



**PHMSA**  
**Excavation Damage Prevention**  
“Deploying Effective Enforcement”

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

PHMSA: Your Safety is Our Mission



## Agenda – Discussion Topics

1. Nine Elements for an Effective Damage Prevention Program
2. PHMSA’s Excavation Enforcement Adequacy Reviews
3. National Trends
4. Iowa’s Trends
5. The Nexus Between State One-Call Laws and Pipeline Safety Regulations
6. Opportunities

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PIPES Act of 2006 – 109<sup>th</sup> Congress  
49 U.S. Code § 60134(b) = Establishes the Nine Elements  
for an Effective Damage Prevention Program

*Processes for:*

1. Enhanced **communication** between operators and excavators
2. Fostering support and **partnership** of all stakeholders
3. Operator's use of **performance measures** for locators
4. Partnership in **employee training**
5. Partnership in **public education**
6. Enforcement **agencies' role** to help resolve issues
7. Fair and consistent **enforcement** of the law
8. Use of **technology** to improve the locating process
9. **Data** analysis to continually improve program effectiveness



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## Elements 6 and 7

### ENFORCEMENT AGENCIES' ROLE TO HELP RESOLVE ISSUES

Fair and equitable enforcement of the law  
is crucial to effective stakeholder  
engagement.



Enforcement agencies'  
role to help resolve issues

*Who represents the Public?*

### FAIR AND CONSISTENT ENFORCEMENT OF THE LAW



Effective enforcement leads to more effective  
damage prevention programs.

Fair and consistent  
enforcement of the law

*It's not taboo*



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## Adequacy Review - The Law

### Background

49 USC § 60114 provides the United States Department of Transportation [PHMSA] with back stop authority to conduct administrative civil enforcement proceedings against excavators who damage hazardous liquid and natural gas pipelines **in a state that has failed to adequately enforce its excavation damage prevention or one-call laws.**



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## The Final Rule

### 49 CFR Parts 196 and 198

On July 23, 2015, PHMSA published a Final Rule that established:

1. Criteria to determine adequacy of State one-call enforcement
2. PHMSA's process to determine adequacy
3. PHMSA's enforcement in states deemed inadequate
4. Adjudication process when enforcement is taken against excavators
  - Final Rule July 13, 2015
  - Effective January 1, 2016
  - Requires annual evaluation



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## Evaluating the State

### Seven Basic Questions - 49 CFR § 198.55

1. Does the State have an excavation damage prevention law? (Pass/Fail)
2. Is there someone designated to enforce? (Pass/Fail)
3. **Is the State enforcing?** (Pass/Fail)
4. Is there a reliable mechanism to learn about violations? (Scored)
5. Can the State sufficiently investigate excavation damages, and apply enforcement **equitably**? (Scored)
6. Does the law prescribe minimum damage prevention requirements (use of 811, safe excavation practices, notification of damages to operator, and **911** if release) (Scored)
7. Does the State appropriately understand, and address, **exemptions** and/or **exclusions** from the one-call law. (Scored)



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## Criterion 3

### Question #3: Is the State Enforcing its One-Call Law?

**49 CFR § 198.55(a)(3) – (a) Is the State assessing civil penalties and other appropriate sanctions for violations (b) at levels sufficient to deter noncompliance and (c) is the State making publicly available information that demonstrates the effectiveness of the State’s enforcement program?**

*Question: How does (how should) PHMSA look at:*

- *other appropriate sanctions ...*
- *levels sufficient ...*



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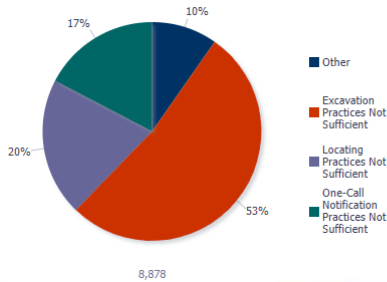
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## Criterion 5

### Question #5: Equitable Enforcement?

49 CFR § 198.55(a)(5) – Does the State employ excavation damage investigation practices that are adequate to determine the responsible party or parties when excavation damage to underground facilities occurs?



*CY 2020:*

- 1,528 Excavation Damages
- 326 Pipeline Operators
- Enforcement = 5 Civil Penalties, 15 Warning Letters, all to Excavators



## Criterion 7

### Question #7: Exemptions/Exclusions?


49 CFR § 198.55(a)(7) – Does the State limit exemptions for excavators from its excavation damage prevention law? A State must provide to PHMSA a written justification for any exemptions for excavators from State excavation damage prevention requirements. PHMSA will make the written justifications available to the public.

*Example – Not Iowa*  
*CY 2020: 9,444 Gas Incidents,*  
*1,554 Not at Jurisdictional Depth*



# Performance

## Excavation Safety Are we winning?

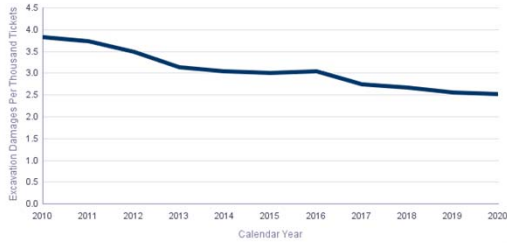

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## Gas Distribution Data (2015-2020)

### Nationally


Calendar Year	Number of Excavation Tickets	Number of Excavation Damages	Damages per Thousand Tickets	One-Call Notification Practices Not Sufficient	Locating Practices Not Sufficient	Excavation Practices Not Sufficient	Other	One-Call Notification Practices Not Sufficient	Locating Practices Not Sufficient	Excavation Practices Not Sufficient	Other
2020	33,243,583	83,567	2.5	28,356	18,583	32,656	3,972	34%	22%	39%	5%
2019	33,167,901	84,680	2.6	27,012	20,162	33,468	4,052	32%	24%	40%	5%
2018	31,352,928	83,698	2.7	26,703	19,225	33,136	4,642	32%	23%	40%	6%
2017	30,347,984	83,475	2.8	26,365	18,597	32,424	6,089	32%	22%	39%	7%
2016	29,346,857	89,053	3.0	27,136	18,515	34,257	9,145	30%	21%	38%	10%
2015	27,189,566	81,975	3.0	24,513	16,491	31,227	9,845	30%	20%	38%	12%




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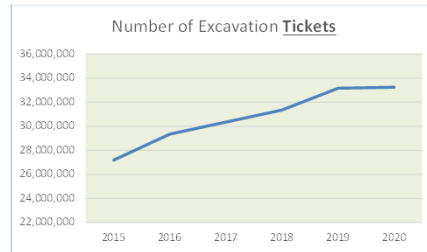
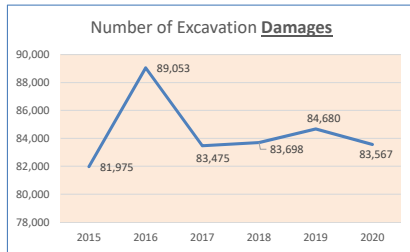
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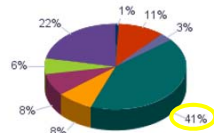


# Gas Distribution Data (2015-2020)

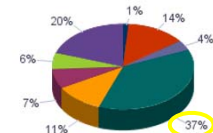
## Nationally



# Gas Distribution Incidents CY 2020

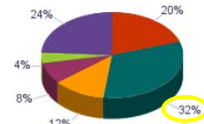


All



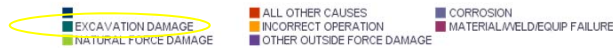
Significant

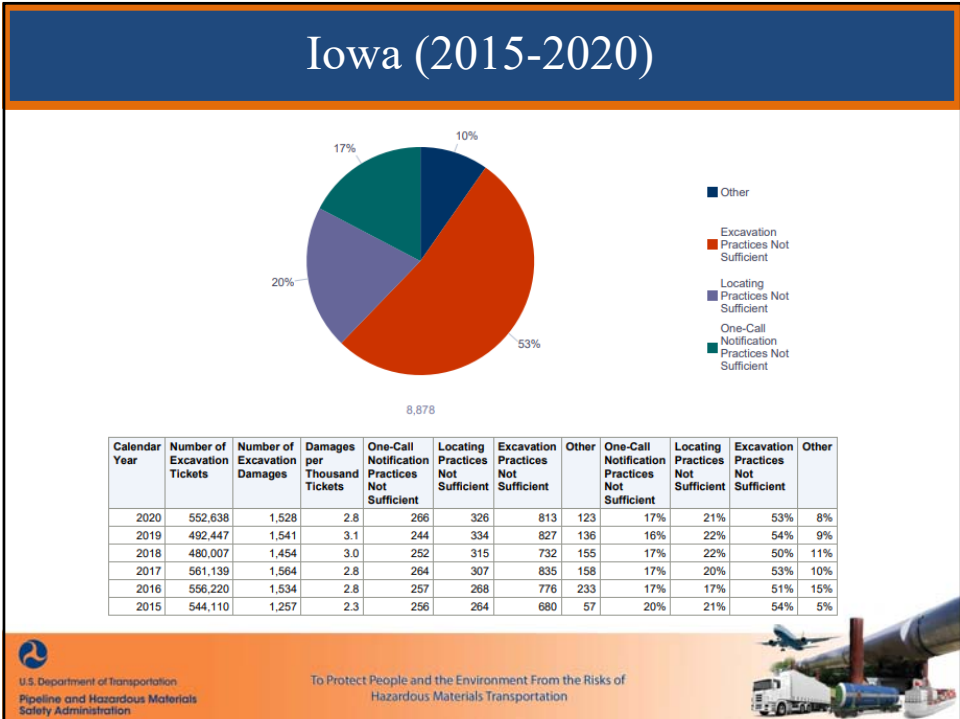
Incident Cause Type	ALL REPORTED	SIGNIFICANT	SERIOUS
ALL OTHER CAUSES	14	11	5
CORROSION	4	3	0
EXCAVATION DAMAGE	55	30	8
INCORRECT OPERATION	11	9	3
MATERIAL/WELD/EQUIP FAILURE	11	6	2
NATURAL FORCE DAMAGE	8	5	1
OTHER OUTSIDE FORCE DAMAGE	29	16	6
<b>Grand Total</b>	<b>133</b>	<b>81</b>	<b>25</b>



Serious

Data from 1/1/2020 to 5/2/2021





## Iowa (2015-2020)

Calendar Year	Number of Excavation Tickets	Number of Excavation Damages	Damages per Thousand Tickets
2020	552,638	1,528	2.8
2019	492,447	1,541	3.1
2018	480,007	1,454	3.0
2017	561,139	1,564	2.8
2016	556,220	1,534	2.8
2015	544,110	1,257	2.3

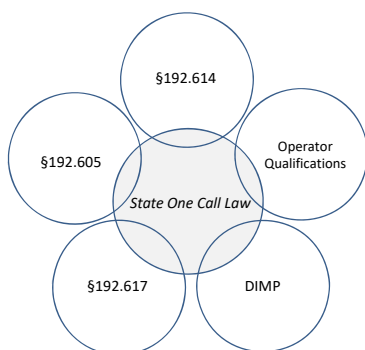
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## The Nexus

Excavation Damages are not simply the result of a violations of a state's one-call law --- they often involve a pipeline safety regulation



- Mapping
- Habitual Offenders
- Miss marks or no shows
- Shallow pipe
- Difficult locates – tracer wire
- Abandoned pipe
- Public Awareness
- Field meets or standby's



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## Final Thoughts – Homework Assignment

If there was an imminent public safety threat because an uncooperative excavator was digging on top of a pipeline in disregard of the one-call law, how would the operator stop that work? Who in their service territory has immediate stop work authority and what does that process look like?



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