Gas Gathering Update

Pipeline Safety – Getting to Zero
Pipeline Safety Trust
Annual Conference
New Orleans, Louisiana
November 17, 2011

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OUTLINE

• Definitions (49 CFR Part 192)

• Current Regulations (Onshore)
  – Type A lines
  – Type B Lines

• Issues

• Possible Rulemaking

• Questions
Gathering Line

A pipeline that transports gas from a current production facility to a transmission line or main.
Transmission Line

Transmission line means a pipeline, other than a gathering line, that:

1) Transports gas from a gathering line or storage facility to a gas distribution center, storage facility, or large volume customer that is not down-stream from a gas distribution center;
Transmission Line (continued)

Transmission line means a pipeline, other than a gathering line, that:

2) operates at a hoop stress of 20 percent or more of SMYS; or

3) transports gas within a storage field.
Distribution Line

A pipeline other than a gathering or transmission line.
Production Operation

Piping and equipment used for production and preparation for transportation or delivery of [gas] including the following:

a) Extraction and recovery, lifting, stabilization, treatment, separation, production processing, storage and measurement of [gas]; and or transmission line.
Production Operation

Piping and equipment used for production and preparation for transportation or delivery of [gas] including the following:

b) Associated production compression, gas lift, gas injection, or fuel gas supply.

(API Recommended Practice 80)
Simple definition

Gathering starts where production ends and ends when transmission starts.

The devil is in the details!!
Current Regulations

March 2006 Final Rule: Onshore Gas Gathering

Uses American Petroleum Institute Recommended Practice 80 (API RP 80) as the basis for defining an onshore gathering line, with additional limitations.
Current Regulations

Type A Regulated Onshore Gas Gathering Lines

Metallic lines with a maximum allowable operating pressure (MAOP) of 20% or more of specified minimum yield strength (SMYS), as well as nonmetallic lines with an MAOP of more than 125 psig, in a Class 2, 3, or 4 location.
Current Regulations

*Type A Regulated Onshore Gas Gathering Lines*

- Subject to all of the requirements for transmission lines, except for the accommodation of smart pigs in new and replaced lines and the gas integrity management requirements.

- Permitted to use an alternative process for complying with the operator qualification requirements.
Current Regulations

Type B Regulated Onshore Gas Gathering Lines

Metallic lines with an MAOP of less than 20% of SMYS, as well as nonmetallic lines with an MAOP of 125 psig or less, in a Class 2 location (as determined under one of three formulas) or in a Class 3 or Class 4 location.
Current Requirements

Type B Regulated Onshore Gas Gathering Lines

• Any new or substantially changed Type B line must comply with the design, installation, construction, and initial testing and inspection requirements for transmission lines and, if of metallic construction, the corrosion control requirements for transmission lines
Current Requirements

Type B Regulated Onshore Gas Gathering Lines

- Operators must include Type B lines within their damage prevention and public education programs, establish the MAOP of those lines under § 192.619, and comply with the line marker requirements for transmission lines.
CAVEAT

Neither Type A nor Type B Regulated Onshore Gas Gathering Lines are regulated in Class 1 areas (offshore areas or rural areas where there are 10 or fewer buildings intended for human occupancy within 220 yards on either side of the centerline of any continuous 1-mile segment of pipeline)
Gas Gathering Lines – Part 192

1. Pipeline is onshore operates at < 0 psig.
   - Not Regulated
   - Class 1
     - Per 192.5
   - Offshore gathering lines
   - Pipeline within inlets of the Gulf of Mexico
     - Must comply with 192.612
       - < 20% SMYS (metallic pipe)
         - ≤ 125 psig (non-metallic pipe)
       - ≥ 20% SMYS (metallic pipe)
         - > 125 psig (non-metallic pipe)

2. Evaluate pipeline (AW API RP 80)
   - Class 3 & 4
     - Per 192.5

3. Transmission
   - Follow Part 192 for class 1, 2, 3, or 4 Transmission lines

Type A
- Must comply with 192 that is applicable to transmission lines but not 192.150 and Subpart O. Class 2 (onshore) may use alternate method for Subpart N
- 192.8(b)(1)(b) +150 ft. x 1 mile with >10 but <46 dwellings
  - Yes
    - Type B
      - Comply with 192.614, 192.616, 192.619, 192.707, and Subpart I for metallic pipelines

- No
  - Not Regulated

Type B
- Must comply with 192.614, 192.616, 192.619, 192.707, and Subpart I for metallic pipelines
- 192.8(b)(1)(c) +150 ft. x 1000 ft. with 5 or more dwellings
  - OR
    - Yes
      - Type B
        - Comply with 192.614, 192.616, 192.619, 192.707, and Subpart I for metallic pipelines
  - No
    - Not Regulated

192.5(b)(2) Safety buffer required

Amdt. 192-102, 71 FR 13289, Mar. 15, 2006
Revised 12-22-2009
Issues

- API RP 80 was not created for the purpose of regulation and contains conflicting and ambiguous language
- PHMSA’s intended regulatory constraints contain editorial flaws
- Operator “misuse” of ambiguous language in RP has allowed some circumvention of intended regulation in populated areas
The 2006 rulemaking was based on the premise that gathering lines were small diameter/low energy lines

- Eliminated political boundaries as method for determining which gathering was regulated
- Used Class location criteria (Class 2, 3, & 4)
Risk Basis

• “Shale” developments don’t fit that risk analysis
  – 8” -30” diameter
  – 1480# MAOP

• 2 – 14 wells located on 1-2 acre sites
Gas Gathering installed in Fort Worth area since 2005
Risk Basis – Tiered Structure

- **Type “A”** = MAOP > 20% SMYS
  - Subject to transmission requirements minus IM
  - OQ “light” in class 2

- **Type “B”**
  - Compliance activities directly targeted at incident causes presented by GPA at 02/04 TPSSC
### Regulated vs. Non-Regulated

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Operators</th>
<th>Onshore Mileage (regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1483</td>
<td>16,033</td>
</tr>
<tr>
<td>2009</td>
<td>327 - 378</td>
<td>20,150</td>
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</tbody>
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Estimated total onshore mileage - 171,628 miles of non-regulated onshore gas gathering as reported by GPA at 02/04 TPSSC GPA membership = 40 companies

Does not include non-regulated mileage operated by the approx 7,000 member companies of IPAA (Independent Pet Assn of Amer)
NAPSR Resolutions

• Extend reporting requirements to all onshore gas gathering (‘06)

• Add leak survey requirements to Type “B” regulated (‘06)

• PHMSA modify 49 CFR Part 192.8 and 192.9 to establish regulatory requirements for gathering lines in Class 1 areas operating above 20% SMYS to be regulated as Type A gathering lines

(xx) = Year resolution adopted
NAPSR Resolutions

• PHMSA modify 49 CFR Part 192.8 and 192.9 to establish regulatory requirements for all gathering lines in Class 1 areas to be subject to 49 CFR Part 192.614 and 192.707 in order to minimize damage from 3rd party excavation; and

• PHMSA modify 49 CFR Part 192.8 and 192.9 to clarify its intent to establish a risk based regulation for the section of piping identified as incidental gathering in API RP 80. (‘10)

(xx) = Year resolution adopted
Possible Rulemaking

• Subject all onshore gas gathering to the reporting requirements contained in 49 CFR Part 191
  (satisfy #1 NAPSR resolution and collect data for future decisions)

• Develop and codify definitions for production and gathering

• Eliminate reference to API RP 80
Possible Rulemaking

- Address editorial issues regarding end of gathering in Part 192.9 (satisfy #3 NAPSR resolution)

- Add leak survey requirements to Type “B” (satisfy #2 NAPSR resolutions)

- Require OQ
Questions

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