



COLORADO

Oil & Gas Conservation Commission

Department of Natural Resources

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Agenda

- Flowline Integrity Requirements
- Operator Guidance
- Audit Process
- Flowline Regulations
- Flowline Spills and Reporting
- Questions

Regulatory Goals

Prevent releases

Minimize volumes

Quick response and clean-up



ENGINEERING INTEGRITY

Supervisor: Mark Schlagenhauf Engineer: Ellice Hazard Inspector: Joe MacLaren



Flowline Integrity



One Call Participation

• Rule 1102.d: "As to any pipelines over which the Commission has jurisdiction, each operator shall become a member of the Utility Notification Center of Colorado and participate in Colorado's One Call notification system..."



Visit http://colorado811.org for more information.



Flowlines - COGCC

Flowlines include:

- 1. The line between the wellhead and the separator.
- 2. The gas line from the separator to the gas meter.
- 3. Dump Lines the low pressure water, condensate and oil lines which go to storage tank(s).
- 4. Process Piping in multi-well pad situations, individual dump lines manifold together prior to going to a set of tanks connected by piping.
- 5. The line between the Well Site and the point of transfer when the water treatment facility, production facility or transfer point is not located at the Well Site.

Flowlines - Guidance

- 1. Published on "Operator Guidance" webpage.
- 2. Provides guidance on new flowline installation requirements.
- 3. Provides guidance and options for complying with the annual pressure test requirements outlined in rule 1101.e.
 - Perform annual pressure tests on all flowlines greater than 15psi OR
 - Install a continuous monitoring program of flowlines and submit a 502b variance. The variance can be field wide, basin wide, or county wide if the flowlines are similar technology.
 Could include SCADA technology or other.
- 4. Describes the COGCC auditing program.
- 5. Describes what a flowline integrity program could look like.



COGCC Auditing of Flowlines

Goal: Verify compliance with 1101.e.(1)

Program for 2016

- 18 Operators Audited
 - ✓ 2,479 Wells audited
 - ✓ Over 3,100 Flowline Pressure Tests reviewed

Program for 2017 and Beyond

- Priority Factor Scores used for COGCC to select Flowlines for Audit:
 - Top 33% of Flowlines susceptible to audit
 - Highest 10% will be audited



Additional Audit Items

- Rule 605.d Flowline Integrity Management Program
- Rule 1102 e. Emergency Response Plan
- Leak Detection Plan and Best Management Practices for Flowlines within Designated Areas
- Annual Temperature, pressure, and flow rate data (including annual maximum) for the well and associated Flowlines
- Fluid type, Flowline diameter, and approximate Flowline length



Flowline Audit Topics

- Material and Design
- Locations
- Monitoring and Maintenance
- Pressure Testing Methods
- Spills and Repair
- Operating Concerns



Flowline Regulations (mid 1990s)

1101 e. (1) Pressure tests shall be repeated once each calendar year

COGA-WS White Paper Alternatives

Variance Requests



Updated Operator Guidance

Clarified where Flowlines End

COPUC Regulates Gas Gathering Safety

API RP-80



604.c.(2) F. Leak Detection Plan. The Operator shall develop a plan to monitor Production Facilities on a regular schedule to identify fluid leaks.



Flowline Spills



Flowline Spill Findings

- 1. A significant amount of spills due to Flowlines were not labeled as Flowline spills on the Form 19.
- 2. The Commission should raise awareness about the proper method for submitting Flowline Spills.

Flowline Spill Reports

When submitting Spill Reports, please make sure that if the spill occurs on a Flowline, it is specified using the "Flowline" Identifier.

Reference Location				
Facility Type:	-			
	CENTRALIZED EP WASTE MGMT FAC			
	FLOWLINE	_		
	GAS GATHERING SYSTEM			
	OTHER			
Fluid(s) Spilled	PARTIALLY-BURIED VESSEL):		
	PIPELINE			
Was one (1) barr	PIT	sec		
Secondary co containment	TANK BATTERY	ərdi		
	WATER GATHERING SYSTEM/LINE			
Were Five (5) bar	WELL			
	WELL PAD			
Estimated Total Spill volume: use same ranges as otners fo				



Reference Locations

Flowline spills can be related to a COGCC Facility or Location, or to a well if the Flowline is directly connected to it.

<u>Note</u>: Use the spill/release description text field to describe the location of the spill. (<u>Example</u>: "The oil line developed a leak running from the separator to the oil tank...")

Reference Locat	<u>tion</u>		
Facility Type:	FLOWLINE *		COGCC Facility or Location No:
			No Existing Facility or Location ID No
		√	Well API No. (Only if the reference facility is well) 05 123 12345



Form 19

Describe Incident & Root Cause

(include specific equipment and point of failure)

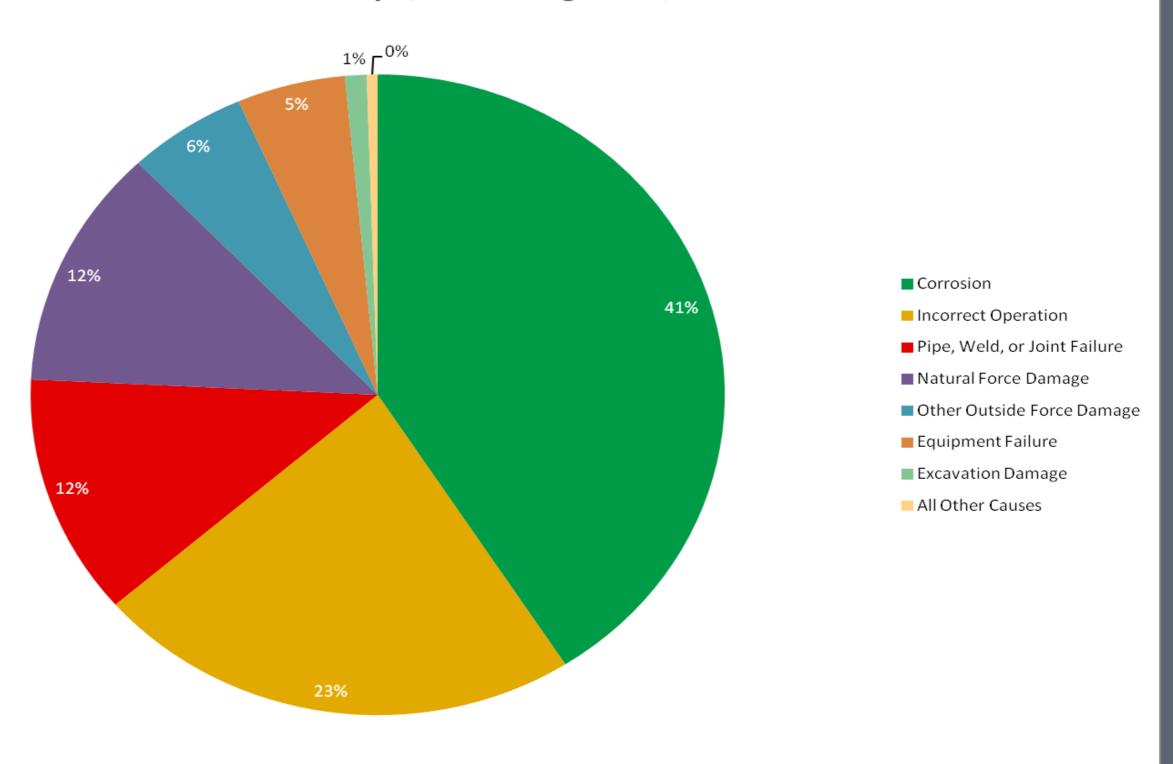


Form 19

Describe measures taken to prevent the problem(s) from reoccurring



Apparent Causes of Flowline Releases January 1, 2015 - August 31, 2016







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