# Lane Miller PHMSA Training and Qualification

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## Kids



## APONY

Next time you'll buy me one

# Projects Around the New House

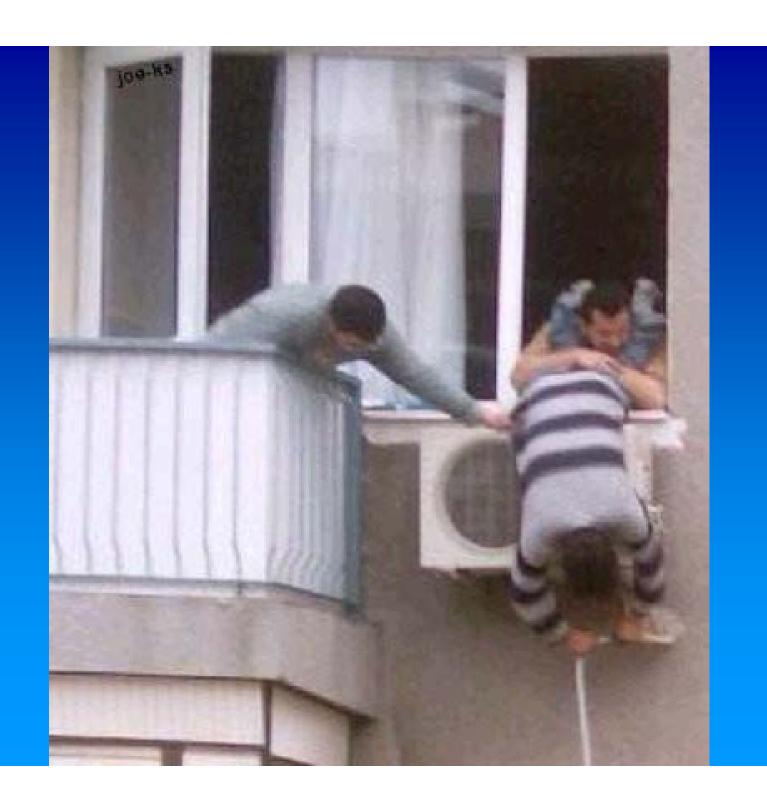


## WILL WORK



FORBEER







## Safety for the House



## Christmas

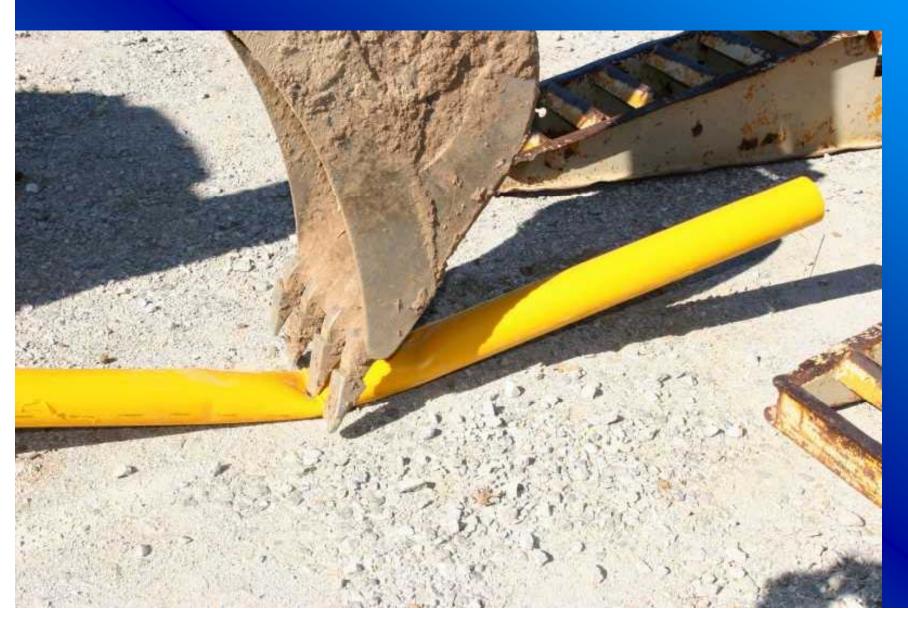


## New Tools



## Recent Issues

## Plastic Installations



## Plastics and Composites





Clearing System Change in Derating
Factor
for PA-11



From .32 to .40

#### Previous Design Pressure of PA-11

■ For SDR 11 @ 73° F:

$$P = \frac{2(2500)}{11-1} (.32) = 160 \, psig$$

#### New Design Pressure of PA-11

■ For SDR 11 @ 73° F:

$$P = \frac{2(2500)}{11-1} (.40) = 200 \, psig$$

Petition for raising the design factor from .32 to .40 for PE.

Current design for PE, 3408, SDR 11 @ 73°F:

$$P = \frac{2(1600)}{11-1} (.32) = 102 \, psig$$

Project design for PE, 3408, SDR 11 @ 73°F:

$$P = \frac{2(1600)}{11-1} (.40) = 128 \, psig$$

Design for PE, 3408, SDR 9.3 @ 73°F:

$$P = \frac{2(1600)}{9.3 - 1} (.32) = 123 \, psig$$

Design for PE, 3408, SDR 9.3 @ 73°F:

$$P = \frac{2(1600)}{9.3 - 1} (.40) = 154 \, psig$$

#### Issues w/ Petition for PE

Project design for PE, 3408, SDR 17 @ 73°F:

$$P = \frac{2(1600)}{17 - 1} (.40) = 80 \, psig$$

#### Issues w/ Petition for PE

Project design for PE, 2406, SDR 17 @ 73°F:

$$P = \frac{2(1250)}{17-1} (.40) = 63 \, psig$$

#### Issues w/ Petition for PE

Project design for PE, 3408, SDR 21 @ 73°F:

$$P = \frac{2(1600)}{21 - 1} (.40) = 64 \, psig$$

#### API 5L and 1104

ANSI/API Specification 5L/ISO 3183 "Specification for Line Pipe" (43rd edition and errata, 2004, and 44th edition, 2007).

API 1104 "Welding of Pipelines and Related Facilities" (19th edition 1999, including errata October 31, 2001; and 20th edition 2007, including errata 2008).

# Double/Triple Stamped Pipe

## Advisory Bulletins

To: Owners and Operators of Natural Gas Pipeline Distribution Systems. Subject: Updated Notification of the Susceptibility of Older Plastic Pipes to Premature Brittle-Like Cracking.

Premature brittle-like cracking requires relatively high localized stress intensification that may result from geometrical discontinuities, excessive bending, improper installation of fittings, dents and/or gouges. Because this failure mode exhibits no evidence of gross yielding at the failure location, the term brittle-like cracking is used. This phenomenon is different from brittle fracture, in which the pipe failure causes fragmentation of the pipe.

- ADB-99-01
  - Century Utility Products, Inc. -
- ADB-99-02
  - Installed between the 1960s and early 1980s
- ADB-02-07
  - Century Utility Products, Inc. Products;
  - Low-ductile inner wall "Aldyl A" piping manufactured by DuPont Company before 1973; and
  - Polyethylene gas pipe designated PE 3306

#### Adding:

Delrin insert tap tees

 Plexco service tee Celcon (polyacetal) caps.







# Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006

**PIPES 2006** 

#### INCIDENT REPORTING

By Dependent 31, 2007 - shall review the includent reporting requirements for operators of natural gas pipelines and modify the reporting criteria as appropriate to ensure that the incident data gathered accurately reflects incident trends over time, taking into consideration the recommendations from Comptroller General in GAO report 26-10.



### Incident means any of the following events:

- § 191.3 Definitions.
- \* \* \* \* \*
- (1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one of the following consequences:

### Incident means any of the following events:

- (i) A death, or personal injury necessitating inpatient hospitalization;
- (ii) Estimated property damage of \$50,000 or more, including loss to the operator and others, or both;
- (iii) Estimated gas loss of 3,000 million cubic feet or more;
- (iv) An explosion or fire not intentionally set by the operator.

### Incident means any of the following events:

- (2) An event at an LNG plant or LNG facility that results in an emergency shutdown, excluding the activation of emergency shutdown devices for maintenance.
- (3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

#### EXCESS FLOW VALVES

- (A) IN GENERAL.—The minimum standards shall include a requirement for an operator of a natural gas distribution system to install an excess flow valve on each single family residence service line connected to such system if—
- (i) the service line is installed or entirely replaced after June 1, 2008;
- (ii) operates continuously throughout the year at a pressure not less than 10 pounds per square inch gauge;

#### EXCESS FLOW VALVES

(iii) with no contaminants the presence of which could interfere with the operation of an excess flow valve;

(iv) the installation of an excess flow valve on the service line is not likely to cause loss of service to the residence or interfere with necessary operation or maintenance activities, such as purging liquids from the service line

#### Advisory Bulletin

■ ADB-08-04

 Installation of Excess Flow Valves into Gas Service Lines



## DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM RULEMAKING DEADLINE

Not later than December 31, 2007, the Secretary shall prescribe minimum standards for integrity management programs for distribution pipelines.

May require operators of distribution pipelines to continually identify and assess risks on their distribution lines, to remediate conditions that present a potential threat to line integrity, and to monitor program effectiveness.

Distribution Integrity

Management



#### 7 Key Elements of DIMP

- 1. Develop and implement a written IM plan
- 2. Know the infrastructure
- 3. ID threats
- 4. Assess and prioritize risks
- 5. ID and implement appropriate measures to mitigate risks
- 6. Measure performance, monitor results, evaluate the effectiveness and make changes as needed
- 7. Periodically report performance measures

#### NPRM - Additional Scope

- 1. Prevention through People
- 2. Providing Accident Data on Plastic Pipelines (PPDC)
- 3. EFV Installation
- 4. Minimum Mitigative Measures
  - Enhanced Damaged Prevention Systems
  - Enhanced Leak Detection Programs
  - "Assuring Individual Performance"

#### Outstanding Topics







### Gas Operations of the Week





