

Plastic Pipe  
Database  
Committee

# **What's New with Plastic Piping August 2019**

# About the PPDC

- Collects data on pipe, fitting, and joint failures in plastic piping systems
- Analyzes data related to current plastic piping failures and known historical issues
- Identifies trends to assist Integrity Management Programs

# Background

- Created in response to NTSB recommendation
- Precondition to DOT not mandating collection
- National voluntary database of plastic piping failures
- Administered by AGA on behalf of PPDC

# Committee Members

## Government Members

- NAPSR Representatives (2)
- NARUC Representatives (2)
- PHMSA/OPS  
Representatives (2)

## Industry Members

- AGA Member  
Representatives (2)
- APGA Member  
Representatives (2)
- PPI Member  
Representatives (2)

- Up to 3 Invited Guests
- 1 NTSB Liaison
- AGA Observer(s)

# Scope

- The scope of the committee was expanded to include failures and/or leaks of plastic pipe and metal and/or plastic appurtenances contained within plastic piping systems. Immediate third-party damages are not collected or evaluated (except where a delayed failure and/or leak occurs after the damage event) since this data is collected by the Common Ground Alliance and it does not provide an indication of the long-term performance of plastic piping materials. The cumulative data supplied by volunteer participants in the Plastic Pipe Data Collection Initiative are examined in aggregate by the PPDC at each meeting to consider plastic system failures and/or leaks unrelated to third-party damage.
- Immediate, clearly known, third party damages are not collected or evaluated.

# Plastic Piping Database Committee (PPDC)

- The PPDC meets two to three times per year to review the data.
- Consensus agreements on areas of focus or concern.
- Issues Status Reports after each meeting.
- Provides resources to aid in identification of products and to assist operators with Integrity Management Programs.

# Status of Participation

- 119 companies actively submitted data in May 2018
  - Names of active submitters are included in Appendix A of the Status Report
  - Verify that your company is submitting
- PPDC submitters represent these percentages of all installed plastic piping in the U.S.
  - 76% plastic main
  - 86% plastic services

# Accuracy and Completeness of Data

## VERY IMPORTANT

- Impacts analysis and conclusions
  - Installation Date/Year
  - Comments on Failure Cause
  - Manufacturer
- Needs full cooperation of participants to help resolve submitted data issues
- Increasingly important with Integrity Management Programs



# Accuracy and Completeness of Data

## VERY IMPORTANT

- The PPDC Report Form requests information related to plastic piping system failure. The report form can be found at [www.aga.org/ppdcforms](http://www.aga.org/ppdcforms)
- Definitions document explains the information requested on the report form

# Accuracy and Completeness of Data

## VERY IMPORTANT

- The PPDC has created various tools to assist operators with data submission
- Plastic Pipe Timeline contains events affecting use of plastic piping in distribution systems. The timeline can be found at [www.aga.org/PPDC](http://www.aga.org/PPDC)

# Manufacturers Database

<https://plasticpipe.org/energy/energy-piping-systems-mfg-history.html>

**Another tool is the Manufacturers Database**

## Manufacturers of Plastic Piping Products - Pipe

NOTE: Operators are required to install materials that meet current requirements

| Company | Material Designation | From              | To      | Size Range           | Comments   |
|---------|----------------------|-------------------|---------|----------------------|--|
| Allied  | PE 3306/3406         | 1965/66           | 1972/73 | 1/2" CTS<br>- 2" IPS | Was also a resin producer and supplied the AC ultra high molecular pipe compound to several small pipe extruders including Yardley, Orangeburg, Endot and the Barrett Division of Allied (also an extruder of PVC pipe). Except for Endot, most of these producers/extruders have since gone out of business or have different names today. Pipe was very difficult to fuse. |
|         |                      |                   |         |                      |  |
| Amstan  | PE3306               | Mid-late<br>1960s |         |                      |  |

# Manufacturers Database

| <b>Manufacturers of Plastic Piping Products - Line Fittings</b>                  |                             |             |           |                   |   |
|--|-----------------------------|-------------|-----------|-------------------|---|
| NOTE: Operators are required to install materials that meet current requirements |                             |             |           |                   |   |
| <b>Company</b>   | <b>Material Designation</b> | <b>From</b> | <b>To</b> | <b>Size Range</b> | <b>Comments</b>                             |
| Georg Fischer Central Plastics   |                             |             |           |                   | Produced molded fittings for pipe producers |
|  | PE 2406                     | ??          | Present   | 1" IPS - 12" IPS  | Solid Yellow                                |
|  | PE 3408                     | ??          | Present   | 1" IPS - 12" IPS  | Solid Black                                 |
|  |                             |             |           |                   |   |
| CP Chemical  |                             |             |           |                   | Another name for Performance Pipe           |
|  |                             |             |           |                   |   |

# Manufacturers Database

## Manufacturers of Plastic Piping Products - Other fittings

NOTE: Operators are required to install materials that meet current requirements

| Company                        | Material Designation | From | To | Size Range           | Comments   |
|--------------------------------|----------------------|------|----|----------------------|--|
| AMP                            | Dupont Zytel ST-801  |      |    |                      | 1970's, stainless steel and nylon compression fitting. Technology purchased by Metcal in 1990; can be white in appearance. Dupont Zytel ST-801 |
|                                | Nylon                | ??   | ?? | 1/2" CTS -<br>2" IPS | Black with Stainless Steel compression ring. Nylon 66  |
| Georg Fischer Central Plastics |                      |      |    |                      | Electrofusion and heat fusion fittings, transition fittings, meter risers.   |

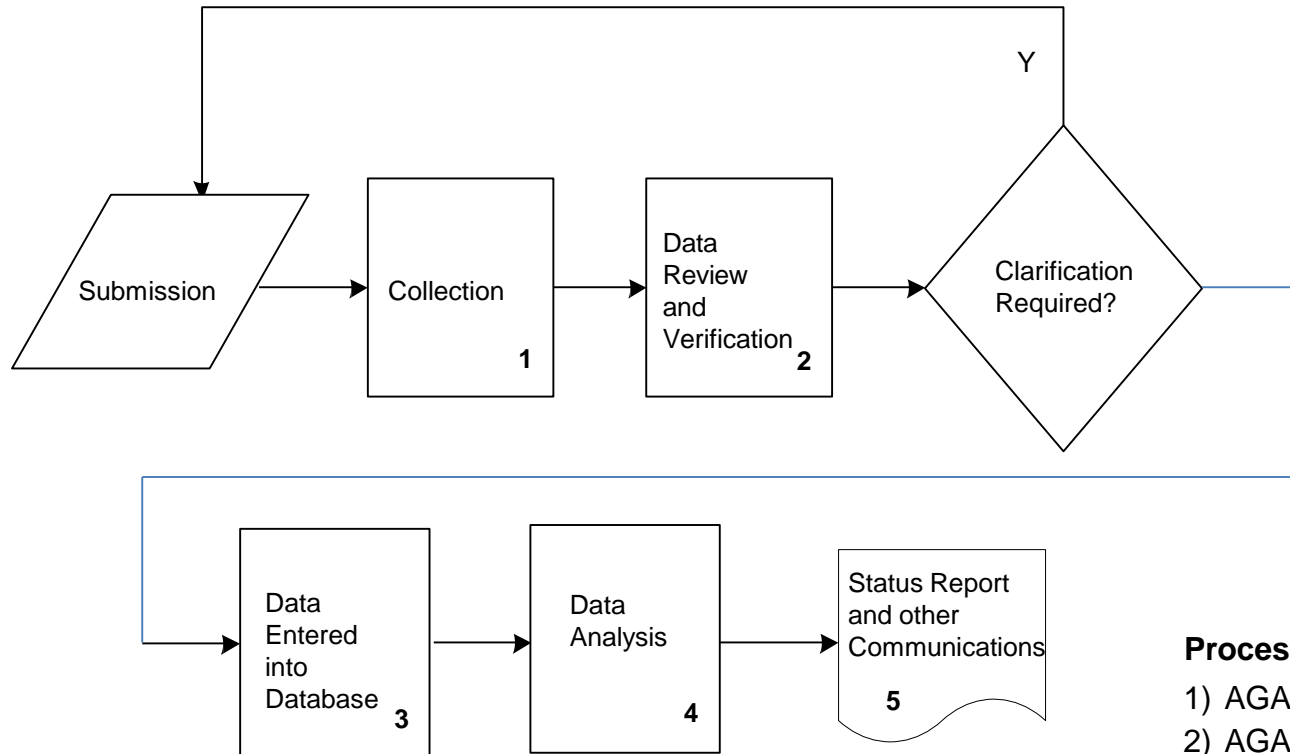
# Manufacturers Database

## Manufacturers of Plastic Piping Products - Valves

NOTE: Operators are required to install materials that meet current requirements

| <b>Company</b>                    | <b>Material Designation</b> | <b>From</b> | <b>To</b> | <b>Size Range</b>        | <b>Comments</b>                                 |
|-----------------------------------|-----------------------------|-------------|-----------|--------------------------|---|
| Georg Fischer<br>Central Plastics |                             |             |           |                          |   |
| Dresser                           | Nylon                       | 1991        | Present   | 1/2" CTS -<br>1-1/4" CTS | Style 475 Curb Valve Rilsan                     |
| Friatec                           | PE 3408                     | 1985        | 1995      | 2" - 6" IPS              | Black body with white operating nut; ball valve |

# Plastic Pipe Database Committee Data Process Flow



## Process Responsibilities

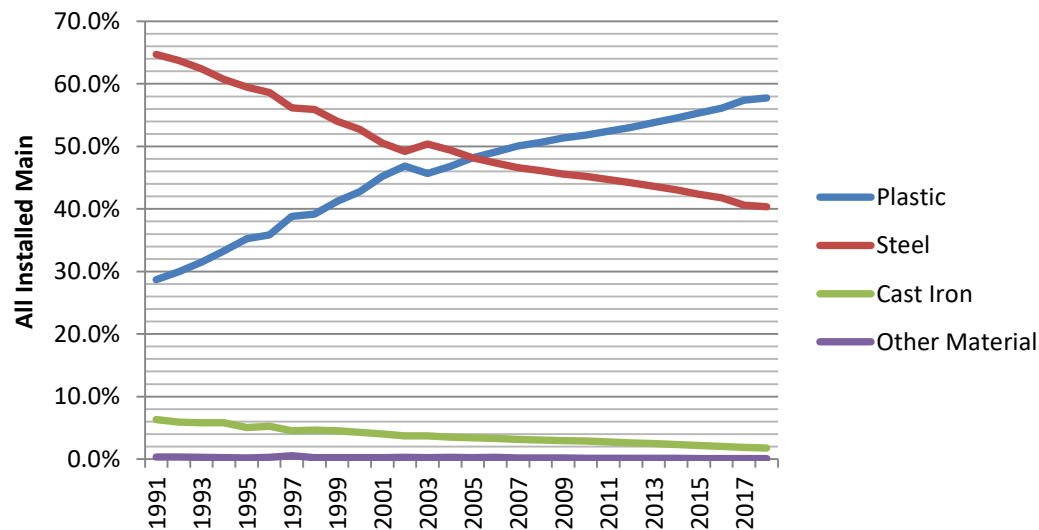
- 1) AGA Data Collection Team
- 2) AGA Data Collection Team
- 3) AGA Data Collection Team
- 4) Plastic Pipe Database Committee
- 5) AGA Data Collection Team / PPDC

# Summary of Database

The PPDC began gathering data in 2000

- Over 89,000 data reports as of August 2019
- More than three 5 year leak survey cycles
- Adding approximately 10,000 reports annually

**Natural Gas Pipe Main by Material  
as a Percentage of All Pipe**





# Summary of Database

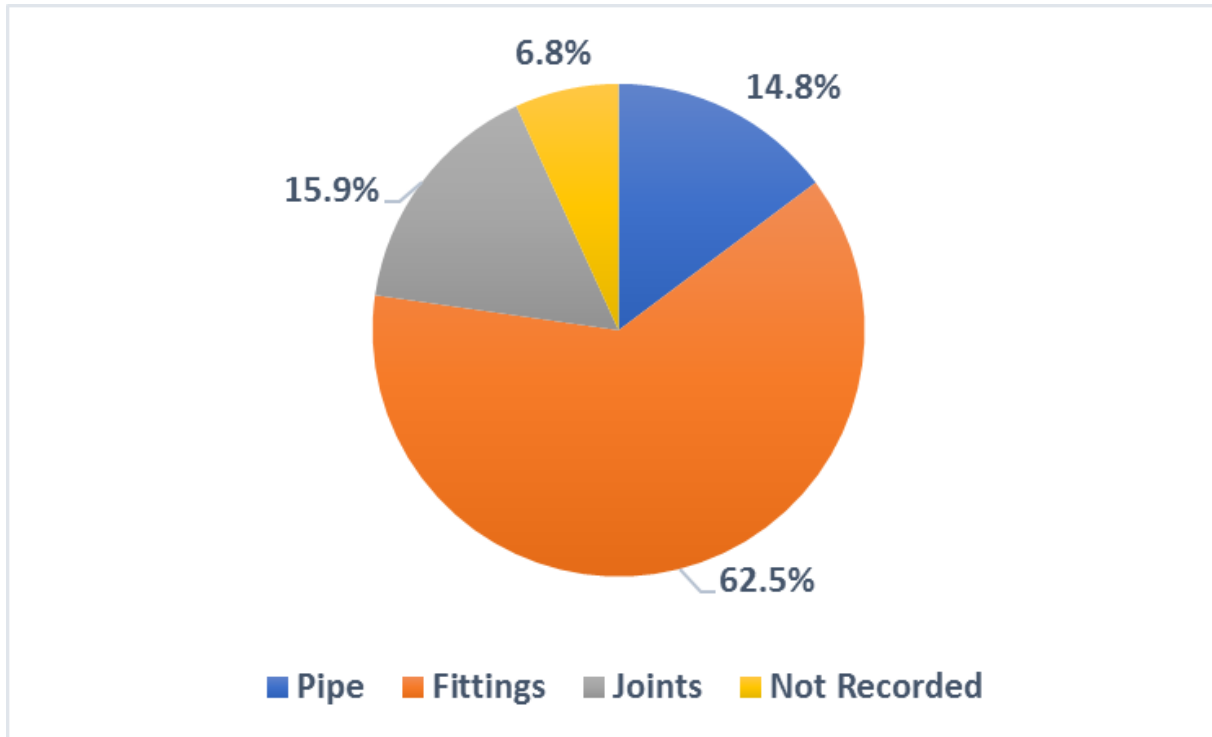
- Status Report includes analysis of specific data
  - Failures on newly installed pipe
  - ABS, PVC and PE leaks by component and cause
  - DuPont & Uponor (Aldyl A)
  - Century
  - PE 3306
  - AMP
  - Caps
  - PVC
  - Kerotest
  - Driscopipe® HDPE Pipe

# New Installations

- Installation Error is reported as the cause for 43% of all failures occurring within 5 years of installation
- Emphasis should be continued for Operator Qualification Programs, training programs, installation procedure reviews, and inspection efforts

# ABS Failures by Location

On the 2017 PHMSA Gas Distribution Annual reports, PPDC submitters reported approximately 153 miles of ABS main representing approximately 5% of all ABS mains installed in the US and approximately 63 ABS services representing approximately 1% of all ABS services installed in the US.



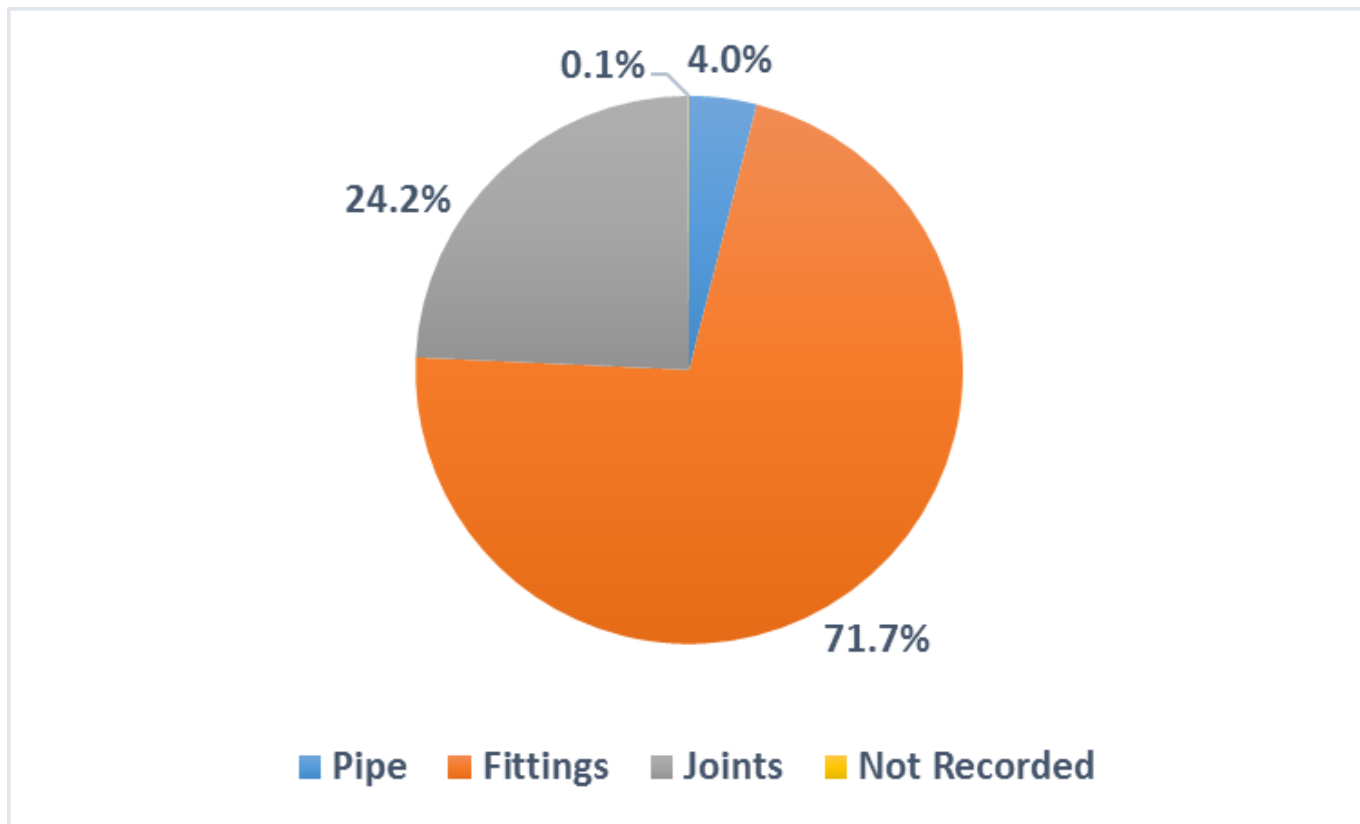
PHMSA annual report data downloaded 5/1/2018

# ABS Failure Causes

| CAUSE                             | % of All ABS Failures/Leaks | % of ABS Pipe Failures/Leaks | % of ABS Fitting Failures/Leaks | % of ABS Joint Failures/Leaks |
|-----------------------------------|-----------------------------|------------------------------|---------------------------------|-------------------------------|
| Excessive Expansion/Contraction   | 1.1%                        | 0.0%                         | 1.8%                            | 0.0%                          |
| Excessive External Earth Loading  | 4.5%                        | 15.4%                        | 0.0%                            | 14.3%                         |
| Installation Error                | 19.3%                       | 7.7%                         | 16.4%                           | 50.0%                         |
| Squeeze Off                       | 2.3%                        | 15.4%                        | 0.0%                            | 0.0%                          |
| Point Loading                     | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                          |
| Previous Impact                   | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                          |
| Unknown                           | 27.3%                       | 53.8%                        | 25.5%                           | 7.1%                          |
| Other                             | 1.1%                        | 0.0%                         | 1.8%                            | 0.0%                          |
| All Caps                          | 6.8%                        | 0.0%                         | 10.9%                           | 0.0%                          |
| Not Recorded                      | 15.9%                       | 7.7%                         | 14.5%                           | 21.4%                         |
| Material Defect                   | 19.3%                       | 0.0%                         | 29.1%                           | 7.1%                          |
| Gopher/Rodent/Worm Damage         | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                          |
| Unknown - Not Excavated, Replaced | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                          |
| Unknown - Abandoned               | 2.3%                        | 0.0%                         | 0.0%                            | 0.0%                          |
| Corrosion                         | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                          |
|                                   |                             |                              |                                 |                               |
| <b>Total</b>                      | <b>100.0%</b>               | <b>100.0%</b>                | <b>100.0%</b>                   | <b>100.0%</b>                 |

# PVC Failures by Location

According to data submitted to PHMSA on annual reports, mileage for PVC has been decreasing since 2000. Approximately 10,755 miles of main were reported in 2017.



PHMSA annual report data downloaded 5/1/2018

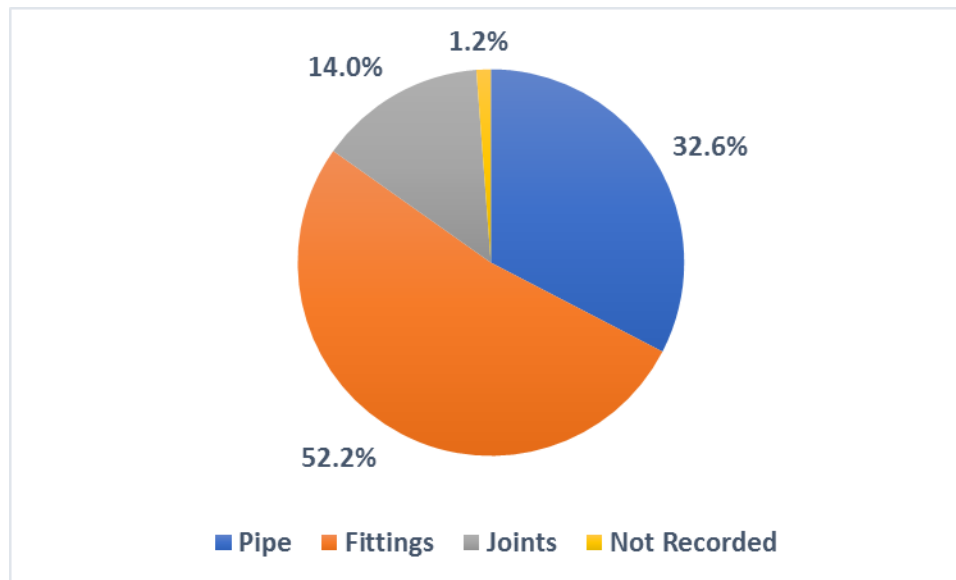
# PVC Failure Causes

| CAUSE                             | % of All PVC Failures/Leaks | % of PVC Pipe Failures/Leaks | % of PVC Fitting Failures/Leaks | % of PVC Failures/Leaks |
|-----------------------------------|-----------------------------|------------------------------|---------------------------------|-------------------------|
| Excessive Expansion/Contraction   | 2.7%                        | 4.1%                         | 3.3%                            | 0.6%                    |
| Excessive External Earth Loading  | 7.6%                        | 17.6%                        | 6.6%                            | 9.2%                    |
| Installation Error                | 35.3%                       | 8.1%                         | 41.7%                           | 21.1%                   |
| Squeeze Off                       | 0.2%                        | 4.1%                         | 0.0%                            | 0.0%                    |
| Point Loading                     | 1.9%                        | 35.1%                        | 0.4%                            | 1.3%                    |
| Previous Impact                   | 0.7%                        | 4.1%                         | 0.7%                            | 0.2%                    |
| Unknown                           | 4.5%                        | 5.4%                         | 4.6%                            | 4.0%                    |
| Other                             | 2.2%                        | 0.0%                         | 1.8%                            | 3.5%                    |
| All Caps                          | 0.4%                        | 0.0%                         | 0.5%                            | 0.0%                    |
| Not Recorded                      | 10.5%                       | 6.8%                         | 0.4%                            | 40.3%                   |
| Material Defect                   | 33.8%                       | 12.2%                        | 39.8%                           | 19.6%                   |
| Gopher/Rodent/Worm Damage         | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                    |
| Unknown - Not Excavated, Replaced | 0.2%                        | 2.7%                         | 0.1%                            | 0.0%                    |
| Unknown - Abandoned               | 0.0%                        | 0.0%                         | 0.0%                            | 0.0%                    |
| Corrosion                         | 0.1%                        | 0.0%                         | 0.1%                            | 0.2%                    |
|                                   |                             |                              |                                 |                         |
| <b>Total</b>                      | <b>100.0%</b>               | <b>100.0%</b>                | <b>100.0%</b>                   | <b>100.0%</b>           |

# PE

## Including DuPont & Uponor, Aldyl A

PHMSA 2017 Annual Report Data: 736,560 Miles of PE Main  
PPDC active submitters have 565,712 Miles of PE Main



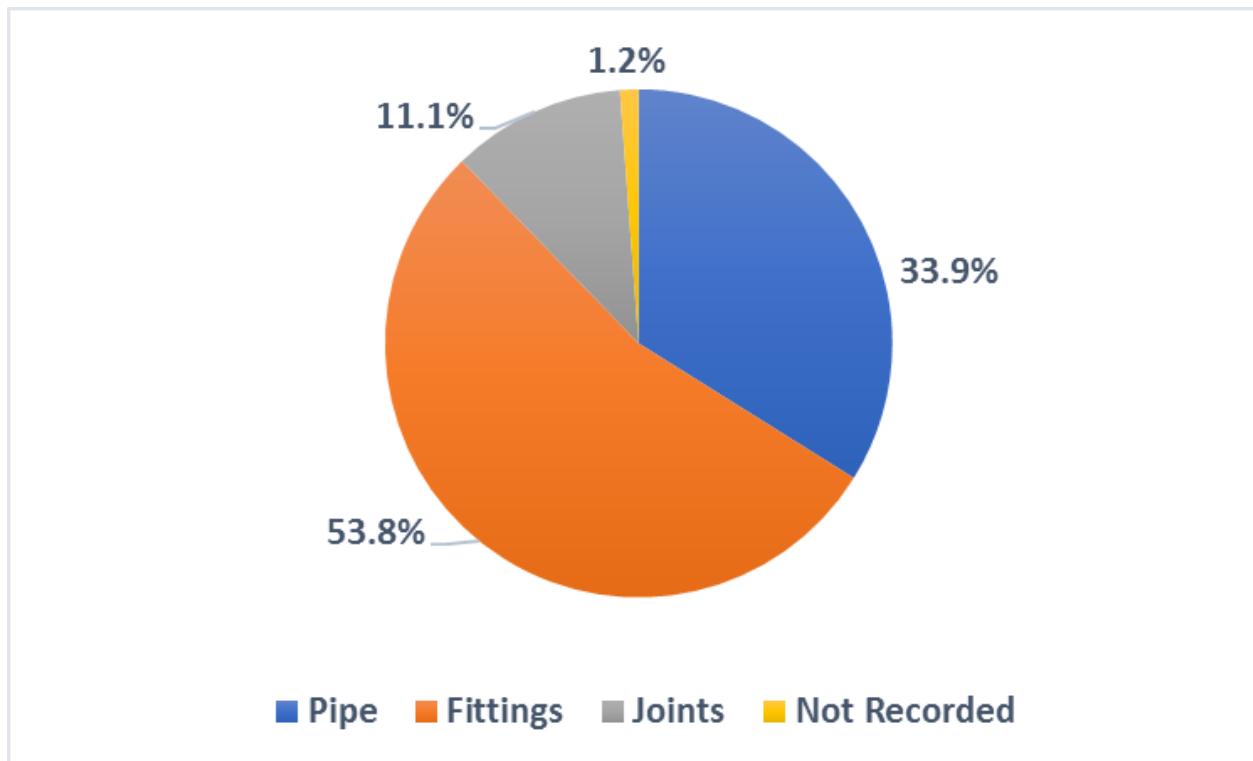
# PE Failure/Leak Causes

| CAUSE                             | % of All PE Failures/Leaks | % of All PE Pipe Failures/Leaks | % of All PE Fitting Failures/Leaks | % of All PE Joint Failures/Leaks |
|-----------------------------------|----------------------------|---------------------------------|------------------------------------|----------------------------------|
| Excessive Expansion/Contraction   | 1.8%                       | 1.2%                            | 1.4%                               | 4.1%                             |
| Excessive External Earth Loading  | 5.7%                       | 8.9%                            | 4.0%                               | 4.4%                             |
| Installation Error                | 27.3%                      | 11.1%                           | 29.8%                              | 57.4%                            |
| Squeeze Off                       | 2.0%                       | 5.7%                            | 0.1%                               | 0.1%                             |
| Point Loading                     | 6.8%                       | 17.1%                           | 2.2%                               | 2.8%                             |
| Previous Impact                   | 1.9%                       | 5.0%                            | 0.3%                               | 0.4%                             |
| Unknown                           | 13.3%                      | 9.3%                            | 16.6%                              | 13.6%                            |
| Other                             | 14.9%                      | 16.2%                           | 15.6%                              | 3.2%                             |
| Cap                               | 4.9%                       | 0.0%                            | 8.9%                               | 0.0%                             |
| Not Recorded                      | 3.0%                       | 2.9%                            | 2.7%                               | 3.6%                             |
| Material Defect                   | 15.9%                      | 19.2%                           | 16.2%                              | 9.9%                             |
| Gopher/rodent/worm damage         | 0.4%                       | 1.2%                            | 0.0%                               | 0.0%                             |
| Unknown - Not Excavated, Replaced | 1.2%                       | 1.3%                            | 0.6%                               | 0.4%                             |
| Unknown - Abandoned               | 0.1%                       | 0.2%                            | 0.0%                               | 0.0%                             |
| Corrosion                         | 0.8%                       | 0.7%                            | 1.5%                               | 0.1%                             |
|                                   |                            |                                 |                                    |                                  |
| <b>Total</b>                      | <b>100.0%</b>              | <b>100.0%</b>                   | <b>100.0%</b>                      | <b>100.0%</b>                    |



# DuPont & Uponor, Aldyl A

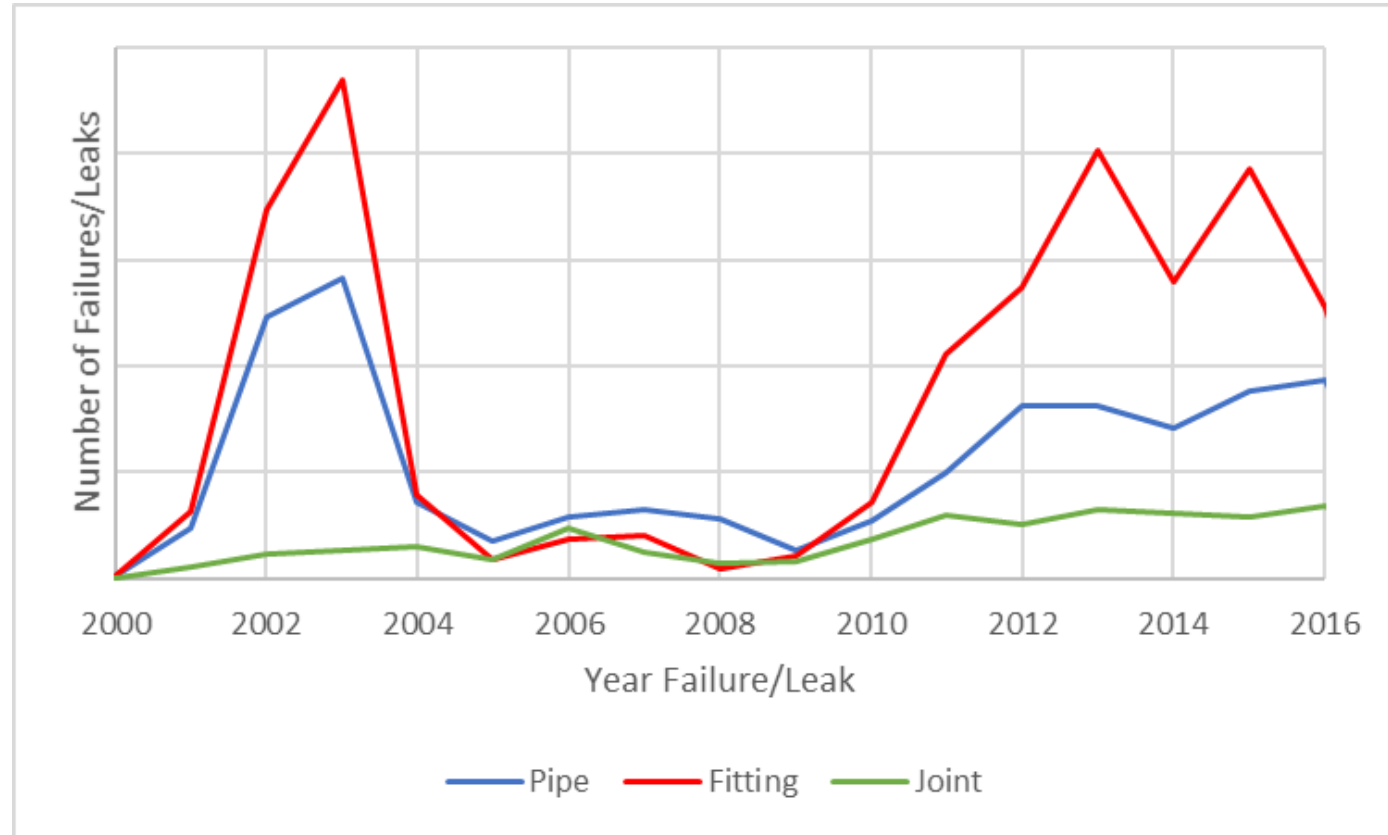
DuPont and Uponor, Aldyl A, piping is not identified as separate from other types of polyethylene in the PHMSA Annual Report information. However, the PPDC includes DuPont and Uponor as manufacturers – Aldyl A is approximately 38% of the database.



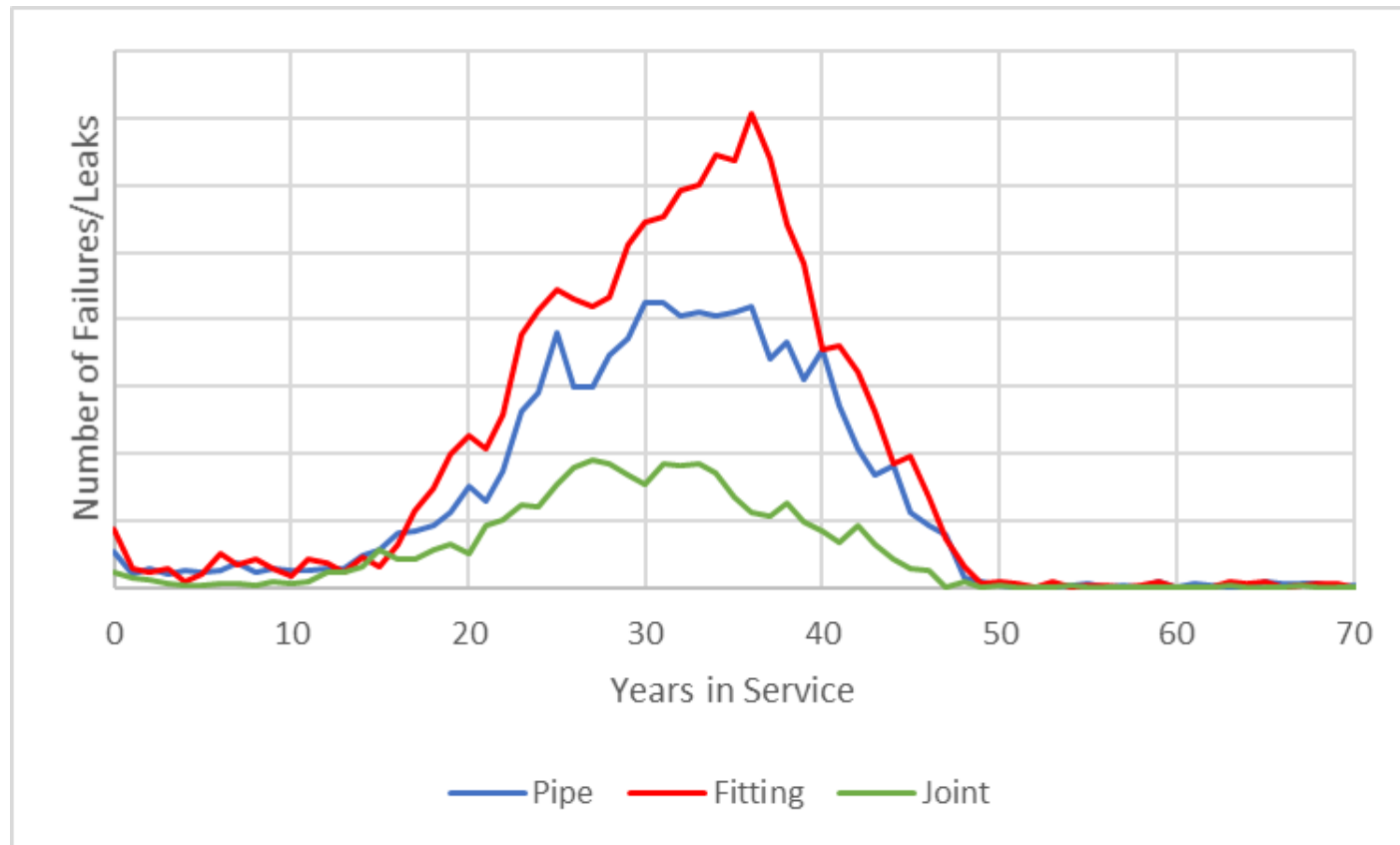
# DuPont & Uponor, Aldyl A, Causes

| CAUSE                             | % of All DuPont & Uponor Failures/Leaks | % of DuPont & Uponor Pipe Failures/Leaks | % of DuPont & Uponor Fitting Failures/Leaks | % of DuPont & Uponor Joint Failures/Leaks |
|-----------------------------------|---|--|---|---|
| Excessive Expansion/Contraction   | 1.6%                                    | 1.1%                                     | 1.1%  | 5.6%                                      |
| Excessive External Earth Loading  | 8.0%                                    | 13.6%                                    | 4.9%  | 6.7%                                      |
| Installation Error                | 24.6%                                   | 13.1%                                    | 24.2%                                       | 63.7%                                     |
| Squeeze Off                       | 2.4%                                    | 6.8%                                     | 0.0%  | 0.0%                                      |
| Point Loading                     | 9.6%                                    | 22.7%                                    | 2.5%  | 4.7%                                      |
| Previous Impact                   | 1.5%                                    | 4.0%                                     | 0.1%  | 0.4%                                      |
| Unknown                           | 9.0%                                    | 8.2%                                     | 9.5%  | 9.0%                                      |
| Other                             | 18.8%                                   | 19.3%                                    | 21.6%                                       | 1.7%                                      |
| All Caps                          | 3.6%                                    | 0.0%                                     | 6.6%  | 0.0%                                      |
| Not Recorded                      | 2.2%                                    | 2.0%                                     | 2.2%  | 2.6%                                      |
| Material Defect                   | 16.0%                                   | 6.0%                                     | 24.9%                                       | 4.9%                                      |
| Gopher/Rodent/Worm Damage         | 0.1%                                    | 0.3%                                     | 0.0%  | 0.0%                                      |
| Unknown - Not Excavated, Replaced | 1.1%                                    | 1.3%                                     | 0.4%  | 0.5%                                      |
| Unknown - Abandoned               | 0.1%                                    | 0.2%                                     | 0.0%  | 0.0%                                      |
| Corrosion                         | 1.5%                                    | 1.4%                                     | 1.8%  | 0.1%                                      |
|                                   |   |  |   |   |
| <b>Total</b>                      | <b>100.0%</b>                           | <b>100.0%</b>                            | <b>100.0%</b>                               | <b>100.0%</b>                             |

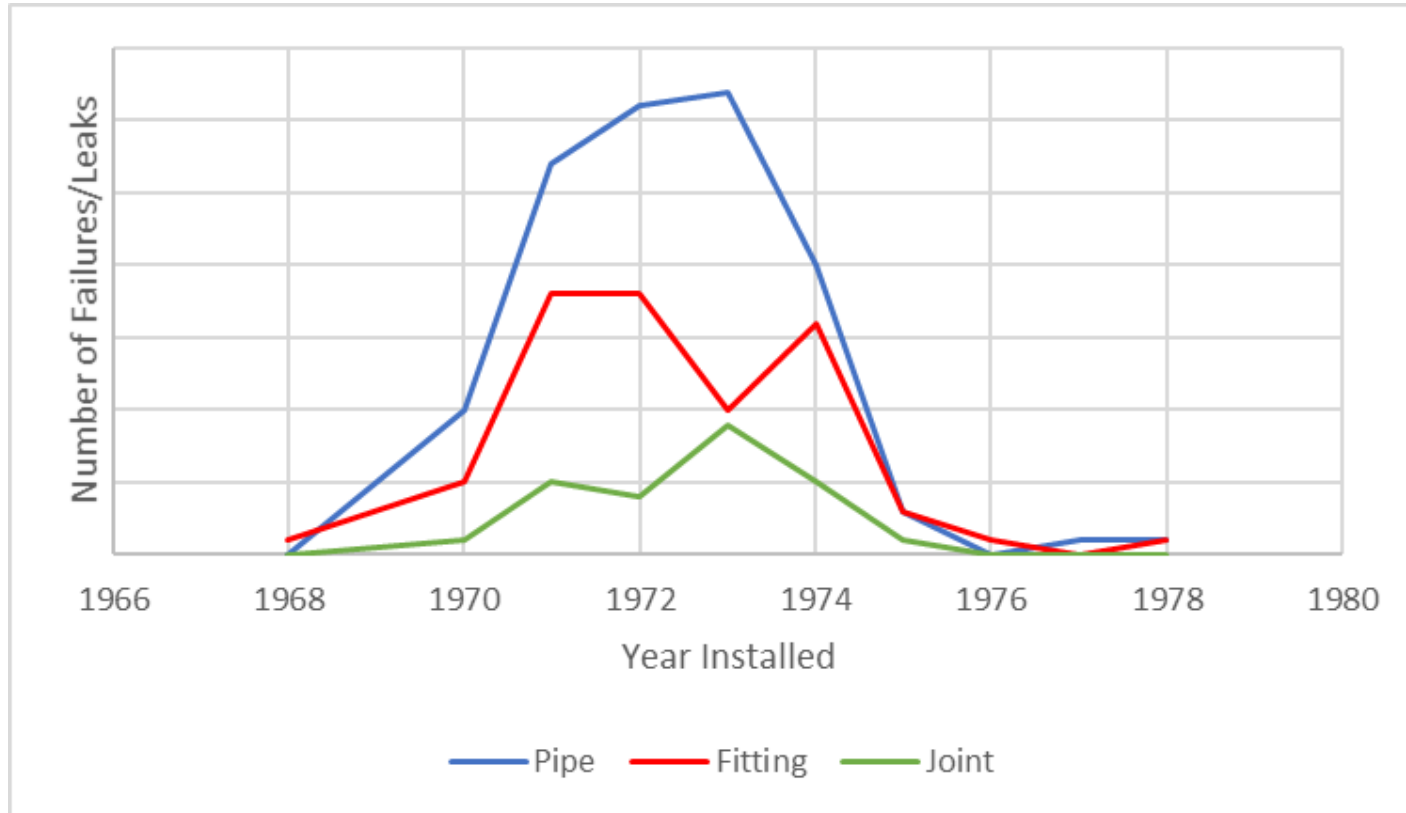
# DuPont & Uponor, Aldyl A, Failures by Year of Failure/Leak



# DuPont & Uponor, Aldyl A, Failures by Year in Service



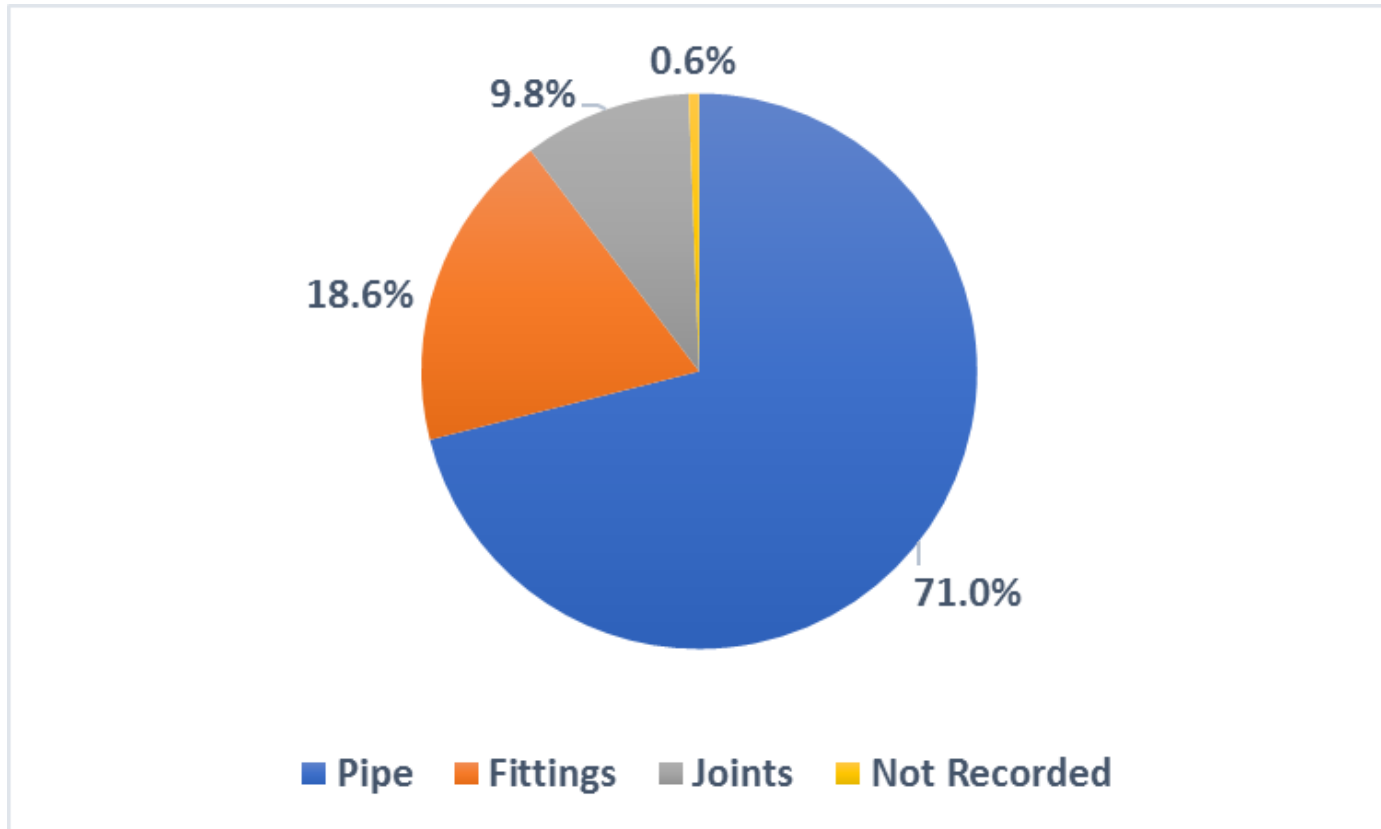
# Century Failures



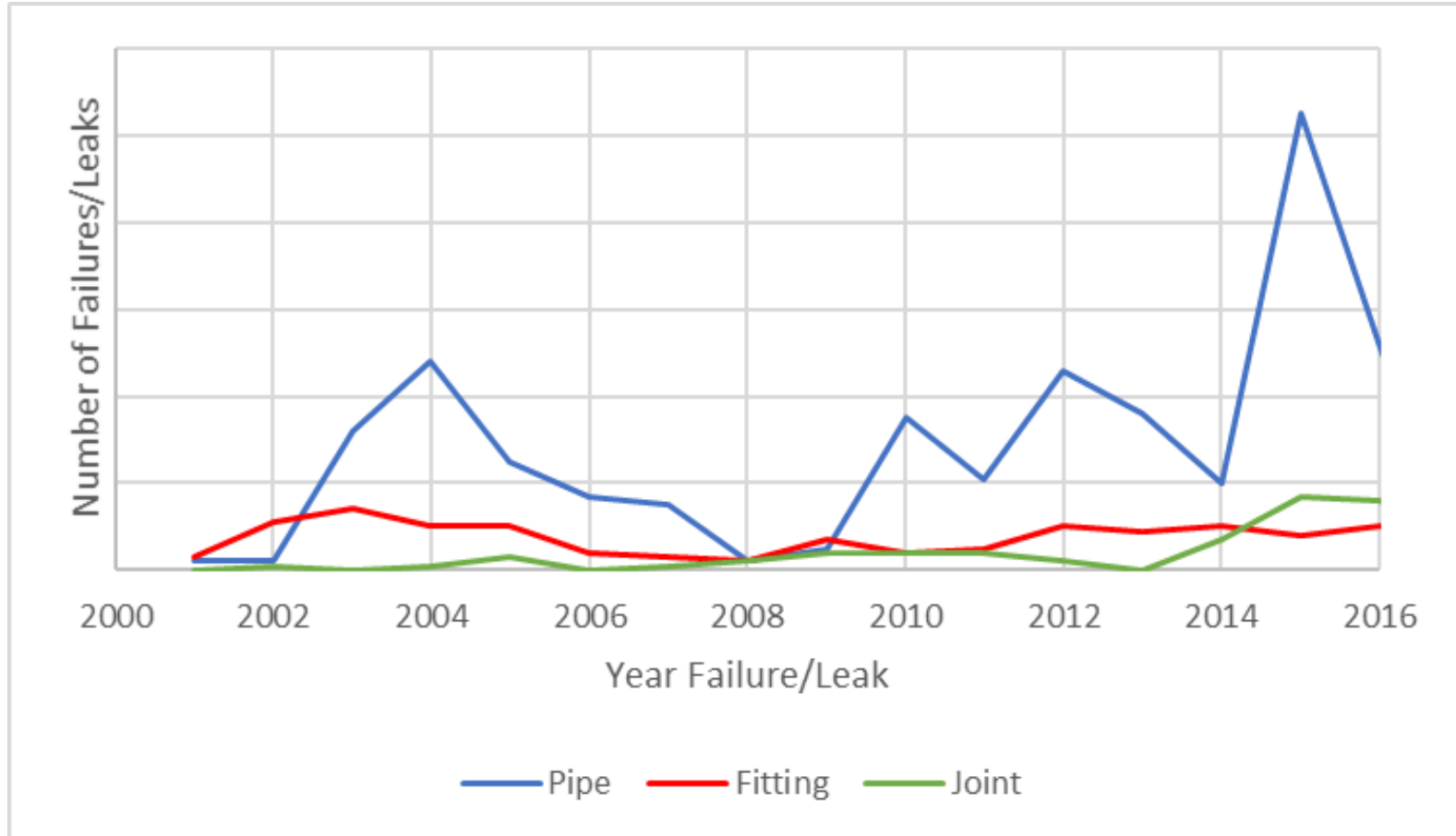
# Century Failures by Cause

| CAUSE                             | % of Total Failures/Leaks | % of Total Pipe Failures/Leaks | % of Total Fitting Failures/Leaks | % of Total Joint Failures/Leaks |
|-----------------------------------|---------------------------|--------------------------------|-----------------------------------|---------------------------------|
| Excessive Expansion/Contraction   | 0.4%                      | 0.0%                           | 1.4%                              | 0.0%                            |
| Excessive External Earth Loading  | 0.4%                      | 0.8%                           | 0.0%                              | 0.0%                            |
| Installation Error                | 21.3%                     | 12.7%                          | 27.0%                             | 44.4%                           |
| Squeeze Off                       | 0.0%                      | 0.0%                           | 0.0%                              | 0.0%                            |
| Point Loading                     | 1.3%                      | 2.4%                           | 0.0%                              | 0.0%                            |
| Previous Impact                   | 0.4%                      | 0.8%                           | 0.0%                              | 0.0%                            |
| Unknown                           | 6.1%                      | 5.6%                           | 8.1%                              | 0.0%                            |
| Other                             | 19.6%                     | 28.6%                          | 6.8%                              | 14.8%                           |
| All Caps                          | 1.7%                      | 0.0%                           | 5.4%                              | 0.0%                            |
| Not Recorded                      | 1.3%                      | 0.0%                           | 4.1%                              | 0.0%                            |
| Material Defect                   | 47.4%                     | 49.2%                          | 47.3%                             | 40.7%                           |
| Gopher/Rodent/Worm Damage         | 0.0%                      | 0.0%                           | 0.0%                              | 0.0%                            |
| Unknown - Not Excavated, Replaced | 0.0%                      | 0.0%                           | 0.0%                              | 0.0%                            |
| Unknown - Abandoned               | 0.0%                      | 0.0%                           | 0.0%                              | 0.0%                            |
| Corrosion                         | 0.0%                      | 0.0%                           | 0.0%                              | 0.0%                            |
|                                   |                           |                                |                                   |                                 |
| <b>Total</b>                      | <b>100.0%</b>             | <b>100.0%</b>                  | <b>100.0%</b>                     | <b>100.0%</b>                   |

# PE 3306 Failures



# PE 3306 Failures





# PE 3306 Failures by Cause

| <b>CAUSE</b>                             | <b>% of All PE 3306 Failures/Leaks</b> | <b>% of PE 3306 Pipe Failures/Leaks</b> | <b>% of PE 3306 Fitting Failures/Leaks</b> | <b>% of PE 3306 Joint Failures/Leaks</b> |
|--|--|---|--|--|
| <b>Excessive Expansion/Contraction</b>   | <b>1.1%</b>                            | <b>1.1%</b>                             | <b>0.8%</b>                                | <b>1.6%</b>                              |
| <b>Excessive External Earth Loading</b>  | <b>5.9%</b>                            | <b>6.7%</b>                             | <b>3.3%</b>                                | <b>6.3%</b>                              |
| <b>Installation Error</b>                | <b>5.0%</b>                            | <b>0.9%</b>                             | <b>10.7%</b>                               | <b>25.0%</b>                             |
| <b>Squeeze Off</b>                       | <b>27.4%</b>                           | <b>37.3%</b>                            | <b>4.9%</b>                                | <b>0.0%</b>                              |
| <b>Point Loading</b>                     | <b>19.1%</b>                           | <b>25.1%</b>                            | <b>5.7%</b>                                | <b>1.6%</b>                              |
| <b>Previous Impact</b>                   | <b>1.1%</b>                            | <b>1.3%</b>                             | <b>0.8%</b>                                | <b>0.0%</b>                              |
| <b>Unknown</b>                           | <b>17.7%</b>                           | <b>14.8%</b>                            | <b>31.1%</b>                               | <b>9.4%</b>                              |
| <b>Other</b>                             | <b>8.5%</b>                            | <b>6.0%</b>                             | <b>3.3%</b>                                | <b>37.5%</b>                             |
| <b>All Caps</b>                          | <b>0.5%</b>                            | <b>0.0%</b>                             | <b>2.5%</b>                                | <b>0.0%</b>                              |
| <b>Not Recorded</b>                      | <b>2.1%</b>                            | <b>1.3%</b>                             | <b>4.9%</b>                                | <b>1.6%</b>                              |
| <b>Material Defect</b>                   | <b>11.1%</b>                           | <b>5.2%</b>                             | <b>31.1%</b>                               | <b>17.2%</b>                             |
| <b>Gopher/Rodent/Worm Damage</b>         | <b>0.0%</b>                            | <b>0.0%</b>                             | <b>0.0%</b>                                | <b>0.0%</b>                              |
| <b>Unknown - Not Excavated, Replaced</b> | <b>0.3%</b>                            | <b>0.4%</b>                             | <b>0.0%</b>                                | <b>0.0%</b>                              |
| <b>Unknown - Abandoned</b>               | <b>0.0%</b>                            | <b>0.0%</b>                             | <b>0.0%</b>                                | <b>0.0%</b>                              |
| <b>Corrosion</b>                         | <b>0.2%</b>                            | <b>0.0%</b>                             | <b>0.8%</b>                                | <b>0.0%</b>                              |
|  |  |   |  |  |
| <b>Total</b>                             | <b>100.0%</b>                          | <b>100.0%</b>                           | <b>100.0%</b>                              | <b>100.0%</b>                            |

# Cap Failures by Cause

| CAUSE                             | % of DuPont<br>Caps<br>Failures/Leaks | % of Plexco<br>Caps<br>Failures/Leaks | % of Other<br>Manufacturer<br>Caps<br>Failures/Leaks |
|-----------------------------------|---------------------------------------|---------------------------------------|--|
| Excessive Expansion/Contraction   | 1.3%                                  | 0.5%                                  | 4.4%   |
| Excessive External Earth Loading  | 0.3%                                  | 0.7%                                  | 0.2%   |
| Installation Error                | 15.8%                                 | 4.1%                                  | 29.8%  |
| Squeeze Off                       | 0.0%                                  | 0.0%                                  | 0.0%   |
| Point Loading                     | 0.4%                                  | 0.3%                                  | 0.1%   |
| Previous Impact                   | 0.0%                                  | 0.0%                                  | 0.0%   |
| Unknown                           | 5.6%                                  | 3.6%                                  | 7.7%   |
| Other                             | 5.7%                                  | 11.6%                                 | 3.3%   |
| All Caps*                         | 16.5%                                 | 17.5%                                 | 30.9%  |
| Not Recorded                      | 2.5%                                  | 2.6%                                  | 1.7%   |
| Material Defect                   | 51.7%                                 | 59.0%                                 | 21.6%  |
| Gopher/Rodent/Worm Damage         | 0.0%                                  | 0.0%                                  | 0.0%   |
| Unknown - Not Excavated, Replaced | 0.2%                                  | 0.0%                                  | 0.2%   |
| Unknown - Abandoned               | 0.0%                                  | 0.1%                                  | 0.1%   |
| Corrosion                         | 0.0%                                  | 0.0%                                  | 0.0%   |
|                                   |                                       |                                       |  |
| <b>Total</b>                      | <b>100.0%</b>                         | <b>100.0%</b>                         | <b>100.0%</b>  |
| * Cause listed only as "Cap."     |                                       |                                       |  |

# Amp Failures



# Amp Failures by Cause

| <b>CAUSE</b>                      | <b>% of Total Failures/Leaks</b> |
|-----------------------------------|----------------------------------|
| Excessive Expansion/Contraction   | 3.6%                             |
| Excessive External Earth Loading  | 15.9%                            |
| Installation Error                | 12.1%                            |
| Squeeze Off                       | 0.0%                             |
| Point Loading                     | 0.9%                             |
| Previous Impact                   | 0.1%                             |
| Unknown                           | 23.3%                            |
| Other                             | 2.4%                             |
| All Caps                          | 0.0%                             |
| Not Recorded                      | 1.7%                             |
| Material Defect                   | 39.4%                            |
| Gopher/Rodent/Worm Damage         | 0.0%                             |
| Unknown - Not Excavated, Replaced | 0.1%                             |
| Unknown - Abandoned               | 0.0%                             |
| Corrosion                         | 0.4%                             |
|                                   |                                  |
| <b>Total</b>                      | <b>100.0%</b>                    |

# Examples of Questions Received by PPDC

PPDC Answers questions from any interested party

- The following questions and responses were reviewed by the PPDC at their April 2017 meeting.
- **Question from APGA member:** Given the safety advisory notice from the Tennessee Regulatory Authority from March 30th 2017 regarding electrofusion burn-throughs, does the PPDC have any data indicating this is a wider trend?
- **Response from PPDC:** Electrofusion failures/leaks represent 0.01% of the total database (as of April 2017). The PPDC report form does not specifically identify burn-through as a cause of failure. A review of the individual failure report comments did not identify any specific references to burn-through.

# What does this data mean to you?

192.1007 requires that an operator know their system and consider reasonably available information to identify existing and potential threats.

- Historical areas of concern:
  - Century, DuPont Aldyl<sup>®</sup> A, and PE 3306 pipe
  - DuPont Aldyl<sup>®</sup> service punch tee with Delrin insert
  - Plexco service tee with Celcon<sup>®</sup> cap
- New areas:
  - Ampfit
  - PVC
  - Kerotest
  - Driscopipe HDPE
  - Caps

# What does this data mean to you?

- Many public gas systems use SHRIMP (Simple Handy Risk-based Integrity Management Plan) in developing their DIM Programs.
- SHRIMP uses PPDC published information as part of its risk determination model. APGA SIF looks at the data as SHRIMP continues to develop.
- For individual systems, PPDC information can indicate potential areas to examine in evaluating risks as part of a Distribution Integrity Management Program. Some of these are: material failure trends, years in service trends, cause and failure location.

# How can States use the info?

- Review active submitters and encourage participation from non-participants
- Inquire if issues are relevant to a certain operator and what is being done through DIMP
- Forecast potential issues



For more information, consult AGA's website at

[www.aga.org/PPDC](http://www.aga.org/PPDC)

Or Contact

Debbie Ellis at (202) 824-7338; [dellis@aga.org](mailto:dellis@aga.org)

# Questions?

Your participation is valuable to the  
success of our committee!