PHMSA Regulatory Updates



Advisory Bulletin Updates

Ratest Rule Updates

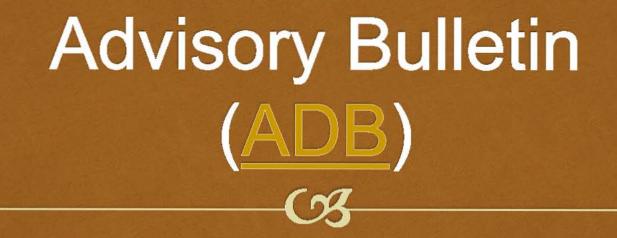
R Standards

Regulation Amendments for 2015



An overview of the 2014 ADBs. Where to find current and previous ADBs The Rule Making Process and the rules being considered

R... And some other Miscellaneous information



List of Advisory Bulletins

Advisory Bulletins (ADB)

- ***** 2014-05
- ***** 2014-04
- ***** 2014-03
- ✤ 2014-02
- ***** 2014-01

http://www.phmsa.dot.gov/pipeline/regs/advisory-bulletin

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
- Reakness in using Meaningful Metrics

ADB – 2014-05

Pipeline Safety: Guidance for Meaningful Metrics

Overview ...

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



CB-

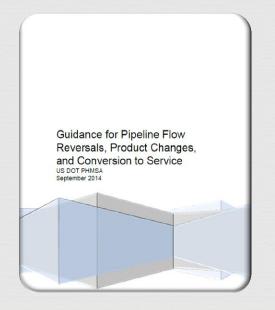
- **Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service**
- Alert operators of hazardous liquid and gas transmission pipelines of the potential significant impact flow reversals, product changes and conversion to service may have on the integrity of a pipeline

- **Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service**
- 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.

- **Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service**
- - The submission of a comprehensive written plan to the appropriate PHMSA regional office regarding these changes prior to implementation.

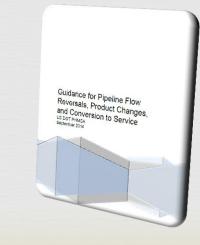
- **Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service**
- Two recent pipeline failures occurred on hazardous liquid pipelines where the flow had been reversed.
 - In one instance:
 - Pressure and flow monitoring equipment had not been changed to account for the reversed flow.

→ PHMSA refers operators to detailed guidance published in the document, Guidance to Operators Regarding Flow Reversals, Product Changes and Conversion to Service.

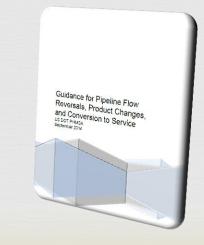


- Complying with existing regulations
- And also contains recommendations that operators should consider prior to implementing these changes.





http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFil es/Pipeline/Regulations/GORRPCCS.pdf.



Considerations

Pipeline operators are required to notify PHMSA when the cost to make these changes exceeds \$10 million per Sec. 191.22(c) and 195.64(c).

C Operators should contact PHMSA regarding changes to pipelines with a special permit irrespective of specific language requiring it.

Considerations

Operators of gas transmission pipelines must notify PHMSA if these changes will substantially affect their integrity management program, its implementation, or modify the schedule for carrying out the program elements.

Considerations

○ Operators should be prepared to demonstrate how they addressed impacts to O&M, emergency plans, control room management, operator qualification training, emergency responder training, public awareness, spill response, maps and records, and integrity management programs and plans for the affected pipeline facilities.

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.

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.



CB-

Notification(s) required prior to certain construction-related events.

 Operators to provide the required construction-related notification(s) not later than 60 days.

Reprior to:

ন্থে Material purchasing and manufacturing;

Real right-of-way acquisition;

Notification(s) required prior to certain construction-related events.

Reprior to:

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

- Notification(s) required prior to certain construction-related events.
- 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.



CB-

○ PHMSA is issuing an advisory bulletin to inform all pipeline owners and operators of the deficiencies identified in Enbridge's Marshall, Michigan, Release.

MTSB identified specific deficiencies in three of Enbridge programs:

- Integrity Management (IM)
- Control Center Operations
- Public Awareness.

Integrity management (IM) – Deficiencies

The deficiencies were broken down into the three sections below:

- IM assessment
- Risk assessment
- Data integration

Integrity management (IM) – Deficiencies

<u>What they did</u>	<u>What they should have done</u>
Changed the IM assessment process after the accident	Apply changes to previous assessments
Did not incorporate a process of continuous reassessment to all pipeline engineering assessments	Incorporate a process of continuous reassessment to all pipeline engineering assessments
Did not integrate the data into the reassessment	Integrated the data into the reassessment plan improvements

Control Center Operations

- Lead to prolonged release of crude oil.
- Did not consider objectively how growth in personnel would affect the safe operation of the pipeline system.



Control center operations

Inadequate training and faulty leak detection system

Not following procedure

Poor team performance leading to poor leadership and

communication



Republic awareness.

Enbridge's PAP failed to effectively inform the affected public, including citizens and emergency response agencies about the location of the pipeline, how to identify a pipeline release and how to report suspected product releases.

Republic awareness.

An effective public awareness program would have better prepared local emergency response agencies to identify and respond to early indications of a rupture, which, once communicated to Enbridge, would have prevented the restart of the line.

Republic awareness.

Enbridge's review of its public awareness program was ineffective in identifying and correcting deficiencies.

Summary

○ Pipeline owners and operators are encouraged to review their own IM programs for similar deficiencies and to take corrective action.

Summary

Operators are encouraged to review the effectiveness of their public awareness programs and whether local emergency response teams are adequately prepared to identify and respond to early indications of ruptures.

ADB-2014-02

Summary

PHMSA strongly encourages operators to review past and future NTSB recommendations that the NTSB provides to pipeline operators following incident investigations.
 Operators should proactively implement these improvements to their pipeline safety programs

Update on New Rules, Rule Making and Notices



There is a lot going on in the Rule Making Process ...

With several rules coming down the pipeline ...

The following rules are in one of the following stages:

CRNPRM

← Final Rule



The following are in the rule making process:

- ✤ <u>NPRM</u> moved past DOT
- ANPRM published 10/18/2010
 - Expansion of IM requirements beyond HCA's
 - Leak detection beyond HCAs
 - **Q** Repair criteria in HCA and non-HCA areas
 - Stress Corrosion Cracking (SCC)
 - Piggability of lines
 - **Gathering requirements for Gathering lines**
 - Gravity Line exception

The following are in the rule making process:

- ✤ <u>NPRM</u> 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
 - Corrosion control
 - Gas gathering

The following are in the rule making process:

○ Safety of Gas Transmission and Gathering Lines

- ✤ <u>NPRM</u> moved past PHMSA
- ANPRM Published 8/25/2011
 - Integrity Verification Process
 - Recommendations from NTSB
 - Elimination of the Grandfather clause
 - Minimum pressure test
 - 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

The following are in the rule making process:

CR EFV Expansion beyond Single Family Residences

- ✤ <u>NPRM</u> moved past DOT
- ANPRM published 11/25/2011
 - **Rule will propose to require EFVs for:**
 - branched service lines serving more than one single family residence
 - multi-family residential dwellings
 - commercial buildings

The following are in the rule making process:

- Operator Qualification, Cost Recovery and Other Pipeline Safety Proposed Changes
- ✤ <u>NPRM</u> moved past PHMSA
 - This rule will address issues related to:
 - Operator Qualification for new construction
 - Incident Reporting
 - Cost Recovery
 - Renewal process for special permits
 - Other issues to be determined

The following are in the rule making process: Plastic Pipe

Drafting <u>NPRM</u> to address the following plastic pipe topics:

- 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
- Additional provisions for fittings used on plastic pipe

The following are in the rule making process:

Rupture Detection and Valve Rule

NPRM

- □ 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.
- 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

The following are in the rule making process: Rupture Detection and Valve Rule

NPRM

Requirements of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (The Act):

- 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.

FINAL RULE STAGE

The following are in the rule making process:

Real Excavation Damage Prevention

- □ Final Rule moved past PHMSA
- Adv. Committee approval vote December 2012
- □ NPRM published 4/2/2012
- Major Topic
 - Enforce damage protection laws in States that have inadequate enforcement to protect safety. Complies with PIPE's Act 60114(f).

The following are in the rule making process:

Miscellaneous Rulemaking

- □ Final Rule moved past PHMSA
- Adv. Committee approval vote in 7/2012
- NPRM published 11/29/2011
- Major Topics
 - Performance of post-construction inspections
 - Leak surveys of Type B onshore gas gathering lines
 - Requirements for qualifying plastic pipe joiners
 - Regulation of ethanol
 - The transportation of pipe

The following are in the rule making process:

R Standards Update

- □ Final Rule stage
- □ NPRM published 8/16/2013; PAC Vote 12/2013 and 2/2014
- Major Topic
 - 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.
 - ◆ This NPRM would impact 22 of the 60+ standards that we currently IBR.
 - 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

Incorporated By Reference (IBR) Standards 2015

IBR Standards 2015

Two New Standards:

 API Recommended Practice 5LT, "Recommended Practice for Truck Transportation of Line Pipe" (First edition March 1, 2012)
 Into 192.7, 192.65 (c), 195.3, 195.207 (c)

Into 192.7, 192.123 (e), 192.191 (b), 192.283 (a); Item 1, Appendix B to Part 192.

IBR Standards 2015

Current Updated Code Standard Editions:

ANSI/API Specification 5L, "Specification for Line Pipe" (45th edition, December 1, 2012)

C Replaces

IBR Standards 2015

- **Current Updated Code Standard Editions:**
- - Replaces (2nd edition, December 1996)

Regulation Amendments for 2015

Amendments that will be implemented this year

Immediate compliance with this amendments is authorized
IBR listed in this final rule is approved as of March 6, 2015
Impacted Codes:

a impactual cours

✤ 49 CFR 191

✤ 49 CFR 192

✤ 49 CFR 195

- (1) Responsibility to Conduct Construction Inspections § §
 192.305 and 195.204.
- (2) Leak Surveys for Type B Gathering Lines § 192.9.
- (3) Qualifying Plastic Pipe Joiners § 192.285(c)
- (4) Mill Hydrostatic Tests for Pipe To Operate at Alternative Maximum Allowable Operation Pressure § 192.112

- 10. Calculating Pressure Reductions for Hazardous Liquid Pipeline Integrity Anomalies.

- (1) 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.
- PHMSA has adopted language that more clearly identifies the types of individuals who should be excluded from the required inspections, (*i.e.*, the individual who performed the construction task that requires inspection).

(1) Responsibility to Conduct Construction Inspections § § 192.305 and 195.204.

C PHMSA believes that allowing individuals to inspect their own work defeats, in part, the measure of safety garnered from such inspections.

○ PHMSA was <u>not intending</u> to require third party inspections or <u>attempting to prohibit</u> any person from a company to inspect the work of another person from the same company.

(1) Responsibility to Conduct Construction Inspections § §192.305 and 195.204.

№ PHMSA proposed to revise §§ 192.305 and 195.204 <u>to prohibit</u> <u>individuals</u> involved in the construction of a transmission line, main or pipeline system <u>from inspecting his or her own work.</u>

(2) Leak Surveys for Type B Gathering Lines § 192.9.

- → PHMSA proposed that operators of Type B gathering lines must perform leak surveys in accordance with § 192.706 and fix any leaks discovered.
- → PHMSA has adopted § 192.9(d)(7) as proposed with the minor modification of substituting the word "fix" with "repair."

- (3) Qualifying Plastic Pipe Joiners § 192.285(c)
- № PHMSA proposed to revise § 192.285 to provide greater
 scheduling flexibility and require requalification of a joiner if any production joint is found unacceptable.
- NAPSR commented that the <u>existing regulatory</u> language sets a <u>very low standard</u> for joiner requalification and noted that the large number of operators requesting similar waivers demonstrates that a requalification system like the one proposed in its resolution is acceptable and preferred by pipeline operators.

- (3) Qualifying Plastic Pipe Joiners § 192.285(c)
- Reveral comments from industry were against the proposal citing its restrictiveness, and lack of data.
- PHMSA does not believe the proposed requirements are as onerous as some of the commenters indicated, nor would there necessarily be a zero tolerance policy in effect as a result of the proposed changes.

- (3) Qualifying Plastic Pipe Joiners § 192.285(c)
- → PHMSA expects some evaluation would be done following any unacceptable joint, and in some cases evaluation may be necessary on a case-by-case basis.
- Reference PHMSA does not expect conditions beyond the control of the joiner to be used as a case to present requalifying of an individual

(3) Qualifying Plastic Pipe Joiners § 192.285(c)

A The Final Rule revises § 192.285 to provide greater scheduling flexibility and require requalification of a joiner if any production joint is found unacceptable.

- (4) Mill Hydrostatic Tests for Pipe To Operate at Alternative Maximum Allowable Operation Pressure § 192.112
- PHMSA proposed to revise § 192.112(e) by eliminating the allowance for combining loading stresses imposed by pipe mill hydrostatic testing equipment for the mill test.
- Reliminating the allowance to combine equipment loading stresses will have the effect of increasing the internal test pressure for mill hydrostatic tests for new pipe to be operated at an alternative MAOP.

(5) Regulating the Transportation of Ethanol by Pipeline § 195.2

- Real PHMSA proposed to modify its definition of "hazardous liquid" to include ethanol.
- In one of the comments, one of the operators suggested that the term "ethanol" and "bio-diesel petroleum" should be added to the definition of "hazardous liquid."

(5) Regulating the Transportation of Ethanol by Pipeline § 195.2

In this Final rule PHMSA has adopted the amendment to add the term "ethanol" to the definition of "hazardous liquids" in § 195.2, however "bio-diesel will not be added to this definition.

- (6) Limitation of Indirect Costs in State Grants § 198.13
- Reference PHMSA proposed to incorporate the 20 percent limitation on indirect expenses into the regulations governing grants to state pipeline safety programs.
- PHMSA <u>has decided not to adopt</u> the proposal into regulation. However, PHMSA will maintain the 20 percent indirect cost cap through language in our payment agreements with states.

- (7) Transportation of Pipe § 192.65
- A PHMSA proposed to revise the regulation to require that the rail transportation of all pipe be subject to the referenced API RP 5L1 standards.
- In addition, PHMSA is replacing the phase "Operator may not use pipe" with "Operator may not install pipe" to clearly indicate that this amendment does not apply to pipe already installed

(8) Threading Copper Pipe: § 192.279

PHMSA proposed to use "threaded copper pipe if the wall thickness is equivalent to the comparable size of Schedule 40 or heavier wall pipe as listed in Table 1 of ASME B36.10M, Standard for Welded and Seamless Wrought Steel Pipe."

(8) Threading Copper Pipe: § 192.279

PHMSA is unable to incorporate ASME/ANSI B36.10M, because the law prohibits the Secretary from issuing a regulation that incorporates by reference any document unless that document is available to the public, free of charge, but removes the Internet Web site requirements.

Representation PHMSA will address this proposal in a future rulemaking action.

(9) Offshore Pipeline Condition Reports §§ 191.27 and 195.57

R PHMSA proposed to remove §§ 191.27 and 195.57.

- Sections 191.27 and 195.57 require operators to submit a report to PHMSA within 60 days of completing the underwater inspections of pipelines in the Gulf of Mexico required by §§ 192.612(a), and 195.413(a).
- In addition, Sections 192.612(a) and 195.413(a) no longer require operators to perform an underwater inspection of all pipelines in the Gulf and its inlets. (*See also* Pub. L. 102-508 (Oct. 24, 1992),
 - But rather a periodic, risk based inspection of shallow-water pipelines

(10) Calculating Pressure Reductions for Hazardous Liquid Pipeline Integrity Anomalies § 195.452(h)(4)(i)

- PHMSA sought to modify § 195.452(h)(4)(i) to provide for alternative methods of calculating a pressure reduction for immediate repair conditions caused by threats other than corrosion.
- After comments, PHMSA will amend the rule as proposed as well as require that an operator must calculate remaining strength or reduce operating pressure until a repair can be completed.

- (11) Testing Components Other Than Pipe Installed in Low-Pressure Gas Pipelines § § 192.503 and 192.505
- № PHMSA proposed to amend §§ 192.503 and 192.505 to exempt certain components from the strength test requirement in Subpart J of Part 192.
- C A Lastly, although industry has asked to add an expansion list and source of standards for other components, it is out of the scope of this rulemaking.

(12) Alternative MAOP Notifications § 192.620(c)(1)

- PHMSA proposed to require that for new pipelines, an operator would notify the PHMSA pipeline safety regional office of planned alternative MAOP design and operations <u>180 days prior</u> to start of <u>pipe manufacturing or construction activities</u>.
- Final Rule: Notification to PHMSA of new alternative MAOP pipeline project activities at <u>least 60 days prior</u> to start of pipe manufacturing or construction activities should not delay operator project activities.

(13) National Pipeline Mapping System §§ 191.29, 195.61

- PHMSA proposed to <u>codify</u> the statutory requirement for the submission of the NPMS data into Parts 191 and 195.
- An NPMS submission consists of geospatial data, attribute data and metadata, public contact information, and a transmittal letter
- PHMSA encourages operators to make their submissions early beginning on January 1 of each year. In the Final Rule, PHMSA is adopting the amendment to the NPMS as proposed.

(14) Welders vs. Welding Operators §§ 192.225, 192.227,192.229, 195.214, 195.222

○ PHMSA proposed to add references to additional qualification standards in API Std 1104, such as sections 12 and 13 for welders and welding operators of mechanized and automated welding equipment.

Real However, upon further review, Section 13, will not be added.

(14) Welders vs. Welding Operators §§ 192.225, 192.227,192.229, 195.214, 195.222

C The Final Rule allows welds to be evaluated to API Std 1104, section 9 or Appendix A, and <u>eliminates the requirement</u> that the weld be first evaluated to section 9, before using Appendix A.

(15) Components Fabricated by Welding § 192.153

- An operator must specify the correct test pressure when placing an order for an ASME vessel to ensure it is designed and tested to the requirements of <u>49 CFR part 192</u>.
- Unless a vessel is specially ordered with a test pressure of 1.5 times MAOP as prescribed by the purchaser, the vessel will be tested in accordance with the standard test factor of 1.3.

- If the vessel is not tested to 1.5 times the MAOP, it cannot be used in a compressor or meter station, or other Class 3 or Class 4 locations.
- Under the proposal, all ASME pressure vessels subject to § 192.153 and § 192.165(b)(3) would be designed and tested at a pressure that is 1.5 times the MAOP, in lieu of the standard ASME BPVC, section VIII test pressure of 1.3 times the MAOP. Additionally, PHMSA proposed to revise § 192.165(b)(3) reference to this requirement.

(16) Odorization of Gas Transmission Lateral Lines § 192.625

- GPAC members found it difficult to agree on how to calculate the 50 percent of a lateral line between the distribution center and the first upstream connection to the transmission line.
- Proposal requires further analysis, and will be revisited in future rulemaking action.

Editorial Amendments

- In section 192.3 we proposed to add the definition of "Welder" and "Welding Operator.
- In § 195.2, we proposed to revise the definitions of "alarm" and "hazardous liquid."
- PHMSA does not wish to be notified about hazardous liquid pipeline facility construction with a cost of less than ten million dollars, so § 195.64(c)(1)(iii) is being deleted.

Editorial Amendments

The NPRM proposed to remove the requirement to file offshore pipeline condition reports currently found in §§ 191.27 and 195.57. This Final Rule completes the removal and changes §§ 191.7 and 195.58 by removing the reference to offshore pipeline condition reports.

Editorial Amendments

Safety-Related Condition Report

- Sections 191.25 and 195.56 include the method for submitting safety-related condition reports.

IBR listed in the Final Rule

American Petroleum Institute's (API), API Specification 5L, "Specification for Line Pipe," (API Spec 5L). 45 edition – Incorporated by Reference on January 5, 2015 – Mill test ASME Boiler & Pressure Vessel Code, section VIII Rules for Construction of Pressure Vessels API Standard 1104, "Welding of the ASME Pipelines and Related Facilities and Appendix A CR API RP 5L1



Random Drug Testing Rate, Contractor Management Information System Reporting, and Obtaining Drug and Alcohol Management Information System Sign-In Information

- PHMSA has determined that the minimum random drug testing rate for covered employees will remain at 25 percent during calendar year 2015.
- Operators are reminded that drug and alcohol testing information must be submitted for contractors performing or ready to perform covered functions.

Random Drug Testing Rate, Contractor Management Information System Reporting, and Obtaining Drug and Alcohol Management Information System Sign-In Information

○ For calendar year 2014 reporting, PHMSA will not attempt to mail the "user name" and "password" for the Drug and Alcohol Management Information System (DAMIS) to operators, but will be available in the PHMSA Portal

(https://portal.phmsa.dot.gov/pipeline).

- Public workshop on Managing Pipeline Cracking
 <u>Challenges</u> was held on Tuesday August 5, 2014 from
 9:00 am to 5:00 pm. The following agenda was discussed:
 - Criteria for determining when a probable crack defect in a pipeline segment must be excavated,
 - The time limits for completing those excavations and models for determining crack growth rates.
 - The state-of-the-art of crack detection in hazardous liquid and natural gas pipelines.

- Public workshop on Managing Pipeline Cracking
 <u>Challenges</u> was held on Tuesday August 5, 2014 from
 9:00 am to 5:00 pm. The following agenda was discussed:
 - Perspectives on the challenges involved with detecting and characterizing crack like defects, including environmentally assisted cracks and cracks with corrosion, will be provided from pipeline operators and regulators.



Resentations held at the workshop can be view at the following website link:

http://primis.phmsa.dot.gov/meetings/MtgHome.mtg?mtg=9
7&nocache=9447

Contact Information

Bryan Kichler

Bryan.Kichler@dot.gov

405-203-2801

