Working Group # 3
Locating & Preventing Damage to Distribution Pipelines

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Attendance Breakdown

Approximate total attendance	32 persons
Federal Regulators	1
State Regulators	2
International Regulators	
Pipeline Industry	12
Service Providers	10
Standard Developing Organizations	
Researchers	4
Academics	3
Other	

Top 4 Identified R&D Gaps

Gap #1 – (Technology)

Improved Pipe Locating Technology for Legacy/New Pipe

Gap #2 – (Technology) (Creation/Dissemination of General Knowledge)

Improved Data Management

Gap #3 – (New/Revised Consensus Standard)) (Creation/Dissemination of General Knowledge)

Education and training of excavators to include general public – Development of Recommended Practices, to include details for all excavation technologies.

Gap #4 - (Technology)

Trenchless Technology Challenges: HDD, Cross Bore, 3rd Party (non-gas) Locating

NOTE: Identify gaps with* that may be addressed with University Partnerships

Associated Details

Gap #1

Improved Pipe Locating Technology for Legacy/New Pipe

1. New or Improved Technology

a. What pipeline type(s) or part of LNG operations does the technology target?
All systems, all materials, especially plastic.

b. What pipeline operating environment(s) must the technology operate in?
Onshore pipe, especially in congested areas.

c. What are any functionality and or performance requirements? Locatable for life of pipe, verifiable, repeatable, accurate under all surfaces and in all soil types, improved depth detection, identification of abandoned facilities.

d. What technical or regulatory roadblocks or barriers prevent the technology deployment? Signal attenuation, interference, FCC regulatory requirements, cost, ease and convenience of use for operator, avoiding interruption of service, ease of access to pipeline, preservation of data

e. What are anticipated targets or timeframes to complete this research?
Needed as soon as possible.

Associated Details

Gap #2

Improved Data Management

1. New or Improved Technology

a. What pipeline type(s) or part of LNG operations does the technology target?
All underground assets

b. What pipeline operating environment(s) must the technology operate in?
All

c. What are any functionality and or performance requirements? Need for intrinsic program, open-sourced, addressing challenges relating to data collection thoroughness and accuracy, analytics, pooling and sharing of data, using data to address risk, identifying critical data needed to avoid damages

d. What technical or regulatory roadblocks or barriers prevent the technology deployment?
Security hurdles, competitive for some industries, difficult to find single source with broad capacity, variations in platforms used by utilities

e. What are anticipated targets or timeframes to complete this research?
As soon as possible.

3. Creation and Dissemination of General Knowledge

a. What pipeline type(s) or part of LNG operations does the new knowledge target? All

b. What operating environment(s) does the new knowledge target? All

c. What technical details or scope items are necessary and recommended? Identifying critical data

d. Can any targets or timeframes be identified to complete this research? As soon as possible

Associated Details
Gap #3

Education and training of excavators to include general public – Development of Recommended Practices, to include details for all excavation technologies.

2. New or Revised Consensus Standards (standards, guidelines or recommend practices)

a. Does the need address safety or specification related consensus standards? Yes
b. Which standard developing organization and which consensus standard name and number is affected? CGA Best Practices and others
c. What scope items should be completed to help improve the standard? Identify gaps, for additional detail, develop and distribute new or revised documents
d. What pipeline type(s) or LNG issue does the need or consensus standard target? all
e. What operating environment(s) does the consensus standard target? All onshore
f. Can any targets or timeframes be identified to complete this research? As soon as possible

3. Creation and Dissemination of General Knowledge

a. What pipeline type(s) or part of LNG operations does the new knowledge target? Yes
b. What operating environment(s) does the new knowledge target? all
c. What technical details or scope items are necessary and recommended? Identify gaps, need for additional detail, develop and distribute new or revised documents
d. Can any targets or timeframes be identified to complete this research? As soon as possible

Associated Details
(Gap #4)

Trenchless Technology Challenges: HDD, Cross Bore, 3rd Party (non-gas) Locating

1. New or Improved Technology

a. What pipeline type(s) or part of LNG operations does the technology target? All

b. What pipeline operating environment(s) must the technology operate in? All onshore

c. What are any functionality and or performance requirements? Determine the accurate location of underground assets with minimal excavation, minimal interruption of service, economical means to identify the separation of facilities. Risk based.

d. What technical or regulatory roadblocks or barriers prevent the technology deployment? Identifying the new or improved technology. Is it repeatable/verifiable? Material, soil type considerations, FCC regulatory restrictions

e. What are anticipated targets or timeframes to complete this research? As soon as possible

Additional Identified Gaps

- Comprehensive industry test facility
- Improving asset physical security

NOTE: Identify gaps with* that may be addressed with University Partnerships