Bryan Kichler
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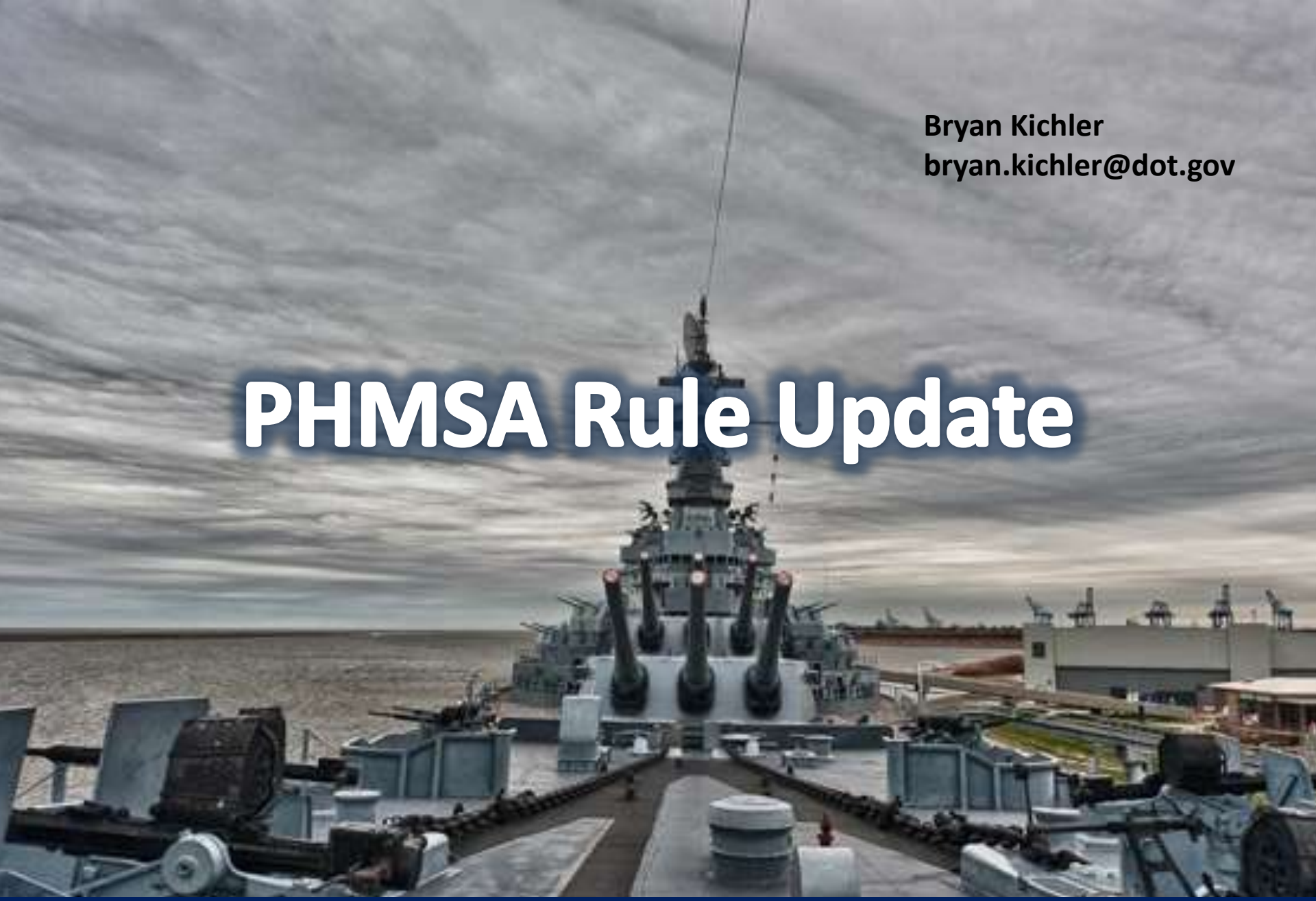
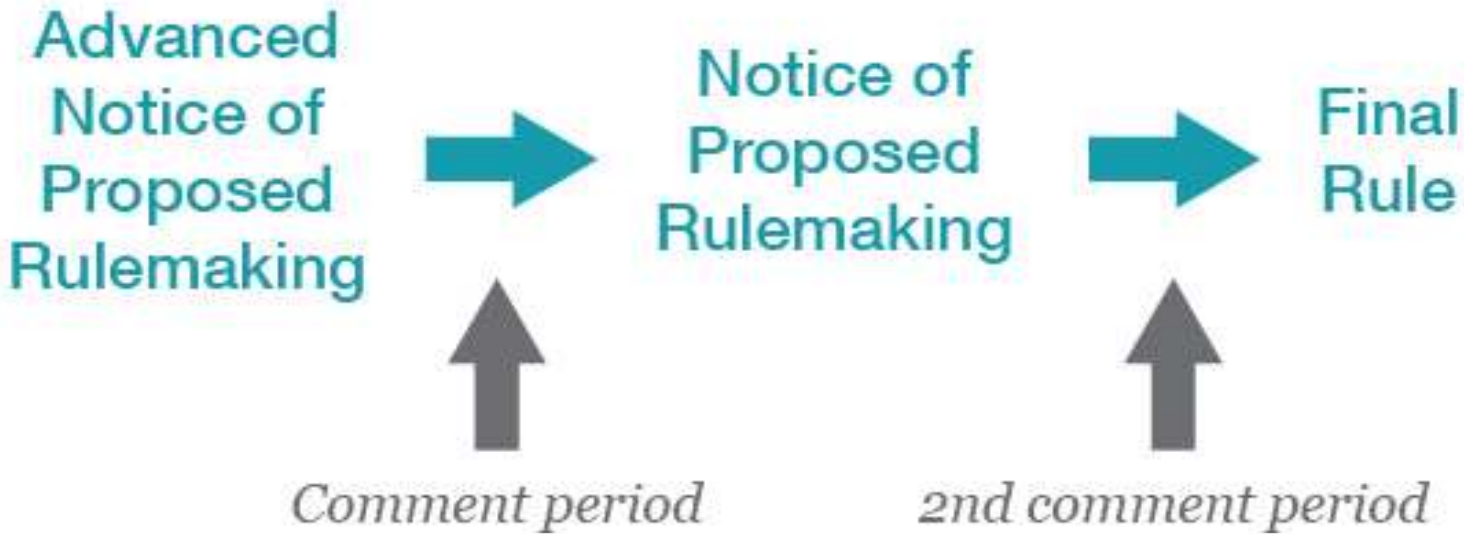
PHMSA Rule Update

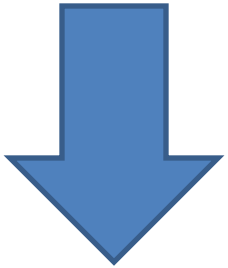


2015 AL Seminar



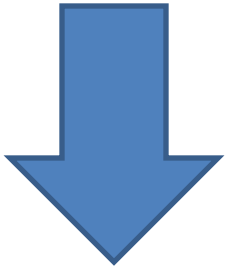
Rulemaking Process

Gas NPRMs can be found here



FEDERAL REGISTER

The Daily Journal of the United States Government



or linked on the PHMSA website

...it is what it is

-Unknown

Safety of On-shore Hazardous Liquid Pipelines

NPRM moved past DOT

ANPRM, published 10/18/2010

- 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 moved past PHMSA

ANPRM, published 8/25/2011

- Expansion of IM requirements beyond HCA's
- Repair criteria for both HCA and non-HCA areas
- Assessment methods and corrosion control
- Gas gathering
- Integrity verification process
- Elimination of the grandfather clause
- MAOP verification (IVP)

Plastic Pipe Rule

NPRM published May 21, 2015

- Tracking and traceability
- Design factor for PE (.40 vs .32) or up to 150psi
- 2”-6” PA-11&12 with higher HDB (250 psi)
- Risers outside of services
- Class 1 mechanical fittings only
- Monitoring and catholic protection for isolated fittings
- Storage and handling requirements
- New testing and design requirements
- New standards by PPI, ASTM, etc

OQ, Cost Recovery, Accident/ Incident Notification, and Other Changes

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

EFV Expansion

NPRM published 7/15/2015

ANPRM 11/25/2011

- Published Rule will propose to require EFVs for:
  - branched service lines serving more than one single family residence > 10 PSI
  - multi-family residential dwellings and commercial buildings < 1,000 SCFH
  - Curb valves for services over 1,000 SCFH
- Existing customers may request EFVs

Final Rules

Incorporated by Reference Final Rule

Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments

- Impacts 49 CFR Parts 191, 192 and 195
- Effective March 6, 2015
- Replaces 22 of the 60+ referenced standards
- **Remember**!
  - When there is a contradiction with a referenced standard, the regulation takes precedence!

IBR Rulemaking Plastic Pipe

ASTM D2513–09a

‘‘Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings’’ omitting section 4.2 for regrind

- HD PE, 4710, up to 10 years
- MD PE, 2708, up to 3 years

No PE with regrind or single stamped 2406 or 3408 can be purchased for use after March 6th

IBR Rulemaking Transportation of Pipe

API Recommended Practice 5L

- Specification for Line Pipe

API Recommended Practice 5L1

- Transportation by Railroad

API Recommended Practice 5LW

- Transportation by Marine Vessels

API Recommended Practice 5LT

- Transportation by Truck

IBR Rule Making Additional Changes

- ANSI/API Specification 6D
- API Specification 12F
- API Standard 620
- API Standard 650
- ANSI/API Standard 2000
- ASTM A53/A53M-10
- ASTM A106/A106M-10
- ASTM A333/A333M-11
- ASTM A372/A372M-10
- ASTM A671/A671M-10
- ASTM A671/A671M-09
- ASTM A691/A691M-09
- MSS SP-44-2010
- MSS SP-75-2008
- ANSI/NACE Standard SP0502-2010
- NFPA-30
- NFPA-70

Miscellaneous Changes to Pipeline Safety Regulations

Miscellaneous Rule Updates

- Impacts 49 CFR
  - 191, 192 and 195
- Effective
  - October 1, 2015

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 garnered 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:

(1) Tested to meet pipeline pressure

(2) Tested by manufacturer under a quality control program, and

(3) 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.

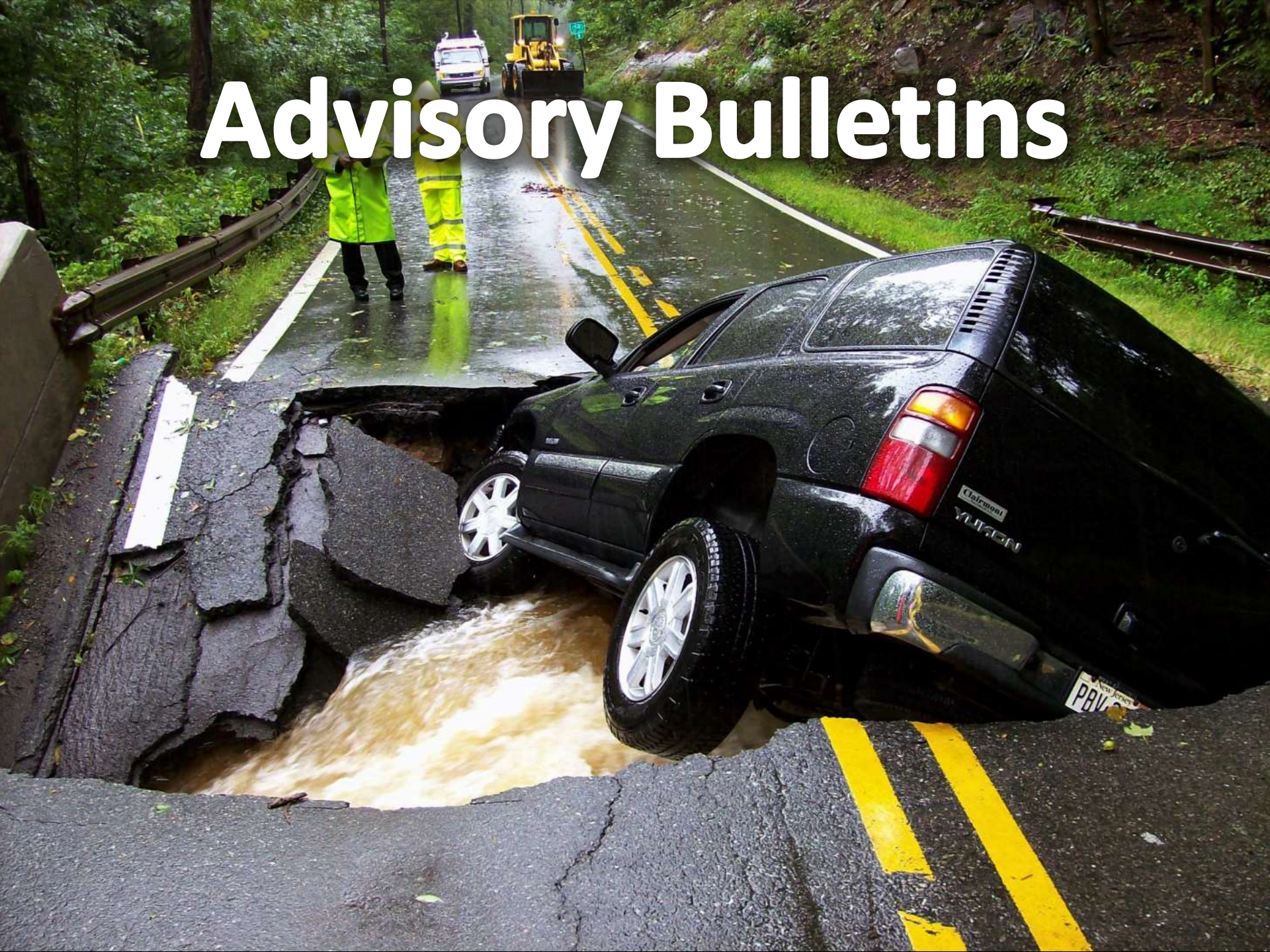
Damage Prevention Final Rule

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

"For the reasons discussed above, PHMSA is not considering alternatives 1 and 3. 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.
- 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-2014-05

Guidance for Meaningful Metrics

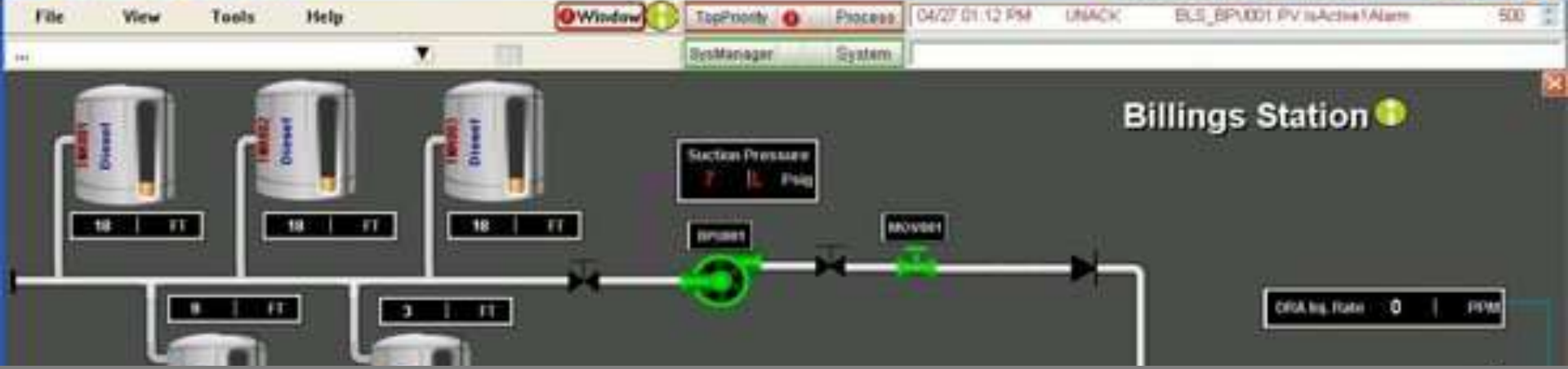
ADB – 2014-05

Pipeline Safety: Guidance for Meaningful Metrics

- PHMSA has noticed …
  - Senior management responsibilities
  - Addressing deficiencies in the program
  - Certify the IM program
- Root cause analysis 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 B31.8S-2004



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

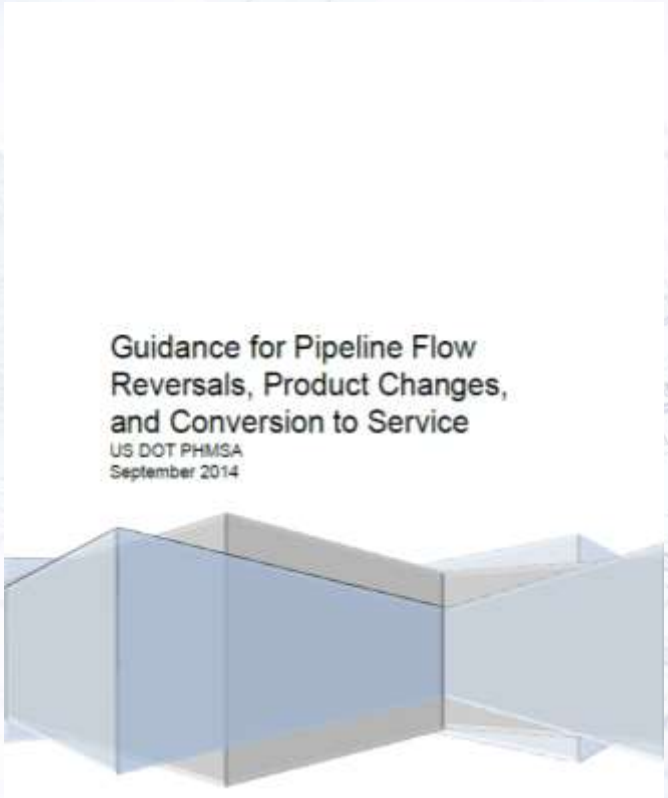
- It may not be advisable to perform flow reversals, product changes or conversion to service under the following conditions:
  - Grandfathered pipelines that operate with 192
  - LF-ERW pipe, lap welded, unknown seam types and with seam factors less than 1.0
  - Pipelines that have had a history of 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-2014-03

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:

1. Construction equipment move-in activities;
2. Onsite or offsite fabrications;
3. or right-of-way clearing, grading and ditching.

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:

1. Did not previously exist;
2. For the replacement of 10 or more contiguous miles of line pipe in an existing pipeline.

Any Questions??

The End! Thanks!