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# PHMSA's Regulatory Perspective on Public Safety

## Utility Public Safety Alliance 2018 Regional Meeting Columbia, SC

February 7, 2018

*Arthur O. Buff, P.E.*  
CATS Program Manager  
PHMSA, Southern Region



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

"To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives."



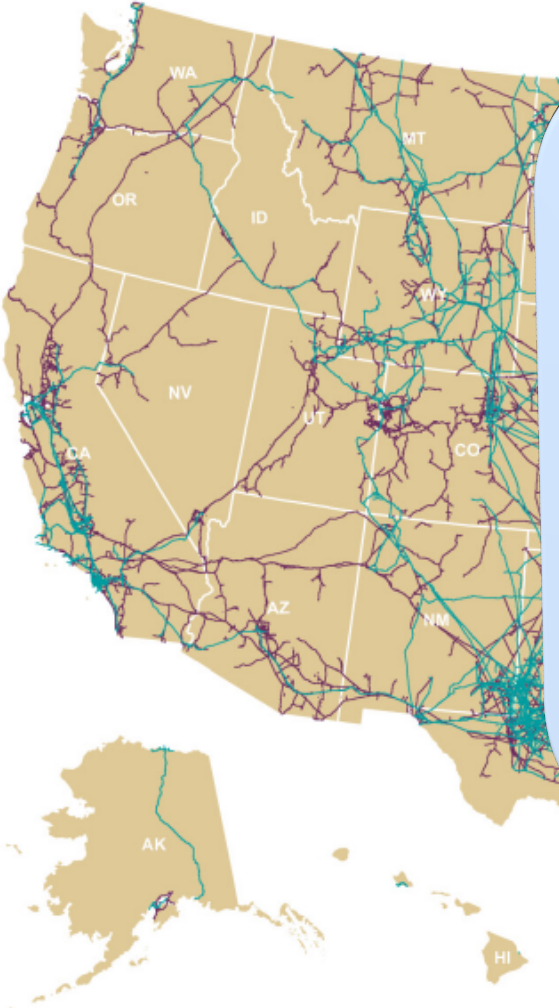
# Overview

- **What does PHMSA regulate?**
- **What does PHMSA's Office of Pipeline Safety do?**
- **Why excavation damage prevention is an important part of pipeline safety?**
- **What damage prevention rules took effect 1/1/2016?**
- **What is status of PHMSA state enforcement program evaluations?**
- **What regulations took effect in 2017?**



# PHMSA Office of Pipeline Safety

Transmission Pipelines, Sept. 2012



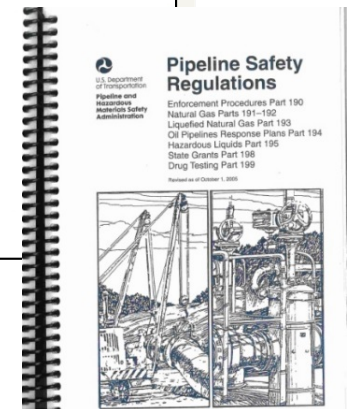
**To protect people and the environment  
by advancing the safe  
transportation of energy  
and  
other hazardous materials  
that are essential to our  
daily lives**

— Hazardous liquid pipelines  
— Natural gas transmission pipelines



# Office of Pipeline Safety Functions

- Identify and evaluate risks of pipeline systems
- Develop inspection and enforcement standards for design, construction, operations, and maintenance of pipelines
- Response and investigation of pipeline accidents/incidents (AID)
- Educate system operators, emergency responders and the general public (CLs)
- Conduct research on promising technologies and knowledge needed to improve standards (CAAP)
- Provide grants to states in support of their pipeline safety programs



# Administration Take on Rules



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# Informal Rule Making

## The Reg Map Informal Rulemaking

### Step One

#### Initiating Events

**Agency Initiatives**  
Agency initiatives for rulemaking originate from such things as:

- Agency priorities and plans
- New scientific data
- New technologies
- Accidents

#### Required Reviews

• Regulatory flexibility analysis  
• Small business guide

#### Statutory Mandates

• Regulatory flexibility analysis  
• Small business guide

#### Recommendations from Other Agencies/External Groups/States/Federal Advisory Committees

• Regulatory flexibility analysis  
• Small business guide

#### Lawsuits

• Regulatory flexibility analysis  
• Small business guide

#### Petitions

• Regulatory flexibility analysis  
• Small business guide

#### OMB Prompt Letters

• Regulatory flexibility analysis  
• Small business guide

### Step Two

#### Determination Whether a Rule Is Needed

##### Administrative Procedure Act Provisions

Under the Administrative Procedure Act provisions that are included as part of the Freedom of Information Act at 5 U.S.C. 552, agencies are required to publish in the Federal Register:

- Substantive rules of general applicability
- Interpretive rules
- Statements of general policy
- Rules of procedure
- Information about forms
- Information concerning agency organization and methods of operation

### Step Three

#### Preparation of Proposed Rule

##### Proposed Rule

A notice of proposed rulemaking proposes to add, change, or delete regulatory text and contains a request for public comments.

##### Administrative Procedure Act Provisions

Under the Administrative Procedure Act provisions at 5 U.S.C. 553, rules may be established only after proposed rulemaking procedures (steps three through six) have been followed, unless an exemption applies. The following are exempted:

- Rules concerning military or foreign affairs functions
- Rules concerning agency management or personnel
- Rules concerning public property, loans, grants, benefits, or contracts
- Interpretive rules
- General statements of policy
- Rules of agency organization, procedure, or practice
- Nonregulatory rules for which the agency determines that public input is not warranted
- Rules published on an emergency basis

##### Optional Supplementary Procedures to Help Prepare a Proposed Rule

• Regulatory flexibility analysis  
• Small business guide

##### Advance Notice of Proposed Rulemaking

An advance notice of proposed rulemaking requests information needed to develop a proposed rule.

##### Negotiated Rulemaking

Negotiated rulemaking is a 5 U.S.C. 551b process for bringing together representatives of an agency and the national interest to negotiate the text of a proposed rule.

### Step Four

#### OMB Review of Proposed Rule

##### OMB Review Under Executive Order 12866

OMB reviews only those rulemaking actions determined to be "significant."

Independent agencies are exempt from OMB review.

### Step Five

#### Publication of Proposed Rule

##### Administrative Procedure Act Provisions

The Administrative Procedure Act provisions at 5 U.S.C. 553 require proposed rules to be published in the Federal Register.

### Step Six

#### Public Comments

##### Comments

Under the Administrative Procedure Act provisions of 5 U.S.C. 553, an agency must provide the public the opportunity to submit written comments for consideration by the agency.

As required by Public Law No. 97-30, agencies must provide for submission of comments by electronic means and must make available online the comments and other materials included in the rulemaking docket under 5 U.S.C. 553(c).

Executive Order 12866 established 60 days as the standard for the comment period.

The holding of a public hearing is discretionary unless required by statute or agency policy.

### Step Seven

#### Preparation of Final Rule, Interim Final Rule, or Direct Final Rule

##### Final Rule

A final rule adds, changes, deletes, or affirms regulatory text.

##### Special Types of Final Rules

**Interim Final Rule**  
An interim final rule adds, changes, or deletes regulatory text and contains a request for comments. The subsequent final rule may make changes to the text of the interim final rule.

**Direct Final Rule**  
A direct final rule adds, changes, or deletes regulatory text at a specified future time, with a duty to withdraw the rule if the agency receives adverse comments within the period specified by the agency.

### Step Eight

#### OMB Review of Final Rule, Interim Final Rule, or Direct Final Rule

##### OMB Review Under Executive Order 12866

OMB reviews only those rulemaking actions determined to be "significant."

Independent agencies are exempt from OMB review.

### Step Nine

#### Publication of Final Rule, Interim Final Rule, or Direct Final Rule

##### Congressional Review Act (5 U.S.C. 801-808)

An agency must submit most final rules, interim final rules, and direct final rules, along with supporting information, to both houses of Congress and the General Accounting Office before they can take effect.

Major rules are subject to a delayed effective date (both certain and certain).

Action by Congress and the President could have an impact on the rule.

##### Administrative Procedure Act Provisions

Under the Administrative Procedure Act provisions that are included as part of the Freedom of Information Act at 5 U.S.C. 552, agencies are required to publish final rules, interim final rules, and direct final rules in the Federal Register.

##### Federal Register Act (44 U.S.C. 1501-1511)

The Federal Register Act at 44 U.S.C. 1510 implemented a 5 CFR 8.15 requires rules that have general applicability and legal effect to be published in the Code of Federal Regulations.

### Specific Analyses for Steps Three and Seven

#### Regulatory Planning and Review (E.O. 12866)

Would the rule have a \$100 million annual impact, raise novel issues, and/or have other significant impacts? → **If yes** Prepare economic impact analysis.

#### Regulatory Flexibility Act (5 U.S.C. 601-612)

Is a notice of proposed rulemaking required by law? → **If yes** Prepare regulatory flexibility analysis.

Would the rule "have a significant economic impact on a substantial number of small entities"? → **If yes and no** Prepare regulatory flexibility analysis.

*Note: Under limited circumstances analysis also is required for certain interpretive rules involving internal revenue laws (5 U.S.C. 603, 604).*

#### Paperwork Reduction Act (44 U.S.C. 3501-3520)

Does the rule contain a "collection of information" (reporting, disclosure, or recordkeeping)? → **If yes** Prepare information collection clearance package for OMB review and approval, and prepare request for public comments.

#### Unfunded Mandates Reform Act (2 U.S.C. Chs. 17A, 25)

Does the rulemaking process include a proposed rule? → **If yes**

Does the rule include any federal mandate that may result in the expenditure of direct costs (not direct savings) by State, local, and tribal governments, in the aggregate, or by the private sector of \$100 million in any one year (calculated annually)? → **If yes and no** Prepare unfunded mandates analysis (unless an exclusion applies).

#### Federalism (E.O. 13132)

Is the rule a discretionary rule that has federalism implications and imposes substantial, unenumerated compliance costs on State and local governments? → **If yes** Prepare federalism summary impact statement.

Does the rule have federalism implications and preempt State law? → **If yes** Prepare federalism summary impact statement.

#### Indian Tribal Governments (E.O. 13175)

Is the rule a discretionary rule that has tribal implications and imposes substantial unenumerated direct compliance costs on Indian tribal governments? → **If yes** Prepare tribal summary impact statement.

Does the rule have tribal implications and preempt tribal law? → **If yes** Prepare tribal summary impact statement.

#### National Environmental Policy Act (42 U.S.C. 4321-4347)

Is the rule categorically excluded from review? → **If no**

Does the rule constitute a major Federal action that could significantly affect the quality of the human environment? → **If yes and no** Prepare environmental assessment or environmental impact statement, as appropriate.

#### National Technology Transfer and Advancement Act (15 U.S.C. 272 note)

Does the rule contain provisions for which the use of voluntary standards is applicable? → **If yes** Adopt voluntary consensus standards or explain why not.

#### Governmental Actions and Interference with Constitutionally Protected Property Rights (E.O. 12630)

Does the rule regulate private property use for the protection of public health or safety? → **If yes** Prepare takings analysis.

Is the rulemaking a proposed regulatory action that has takings implications (other than regulating private property for the protection of public health and safety)? → **If yes** Prepare takings analysis.

#### Protection of Children from Environmental Health Risks and Safety Risks (E.O. 13045)

Is the rulemaking a "covered regulatory action"? → **If yes** Prepare analysis of the environmental health or safety effects on children.

#### Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use (E.O. 13211)

Is the rulemaking action a "significant energy action"? → **If yes** Prepare statement of energy effects.

### Using The Reg Map

The Reg Map is based on general requirements. In some cases, more stringent or less stringent requirements are imposed by statutory provisions that are agency specific or subject matter specific. Also, in some cases more stringent requirements are imposed by agency policy.

In a typical case, a rulemaking action would proceed from step one through step nine with a proposed rule and a final rule.

However, if a rulemaking action is exempt from the proposed rulemaking procedures under the Administrative Procedure Act provisions (explained under step three) or under other statutory authority, an agency may:

- promulgate a final rule omitting steps three through six, or
- promulgate an interim final rule omitting steps three through six, but providing a comment period and a final rule after step nine.

Also, if an agency determines that a rule likely would not generate adverse comment, the agency may promulgate a direct final rule, omitting steps three through six, but with a duty to withdraw the rule if the agency receives adverse comments within the period specified by the agency.



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# Excavation Damage



# Excavation Damage - Thomson, GA



## Georgia – July 2010

- 8” Liquid propane gas line ruptured and explosion
- 1 person injured, frostbite burns
- 1 person killed
- Double wide mobile home, jeep, bulldozer and 20 acres of woodland were destroyed
- 50 firefighters battled fire for 5 hours







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# Excavation Damage – Pelham, AL



**October 31, 2016**

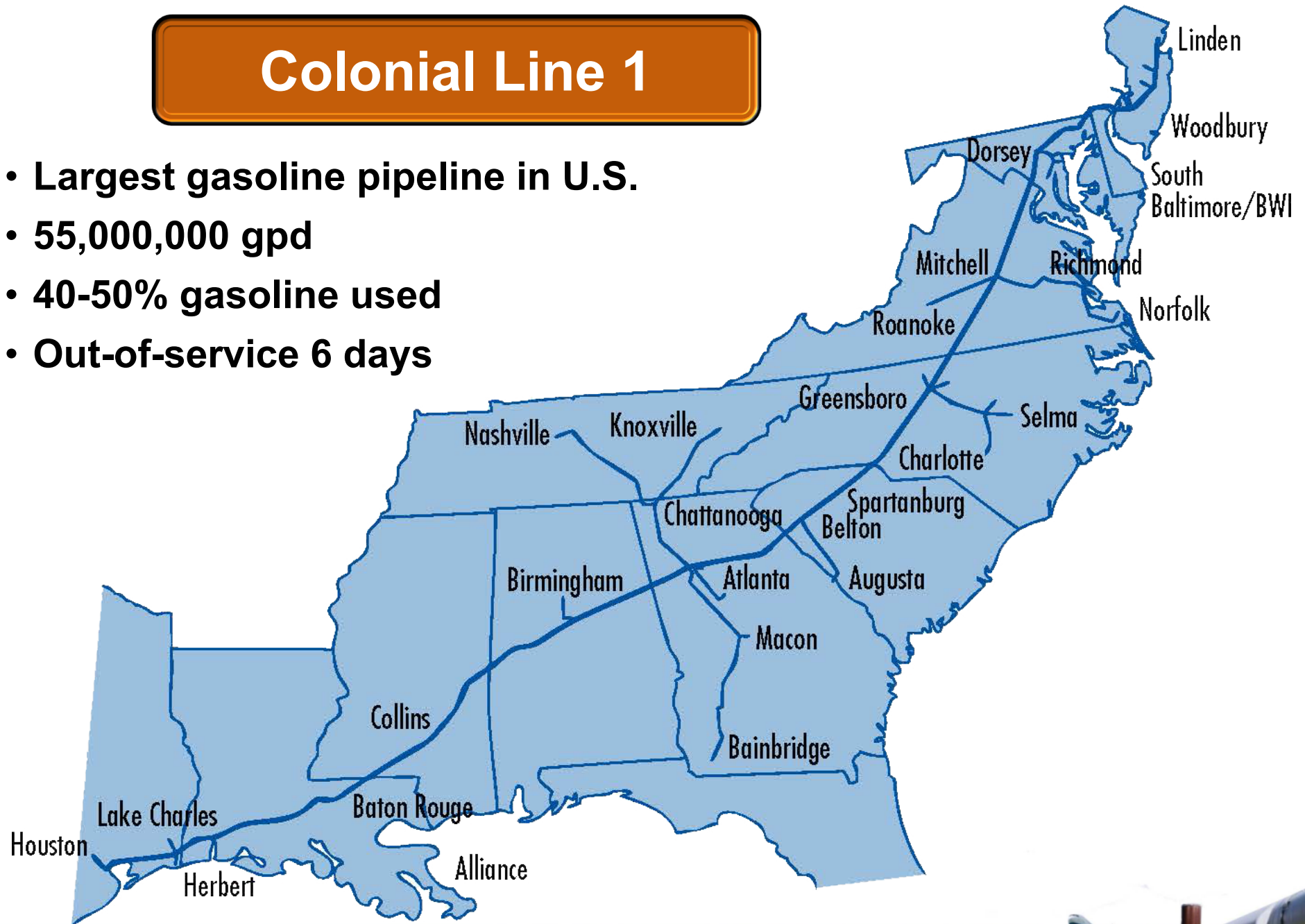
- 36” gasoline line
- 1 person killed, 5 hospitalized
- 2<sup>nd</sup> person died in hospital
- Subcontractor working for Colonial
- Trackhoe used to excavate TOR fitting
- result of 336,000 gallon release
- NTSB investigating

**“burning geyser of gasoline, like Old Faithful with smoke and fire”**



# Colonial Line 1

- Largest gasoline pipeline in U.S.
- 55,000,000 gpd
- 40-50% gasoline used
- Out-of-service 6 days





# Excavation Damage – Pelham, AL



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# Excavation Damage – Cleburne, Texas June 2010

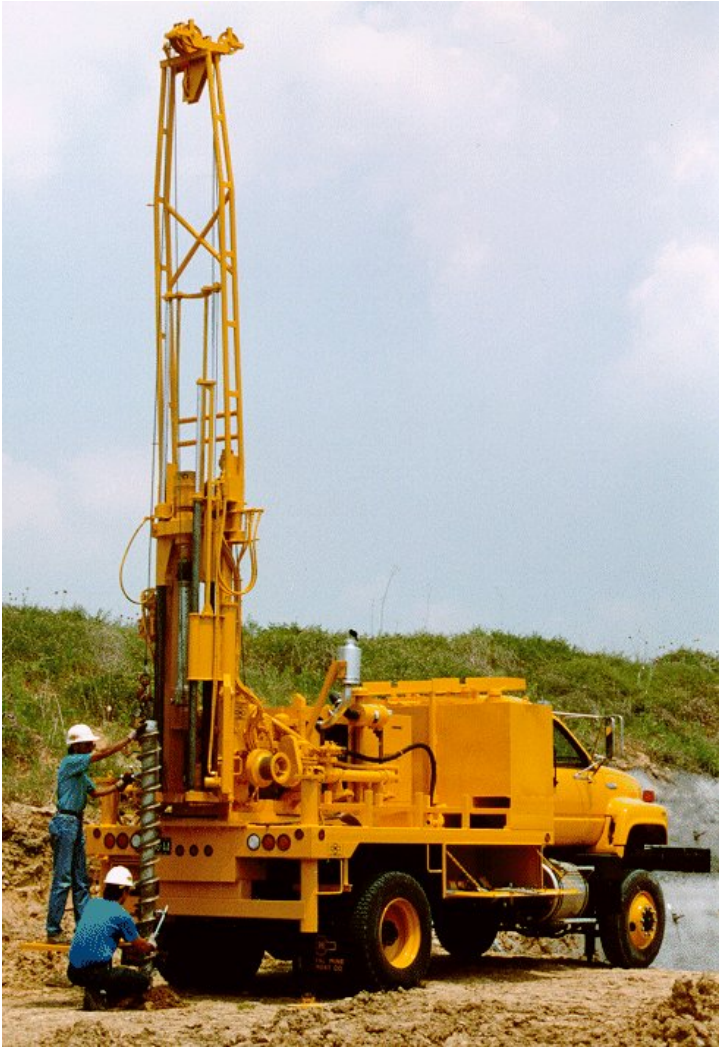


- 36” gas transmission
- 950 psi
- 172 million cubic feet gas
- 1 fatality
- 6 injuries
- >\$1,000,000 damage

- 60-ton auger truck punctured pipeline – landed >100 feet



# Pre-Excavation Activities Cleburne, Texas



- **Electric lines crossing pipeline right-of-way - two 36" gas transmission pipelines (Enterprise and Energy Transfer) – 30 feet apart**
- **Auger truck to bore hole for utility pole**
- **Two locate requests:**
  - **11/09 power line route planning**
  - **06/10 power line installation**



# Power Line Construction – June 2010

- June 1<sup>st</sup> - excavator notified 811 and provides driving directions and lat/long coordinates
- 811 sent locate tickets to both operators with driving directions and lat/long coordinates
- June 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> - using driving directions only, operator looking for work crew, left without marking pipeline - closed ticket w/o marking pipeline –marked K – no conflict
- 811 issued “all clear/no conflict” to excavator
- Borehole location close to pipeline, moved 10 feet in an area outside mowed area of right-of-way (**no permanent pipeline markers were observed**) – now excavator directly above pipeline



# Powerline Route, Pipeline Right-of-Way and Accident Locations



# Upside Down 60-Ton Auger Truck



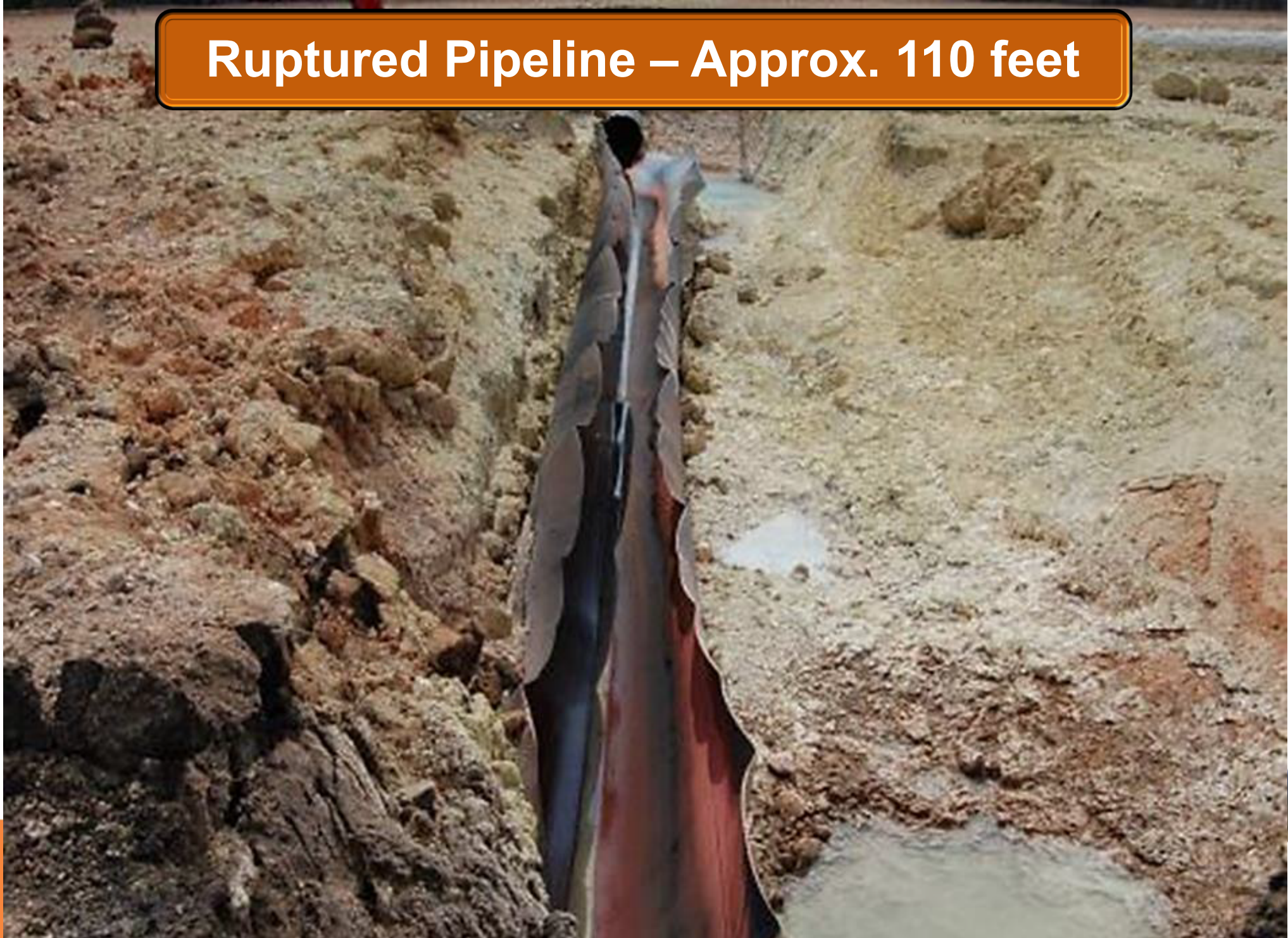
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# Ruptured Pipeline – Approx. 110 feet



# What Went Wrong?

- **Inaccurate driving directions**
- **Poor communication**
- **Operator did not use lat/long**
- **No visible permanent markers**
- **Right-of-way not maintained over pipe**



# Excavation Damage to Pipelines

32.3% injuries

37.7% fatalities



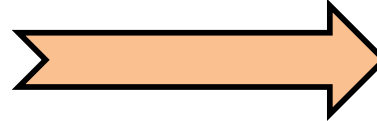
- **Gov. signs Proclamation - Safe Digging Month**



# Damage Prevention Rules

## Part 192.614 and 195.442

- damage prevention program for operators



written DP program

participate in qualified one-call

## PIPES Act 2006

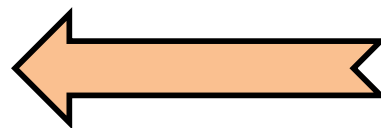
- excavators must: 1) *use one-call*; 2) *pay attention to marks*; 3) *report damage*
- operators must: 1) *respond to locate request*; 2) *accurately mark*
- damage prevention grants to states
- enforcement by PHMSA

## ANPRM - October 29, 2009

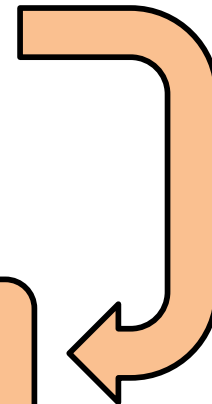
## NPRM - April 2, 2012

## Final Rule

Published FR: July 23, 2015



need rules published in FR



# Effective date: January 1, 2016



# What is an Excavation Activity?

- Excavation
- Blasting
- Boring
- Backfilling
- Tunneling
- Removal of aboveground structures by explosive or mechanical means
- Other earthmoving operations



**Excavation:** “covers all excavation activity involving both mechanized and non-mechanized equipment, including *hand tools*”

**Excavator:** “any person or legal entity, public or private, proposing to or engaging in excavation”



# The New Rule

## New Part 196

- **Standards for excavators digging near pipelines**

## Part 198, added Subpart D

- **Seven criteria for assessing the adequacy of State DP enforcement programs; assessment process**
- **Administrative procedures for States to contest a notice of inadequacy**



# Cost Benefit Analysis

**“if this regulatory action prevents just one average reportable incident per year, this final rule would be cost beneficial”**

**“over the past 24 years, the average reportable incident caused \$282,930 in property damage alone”**



# Does Part 196 Apply to Homeowners?

**YES!**



**“PHMSA has eliminated the homeowner exemption originally proposed ..... because homeowners excavating on their own property without first calling 811 poses a significant risk of excavation damage to pipelines”.**





# Part 196, Subpart C – Enforcement

PHMSA can assess *civil* penalties for violations of Part 196, but only in States that have an inadequate enforcement program.

\$200,000 per day  
up to \$2,000,000



**Note:** PHMSA collected fines go to U.S. Treasury



# Preamble Outlines Two Policies (FR 43840)

## 1. State Enforcement Program Evaluation Criteria (198.55)

## 2. Federal Enforcement Policy

**“The policies are not part of the rule; they are flexible and can evolve as the rule is implemented.”**



## Status of State Evaluations

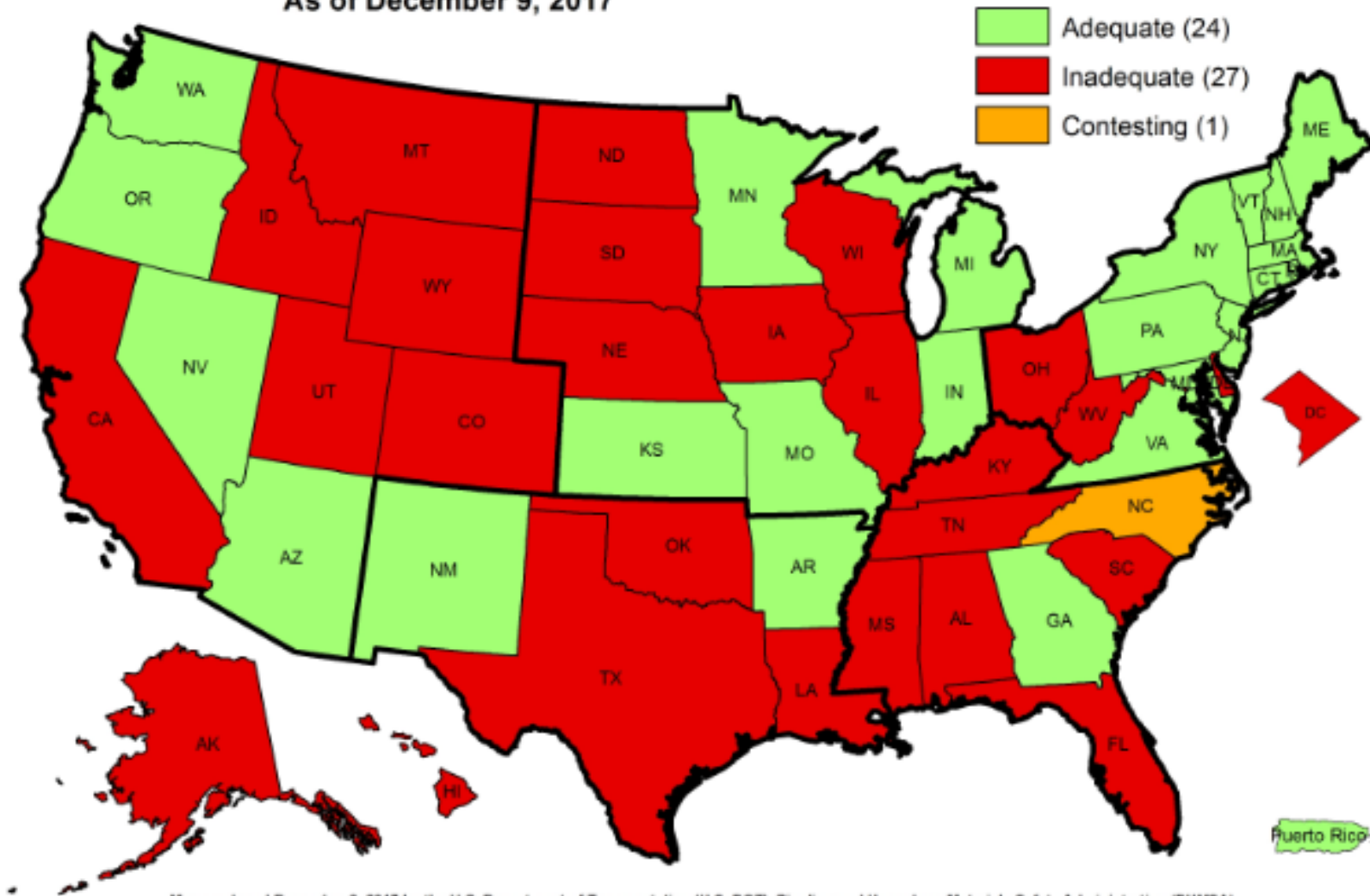
- **Determination letters (adequate or inadequate) issued to 52 states**
- **30-day period for states to request reconsideration**
- **2017 evaluations began in July. Most will be teleconferences.**

**PHMSA is investigating several reported incidents. Enforcement will be strategic (none taken yet).**



# Adequacy of One-Call Law Enforcement Programs

As of December 9, 2017



Map produced December 9, 2017 by the U.S. Department of Transportation (U.S. DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA)  
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## Additional Information

- PHMSA website: <http://phmsa.dot.gov/pipeline/safety-awareness-and-outreach/excavator-enforcement>



# Safety of Underground Natural Gas Storage Facilities

**Publication Date: December 19, 2016**

**Effective Date: January 18, 2017**



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# Safety of Underground Natural Gas Storage Facilities Summary – 192.12

- **Operators of underground natural gas storage facilities must submit 4 reports:**
  - Annual reports
  - Incident reports
  - Safety-related condition reports
  - National Registry information
- **Incorporates by reference**
  - API RP 1170, “Design and Operation of Solution-mined Salt Caverns used for Natural Gas Storage” (July 2015), and
  - API RP 1171, “Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs” (September 2015).



# OQ, Cost Recovery, Accident and Incident Notification, and Other Changes

**Publication Date: January 23, 2017**

**Effective Date: March 24, 2017**



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# OO, Cost Recovery, Accident and Incident Notification, and Other Changes Summary

- **Specific time frame for notification – 1 hour after confirmed discovery, 48 hours revise or confirm**
- **Cost recovery – design review (design and const. > \$2.5B or new technologies)**
- **Procedures to renew expiring special permits**
- **Changes to OO and drug/alcohol testing requirements**
- **Excludes farm taps from the DIMP requirements**
- **Requires pipeline operators to report to PHMSA permanent reversal of flow**



# Excess Flow Valves (EFV) for Multi-Residential and Commercial Applications – 192.381, 383, 385

**Publication Date: October 14, 2016**

**Effective Date: April 14, 2017**



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# Excess Flow Valves (EFV) Summary

- **New or replaced branched service lines to single family residences, multi-family and small commercial entities – gas volumes not to exceed 1,000 SCFH**
- **Manual service line shut off valve (curb valve) new or replace lines with meter capacity greater than 1,000 SCFH**
- **Operator notify customers right to request installation of EFV**
- **Who pays? Operator, customer and State regulatory agency decide**





**Arthur O. Buff, P.E.**  
**Community Liaison Manager**  
**PHMSA – Office of Pipeline Safety**  
**Southern Region**

**[arthur.buff@dot.gov](mailto:arthur.buff@dot.gov)**

**404-226-6153**

