Concerns

- Unmarked or mismarked lines
- Lines of all types not in 811 system (rulemaking in 2017)
- Training for construction companies
- Training for line locators
- Lack of or inadequate operator management of change
- Lack of understanding of upstream operations
- Notification of damage to line owners
  - Damage to lines: Notify 811 and do not cover damaged lines
- Lack of or untimely response to 811 calls by operators and/or locators
- Misconception of 811 inclusion of upstream ops
- Report lines spotted by excavators not in system or unknown owner
  - Variance for excavators to proceed with the excavation and are exempt from damage, if no owner responds
- Operators not aware of lines from acquired facilities/properties
- Abandoned facilities not in the 811 system
- Lack of tracing for non-ferrous lines
- Planning/communication meetings between operator & const. prior to excavation (CGA Best Practice)

Statistics & Sources - NIOSH FOG, PHMSA/DOT, 811, Common Ground Alliance, OSHA, BLS

- Examples:
  - Pipeline utility damage every nine minutes in the US
  - Four US Onshore Upstream fatalities related to pipeline/flowline incidents
  - Damages to pipelines

Follow federal, state and local rules and regulations/811 rules

- Definitions (Standardized 811 definitions)
- Title 9 Article 1.5?
- RP 1162
- Dirt Report from CGA
- Other?
Line Owner (Operator) responsibilities

- **Accurate/ Updated P&ID’s/ Technology (Drone Video, digital drawings, file transfers)**
  - Forward to 811 in timely manner (Standard industry practice? Accepted Formats?)
    - New lines and abandoned lines
  - Rick, Chad, Nick, Benji, Elizabeth Action: Add back-up information
- **Accurate and maintained pipeline markers and signage**
  - 49 CFR for regulated line markers
  - Industry Best Practices for non-regulated lines (flow lines) (Rick ask API?)
    - In Colorado proposed rule
  - Jimbob will provide CGA best practices link
- **Register pipelines and flow lines in 811 system (Regulated and non-regulated)**
  - Jimbob Action: State 811 team can walk owners through the process (811.com)
- **Best Practice Management of Change when decommissioning or changing facilities**
- **Registration of abandoned Facilities. Effective isolation and/or removal of unused or decommissioned underground utilities point forward, and list in 811 as abandoned and isolated (in 811 law)**
- **Due diligence in locating underground utilities prior to excavation (call 811) (State)**
  - Timely response to 811 calls
  - Tracing or locating for ferrous and non-ferrous lines
- **Tracer or marker plates for poly lines or fiberglass**
  - Best Practices for line locating (as built within brief time period)
- **Company Damage Prevention Program & OQ for regulated lines -**
  - Best Practices for non-regulated: Company Damage Prevention Program/ Operator Qualification Program
  - Integrity Management Programs –
    - ND Inspections
    - Pigging
    - Chemicals
- **Regulated lines - Classification/ Locations: Populations/culture/consequences**
- **Bill Lowery to provide FAQ’s (will forward link to pipeline informed planning doc.)**
- **RoW considerations for developers and local gvt.**
  - Ground Disturbance Permit - best practice.

Construction/Homebuilders/Excavation/Directional Drilling Companies

- **Focus on Excavations in Onshore Oil and Gas industry (educational tools)**
- **Excavation and trenching training** for equipment operators and supervisors
- **Accurate Plot Plan**
- **Call 811 and meet on site**
- **Spotter as appropriate while excavating**
- **Notify owners of possible or real damage or other issues**
- **On-Site Assistance**
- **CG Alliance Best Practices**
Qualified Line Locator Specialist Training

- Excavation and trenching course certification
  - Importance/potential consequences
  - Focus on upstream issues
  - Train on equipment to be used
  - Due Diligence
    - Markers
    - Plastic and non-ferrous lines/sizes/Contents
  - CG Best Practices section
- Sweeping techniques, inductive (Staking U)
  - 2-man sweeping for unknown and unmarked lines
    - Old or non-registered lines
  - Apprenticeship/certifications for line locators

**PHMSA Pipeline Incidents: (1997-2016)**

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**Resources:**
- 811, Damage Prevention Council, Staking U,
  Excavation/Trenching/Shoring training/ Common Ground Alliance
- Add-on’s
  - Enertech
  - Video
  - PHMSA Stats
  - Call 811.com