

# Pipeline Blowdowns

EPA Technology Transfer Workshop

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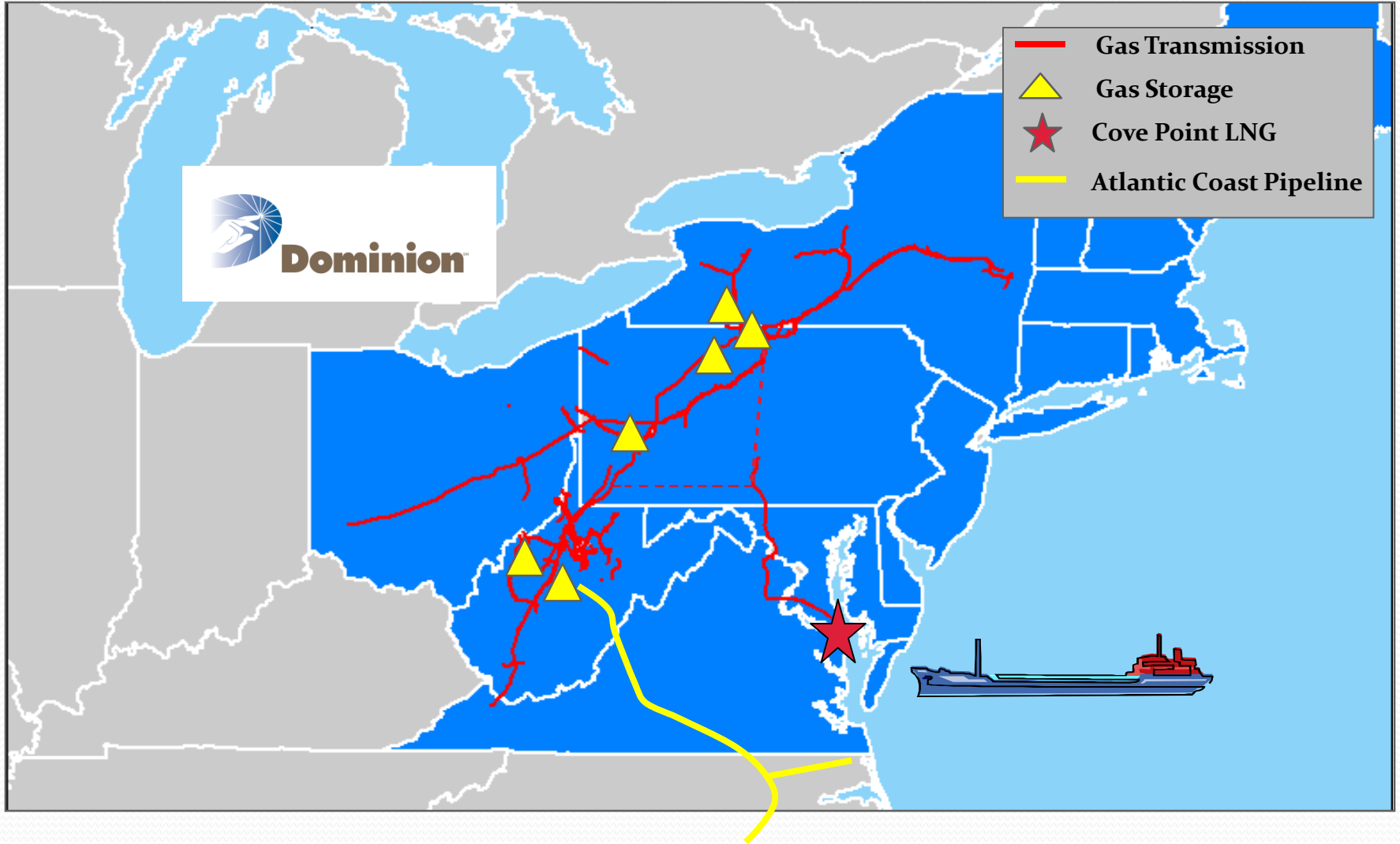
Dominion Transmission, Inc.

# Discussion topics for today

- Who are we
- Dominion's program
- Methods
- Benefits



# Who are we?



# Who are we?

## About Wayne Burkhammer

- Manager of Gas Transmission Operations in Dominion's western PA region.
- 40 years experience in pipeline design, compression, and gas transmission operations.

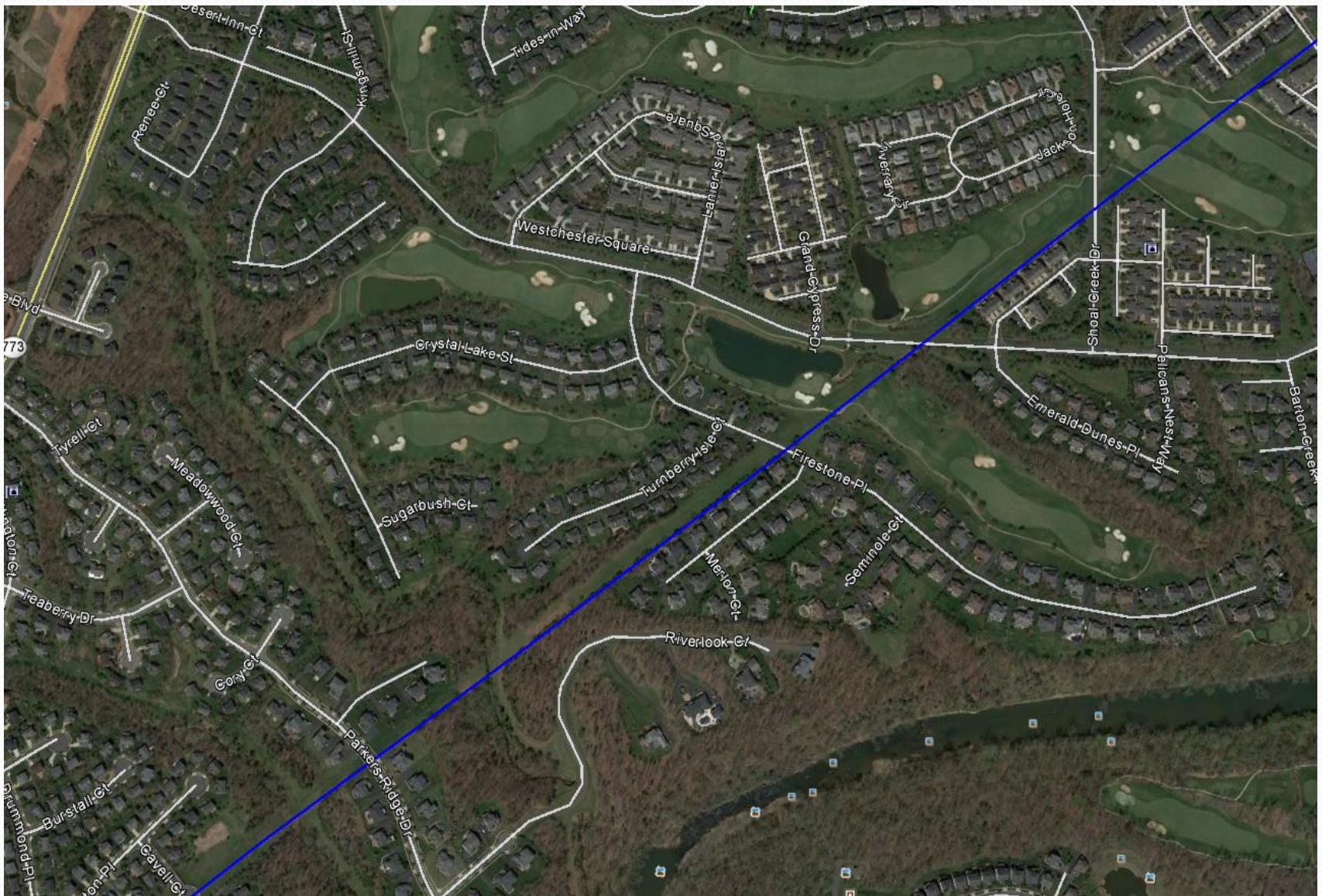


# Dominion's program history

- Started with pilots in 2004, evaluated with a Six Sigma project in 2010
- Used for larger, planned, construction and maintenance projects
- Engages Gas Control, Operations & Engineering
- Determines safest and best method to reduce the gas loss emissions while meeting customer needs
- Reported in tracking system for all gas loss events



# Activities Impacting Pipelines





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# Blowdown assessment checklist

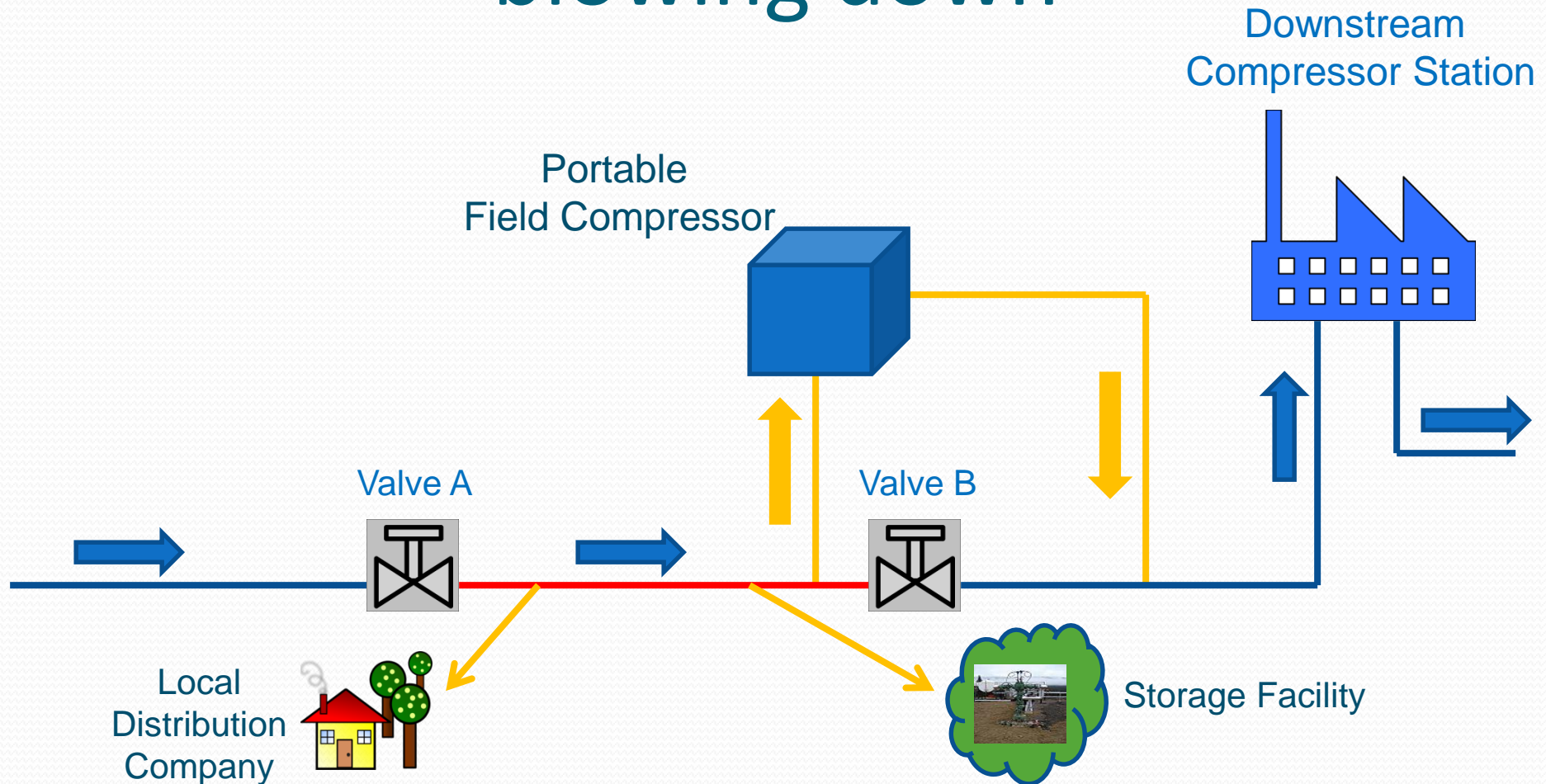
- Pipeline characteristics – diameter, length, pressure, estimated gas loss (existing pressure), estimate of gas loss reduction (if possible).
- Are there circumstances that deter blowdown such as limited outage period, emergency situation, economics? If yes, why?
- Identify method of pressure reduction and cost to implement.
- Note implementation and event number in the gas loss reporting system.



# Pipeline blowdown options

- Use isolation valves to minimize impact
- Install plugging equipment to shorten segment of pipeline involved in outage.
- Lower pressure in the pipeline prior to event
  - Stationary compressors
  - Portable compressors
  - Delivery to customers (LDC, Power Gen., etc.)
- Re-direct into storage vessel (field) or low-pressure header (fuel gas or gathering system)
- Install duct burners, thermal oxidizers or flares

# Reducing pipeline pressure prior to blowing down



# Benefits from pressure reductions

Year	Opportunities to reduce pressure	Total Volumes not released to atmosphere (Mcf)	Average savings per opportunity (Mcf)
2012	116	109,650	945
2013	47	175,142	3,726
2014	45	177,096	3,935
2015	19	177,919	9,364
TOTAL	227	639,807	2,819



# Questions



**Dominion**