

EMERGENCY RESPONDER State Pipeline Safety Perspective

Public Utilities Commission Pipeline Safety Seminar

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<http://www.dora.state.co.us/puc/pipesafetymain.htm>



EMERGENCY RESPONDER FORUM State Pipeline Safety Perspective

Modified NAPSRS Presentation

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Washington D.C.

http://opsweb.phmsa.dot.gov/pipelineforum/pipeline_emergency_response_forum/index.html



Emergency Responder Stakeholders

- **First Responders**
- **9-1-1 Dispatchers**
- **State Pipeline Safety Personnel**
- **Pipeline Operators**
- **Colorado 811 / CoPA / PAPA**



Issues for Responders

- **Planning**
- **Training**
- **Liaison Efforts**
- **Response**



Challenges w/ Public Awareness

- I mail out invitations to Public Awareness meetings (192.616) and firefighters are not showing up!
- 192.615 (a)(2) still requires establishing and maintaining "adequate" means of communicating...
- Mailing list is not "adequate" w/out supplemental efforts



Planning & Training Considerations

- Fully staffed Fire House or volunteer force
- Focus on pipeline products in your "district"
- Mutual aid between districts/regions
- Type of response equipment / equip. partnering
- Hazmat Response - Designated Stations only
- Entry into combustible gas atmosphere / PIR
- Is entry really necessary—risk exposure justified
- Excavation damage related 9-1-1 calls



Remember – there are Different Types of “Pipelines” to consider in pre-planning:

- Not regulated :
 - Pressurized water
 - Pressurized sewer
 - Steam
 - Chilled Water
 - Production-flow lines



Regulated Pipelines and/or other “pipelines” Effecting State Safety Programs

- Transmission : Natural gas pipelines
- Transmission : Hazardous liquid (ethanol, NGL, liquid CO₂, gasoline, diesel, jet fuel, propane, LNG, hydrogen/helium, crude, anhydrous ammonia)
- Distribution : City Stations > gas mains and services
- Oil and Gas Gathering Systems (high vs. low pressure)
- Oil and Gas Production flow lines (wellhead to storage tanks)
- Customer-owned fuel lines (beyond the meter)



LIAISON Considerations

- Train-the-trainer or use in-house training officer
- Multiple Fire House real time training through live video link
- How to address different shifts – Record presentations and Share Q&A's w/ all shifts
- Responder's experiences are not the same
- Make safe criteria – if evacuating a building have you considered where the people go?
- Pipeline Operator - Live Gas Fire / "Leak City"



LIAISON Considerations (continued)

- Train for expected situations:
 - response to excavation damage
 - structure fire involving natural gas/electricity
 - CO Calls > Red Tag situations
 - possibility of 100% LEL situations
 - potential leak rupture



LIAISON Considerations (continued)

- Train for rare situations:
 - when is a full Incident Command Center required?
 - derailments at or near pipeline crossings and associated threats from heavy equip. during clean up
 - *CNG Fill Stations (privately owned piping)
 - Use of Lessons Learned when arriving
- prior to ignition/rupture: Prince George Maryland 2009,
Ghent Virginia 2007, Ghislenghien Belgium, 2004

* Compressed Natural Gas (CNG)



Response Considerations

- Dealing w/ a natural gas or haz. liquids pipeline
- Large scale or "smaller" gas leak event
- High Pressure and Large Diameter pipeline(s)
- Punctured, severed, or pulled out gas leak situation
- Is leak accessible or covered by burning equipment
- Ground Cover(asphalt, frozen) > migrating gas/liquid
- Valves: above ground / below ground. Do I know if I have a two way or single way feed ?
- Squeeze jacks: Dangers of pinching steel vs. plastic pipelines



Response Considerations (continued)

- Blowing or Burning – different response plan
- Is there a dual pipeline (loop line) feet away
- Ignition source -joint electric/gas installation
- Shut off gas or wait for the operator to arrive
- Where is the gas coming from – second leak ?
- Where is the gas going ?
- Could some gas be getting into the sewer, french drain, or all venting to the atmosphere?
- Will my response be different for Propane, Natural Gas, gathering-drip, crude, gas



9-1-1 Dispatchers

Training area



Dispatcher Training Considerations

- Know meaning of industry terms:
 - No, I said a controlled blow down not an explosion
 - No, I meant a vent stack not a leak
 - No, I meant a flare stack not a fire
 - By the way, my gas is not odorized
 - By the way, my gas is odorized and you may get a lot of odor/leak calls
 - Really, I did mean a tank problem !



What kind of tank did you say?

Bleve threat vs "Killozer"



Type of "tank" in Your District



Preplanning with the First Responder

Which Meter to Shut off ?

Where is the meter ?



Joint Operator/First Responder Hands-On Training



Plan of Attack Flowing source vs. point source

Natural Gas Pipeline

Propane Tank



Roles During Investigations

State: PUC, Fire Marshal, Arson Squad, CBI, police/sheriff.
Fed: PHMSA, NTSB, ATF, OSHA
and the Operator



Protecting Evidence

Who moved what / custody transfer



- **What can change?**
- **NFPA 472 – add Hazwoper training reqts. for pipelines (2018 re-issue) ? Core principles here?**
- **Effective training vs. just more**
- **Discuss w/ AGA / INGAA**



Everyone's Goal PUBLIC SAFETY

