first information available to gauge the safety of the previously unreported lines and allow the agency to determine what additional safety regulations may be necessary. Unfortunately, the rule does not propose to require these lines to report data to the National Pipeline Mapping System and become subject to one call systems, both proposals that we believe should be included.

§191.23 Reporting Safety Related Conditions
Congress required in the 2011 reauthorization that PHMSA require operators to report exceedances of their maximum allowable operating pressure (MAOP). This section and the following one impose that reporting requirement, which we support, so that PHMSA can begin gathering information about how often exceedances happen and whether additional safety regulations are required to limit them.

§191.25 Filing Safety related condition reports
The proposed change relates to the imposition of a reporting requirement for MAOP exceedances and the procedures for filing those reports. We support the proposal.

§192.3 Definitions
The two biggest changes here are the definition of onshore gathering line, which proposes to repeal the use of the industry definition in API recommended practice 80 and includes a less ambiguous definition of gathering line. We support this change for the reasons given by PHMSA in the proposal.

The second major change is the inclusion of a definition for "Moderate consequence area", a new concept intended to be used to define the subset of areas where some integrity assessment are required on a very long reassessment interval and where MAOP verification and materials documentation is required. While these are improvements over the rules that currently apply in this area, we have concerns with the subset of integrity rules PHMSA intends to apply to these areas, as we think that assessing them with in line inspection (ILI) tools without the requisite threat identification and risk assessment required for high consequences areas could result in the expense of tools being used without the operator, the public or the regulator gaining any valuable integrity information that would lead to improved safety of the system. We'll talk about this more under the substantive rule proposal.

There are some other minor definition changes that we will speak to in our comments

§192.5 Class locations
This proposal requires operators to make and retain for the life of the pipeline documentation of how they determine the class location. We support this proposal, although it is disturbing to find that requiring this kind of recordkeeping is necessary, as it seems like a fundamental basis of safely operating a system.

§ 192.8 Determination of gathering lines
As mentioned above under "scope", PHMSA is proposing to repeal the use of API RP-80 in determining what is a gathering line because of conflicting and ambiguous language in that RP. We support this change.

§ 192.9 what requirements apply to gathering lines?
This proposed section outlines some of the distinctions between various types of gathering lines based on size and location, as an attempt to respond to a GAO recommendation that PHMSA impose rules to reduce the risks of high pressure, large diameter gathering lines being used in new shale plays. Again, we do not oppose these, but think there should be additional regulation of gathering lines.

§192.13 General
This proposal makes important improvements to the regulation of all operators, by clarifying record creation and retention requirements and by imposing a requirement that operators evaluate and mitigate risks to the public and the environment as part of managing design, construction, operation, maintenance, and integrity, including management of change. We strongly support the inclusion of these changes in the final rule, as these seem to be basic obligations that should be met by an operator transporting natural gas in neighborhoods, cities and environmentally sensitive areas.

§192.67 Records: Materials
This proposal responds to Section 23 of the 2011 Act requiring new rules to validate records used to establish MAOP. It will require operators to make and retain for the life of the pipeline records documenting tests, inspections, and manufacturing specifications. We strongly support.

§192.127 Records: Pipe design
This is another proposal designed to comply with Section 23 of the 2011 Act and will require operators to create and retain records relating to pipeline design and determination of design pressure. We strongly support.

§192.150 Passage of internal inspection devices
This proposal will incorporate by reference the NACE standard on designing for passage of ILI devices, which should improve the consistency of design and construction of line pipe to accommodate ILI devices. We support.

§ 192. 205 Records: Pipeline components
This is another proposal designed to comply with the record improvement requirements of Section 23 of the 2011 Act relating to determination of MAOP and will require operators to create and maintain for the life of the pipeline manufacturing and testing information for valves and other components. We support.

§192.227 Qualification of Welders
Records relating to welder qualifications will be required to be created and retained. Again, this is intended to improve recordkeeping relating to determination of MAOP to make sure that operators know what the physical and operational characteristics of the pipes in the ground are. We support.

§ 192.285 Plastic pipe Qualifying persons to make joints
Another record creation and retention rule that we support.

§192.319 Installation of pipe in a ditch
This rule will require an indirect assessment of the coating of a pipeline immediately following installation to make sure that there has been no mechanical damage to the coating during construction. Records of this assessment must be created and maintained. We support, as this proposal is directly related to an incident caused by corrosion that resulted from poor construction practices that damaged the pipeline's coating.

§192.461, .465, .473 External corrosion rules

All three of these proposals are aimed at reducing damages to pipeline from external corrosion by clarifying the characteristics of coatings, require the remediation of any damage to the coating, monitoring external corrosion, and requiring surveys to determine if coatings might be affected by interference currents. Given the high percentage of incidents that are still caused by corrosion, we strongly support these rules as an effort to bring down the number of those incidents that occur.

§ 192.478 Internal corrosion control - monitoring

As mentioned in the PHMSA analysis, between 2002 and November 2012, there were 206 incidents that were caused by internal corrosion, a number that is wholly unacceptable for a cause that is entirely within the control of operators. This proposal includes several measures that should help bring those numbers down by requiring operators to undertake monitoring of deleterious gas stream constituents and regularly reviewing their corrosion mitigation and monitoring program. We strongly support, as these provide an enforceable mechanism to hold operators accountable for future incidents caused by internal corrosion.

§192.485 Remedial measures - transmission lines

This is a records requirement specifying the requirements for records of the pipe and material properties used in remaining strength calculations. We strongly support.

§192.493 Inline Inspection of pipelines

This proposal incorporates by reference some industry standards on performance of ILI assessments. We support, but would like PHMSA to insist that these standards, like all incorporated standards, be made available to the public free of charge.

§ 192.506 Spike hydrostatic pressure testing

Following San Bruno, the NTSB recommended that all pre-1970 pipes that had never undergone a pressure test be subjected to a hydrostatic pressure test including a spike test. This proposal is part of PHMSA's response to that recommendation, and while it is not fully responsive to the NTSB's recommendation, we support it. See additional details under discussion of §192.624.

§192.605 Procedural manual

This requirement incorporates clarifications as to PHMSA's expectations for items to be included in an operator's procedural manuals, including means to prevent exceedances of MAOP. PHMSA determined this requirement was necessary when it received 14 notifications of MAOP exceedances in a bit over 6 months after issuing an advisory bulletin relating to reporting them.

§192.607 Verification of pipeline material

This proposal relates to the same issue as many others: Section 23 of the 2011 reauthorization act requires PHMSA to require verification of records used to establish MAOP. PHMSA determined through information gathered in annual reports that many miles of pipelines do not have adequate records to establish MAOP or adequately describe the physical and operational characteristics of the pipelines. PHMSA proposes to require operators to verify pipeline characteristics whenever pipes are exposed, and to propose criteria for material verification in higher risk areas of HCAs, class 3 and 4 areas. The proposal further requires creation and

maintenance of traceable, verifiable and complete records relating to this verification. While we support this rule, we are frankly quite horrified at the number of miles of pipeline that are subject to integrity management rules for which operators have no verifiable information about their characteristics. To put it bluntly, they don't know what's in the ground. IM rules require a threat identification and risk assessment as the foundation of an integrity management plan. On what foundation have operators been developing integrity management plans for over a decade when they have no records of what they've got in the ground?

§192.613 Continuing surveillance -
Like the similar proposal in the hazardous liquid rule, we do not oppose this proposal to require inspection of pipes within 72 hours of a natural disaster. We simply marvel that such a rule is required at all when risks to pipelines are supposed to have been identified and planned for.

§192.619 MAOP
This proposal is in response to an NTSB recommendation following San Bruno to ensure that manufacturing defects only be considered stable in situations where they have been subject to a hydrostatic test for which the operator has and maintains traceable, verifiable records, of 1.25 times the MAOP. This proposed rule incorporates that recommendation and we strongly support it.

§ 192.624 MAOP verification
After the PG&E pipeline rupture and explosion in San Bruno, CA in 2010, the NTSB issued two recommendations relating to hydrotesting pipelines: first, they recommended that the so called "grandfather clause" allowing the continuing use of pre-1970 pipes that had never been hydrotested be repealed and that all pre-1970 pipes be subjected to a hydrotest incorporating a hydrotest. The Board also recommended that PHMSA amend its regulations so that an operator could only consider manufacturing and construction related defects to be stable if the pipe segment had been subjected to a post-construction hydrotest of at least 1.25 times the segment's MAOP. The Trust has supported implementation of those two recommendations in previous testimony before Congress. In simplified form, we agreed with the NTSB that if an operator has no record of a hydrotest of the strength of a pre-1970 pipe on which to base its MAOP calculation, then the pipe should undergo a hydrotest and the MAOP should be validated or changed. Similarly, if a known manufacturing or construction defect has never been hydrotested, it should be, or it should be managed as if it is not stable.

In response to these two recommendations, PHMSA held a workshop and has published various flowcharts showing how it intended to require the verification of the integrity of these pipes - a process they have shorthanded to become IVP, or integrity verification process. They also gathered information from operators about how many miles of pipe line are in operation that fall into this category: pre-1970 pipe with no verifiable record of a strength hydrotest. Unfortunately, the answer was that there are a lot more miles than PHMSA previously believed. This somewhat complicated proposed rule is the outcome of that administrative process.

It is complicated in two ways: PHMSA is choosing to address these recommendations only with respect to certain pipeline segments, rather than a wholesale change applying across the board. So there are 3 sets of criteria that define the places where this new rule will apply. Then there are five (either a hydrotest or four other options) choices of methods to reestablish MAOP for

the pipelines in these areas that are operating without (ever or since an in-service incident with certain specific causes) having had a hydrotest (or a record of one). We will go into these limitations in detail in our full comments, and we urge you to read carefully through proposed 192.624, but here are the major takeaways:

* The proposal does not meet the intent of the NTSB recommendation in that it will only apply to certain pipelines, and not all pipelines. It will not require new verification of pipelines in non-HCA areas within classes 1 and 2 by completely rescinding the grandfather clause, and for those areas for which the shortcoming is adequate records of a hydrotest, it also will not apply in areas newly designated as an MCA and piggable.

* The options to determine the strength of the pipeline and to re-establish its MAOP include 1) hydrotest and maintain the records of such a test; 2) down-rate the pipe (operate it at a lower pressure) 3) replace the pipe and hydrotest the new segment; 4) Run a smart pig and do an "engineering critical assessment" to establish a safety margin equivalent to that provided by a pressure test; or 5) other unspecified technology that provides an equivalent or greater margin of safety, providing PHMSA notice of the proposed use of such technology in advance.

Obviously, the two that are of concern here are the fourth and fifth: ILI plus ECA and "other." We commissioned a short white paper on engineering critical assessments from Rick Kuprewicz, which you can find on our web page for rulemaking opportunities. http://pstrust.org/wp-content/uploads/2015/10/5-16-16-Signed-Final-Report-to-PST-on-ECA.pdf

We are pleased that PHMSA is responding to the NTSB recommendations and Congressional mandates to address these grandfathered pipes and records deficiencies, but we have some concerns about the reliance on ECAs where the use of assumptions about a pipe's characteristics can result in erroneous strength estimates. We will go into these concerns in detail in our full comments.

§192.710 Pipeline Assessments

One of the major shortcomings of existing gas pipeline regulations is that no integrity assessments are required for areas outside of High Consequence Areas (HCAs) - and those HCAs cover less than 7% of the mileage of existing transmission lines. This new proposal will require periodic integrity assessments of areas in a newly defined group of moderate consequence areas. Unfortunately, this proposal has several major shortcomings: It allows 15 years for the first set of assessments to be complete, and requires assessments only every 20 years after that - an implementation and reassessment interval that is simply insufficient to provide a real safety improvement. Its larger shortcoming is that, unlike the integrity management rule, this assessment rule does **not** require an operator to first identify the threats to these segments and develop a plan based on a risk assessment to manage and assess for those risks. This proposal would simply allow an operator to run an inline tool (or conduct a "direct assessment" in unpiggable segments) without ever determining what risks to the segment are and whether the tool chosen will assess for those threats. Without that fundamental risk assessment, this rule simply requires operators to pig and dig - once every 20 years, at that.

§192.917 Risk assessment/ threat identification

This proposal applies only to those segments subject to integrity management rules, but it indicates that PHMSA is increasingly concerned about the quality of the risk assessments being performed by operators. This section proposes a number of clarifications to specify certain pipeline attributes, interactive threats, information, records and data analysis that PHMSA believes need to be a part of these risk assessments. We support these changes, since these clarifications and specifications will improve the quality of these assessments that are the foundation of each operator's integrity management program, and they will allow PHMSA to better enforce these expectations when they determine that operators are not complying.

§192.921 Baseline assessments

This proposal adjusts the accepted and preferred methods of assessing pipelines under the integrity management rules. It explicitly limits the use of direct assessment to segments that are not piggable. We support the proposed changes.

§192.927 and 192.929 Direct Assessments

These two proposals essentially adjust the rules for the use of direct assessments to identify internal corrosion and stress corrosion cracking, and incorporate recent NACE guidelines for these purposes. We support these changes.

§192.933 Addressing integrity issues

The proposed changes to this section will adjust some of the repair criteria and timeframes for repairs, make explicit when an engineering assessment of stress corrosion cracking must be made, and makes adjustments to the definition of discovery of a condition. And once again, it proposes specifying certain records on strength calculations must be verifiable and maintained. We support these changes as responsible regulatory adjustments that reflect lessons learned from two major incidents.

§192.935 Preventive and mitigative measures

PHMSA is proposing to add a list of prescribed preventive and mitigative measures that an operator must consider in its risk assessment. We strongly support the inclusion of these items to provide additional guidance to operators about their risk assessments and to improve the quality of those assessments.

§192.937 continual evaluation and assessment

This proposal will require that the continual assessment and evaluation be consistent with data integration and risk assessment information to adequately identify and manage for the risks to each segment covered by the integrity management rules.

Data integration, threat identification and risk assessment are the foundation of managing the integrity of pipelines. We support these changes.