York County Natural Gas Authority
Patriots Energy Group

# pipeline connection

FOR EMERGENCY RESPONDERS fall 2019

KEEPING PIPELINES SAFE— PRACTICES & PROTOCOLS

## New Development near Pipelines

### AWARENESS & INVOLVEMENT:

Outside force damage continues to be a leading cause of pipeline incidents. Despite the energy industry's efforts to enhance damage prevention through a variety of measures including the national one-call number, 811, hits to utilities still occur.

Historically, pipelines were constructed in rural areas away from population growth and commercial development. Over time, these rural agricultural areas have become bustling neighborhoods and retail outlets.


**Q: How do we avoid creating enhanced risk by comingling pipelines and community growth?**

**A: Coordinated land use development!**

Partnerships between pipeline operators and local government planning and zoning agencies are a key to avoiding conflicts related to development and pipeline encroachment. A powerful tool that aids in proper land use planning is the National Pipeline Mapping System or NPMS. The NPMS is a national geographic information system (GIS) populated by energy providers that depicts the location of hazardous liquids and natural gas transmission pipelines.

Local government agencies can establish Pipeline Information Management Mapping Application (PIMMA) accounts to view pipeline data at the county or parish level. Maps are available for printing and pipeline operator contact information can be obtained through the system for questions and coordination. Emergency response officials are critical components of the proper land use equation! In many cases, emergency management, fire department, and law enforcement personnel are involved in land use/development planning and construction activities. In addition these officials are key stakeholders engaged in on-going dialogue with pipeline operators. Through effective, on-going communications the pipeline operators and agency officials can help identify areas where land use conflicts may arise beforehand.

While pipeline incidents are rare, they can occur. As population density increases near pipelines, the need for coordinated emergency planning between pipeline operators and emergency responders becomes increasingly important. Emergency responders are uniquely qualified to assist pipeline operators in identifying areas of limited mobility such as nursing homes, day cares, prisons, and hospitals that should be considered during emergency planning efforts.

**Several resources have recently been developed to aid in facilitating the discussions related to proper land use planning:**

*Hazard Mitigation Planning: Practices for Land Use Planning and Development near Pipelines – FEMA\Pipeline and Hazardous Materials Safety Administration*
https://www.fema.gov/media-library/assets/documents/101688

*Partnering to Further Enhance Pipeline Safety in Communities Through Risk-Informed Land Use Planning – Final Report or Recommended Practices*
https://primis.phmsa.dot.gov/comm/publications/PIPA/PIPA-Report-Final-20101117.pdf#pagemode=bookmarks

*National Pipeline Mapping System-PIMMA Access* https://www.npms.phmsa.dot.gov/GovOfficial.aspx

# Propane Air Plants

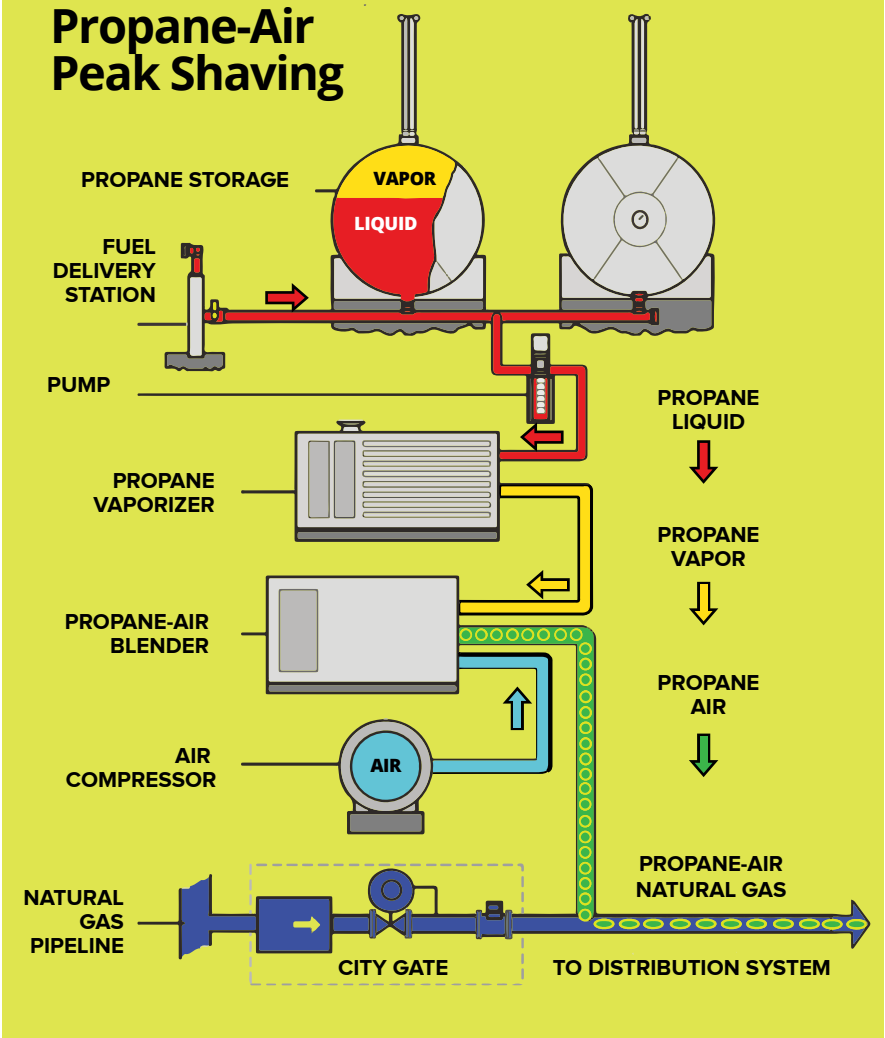
During periods of extremely cold weather, the demand on delivery of natural gas can be significant. To augment supplies during these critical periods, many natural gas distribution operators employ propane air "peaking shaving" plants. These facilities store liquefied petroleum gas (LPG) that when needed, is re-gasified, blended with air and injected into the natural gas system to augment supply.

LPG is delivered to the propane air plant by truck, railcar or pipeline and stored in pressurized steel vessels. When needed, LPG is withdrawn from storage and then the pressure is raised using motor-powered pumps. Next, the LPG is heated through the use of a vaporizer and converted to a super-heated vapor. At this point, the vapor is mixed with air producing a "propane-air' mixture. Finally, the propane/air is injected into the natural gas stream typically at a blend limited to less than 50% of the combined propane/air mixture. At most propane air plants, a flare stack is employed to flare vapor when initiating the pipeline supply augmentation process.

Propane air plants are required to comply with NFPA 58 and NFPA 59 for construction, operations, maintenance, and emergency response. Gas detection, fire detection and associated notification systems are required to be operational at all times. Many propane air plant facilities employ carbon dioxide handheld and wheeled fire extinguishers as well as water systems for vapor control/suppression. Personnel who operate propane air plants are required to have periodic training related to operations and emergency response.

York County Natural Gas Authority owns and operates a propane air plant located on Eden Terrace Road in Rock Hill. This facility helps meet natural gas demand for our customers during periods of high demand.


OVERVIEW



# Pipeline Emergency Response TRAINING Opportunities

For emergency responders in York County and surrounding areas, multiple training opportunities related to pipeline operations and emergency response are available this fall

## Pipeline Awareness Course

***October 14 (6:00pm) - York***

The South Carolina Fire Academy in association with the SC Pipeline Emergency Response Initiative (SCPERI) will be offering a "Pipeline Awareness" course at the **York County Department of Fire Safety 2500 McFarland Road, York, SC**

- This session is one of an initial five being conducted strategically around the state by the fire academy and supported by pipeline industry representatives. It is intended to provide a high level orientation regarding pipeline operations, safety, damage prevention and emergency response coupled with the opportunity to interact with local pipeline operator personnel.
- To register for this program login to the SC Fire Academy portal - ***https://fire.llr.sc.gov/Portal/***

## LCNGA Pipeline Safety & Emergency Response Meeting

***November 12 (6:00pm)- Lancaster***

Lancaster County Natural Gas Authority will conduct its annual Pipeline Safety & Emergency Response Meeting on November 12 at 6:00 p.m. at its office located at 1010 Kershaw Camden Highway, in Lancaster. York County Natural Gas Authority, the operator of Patriots Energy Group Pipeline will be present and will conduct a presentation on its natural gas transmission system. For more information, or to register, email ***lisa.bonkowski@lcngasc.com***

## YCNGA Pipeline Safety & Emergency Response Meeting

***November 7 (6:30pm) - Tega Cay/Fort Mill***
***November 19 (6:30pm) - Rock Hill/York County***

In November, York County Natural Gas Authority will be conducting two training sessions and associated tabletop exercises — one in Rock Hill, and the other in the Fort Mill area. A meal will be provided as well as the opportunity to actively participate in a realistic pipeline emergency related tabletop exercise. The meeting will include displays and end with a Q&A and door prizes. Register online, or call Kristin Sotir at (803)323-5359.

**FORT MILL / TEGA CAY**
***Thursday, November 7 | 6:30pm - 8:00pm***
***Location: The Shore Club at Tega Cay***

**ROCK HILL / YORK TRAINING**
***Tuesday, November 19 | 6:30pm - 8:00pm***
***Location: YCNGA – 965 West Main St. Rock Hill***

***To register online: https://ycnga.com/safety/emergency-responders/#seminar***

# Overcharging Electric Golf Carts Can Trigger Carbon Monoxide Alarms

It's a recent trend that seems to be on the rise. An increasing number of families and retired couples are purchasing golf carts for low cost, convenient transportation around the neighborhood. The proliferation of golf carts has spread from retirement and vacation areas into more urban settings and has revealed a previously unforeseen risk of hydrogen gas which triggers carbon monoxide (CO) detector alarms.

Research into the matter found a study, conducted by the Villages Public Safety Department in Florida where it was determined that golf carts were off-gassing hydrogen and causing false positives for CO detectors. Further research confirmed the danger of a hydrogen gas release when golf cart batteries are overcharged, especially in a garage or residence.

When the gas accumulates in an enclosure such as a garage, it eventually comes into contact with a CO detector in the structure triggering an alarm. The standard CO detector is set to alarm when concentrations of carbon monoxide are detected at 150 parts per million for 30 minutes. The same CO detector will alarm when exposed to 300 parts per million of hydrogen.

## Like carbon monoxide, hydrogen gas can cause asphyxiation

Excess hydrogen could also lead to fire and explosion. For this to occur there would need to be:

- **Accumulation of hydrogen gas**
- **Failure to detect the hydrogen gas**
- **A source of ignition**

Newer golf carts and chargers do allow for the automatic shutoff of the charging system when the cycle is complete. Some of the older golf cart models and after-market charging systems allow continuous charging and as a result can produce continuous production of hydrogen gas.

*Read more at www.firehouse.com – The Unexpected Golf Cart Hazard*

SPREAD THE WORD

**NOVEMBER IS...**
**South Carolina CO Awareness Month**


## CONTACT INFO

**Patriots Energy Group**

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|---|---|
| Emergency | (888) 609-9858 |
| Website | patriotsenergy.com |

**York County Natural Gas Authority**

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| Emergency | (866) 201-1001 |
| Non-Emergency | (803) 323-5304 |
| Website | ycnga.com |

**Chester County Natural Gas Authority**

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| Non-Emergency | (803) 385-3157 |
| Website | chestergas.com |

**Lancaster County Natural Gas Authority**

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| Non-Emergency | (803) 285-2045 |
| Website | lcngasc.com |

**SC811**

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| Toll-free | (888) 721-7877 |
| Website | SC811.com |

**National Pipeline System**

npms.phmsa.dot.gov

**USDOT Pipeline Safety**

primis.phmsa.dot.gov/comm/EmergencyOfficials.htm

## Training Opportunities for your Department

York County Natural Gas Authority personnel are available to provide training to local emergency responders on how to safely handle a pipeline emergency. Please feel free to contact us for more information or to schedule a training session.

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*Vice President of Regulatory Compliance and System Planning*

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