Kansas Corporation Commission

Pipeline Safety Discussion Topics

Discussion of Current Topics Related to Pipeline Safety Regulations

- **GOALS**
  - ***Discuss questions related to regulation.***
  - ***Receive input from operators.***
  - ***"Official interpretations" will be issued in writing.***
    - ***Vetted through operators and PHMSA.***

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Gas gathering and Distribution

- **Gathering: moves gas FROM production TO transmission**
- **Distribution moves gas to end user.**

KCC Interpretation

- **End use customers connected to gathering are distribution piping.**
  - **Odorization.**
  - **Leak surveys.**
  - **Public awareness. (supplemental msg?)**
  - **One call.**
  - **Does this apply to the company office?**

KCC Interpretation

- **End use customers connected to TRANSMISSION are distribution piping.**
  - **Odorization.**
  - **Leak surveys.**
  - **Public awareness.**
  - **One call.**
  - **Does this apply to the company office?**

Blending Unprocessed Gas from Local Production

- **192.197(b)** Service Regulators…if the gas contains materials that seriously interfere with the operation of service regulators, there must be suitable protective devices to prevent unsafe overpressuring of the customer's appliances if the service regulator fails.
- **192.739(a)** Each relief device… and pressure regulating station and its equipment must be subjected … to inspections and tests to determine that it is:
  - (1) In good mechanical condition;
    ……
  - (4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.

Blending Unprocessed Gas from Local Production

- **§192.475 Internal corrosion control: General.**
- (a) Corrosive gas may not be transported by pipeline, unless the corrosive effect of the gas on the pipeline has been investigated and steps have been taken to minimize internal corrosion.
- (b) Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion.
- (c) Gas containing more than (4 parts per million H_2S) may not be stored in pipe-type or bottle-type holders.

- **192.477** If corrosive gas is being transported, coupons or other suitable means must be used to determine the effectiveness of the steps taken to minimize internal corrosion**…….**

Blending Unprocessed Gas from Local Production

- **Unprocessed gas in a distribution system may introduce additional safety threats to be considered in DIMP!!**

Blending Unprocessed Gas from Local Production

- **Simple Solution:**

- **Enforce the terms of your purchase contract.**

- **Monitor producer's compliance with the terms of purchase contract.**

Blending Unprocessed Gas from Local Production

- **Additional Solutions:**

- **Inspect district regulators for debris and liquids. Document results.**

- **Install screens/filters on district regulators.**

Other Gathering Concerns

- **Watch for additional regulations on Class 1 areas within the next year.**
- **Comment on Notice of Proposed Rulemaking!!!**

Other Gathering Concerns

- **Potential regulatory issues**
  - **Class 1 high pressure/large diameter to be Type A gathering.**
  - **All gathering required to be in One Call.**
  - **All gathering required to file annual and incident reports.**
  - **Gathering in Class 2-4 areas required to perform leak surveys and public awareness.**

PE-Steel Transition: CP Requirements for Short Sections

- **§192.455 External corrosion control: …** each…pipeline… installed after July 31, 1971, shall be protected against external corrosion by:
  - An external protective coating…; and
  - A cathodic protection system….

PE-Steel Transition: CP Requirements for Short Sections

- **§192.465 [82-11-4(m)] External corrosion control: Monitoring.** …If tests are impractical for separately protected short sections of mains or …service lines, these pipelines may be surveyed on a sampling basis. At least one-third of the separately protected short sections, distributed over the entire system, shall be surveyed each calendar year, with a different one-third checked each subsequent year, so that the entire system is tested in each three-year period.

PE-Steel Transition: CP Requirements for Short Sections

- Coated and wrapped.
- CP installed.
- Monitored every three years.
- PE transition failures due to corrosion track as corrosion leak.

Required Procedures

- **192.605(a) Each operator shall prepare and follow a manual of written procedures for conducting operations and maintenance activities and for emergency response.**

- **192.13(c) Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.**

Required Procedures

- ***A procedure gives steps on HOW to do something. It's not a definition.***
- ***Procedures must provide enough detail to be consistently applied by operating personnel.***
- ***If procedure references another document, that document becomes part of O&M and is enforceable under 192.13(c).***

Valve Placement

- 192.181(a)[82-11-4(b)]: Each high-pressure distribution system shall have valves spaced to reduce the time to shut down a section of main in an emergency.

- Each operator shall specify in its O&M the criteria as to how **valve locations** are determined …

Valve Placement

- 192.181(c) Each valve on a main installed for operating **OR** emergency purposes must comply with the following:
- (1) The valve must be placed in a readily accessible location so as to facilitate its operation in an emergency.
- (2) The operating stem or mechanism must be readily accessible.
- (3) …a valve box must be installed so as to avoid transmitting external loads to the main.

Emergency Valve Usage

- O&M should tell where to find the valve; how to operate the valve; and provide guidance on **WHEN** to operate the valve.

  Items to Consider:

  - Impact of leaking gas on protecting life and property.
  - Effect of reducing pressure and/or flow at leak site.
  - Collateral impact of lost gas service if cold weather.

Valve Placement

- 192.181(a)[82-11-4(b)]: Each operator shall specify in its O&M manual the criteria as to how valve locations are determined using, as a minimum:
  - the operating pressure,
  - the size of the mains, and
  - **the local physical conditions**.

Valve Placement

- **The Local Physical Conditions**.

- Consider small town with old downtown business district;
  - Buildings share a common wall.
  - All mains and services are under concrete.
  - Limited water supply for fire protection.
  - Fire service not located in town.

Valve Placement

- **KCC Staff looking for feedback on:**
  - Recommendation to install isolating valves for all downtown business districts where:
    - **buildings with two or more stories above ground;**
    - **share a common wall; and**
    - **the ISO fire rating of the town is 5 or higher.**
  - **Will Consider for future Rulemaking!**

OQ Qualification Trail

- Covered task;
- Person performing task;
- Evaluation methods- who evaluated;
- Continuing performance evaluation;
- Re-evaluation interval;
- Re-evaluation records.

OQ Qualification Trail

- Evaluation methods;
- Re-evaluation interval;
- Re-evaluation records.

OQ Qualification Trail

- **Evaluation methods;**
  - **Demonstrate Knowledge, Skills, and Ability.**
  - **Checklist format is appropriate for most covered tasks.**
  - **Evaluation needs to cover “critical” steps.**

OQ Qualification Trail

- **Re-evaluation interval;**
- **Re-evaluation records.**

  - Most have selected 3 years as time interval.
  - Inspectors observe instances of lapsed qualifications.
  - Incomplete records for re-evaluations.
  - Records on contractors re-evaluations.

OQ Qualification Trail

- **Records on contractor evaluations.**
  - **Operator performs evaluation.**
    --OR--
  - **Operator reviews evaluation done by others.**
    - **Requires background work on methodology used by previous evaluators.**
    - **Contractors need to provide documentation of evaluation – not just a sign-up sheet!**

OQ Qualification Trail

- **Re-evaluation in spring 2011**
- **In 2010, KCC partnered with Kansas Municipal Utilities to coordinate re-evaluation of certain tasks by municipal operators and small private operators.**
  - **Qualified 54 personnel for emergency response, leak survey, locating,**

OQ Management of Change

- **192.805(f): The OQ program shall include provisions to…Communicate changes that affect covered tasks to individuals performing those tasks.**

- **192.805(h): provide training…to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks…**

OQ Management of Change

- **Protocol 8.01: Verify that the operator's program includes provisions for the communication of changes in the qualification program to the affected individuals.**

KCC Interpretation: OQ Management of Change

- **Any change to O&M that affects covered task must have a record that shows how task was communicated to personnel and how they were trained for task modification.**
- **Signed record of receipt is insufficient.**

Automated Meter Reading

- **AMR will affect ability of operator to monitor conditions around meter setting.**

- **192.721(a) …the frequency with which mains are patrolled shall be determined by the severity of the conditions which could cause failure or leakage…**

Automated Meter Reading

- **AMR will affect ability of operator to monitor conditions around meter setting.**

- **192.605(b): The O&M must include procedures for…(14) Identifying conditions which will require patrols of a distribution system at intervals shorter than the maximum intervals listed in K.A.R. 82-11-4 (cc).**

KCC Interpretation: Automated Meter Reading

- **Procedures for more frequent patrols must address conditions when more frequent patrols of meters sets will be required.**

- **Fewer observations of meter sets because of AMR should be considered in DIMP analysis.**

DIMP Ideas for Additional Actions

- **List the Safety Threat;**
- **Evaluate the Risk;**
  - **Chance of occurrence X Consequence**
- **Action Plan to Reduce Risk.**
  - **Consider formal Long Term Replacement Plans as an action to reduce risk.**
  - **For small operators, this may include financial planning as well.**
  - **Grant money may be available for this process.**

KCC Little Known Deadlines

- **Transmission pipes NPMS map filings**
  - **49 USC Sec. 60132 01/19/04 National pipeline mapping system. Not a regulation; part of federal statute.**
  - **shall provide to Geospatial data for use in the NPMS.**
  - ***shall provide PHMSA updates of the information to reflect changes in the pipeline facility.***
  - ***Applies to all Trans. Lines – no matter how small!!***

KCC Little Known Deadlines

- ***ONE CALL DAMAGE REPORTS***

- ***If receive more than 2000 locates per year, must report damages***

  EVERY SIX MONTHS…..
- ***Due in February and August.***

KCC Little Known Deadlines

- **CONSTRUCTION NOTICES**

- **For small operator, every job greater than 500 feet.**
- **For large operator, every job greater than 1000 feet.**
- ***At least 10 business days before the commencement of the construction project.***

192.603 (*K.A.R. 82-11-4(x)*)

- ***Requires monitoring consultants and contractors.***

- ***Do your excavation contractors have operating guidelines for trenchless excavation techniques?***

KCC Little Known Deadlines

- **CONTRACTOR NOTICES**

- **For small operator, must notify KCC when a consultant is performing a survey or inspection for pipeline safety.**

- ***At least 10 business days before the survey or inspection is to be conducted by the consultant.***

Safety Related Conditions

- A leak in a pipeline that constitutes an emergency.
- (8) Any safety-related condition that could lead to an imminent hazard and causes a 20 percent or more reduction in operating pressure ***or shutdown of operation*** of a pipeline that contains gas.
  - ***UNLESS***

Safety Related Conditions

- ***The condition exists on a pipeline more than 220 yards from any building intended for human occupancy or outdoor place of assembly, except that reports are required for conditions within the right-of-way of an active railroad, paved road, street or highway; or***
- ***Is corrected by repair or replacement within 10 working days of discovery.***

Safety Related Conditions Reporting

- ***(a) Received by the commission in writing within five working days***
- ***The report must be headed "Safety Related Condition Report" and provide the following information:***
- ***(1) Name and principal address of operator***
- ***(2) Date of report.***
- ***(3) Name, job title, and business telephone number of person submitting the report.***
- ***(4) Name, job title, and business telephone number of person who determined that the***
- ***condition exists.***
- ***(5) Date condition was discovered and date condition was first determined to exist.***
- ***(6) Location of condition, with reference to the State (and town, city, or county) nearest street address, offshore survey station number, milepost, landmark, or name of pipeline.***
- ***(7) Description of the condition, including circumstances leading to its discovery, any significant effects of the condition on safety, and the name of the commodity transported or stored.***
- ***(8) The corrective action taken (including reduction of pressure or shutdown) before the report is submitted and the planned follow-up future corrective action, including the anticipated schedule for starting and concluding such action.***

KCC Interpretation
Safety Related Conditions

- ***If the operator has a significant event:***
  - ***(outage with >50 customers out of service;***
  - ***Pipeline cut, odor release, or other event with media attention;***

KCC Interpretation
Safety Related Conditions

- ***Notify the KCC within 2 hours of receiving notice…***
  - ***(preferably sooner!)***

Damage Prevention Requirements

- ***(c) The damage prevention program must:***
- ***(1) Include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which the pipeline is located.***
- ***(2) Provide notification of the persons identified in paragraph (c)(1) of this section as often as needed to make them aware of the damage prevention program:***
- ***(i) The program's existence and purpose; and***
- ***(ii) How to learn the location of underground pipelines before excavation activities are begun.***

KCC Interpretation on Excavator lists

- ***SENDING A LIST FROM THE PHONE BOOK TO KANSAS ONE CALL IS NOT SUFFICIENT!!!!***
- ***Review KOC excavator meeting list to see if excavators in your area attended the meeting.***

KCC Interpretation on Excavator lists

- ***SENDING A LIST FROM THE PHONE BOOK TO KANSAS ONE CALL IS NOT SUFFICIENT!!!!***
- ***Review KOC excavator mailing list to see if excavators in your area received the mailing.***
- ***Do they understand it?***