Natural Gas Gathering Lines

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The Federal/State Partnership

- Pipeline and Hazardous Materials Administration (PHMSA) develops, issues and enforces the Pipeline Safety Regulations
- PHMSA has delegated responsibility for pipeline safety to PUCO for regulated gas pipelines in Ohio
- PUCO also performs pipeline safety inspections on interstate pipelines within Ohio as part of a cooperative agreement
State Duties and Obligations as part of the partnership

- Operator Inspections
- Compliance and Enforcement
- Incident Investigations
- Pipeline Construction Inspections
- Record Maintenance and Reporting
Facilities Inspected

- Local Distribution Companies (LDC)
- Transmission Pipelines
- Master Meter Operators
- Municipal Gas Systems
- Co-op Gas Systems
- Propane Systems
- Gathering Pipelines
Gas System Overview

- Production Operations as Defined by RP 80 (ODNR)
- Gathering Pipeline as Defined by RP 80 (PUCO)
- Transmission Pipeline (Gas) as Defined by CFR Part 192 (USDOT/PUCO)
- Transmission Pipeline (Liquid) as Defined by CFR Part 195 (USDOT)

- Home Heating
- Electric Power Generation
- Industrial Heating
- Local Government Heating
- CNG (Fleet Fuel, Buses...)

- Oil Refineries
- Petrochemical Plants

- Natural Gas
- Methane
- Interstate Gas Pipelines

- Gathering compression is used to lower line operating pressure to facilitate delivery into the pipeline from production operations or to increase downstream gathering line pressure for delivery to another pipeline.

- Propane

- Glad Bags
- Plastics
- Styrofoam
- Alcohols
- Other Chemicals

- Unleaded Gasoline
- Diesel
- Jet Fuel
- Asphalt
- Other
Definition of Gathering Lines

As defined in CFR Part 192:

Gathering Line means “a pipeline that transports gas from a current production facility to a transmission line or main”
How do you determine if a pipeline is a gathering line?

• CFR Part 192.8 states “An operator must use API RP 80 (incorporated by reference, see 192.7) to determine if an onshore pipeline (or part of a connected series of pipelines) is an onshore gathering line.”

• American Petroleum Institute Recommended Practice 80 (API RP 80) defines onshore gathering lines and “production operations”.
Definition of Production Operation

API RP 80 defines a Production Operation as:
“Piping and equipment used for production and preparation for transportation or delivery of hydrocarbon gas and/or liquids and includes the following processes: extraction and recovery, lifting, stabilization, treatment, separation, production, processing, storage, and measurement of hydrocarbon gas and/or liquids; and associated production compression, gas lift, gas injection, or fuel gas supply.”
Definition of Onshore Gathering Line

- API RP 80 defines an Onshore Gathering Line as any pipeline or part of a connected series of pipelines used to transport gas from the furthermost downstream point in a production operation to certain endpoints.
- These endpoints are often the furthermost downstream gas processing plant, gas treatment facility, gas gathering compressor, point of commingling of gas from two or more fields, or point of connection of the gathering line to another pipeline.
Which Gathering lines are regulated?

- Must use both 192.8 and API RP 80 to determine the “beginning” and “endpoint” of Gathering
- Once a line is determined to be a definitional Gathering line, the Operator must use 192.8 to determine if it is a “regulated onshore gathering line”
What requirements apply to gathering lines?

- Regulated gathering lines are classified as either “Type A” or “Type B” gathering lines based on hoop stress if pipeline is metallic or MAOP if pipeline is non-metallic.
- In general, requirements only apply to pipelines in Class 2, 3, and 4 areas.
Regulated Gathering Lines
New Developments – Senate Bill 315:

• Intent is to extend safety regulations to high stress Gathering pipelines collecting gas produced from horizontal drilling / fracking that are currently exempt from regulation.

• Modifies Ohio Revised Code, Section 4905.90 and creates a new section 4905.911.

• New law became effective on September 11, 2012.
Pre-Senate Bill 315

Production Operations

Transmission

Gas Processing Plant

Unregulated Gathering

Regulated Gathering

Class 1

Class 4
"Gas gathering pipeline" means a gathering line that is not regulated under the Natural Gas Pipeline Safety Act and the rules adopted by the United States department of transportation pursuant to the Natural Gas Pipeline Safety Act, including 49 C.F.R. part 192, as amended. "Gas gathering pipeline" includes a pipeline used to collect and transport raw natural gas or transmission quality gas to the inlet of a gas processing plant, the inlet of a distribution system, or to a transmission line.
"Processing plant gas stub pipeline" means a gas pipeline that transports transmission quality gas from the tailgate of a gas processing plant to the inlet of an interstate or intrastate transmission line and that is considered an extension of the gas processing plant, is not for public use, and is not regulated under the Natural Gas Pipeline Safety Act and the rules adopted by the United States department of transportation pursuant to the Natural Gas Pipeline Safety Act, including 49 C.F.R. part 92, as amended.
Post-Senate Bill 315

Class 1

Regulated Gathering Per Senate Bill 315

Class 4

Regulated Gathering

Gas Processing Plant

Transmission
(A)(1) The public utilities commission shall require an operator of either of the following types of pipelines that was completely constructed on or after the effective date of this section and that transports gas produced by a horizontal well to comply with the applicable pipe design requirements of 49 C.F.R. 192 subpart C:

• (a) A gas gathering pipeline;
• (b) A processing plant gas stub pipeline.
O.R.C. 4905.911 (continued)

(A)(2) The commission shall also require the operator to do all of the following regarding that pipeline:

- (a) Design, install, construct, initially inspect, and initially test the pipeline in accordance with the requirements of 49 C.F.R. 192 if the pipeline is new, replaced, relocated, or otherwise changed;
• (b) Control corrosion according to requirements of 49 C.F.R. 192 subpart I if the pipeline is metallic;

• (c) Establish and carry out a damage prevention program under 49 C.F.R. 192.614;

• (d) Establish and carry out a public education program under 49 C.F.R. 192.616;

• (e) Establish the MAOP of the pipeline under 49 C.F.R. 192.619;
O.R.C. 4905.911 (continued)

- (f) Install and maintain pipeline markers according to the requirements for transmission lines under 49 C.F.R. 192.707;

- (g) Perform leakage surveys according to requirements in 49 C.F.R. 192.706;

- (h) **Retain a record of each required leakage survey** conducted under division (A)(2)(g) of this section and 49 C.F.R. 192.706 **for five years** or until the next leakage survey is completed, whichever time period is longer.
(B)(1) Any person who plans to construct a pipeline subject to division (A) of this section after the effective date of this section shall file with the public utilities commission division of pipeline safety a form approved by the division that includes all of the following information:

- (a) The route of the proposed pipeline;
- (b) The MAOP of the pipeline;
- (c) The outside diameter of the pipeline;
- (d) The wall thickness of the pipeline;
- (e) The material that the pipeline will be made of;
- (f) The yield strength of the pipeline.

The form shall be filed with the division not later than twenty-one days prior to the commencement of construction of the pipeline.
O.R.C. 4905.911 (continued)

(B)(2) Not later than sixty days after the completion of construction of a pipeline subject to division (B)(1) of this section, the operator of the pipeline shall file with the public utilities commission division of pipeline safety an explanation of the constructed pipeline's route and operating information.
Questions?