

Pipeline Safety

Topics of Discussion

2022

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Seminar Housekeeping

- **Handouts**
 - **PHMSA regulations**
 - **Note-taking material**
 - **Contact List for Inspectors**
- **Feedback Survey**
- **Certificates available for those that request them.**

Presentations

- Public version of all presentations will be available on KCC website.
- Link listed on the agenda and on the center of your table.

KCC Pipeline Safety Training Opportunities

- **Kansas Municipal Utilities training center.**
- **Barton County Community College.**
- **KCC Coordinated Municipal/small utility training (anyone can attend)**
 - **Focus on emergency response and generic tasks.**
 - **Typically 80 attendees; 30 operators**
 - **Rozel**
 - **Chanute**
 - **Sawyer**
 - **McLouth**
 - **Moundridge**

KCC Pipeline Safety Training Opportunities

- **Pipeline Safety Newsletter.**
- **Other training opportunities/seminars**
 - **Quarterly large operator meetings**
 - **Joint Large Operator meetings?**
 - **Trade Association Meeting**
 - **City Councils?**

www.kcc.ks.gov

- **2011-2021 Presentations also available.**
- **Other presentations available from past years, but not on website.**

www.kcc.ks.gov

- **Click on Pipeline Safety tab**
- **Pipeline Safety Forms**
- [Form 1 Pressure test records](#)
- [Form 2 Leak investigation and repair](#)
- [Form 3 Leak data](#)
- [Form 4 Leak summary](#)
- [Form 5 P.E. Joining qualification test](#)
- [Form 6 Cathodic protection- pipe to soil readings](#)
- [Form 7 Monthly odorometer tests](#)
- [Form 8 Casing reports](#)
- **And more.....**

PHMSA Explanation of Concepts: Staff Manuals and Instructions Enforcement Guidance

- <http://www.phmsa.dot.gov/foia/e-reading-room>
- <https://www.phmsa.dot.gov/pipeline/enforcement/enforcement-program-0>

American Public Gas Assn. Security & Integrity Foundation APGA-SIF

- www.apgasif.org
 - SHRIMP Program for Distribution Integrity Management
 - Drug and Alcohol Program
 - Operations and Maintenance Procedures
 - Operator Qualification Training and Evaluations

Discussion of Current Topics Related to Pipeline Safety Regulations

GOALS

- *Discuss questions derived from Staff field observations related to regulation.*
- *Receive input from operators.*
- *Official interpretations will be issued in writing.*
- *Vetted through operators and PHMSA.*

Discussion of 192.635 potential rupture definition and its application to distribution systems

- **[Docket No. PHMSA–2013–0255; Amdt. Nos. 192–130; 195–105] RIN 2137–AF06**
- Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards
 - Contains preamble describing intent of rule and final rule as promulgated in regulations

Potential Rupture Definition

Preamble

- **DATES:** The effective date of this final rule is October 5, 2022
- The final rule requires operators of gas pipelines to contact 9– 1–1 emergency call centers immediately upon notification of a potential rupture and conduct post-rupture investigations and reviews.
- requires all gas pipelines subject to failure investigation requirements to conduct post-rupture investigations and to incorporate lessons learned from such investigations into their personnel training and qualifications programs, and in design, construction, testing, maintenance, operations, and emergency procedure manuals and specifications.

Potential Rupture Definition

Preamble

- The only requirements in this rule intended to apply to gas distribution pipelines are the requirements at § 192.615 for contacting 9–1–1 call centers and at § 192.617 pertaining to post-incident analysis and implementation of lessons learned.

Potential Rupture Definition

Preamble

- As for the scope of the proposed failure investigation requirements for gas pipelines, because PHMSA included the amendments in the existing regulations at § 192.617(a) and (b), PHMSA intended those proposed requirements to apply to distribution pipelines, which were already subject to the existing requirements of that section

192.615 changes

-) Establishing and maintaining adequate means of communication with the appropriate public safety answering point (*i.e.*, 9–1–1
- Operators may establish liaison with the appropriate local emergency coordinating agencies, such as 9–1–1 emergency call centers or county emergency managers, in lieu of communicating individually with each fire, police, or other public entity
- (6) Taking necessary actions, [for] emergency shutdown, valve shut-off, or pressure reduction, in any section of the operator's pipeline system, to minimize hazards of released gas to life, property, or the environment

192.615 changes

- (8) Notifying 911.. of gas pipeline emergencies to coordinate and share information to determine the location of the emergency,
- The operator must immediately and directly notify the appropriate public safety answering point... in which the pipeline is located after receiving a notification of potential rupture, as defined in § 192.3, to coordinate and share information to determine the location of any release
- Each operator must develop written rupture identification procedures to evaluate and identify whether a notification of potential rupture, as defined in § 192.3, is an actual rupture event or a non-rupture event

192.615 changes

- (12) Each operator must develop written rupture identification procedures to evaluate and identify whether a notification of potential rupture, as defined in § 192.3, is an actual rupture event or a non-rupture event.
- *Do the last requirements of (8) and (12) apply to distribution systems?*

192.617 changes paragraphs (a) and (b) only

- Each operator must establish and follow procedures for investigating and analyzing failures and incidents
- *Post-failure and incident lessons learned.* Each operator must ..incorporate lessons learned from a post-failure or incident review into its written procedures, including personnel training and qualification programs, and design, construction, testing, maintenance, operations, and emergency procedure manuals and specifications

Discussion of Current Topics Related to Pipeline Safety Regulations

Kansas Updated Regulations

December 2021

www.kcc.ks.gov

[https://kcc.ks.gov/images/PDFs/pipeline/2021%20KCC Pipeline_Safety_Regulations%20book.pdf](https://kcc.ks.gov/images/PDFs/pipeline/2021%20KCC_Pipeline_Safety_Regulations%20book.pdf)

- *New Format; Prepared by ViaData*
- *No real changes to state regulations, but new numbering system*

KCC Pipeline Safety Regulations

Part 191 Adoption

- ***What Kansas Changed***

- An operator may satisfy this filing requirement by informing the gas pipeline safety section of the commission in writing of the date of submission of form PHMSA F 7100.1-1 to the U.S. department of transportation
- *Send an email noting it was filed with PHMSA.*

- **What Kansas Did NOT Change**

- **Definitions in 191.3**

KCC Pipeline Safety Regulations

Definition of Incident

- Release of gas that results in one or more of the following:
 - Death or Personal Injury
 - Property Damage of \$129,300 or more (as adjusted)– **INCREASED FROM \$50,000**
 - Unintentional lost gas of 3MMCF or more.
 - Emergency shutdown of LNG or Storage
 - An event considered significant

KCC Pipeline Safety *Staff*

Notification Requests

- **Loss of service or 50 customers or more**
- **Media attention**
- **Gas release involved with fire or explosion
*(even if below the \$122,000)***

KCC Pipeline Safety Staff Notification Requests

- **Gas release involved with fire or explosion
(*even if below the \$122,000*)**
- ***Standard checks for gas associated fires***
 - ***Service regulator lock-up pressure.***
 - ***Check for readily detectable odor***
 - ***Have a 3rd party witness (emer. Response personnel)***

2023 Inspection Focus

Part 192 Procedures

- Procedures Recap:
 - Definition: The act or method of proceeding in an action.
 - Subpart L: 12; Subpart M: 25; Subpart I: 20.
 - Only need a procedure for what is in your system;

2023 Inspection Focus

Part 192 Procedures

- **Procedures are basis for most training**
- Procedures are used for operator qualification (192.800's)
 - Ensure individuals (*your staff and consultants*) are qualified by evaluating
 - Knowledge
 - Skills
 - Ability

2023 Inspection Focus

Part 192 Procedures

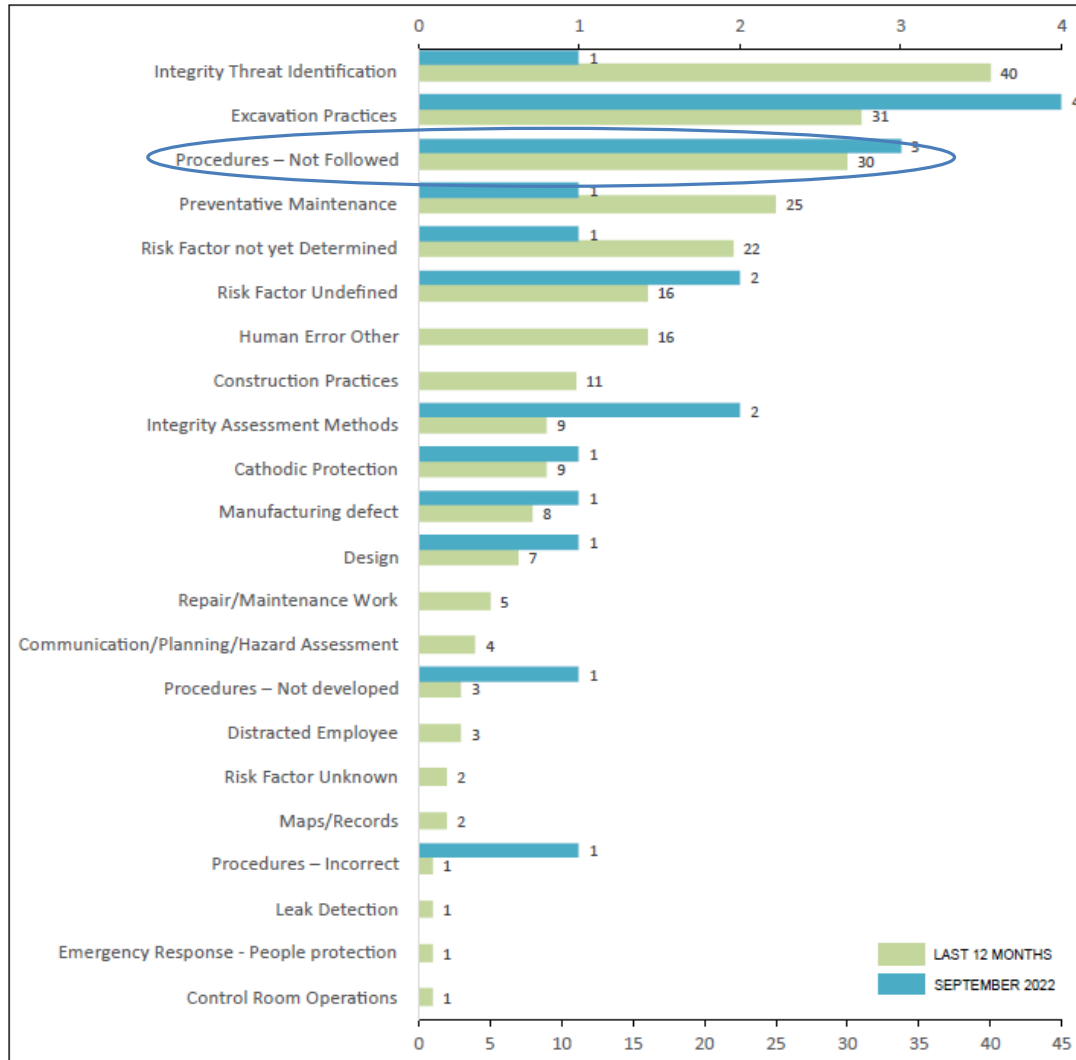
- **Read Procedures and train to them**
 - *Even if you are using a consultant O&M*
- Consultant can assist but never completely perform emergency procedures.

Emergency Response Procedures

- Procedure failure (inadequate or failure to follow) is the predominant cause of emergencies escalating out of control.
 - Take action to save lives
 - Stabilize the incident
 - Mitigate further consequences
- Evacuation of buildings or areas
 - Delays in implementation of evacuation
 - Refusal of evacuation requests/orders
 - Migration of natural gas, especially distribution

National Incidents by Cause

STATE REGULATED
INCIDENTS BY RISK FACTOR



PIPES Act of 2020

Self Executing Provision
(AKA Legislative Mandate)



2021 New Enforceable Initiative:

Advisory Bulletin issued 6-10-2021

- **Section 113 of PIPES Act**
 - **Requires certain classes of operators to conduct leak detection and repair programs to:**
 - **(a) meet the need for gas pipeline safety**
 - **(b) protect the environment**

- **Section 114 of PIPES Act**
 - **Minimize releases of natural gas from pipeline facilities**
 - **Operator compliance by December 27, 2021**
 - **State inspector evaluation of compliance plans no later than December 28, 2022.**

2021 New Enforceable Initiative:

Advisory Bulletin issued 6-10-2021

- **Section 114(b) of PIPES Act**
 - **Update O&M plan by 12-27-21**
 - **Address elimination of hazardous leaks**
 - **Minimize release of natural gas**
 - **Address intentional venting**
 - **Address remediation of pipelines known to leak because of type of material**
 - **Unprotected steel; historic plastics**
 - **KCC will have completed all O&M reviews for this procedure, BUT...**

2021 New Enforceable Initiative:

Advisory Bulletin issued 6-10-2021

- **Section 114(b) of PIPES Act**
- **KCC will have completed all O&M reviews for this procedure, BUT...**
- **Expect additional audit questions and regulations to be promulgated by PHMSA to audit compliance with new procedures.**

Pipeline Damage Caused by Earth Movement

Advisory Bulletin issued 6-10-2022

- Safety related issues caused by shifting soils
 - Flooding; erosion; drought; slope stability
- § K.A.R. 82-11-4(b)(33) [192.721] requires operators of distribution to have a patrol program for mains and service/yard lines to observe surface conditions for indications of leaks, construction activity, and other factors affecting safety and operation.
- The frequency of these patrols must be based upon the severity of the conditions which could cause failure or leakage, and the consequent hazards to public safety
- One of the primary reasons for this patrol requirement is to monitor geological movement, both slowly occurring and acute changes, which may affect the current or future safe operation of the pipeline.

How Frequent to Patrol?

Advisory Bulletin issued 6-10-2022

- The frequency **based upon the severity of the conditions which could cause failure or leakage**, and the consequent hazards to public safety but at least:
 - Business districts 4 times/year where loading could cause failure; otherwise 2 times/year
 - Outside business district 2 times/year where loading could cause failure; otherwise 1 time/year
 - Service/yard lines once every 3 years

How Frequent to Patrol?

Advisory Bulletin issued 6-10-2022

- The frequency **based upon the severity of the conditions which could cause failure or leakage**, and the consequent hazards to public safety ...
 - Many operators rely on meter readers for patrolling
 - Patrolling frequency/results based on severity of conditions affected by AMR meter reading?

How Frequent to Patrol?

Advisory Bulletin issued 6-10-2022

- O&M procedure and/or training should address how to document patrol results
 - Especially if patrolling while performing a leak survey.
 - Who reviews patrolling records for completeness and QA/QC of the patrol records





10/31/2022

Kansas Corporation Commission

Meter bank on medical clinic



10/31/2022

Kansas Corporation Commission

The frequency based upon the severity of the conditions which could cause failure or leakage, and the consequent hazards to **public safety**



EFV or Manual curb valve

- After April 2017, Multifamily residences with known customer loads not exceeding 1,000 SCFH per service,
- Install either a manual service line shut-off valve or, if possible, an EFV for any new or replaced service line with installed meter capacity exceeding 1,000 SCFH.
- Manual service shut- off valves installed under this section are subject to regular scheduled maintenance, as documented by the operator and consistent with the valve manufacturer's specification.

Manual curb valve FAQ

May 17, 2022

- 192.385(c): Manual service valves are subject to regular scheduled maintenance, documented by the operator and consistent with the valve manufacturer's specification
- scheduled maintenance should be documented in the O&M and consider the valve manufacturer's specifications for proper maintenance.
- Maintenance and *inspection interval* procedures should also be documented in each operator's O&M procedures

Frequency of Inspection

- How often should a curb valve be checked?
- Should it be partially operated when checked?
 - If valve box full of debris, inspection should be more frequent;
 - Partial operation is a best practice
 - More frequent inspections based on the risk to the customer being served
 - Hospitals and other limited mobility customers.

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