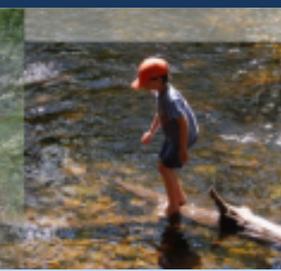
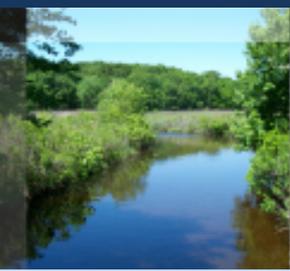
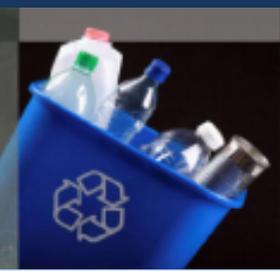




Connecticut Department of Energy and Environmental Protection



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

Pipeline Safety

October 17, 2019

Karl Baker

2019 NGA Fall Operations Conference

Hartford, CT



Connecticut Department of Energy and Environmental Protection

Pipeline Safety

Just in case you forgot...



Connecticut Department of Energy and Environmental Protection

Pipeline Safety

45 Hours

Police & Fire Radio Recordings
Just uploaded to "Bill Huston's
Pipeline Safety Documents Archive"
TinyURL.com/BHPipelineSafety

9/13/2018, Merrimack Valley, 4:30 PM
Essex County, Massachusetts
Andover, North Andover, Lawrence
Fires, Explosions, Strong Odor of Gas
70-100 Homes Affected



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

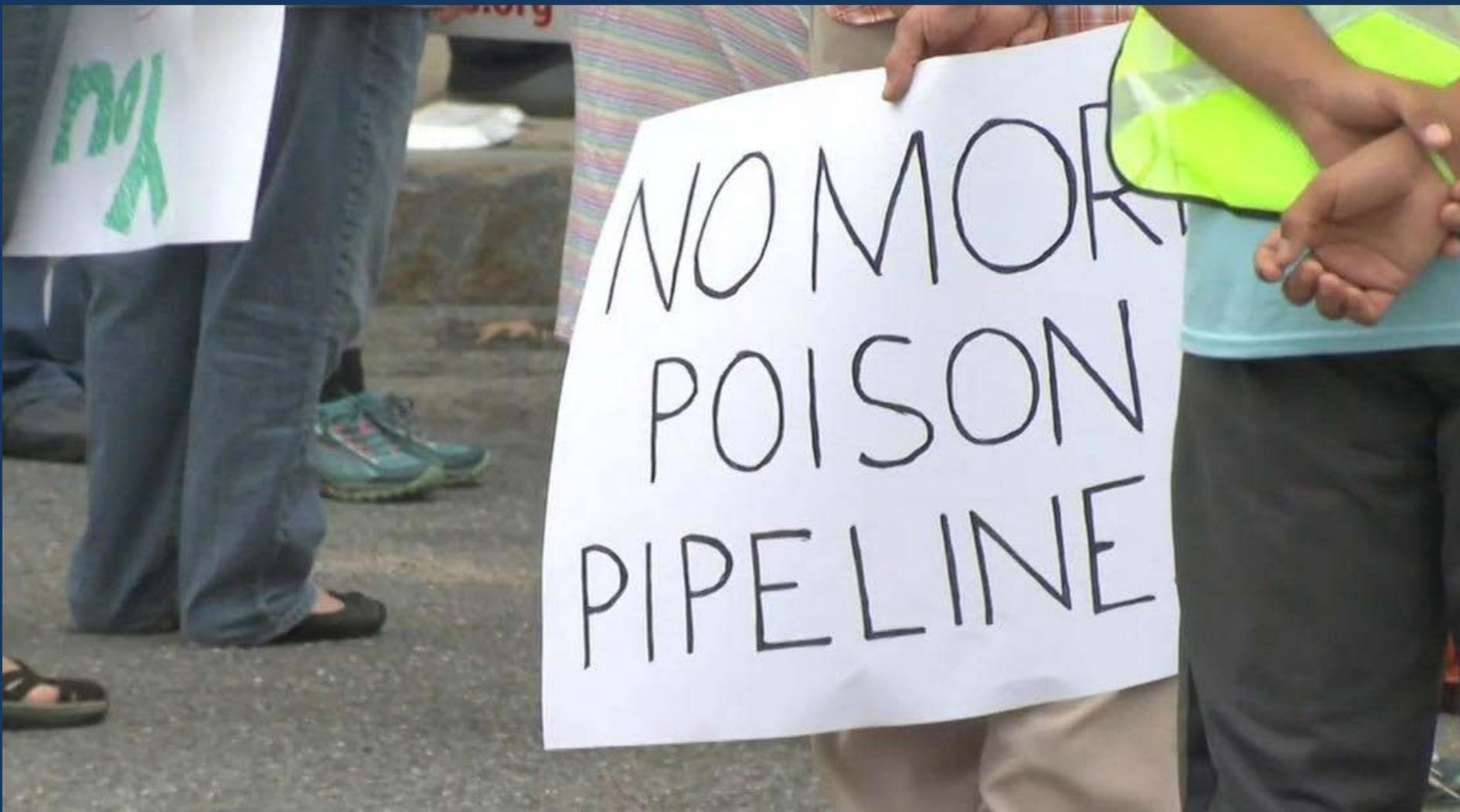
Pipeline Safety

...and that leads to this...



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety

But have no fear...



Connecticut Department of Energy and Environmental Protection

Pipeline Safety

PEs and PSMS will save the day!

(just like Part 192, OQ, PAP, CRM, LIMP, TIMP and DIMP
were going to save the day)



Pipeline Safety

How about a little irony...



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety

- 11/15/2018 - NTSB issued 2nd investigative update on FIU Bridge Collapse (6 people died) – errors made in the design (by PEs)



Pipeline Safety

- Also on 11/15/2018 - NTSB issues PE license recommendation to MA

Recommendations

As a result of this report, the National Transportation Safety Board makes the following safety recommendations:

To the Commonwealth of Massachusetts:

Eliminate the professional engineer licensure exemption for public utility work and require a professional engineer's seal on public utility engineering drawings. (P-18-005)

To NiSource, Inc.:

Revise the engineering plan and constructability review process across all of your subsidiaries to ensure that all applicable departments review construction documents for accuracy, completeness, and correctness, and that the documents or plans be sealed by a professional engineer prior to commencing work. (P-18-006) (Urgent)

Review and ensure that all records and documentation of your natural gas systems are traceable, reliable, and complete. (P-18-007) (Urgent)

Apply management of change process to all changes to adequately identify system threats that could result in a common mode failure. (P-18-008) (Urgent)

Develop and implement control procedures during modifications to gas mains to mitigate the risks identified during management of change operations. Gas main pressures should be continually monitored during these modifications and assets should be placed at critical locations to immediately shut down the system if abnormal operations are detected. (P-18-009) (Urgent)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

ROBERT L. SUMWALT, III
Chairman

EARL F. WEENER
Member

BRUCE LANDSBERG
Vice Chairman

T. BELLA DINH-ZARR
Member

JENNIFER HOMENDY
Member

Adopted: November 14, 2018



Pipeline Safety

- 9/24/2019 – NTSB Board Meeting on Merrimack Valley incident – multiple PEs were involved in the process!



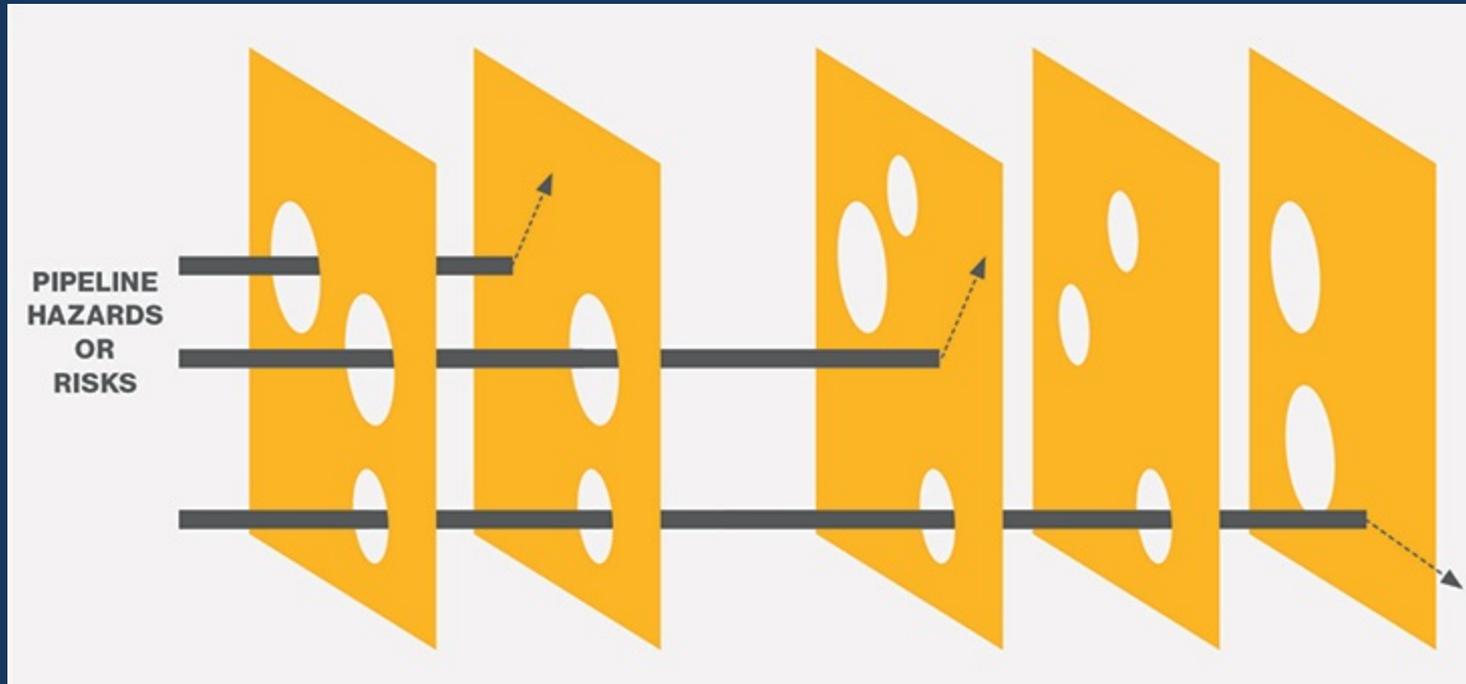
Pipeline Safety

No one thing is going to
fix everything.



Pipeline Safety

Lines of Defense



Pipeline Safety

- Lines of Defense
 - Regulations
 - Procedures
 - **Training**
 - Operator Qualification
 - Managers and Supervisors
 - Company Employees/Contractors
 - Company/Contractor Inspectors
 - State/Federal Pipeline Safety Inspectors



Pipeline Safety

TRAINING!

TRAINING!

TRAINING!



Pipeline Safety

- Prior to the Operator Qualification Rule
 - Training departments
 - Training staff
 - Hands-on training
 - Many days or weeks of training per year
 - Both company employees and contractors



Pipeline Safety

- After the Operator Qualification Rule
 - ~~– Training departments~~
 - ~~– Training staff~~
 - ~~– Hands on training~~
 - ~~– Many days or weeks of training per year~~
 - ~~– Both company employees and contractors~~



Pipeline Safety

- CT Proposed Legislation (NY and NH also engaged)
 - Two-part covered task – on a pipeline and affects safety
 - Evaluation requires exam and hands-on skill and ability testing for every task
 - Evaluation process must be performed by operator or independent third party
 - Must reevaluate if task not performed correctly, not just after an incident

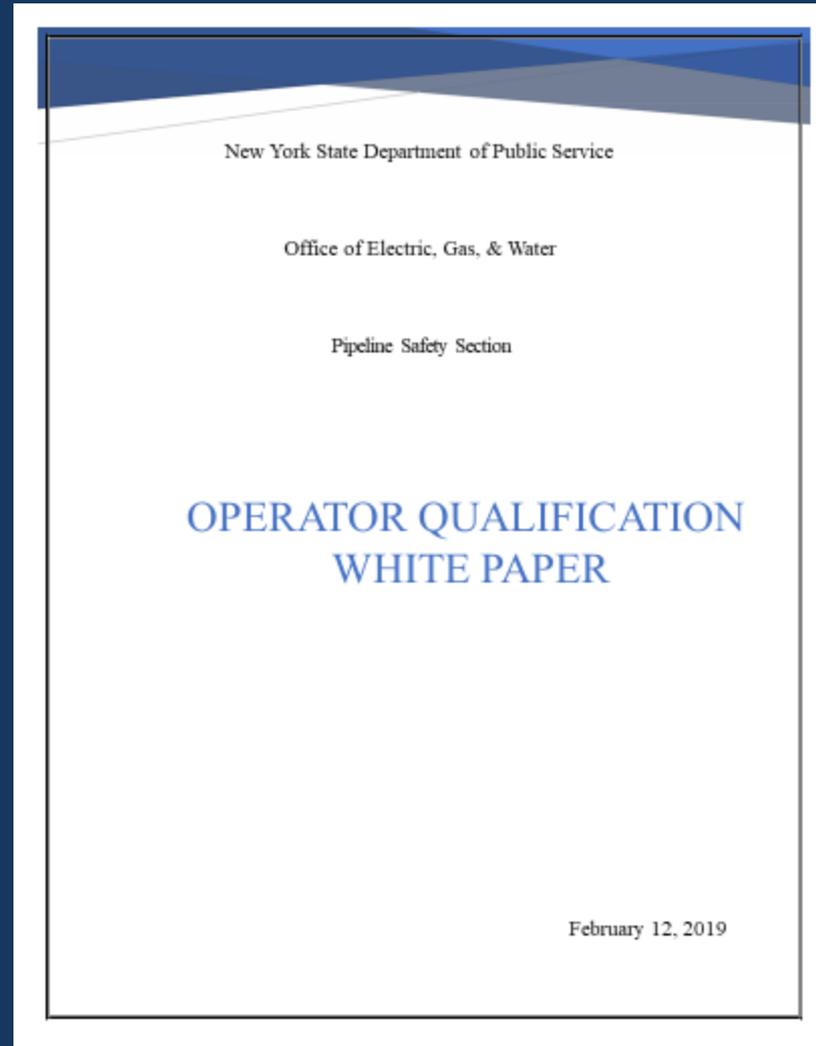


Pipeline Safety

- CT Proposed Legislation
 - Training required, including minimum training time per task
 - Training and evaluation must match company's plans, procedures and standards
 - Inspectors must be OQ'ed for the task(s) they are observing
 - Engineering tasks added to OQ program



Pipeline Safety



Connecticut Department of Energy and Environmental Protection

Pipeline Safety



Pipeline Safety

Karl Baker

Public Utilities Supervisor of Technical Analysis

karl.baker@ct.gov

860-827-2661



Connecticut Department of Energy and Environmental Protection