





# Asset Management Disasters

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## Disasters --- Why?

- **Act of God:** An event that directly and exclusively results from the occurrence of natural causes that could not have been prevented by the exercise of foresight or caution.
- **Stuff happens**
- **Inadequate internal controls**, includes safeguarding of assets and
  - Operations - Effectiveness and efficiency of operations
  - Reporting - Reliability of reporting for internal and external use
  - Compliance - Compliance with applicable laws and regulations...(From GAO Green Book)
- **Management condones or is willfully ignorant**



## **Top 10 OSHA Violations Found in 2018 Worksite Inspections (~32,000)**

- **Related to falls: protection, scaffolding, ladders, training**
- **Hazard Communication**
- **Respiratory Protection**
- **Control of Hazardous Energy (Lockout/Tagout)**
- **Powered Industrial Trucks**
- **Machine Guarding**
- **Eye and Face Protection**





## A GAS Utility Key Performance Indicator

Nothing is more fundamental than test pressure

- 49 CFR § 192.513 Safety Standards, Test requirements for plastic pipelines. Max. **50 psi** (Effective at least or before **1970**)
- INTERNATIONAL FUEL GAS CODE (On Private Property) 406.4.1 Test Pressure Operating .5 psi times 1.5 but not less than **3 psi**
- NiSource Gas Standard GS 1500.010 **90 psi**

**Not paying attention to detail by so many for so long**

**Lack of self-correction culture**

**Lax internal and external oversight**





## 2015 Explosion, North Arlington OH





## 2018 Explosions, Merrimack Valley

Here Leonel Rondon died



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## 2019 Explosion Washington, PA

5 injured including 3 firefighters



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## We care about your safety

- If you see, smell or hear natural gas...

**STOP**

### **Stop what you're doing**

Don't light a match or operate anything that could cause a spark. ~~Don't~~ open the windows.

**LEAVE**

### **Leave the area immediately**

If you're inside, get out immediately. If you're outside, leave the area quickly.

**CALL**

### **Call 911 and us**

From a safe location, away from the building, call 911 and **1-800-344-4077** and wait for crews to arrive.





## Results of Improper Control of Hazardous Energy

- **Management is responsible for inadequate internal controls,**
- **Understand and Comply with laws and regulations,**
- **Management must not condone or be willfully ignorant,**
- **Good internal controls will include preventative and detective attributes,**
- **Must have self-reporting and correction of deficiencies.**



## **Governance ... The Big Four to Achieve Objectives**

**GAO Green Book Standards for Internal Control...**

**ISO 55000 Asset Management**

**ISO 9000 Quality Management**

**GAO Yellow Book ... Auditing Standards**

