PHMSA

Regulatory Update

Contact Information

Leticia Santos Hernández

Pipeline Safety Specialist
PHMSA Training & Qualifications

Leticia.santos@dot.gov

405-686-2349

Rulemaking Process

- ANPRM – Advance Notice of Proposed Rulemaking
  - Used to gather information (non-mandatory)
- NPRM – Notice of Proposed Rulemaking
  - Almost always required – Defines intent and scope
- SNPRM – Supplemental Notice of Proposed Rulemaking

Rulemaking Process

- FR – Final Rule
  - Implementation date, 30 – 90 days depending on significance of regulation
- DFR – Direct Final Rule
  - Used for non-controversial issues

Alert Notices & Advisory Bulletins

- Alert Notices - a notice of a situation of immediate safety concern

- Advisory Bulletins - an advisory not of immediate safety concern
  - matters that have potential to become safety or environmental risks

Rulemaking Process

- Significant rules
  - PHMSA - OST – OMB – Federal Register
  - Additional review time

Rulemaking Process

- Non-Significant rules
  - PHMSA - Federal Register
- OMB Determines what rules are Significant
  - 8 of 9 PHMSA rulemakings are or expected to be designated as Significant rulemakings

Significant vs Non-Significant Rulemakings (EO 12866)

- Have an annual effect on the economy of $100 million or more…
- Create a serious inconsistency with another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise new legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive order.

Rulemaking Process

- Where can I find information on the Status of Significant rulemakings?
  - DOT
    - Report on DOT Significant Rulemakings (Monthly reports)
      - http://www.dot.gov/regulations/report-on-significant-rulemakings
  - OMB
    - www.reginfo.gov

CURRENT RULEMAKING PROCESS

Information Collection Activities

- PHMSA is requesting comments on(OMB) control #s:
  - 2137-0049 "Recordkeeping Requirements for Gas Pipeline Operators"
  - 2137-0594 "Customer-Owned Service Lines."
  - 2137-0048 "Recordkeeping Requirements for Liquefied Natural Gas (LNG) Facilities

Information Collection Activities Contd.

- PHMSA is requesting comments on(OMB) control #s:
  - 2137-0600 "Qualification of Pipeline Safety, Training"
  - 2137-0618 "Pipeline Safety: Periodic Underwater Inspection and Notification of Abandoned Underwater Pipelines"
  - 2010-0229 "Safety of Hazardous Liquid Pipelines"

Safety of On-Shore Hazardous Liquid Pipelines (NPRM stage)

PHMSA-2010-0229

- ANPRM published 10/18/2010
- NPRM published 10/13/2015
- Major topics under consideration:

Safety of On-Shore Hazardous Liquid Pipelines (NPRM stage)

- Expansion of IM requirements beyond HCA's
- Leak detection beyond HCAs
- Repair criteria in HCA and non-HCA areas
- Stress Corrosion Cracking (SCC)
- Piggability of lines
- Reporting requirements for Gathering lines
- Gravity Line exception

Safety of Gas Transmission and Gathering Lines *(NPRM stage)*

PHMSA-2011-0023

- ANPRM Published 8/25/2011
- NPRM Published 4/8/2016
- Written comments on this NPRM must summited by June 7, 2016

Safety of Gas Transmission and Gathering Lines

- Major Topics under consideration:
  - Expansion of IM requirements beyond HCA's
    - New MCA – Moderate Consequence Areas
  - Repair criteria for both HCA and non-HCA areas
  - Assessment methods and internal corrosion control
  - Adding requirements for external corrosion management programs
  - Gas gathering
    - repeal the use of API RP 80
  - Elimination of the grandfather clause

Safety of Gas Transmission and Gathering Lines

- MAOP verification (IVP, Integrity Verification Process)
  - Congressional mandate requiring either
    - pressure testing or
    - alternative equivalent means such as ILI program for pipe not previously tested or for those that have incomplete records to verify their MAOP
  - Other problematic or "legacy" pipe

Safety of Gas Transmission and Gathering Lines

- Extend §192 regulatory requirements to Type A lines in Class 1 locations for lines 8 inches or greater
  - damage prevention
  - corrosion control
  - public education program
  - maximum allowable operating pressure limits
  - line markers, and emergency planning

Miscellaneous Rulemaking
(Final Rule stage)

PHMSA-2010-0026

- NPRM published 11/29/2011
- Adv. Committee approval vote in 7/2012
- Final Rule moved past PHMSA
- Published March 11, 2015
- Effective October1, 2015

Miscellaneous Rulemaking
(Final Rule stage)

- Major Topics
  - performance of post-construction inspections
    - The effective date of the amendment to 49 CFR §192.305 is delayed indefinitely
    - PHMSA received petitions for reconsideration from APGA, AGA and NAPSR
  - leak surveys of Type B onshore gas gathering lines

Miscellaneous Rulemaking
(Final Rule stage)

- requirements for qualifying plastic pipe joiners
  - Once each calendar year not to exceed 15 months, or after one failed joint
- the transportation of pipe
- filing of offshore pipeline condition reports
- calculation of pressure reductions for hazardous liquid pipeline anomalies

Miscellaneous Final Rule

Postponed!

- § 192.305 Inspection: General.
  - Each transmission line and main must be inspected to ensure that it is constructed in accordance with this subpart. An operator must not use operator personnel to perform a required inspection if the operator personnel performed the construction task requiring inspection. Nothing in this section prohibits the operator from inspecting construction tasks with operator personnel who are involved in other construction tasks.

EXPLANATION

I demand one

Miscellaneous Final Rule

Postponed!

- Construction Inspection (Cont'd)
- Responsibility to Conduct Construction Inspections § § 192.305 and 195.204
- PHMSA proposed to revise § 192.305 to specify that a transmission pipeline or main cannot be inspected by someone who participated in its construction. i.e., the individual who performed the construction task that requires inspection

Miscellaneous Final Rule

Postponed!

- Construction Inspection (Cont'd)
- PHMSA believes that allowing individuals to inspect their own work defeats, in part, the measure of safety gained from such inspections.
- PHMSA was not intending to require third-party inspections or attempting to prohibit any person from a company to inspect the work of another person from the same company.

Miscellaneous Final Rule

- Leak Surveys for Type B Gathering Lines § 192.9
  - Must perform leak surveys on Type B gathering lines in accordance with §192.706 and fix any leaks discovered.

Miscellaneous Final Rule

- Qualifying Plastic Pipe Joiners § 192.285(c)
- A person must be re-qualified under an applicable procedure once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under § 192.513.

Miscellaneous Final Rule

- § 192.3 Definitions.
- Welder means a person who performs manual or semi-automatic welding.
- Welding operator means a person who operates machine or automatic welding equipment.

Miscellaneous Final Rule

- § 192.243 Nondestructive testing.
- (e) Except for a welder or welding operator whose work is isolated from the principal welding activity, a sample of each welder or welding operator's work for each day must be nondestructively tested, when nondestructive testing is required under § 192.241(b).

Miscellaneous Final Rule

- § 192.153 Components fabricated by welding.
- (e) A component having a design pressure established in accordance with paragraph (a) or paragraph (b) of this section and subject to the strength testing requirements of § 192.505(b) must be tested to at least 1.5 times the MAOP.

Under Review!

Miscellaneous Final Rule

- § 192.503(e) General requirements.
- If a component other than pipe is the only item being replaced or added to a pipeline, a strength test after installation is not required, if the manufacturer of the component certifies that the component has been:
- Tested to meet pipeline pressure
- Tested by manufacturer under a quality control program, and
- Carries a pressure rating

Miscellaneous Final Rule

- § 192.165(b)(3) Compressor stations: Liquid removal.
- Be manufactured in accordance with section VIII ASME Boiler and Pressure Vessel Code (BPVC) and the additional requirements of §192.153(e) except that liquid separators constructed of pipe and fittings without internal welding must be fabricated with a design factor of 0.4, or less.

Miscellaneous Final Rule

- §§ 192.225(a), .227 & .229
- Revised to replace Welder with Welder or Welding Operator

Miscellaneous Final Rule

- § 192.620(c) Alternative maximum operating pressure for certain steel pipelines.
- § 192.620(c)(1)
- Existing pipelines require 180 day notification before operation
- For new pipelines notification of 60 days prior to manufacture or construction activities
- § 192.620(c) (8)
- A Class 1 and Class 2 location can be upgraded one class due to class changes per § 192.611(a).

Miscellaneous Final Rule

- § 192.805 Qualification program.
- Notification of "Significant" changes in OQ programs is required

Miscellaneous Final Rule

- § 192.65 Transportation of pipe.
- (a) Railroad. In a pipeline to be operated at a hoop stress of 20 percent or more of SMYS, an operator may not install pipe having an outer diameter to wall thickness of 70 to 1, or more, that is transported by railroad unless the transportation is performed by API RP 5L1

Miscellaneous Final Rule

- Other Changes:
- § 191.7 Report submission requirements.
- § 191.25 Filing safety-related condition reports.
- § 191.29 National Pipeline Mapping System.

EFV Expansion Beyond Single Family Residences *(NPRM stage)*

- ANPRM published 11/25/2011
- NPRM moved past DOT

PHMSA-2011-0009

EFV Expansion beyond Single Family Residences *(NPRM stage)*

– Major Topics

- Rule will propose to require EFVs for:
  - New and renewed service lines serving more than one single family residence
    - » multi-family residential dwellings
    - » commercial buildings

PHMSA-2011-0337

Standards Update

(Final Rule/Published)

- NPRM published August 16, 2013
- FR published December 24, 2014
- Effective March 6, 2015
- Major Topics:
  - Addresses the set of IBR standards throughout PHMSA's part 192, Part 193 and Part 195 code with updated revisions of standards from all standard organization bodies.

http://www.regulations.gov/#!documentDetail;D=PHMSA-2011-0337-0014

Standards Update
(Final Rule stage)

- This FR impacts 22 of the 60+ standards that we currently incorporate by reference.
- Per recent statute (Section 24, revised) all IBR standards pertaining to PSR must be available for free to the public. (Most SDOs comply)
  - ANSI IBR portal – ibr.ansi.org
  - Others – AGA, ASTM, GTI, MSS, NACE and NFPA

OQ, Cost Recovery and Other Pipeline Safety Proposed Changes

(NPRM stage)

- NPRM published Jul 10, 2015
  - OQ for new construction
  - Removal of farm taps from DIMP
  - Additional inspection req. for farm taps
  - Reporting of flow reversals/product changes
  - Post accident drug testing
  - Incorporate new inspection technologies
  - Recovering cost of reviewing operator data

PHMSA-2014-0006

Plastic Pipe

- NPRM published May 21, 2015
  - Authorized use of PA12
  - AGA petition to raise design factor from 0.32 to 0.40 for PE pipe
  - Enhanced Tracking and traceability
  - Miscellaneous revisions for PE and PA11 pipelines
  - Class 1 mechanical fittings only

Plastic Pipe

- NPRM published May 21, 2015
  - Monitoring and cathodic protection for isolated fittings
  - Storage and handling requirements written procedures
  - New testing and design requirements
  - New standards by PPI, ASTM, etc

Rupture Detection and Valve Rule

(NPRM stage)

- This rule will establish and define rupture detection and response time metrics including the integration of Automatic Shutoff Valves (ASV) and Remote Control Valve (RCV) placement as necessary, with the objective of improving overall incident response.

Rupture Detection and Valve Rule

(NPRM stage)

- This rule responds to:
  - Requirements of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (The Act):
    - Section 4: ASV/RCV or equivalent technology be installed on newly constructed or entirely replaced natural gas and hazardous liquid transmission pipelines 2 years after the act was issued

Rupture Detection and Valve Rule

(NPRM stage)

- Section 8: Require operators of hazardous liquid pipeline facilities to use leak detection systems and establish standards for their use.

- NTSB Recommendation P-11-10 (gas) which requires transmission and distribution operators to equip SCADA systems with tools to assist with recognizing and pinpointing leaks.

Damage Prevention Final Rule

- Pipeline Damage Prevention Programs
- Effective January 1, 2016
- Affects 49 CFR Parts 196 and 198
  - Sets criteria for State damage prevention laws
  - If States can't or don't meet criteria PHMSA can take over jurisdiction
  - Exceptions are possible, however they must be approved and justified

Damage Prevention Final Rule

- "…Under alternative 2, PHMSA will enforce a minimum Federal safety requirement against any excavator who violates applicable damage prevention requirements in a State with an excavation damage prevention enforcement program determined to be inadequate."

ADVISORY BULLETINS

ADB-2015-01
POTENTIAL FOR DAMAGE TO PIPELINE FACILITIES CAUSED BY FLOODING, RIVER SCOUR, AND RIVER CHANNEL MIGRATION

ADB 2015-01

- Potential for Damage to Pipeline Facilities Caused by Flooding*, River Scour, and River Channel Migration
- Operators should ensure the integrity of pipelines in the event of flooding, river scour, and river channel migration.
- PHMSA has released five Advisory Bulletins on this subject.

ADB 2015-01

- Each of these bulletins followed an event that involved severe flooding that affected pipelines in the areas of rising waters.

- *2.4 million gallons spilled since 1993; only 400,000 gallons recovered – Associated Press

ADB 2015-01

- On July 1, 2011, ExxonMobil Pipeline Company experienced a pipeline failure near Laurel, Montana.
- 63,000 gallons of crude oil spilled into the Yellowstone River.
- PHMSA's accident investigation found the rupture was caused by channel migration and river bottom scouring, leaving a large span of the pipeline exposed to prolonged current forces and debris washing downstream in the river. Those external forces damaged the exposed pipeline.

ADB 2015-01

- On July 15, 2011, NuStar Pipeline Operating Partnership, L.P. reported a 4,200 gallon (100 barrels) anhydrous ammonia spill in the Missouri River in Nebraska requiring extensive environmental response and causing supply disruption.
- The 6-inch-diameter pipeline was exposed by scouring during extreme flooding.

ADB 2015-01

- On January 17, 2015, a breach in the Bridger Pipeline Company's Poplar System resulted in another spill into the Yellowstone River near the town of Glendive, Montana, releasing an estimated 28,434 gallons of crude oil into the river and impacting local water supplies.
- Preliminary information indicates over 100 feet of pipeline was exposed on the river bottom, and a release point was near a girth weld.

ADB 2015-01

- On August 13, 2011, Enterprise Products Operating, LLC discovered a release of 28,350 gallons (675 barrels) of natural gasoline in the Missouri River in Iowa.
- The rupture, according to the metallurgical report, was the result of fatigue crack growth driven by vibrations in the pipe from vortex shedding.

ADB 2015-01

- Operators are urged to
- take the following actions:
- Determine the maximum flow or flooding conditions at rivers where pipeline integrity is at risk in the event of flooding (e.g., where scour can occur) and have contingency plans to shut down and isolate those pipelines when those conditions occur.

ADB 2015-01

- Evaluate the accessibility of pipeline facilities and components that may be in jeopardy, such as valve settings, which are needed to isolate water crossings or other sections of pipelines.
- Extend regulator vents and relief stacks above the level of anticipated flooding as appropriate.

ADB 2015-01

- Coordinate with emergency and spill responders on pipeline locations, crossing conditions and the commodities transported. Provide maps and other relevant information to such responders so they can develop appropriate response strategies.
- Coordinate with other pipeline operators in flood areas and establish emergency response centers to act as a liaison for pipeline problems and solutions.

ADB 2015-01

- Deploy personnel so that they will be in position to shut down, isolate, contain, or perform any other emergency action on an affected pipeline.
- Determine if facilities that are normally above ground (e.g., valves, regulators, relief sets, etc.) have become submerged and are in danger of being struck by vessels or debris and, if possible, mark such facilities with U.S. Coast Guard approval and an appropriate buoy.

ADB 2015-01

- Perform frequent patrols, including appropriate overflights, to evaluate right-of-way conditions at water crossings during flooding and after waters subside.
- Report any flooding, either localized or systemic, to integrity staff to determine if pipeline crossings may have been damaged or would be in imminent jeopardy from future flooding.

ADB 2015-01

- Have open communications with local and State officials to address their concerns regarding observed pipeline exposures, localized flooding, ice dams, debris dams and extensive bank erosion that may affect the integrity of pipeline crossings.
- Following floods and when safe river access is first available, determine if flooding has exposed or undermined pipelines because of new river channel profiles. This is best done by a depth of cover survey.

ADB 2015-01

- Where appropriate, surveys of underwater pipe should include:
  - The use of visual inspection by divers or instrumented detection.
  - Pipelines in recently flooded lands adjacent to rivers should also be evaluated to determine the remaining depth of cover.
  - You should share information with affected landowners.
  - Agricultural agencies may help to inform farmers of potential hazards from reduced cover over pipelines.

ADB 2015-01

- Ensure that line markers are still in place or are replaced in a timely manner.
- Notify contractors, highway departments and others involved in post-flood restoration activities of the presence of pipelines and the risks posed by reduced cover.

ADB 2015-01

- If a pipeline has suffered damage or is shut-in, the operator should advise the appropriate pipeline safety authority before returning the line to service, increasing its operating pressure, or otherwise changing its operating status.
- Reporting under §§ 191.23 and 195.55 may also be required.

ADB-2014-03
NOTIFICATION(S) REQUIRED PRIOR TO CERTAIN CONSTRUCTION-RELATED EVENTS.

ADB-2014-03

- Notification(s) required prior to certain construction-related events.
- Operators to provide the required construction-related notification(s) not later than 60 days.
- Prior to:
  - Material purchasing and manufacturing;
  - right-of-way acquisition;

ADB-2014-03

- Operators to provide the required construction-related notification(s) not later than 60 days Prior to:
  - Construction equipment move-in activities;
  - Onsite or offsite fabrications;
  - or right-of-way clearing, grading and ditching.

ADB-2014-03

- PHMSA also strongly encourages operators to provide The required notification(s) for the construction of 10 or more miles of a new pipeline for a pipeline that:
  - Did not previously exist;
  - For the replacement of 10 or more contiguous miles of line pipe in an existing pipeline.

ADB-2014-04
GUIDANCE FOR PIPELINE FLOW REVERSALS, PRODUCT CHANGES AND CONVERSION TO SERVICE

ADB-2014-04

- Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service
- Alert operators of hazardous liquid and gas transmission pipelines of the potential significant impact flow reversals, product changes and conversion to service may have on the integrity of a pipeline

ADB-2014-04

- Failures on natural gas transmission and hazardous liquid pipelines have occurred after these operational changes.
- This advisory bulletin describes specific notification requirements and general operating and maintenance (O&M) and integrity management actions regarding flow reversals, product changes and conversion to service.

ADB-2014-04

- Operators should take additional actions when these operational changes are made including:
- The submission of a comprehensive written plan to the appropriate PHMSA regional office regarding these changes prior to implementation.

ADB-2014-04

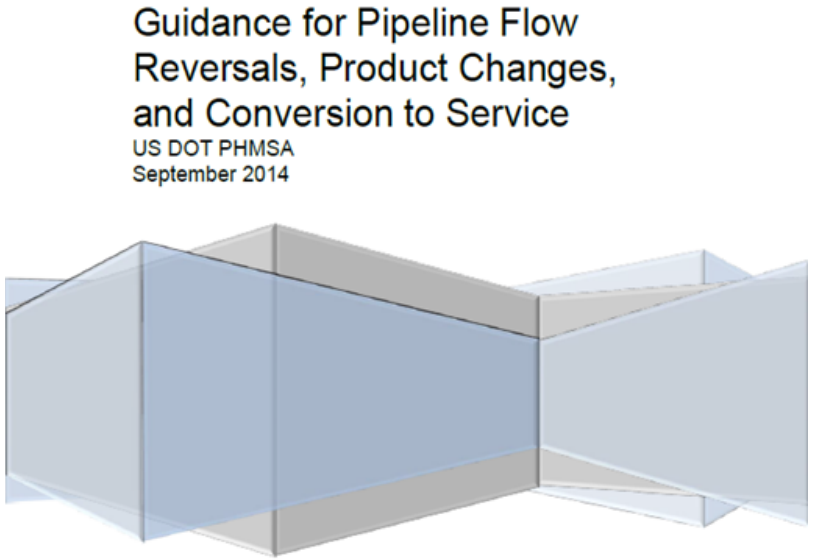
- Considerations
- It may not be advisable to perform flow reversals, product changes or conversion to service under the following conditions:
  - Grandfathered pipelines that operate with 192
  - LF-ERW pipe, lap welded, unknown seam types and with seam factors less than 1.0
  - Pipelines that have had a history of failures and leaks most especially those due to stress corrosion cracking, internal/ external corrosion, selective seam corrosion or manufacturing defects.

ADB-2014-04

- Considerations
  - It may not be advisable to perform flow reversals, product changes or conversion to service under the following conditions:
  - Pipelines that operate above Part 192 design factors (above 72% SMYS).
  - Product change from unrefined products to highly volatile liquids.

ADB-2014-04

- PHMSA refers operators to detailed guidance published in the document, guidance to operators regarding flow reversals, product changes and conversion to service.
- The document is located at: http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Pipeline/Regulations/GORRPCCS.pdf



ADB-2014-05
GUIDANCE FOR MEANINGFUL METRICS

ADB – 2014-05

- Pipeline Safety: Guidance for Meaningful Metrics
- PHMSA has recognized the importance of:
  - Senior management responsibilities
  - Addressing deficiencies in the program
  - Certify the IM program
- Incident/accident investigations may reveal:
  - Management systems and organizational program deficiencies contribute to pipeline accidents
  - Weakness in using Meaningful Metrics

ADB – 2014-05

- Operators need an established method to measure program effectiveness
- IM as a part of QA/QC program
- Liquid: API 1160 "Managing Integrity for Hazardous Liquid Pipelines" provides guidance on evaluating and improving performance.
- Gas transmission: using guidance from ASME B31.8S-2004

QUESTIONS???