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The Pipeline Safety Trust was formed as part of a court settlement encouraged by the U.S. Justice Department after a pipeline tragedy that occurred in Bellingham, Washington in 1999. Since that time we have worked with regulators, the pipeline industry, local governments, and citizens across the country to try to increase the safety of the 2.7 million miles of pipelines in this country. We are encouraged to see that the Lafayette City Council has provided an opportunity for citizens in your community, and representatives of PG&E and the California regulators to come together to better understand the pipeline issues at play in Lafayette, and hopefully set up a engagement system that helps ensure the safety of your residents as well as increasing the trust in the safety of the pipelines in your community.

In 2015 the Pipeline Safety Trust was asked by the Alamo Improvement Association of Contra Costa County to provide technical assistance to help that community better understand how pipelines are operated, maintained and regulated, and the risks that pipelines in that community pose. That initial effort focused on the Kinder Morgan hazardous liquid pipeline that runs along the Iron Horse Trail through Alamo. In 2018 we were again asked by the Alamo Improvement Association to return to Contra Costa County to hold another series of pipeline safety forums, as well as draft a report that focuses more on the PG&E pipelines that run through Alamo. You can learn more about those efforts at: http://alamo.pstrust.org/. As part of those efforts we talked with many members of your county, and learned some interesting information about PG&E's performance that we would like to share with you.

A few years ago the federal regulator for all pipelines in the country, the Pipeline and Hazardous Materials Safety Administration (PHMSA), began an effort to make their pipeline failure data more accessible and understandable for the general public. The Pipeline Safety Trust was part of that effort and the information below all comes from the PHMSA data. One thing PHMSA did was to make it easy to compare the safety performance (based on normalized incident rates) of individual pipeline operators. When we looked at the performance of both gas transmission and gas distribution pipeline operators of a similar size what we were surprised to learn is that PG&E has the highest failure rate in both categories. What is even more concerning is when you compare the ten-year average rates to the five-year average rates it appears that the failure rates are increasing not getting safer. We believe in part that this may be due to the fact that PG&E operates their pipelines in areas with relatively dense populations where people are more prone to damage pipelines through excavation damage or in other ways, and the data (see below) showing the cause of pipeline failures seems to support this in part. But clearly something else is going on here as well since when you compare PG&E's incident rates to other large companies operating in densely populated areas, such as Southern California Gas, you find that their incidents rates are roughly half of PG&Es.

At your upcoming forum on September 10th we hope you will inquire of both PG&E and the California Public Utility Commission to see if either entity has a good answer to why PG&E has the highest rates of pipeline failures and why those rates are increasing even after the San Bruno incident when we know that PG&E has devoted millions of dollars to improving the safety of their system. While the chance of a pipeline failure, even at these higher incident rates, on any particular section of PG&E pipeline is still really small, it would be good to ascertain whether they are spending the millions of dollars in ways that have been successful for other similar companies, and if so why are their failure rates per mile of pipeline still increasing?

We hope this information help in your inquiry. Please feel free to contact us if you have any questions or if we can help.

Thanks,

Carl Weimer, Executive Director Pipeline Safety Trust

All the below data can be found at: https://www.phmsa.dot.gov/data-and-statistics/pipeline/data-and-statistics-overview

| Operator ID | Gas Transmission Operators with over 3000 Onshore Miles of Pipeline | 10 Year Average (Significant incidents per 1,000 miles) | 5 Year Average (Significant incidents per 1,000 miles) | 10 Year Significant Incident Count | 5 Year Significant Incident Count | 2017 Miles |
|--------------------|--|--|---|---|--|--------------------|
| <mark>15007</mark> | PACIFIC GAS & ELECTRIC CO | <mark>0.56</mark> | <mark>0.80</mark> | <mark>34</mark> | <mark>25</mark> | <mark>6,535</mark> |
| 602 | ENABLE GAS TRANSMISSION, LLC | 0.43 | 0.37 | 26 | 11 | 5,899 |
| 2620 | COLUMBIA GULF TRANSMISSION, LLC | 0.39 | 0.60 | 13 | 10 | 3,330 |
| 31711 | SOUTHERN STAR CENTRAL GAS PIPELINE, INC | 0.34 | 0.48 | 20 | 14 | 5,800 |
| 31618 | ENTERPRISE PRODUCTS OPERATING LLC | 0.31 | 0.19 | 14 | 4 | 4,034 |
| 31728 | GULF SOUTH PIPELINE COMPANY, LP | 0.30 | 0.34 | 20 | 11 | 6,550 |
| 19270 | TEXAS GAS TRANSMISSION, LLC | 0.25 | 0.33 | 15 | 10 | 5,959 |
| 19160 | TENNESSEE GAS PIPELINE COMPANY | 0.24 | 0.24 | 29 | 14 | 11,775 |
| 13845 | NORTHWEST PIPELINE LLC | 0.23 | 0.16 | 9 | 3 | 3,857 |
| 2616 | COLUMBIA GAS TRANSMISSION, LLC | 0.22 | 0.17 | 24 | 9 | 10,469 |
| 19570 | TRANSCONTINENTAL GAS PIPE LINE COMPANY | 0.22 | 0.22 | 18 | 9 | 8,392 |
| 405 | ANR PIPELINE CO | 0.21 | 0.19 | 20 | 9 | 9,252 |
| 5304 | FLORIDA GAS TRANSMISSION CO | 0.21 | 0.11 | 11 | 3 | 5,360 |
| 18516 | SOUTHERN NATURAL GAS CO | 0.20 | 0.17 | 14 | 6 | 7,003 |
| <mark>18484</mark> | SOUTHERN CALIFORNIA GAS CO | <mark>0.20</mark> | 0.29 | 7 | <mark>5</mark> | <mark>3,448</mark> |
| 13750 | NORTHERN NATURAL GAS CO | 0.18 | 0.18 | 26 | 13 | 14,776 |
| 2714 | DOMINION ENERGY TRANSMISSION, INC. | 0.17 | 0.11 | 6 | 2 | 3,563 |
| 15105 | PANHANDLE EASTERN PIPELINE CO | 0.17 | 0.10 | 10 | 3 | 5,975 |
| 22655 | WBI ENERGY TRANSMISSION, INC. | 0.17 | 0.16 | 6 | 3 | 3,657 |
| 31978 | ATMOS PIPELINE - TEXAS | 0.14 | 0.07 | 8 | 2 | 5,678 |
| 4280 | EL PASO NATURAL GAS CO | 0.13 | 0.08 | 13 | 4 | 10,062 |
| 32099 | ENERGY TRANSFER COMPANY | 0.12 | 0.15 | 8 | 5 | 7,752 |
| 2564 | COLORADO INTERSTATE GAS CO | 0.12 | 0.10 | 7 | 3 | 6,187 |
| 19235 | TEXAS EASTERN TRANSMISSION, LP (SPECTRA ENERGY PARTNERS, LP) | 0.12 | 0.14 | 10 | 6 | 8,617 |
| 13120 | NATURAL GAS PIPELINE CO OF AMERICA (KMI) | 0.11 | 0.11 | 10 | 5 | 9,042 |
| 1007 | TALLGRASS INTERSTATE GAS TRANSMISSION, LLC | 0.04 | 0.09 | 2 | 2 | 4,303 |
| 15359 | BLACK HILLS ENERGY | 0.02 | 0.05 | 1 | 1 | 4,054 |
| | | | | | | |

| Operator ID | Gas Distribution Operators with over 25,000 miles of Pipeline | 10 Year Average (incidents per million miles) | 5 Year Average (incidents per million miles) | 10 Year Significant Incident Count | 5 Year Significant Incident Count | 2017 Miles |
|--------------------|--|--|---|---|--|------------------------|
| <mark>15007</mark> | PACIFIC GAS & ELECTRIC CO | <mark>51.82</mark> | <mark>72.56</mark> | <mark>41</mark> | <mark>28</mark> | <mark>76,777.99</mark> |
| 31348 | ATMOS ENERGY CORPORATION - MID-TEX | 47.49 | 57.92 | 19 | 12 | 41,391.11 |
| 2596 | COLUMBIA GAS OF OHIO INC | 43.28 | 52.77 | 18 | 11 | 41,685.92 |
| 15931 | PUBLIC SERVICE CO OF COLORADO | 42.33 | 35.09 | 14 | 6 | 34,666.98 |
| 2748 | CONSUMERS ENERGY CO | 41.56 | 62.97 | 21 | 16 | 51,481.78 |
| 12408 | DTE GAS COMPANY | 38.55 | 50.68 | 15 | 10 | 40,006.32 |
| 15359 | BLACK HILLS ENERGY | 33.06 | 25.60 | 7 | 3 | 40,010.21 |
| 15952 | PUBLIC SERVICE ELECTRIC & GAS | 31.76 | 28.70 | 11 | 5 | 35,081.71 |
| 792 | ATLANTA GAS LIGHT CO | 30.06 | 31.10 | 19 | 10 | 64,895.41 |
| 4060 | DOMINION ENERGY OHIO | 28.61 | 6.46 | 9 | 1 | 31,053.88 |
| 22189 | PUGET SOUND ENERGY | 27.69 | 23.55 | 7 | 3 | 25,690.57 |
| 22182 | WASHINGTON GAS LIGHT CO | 27.56 | 15.10 | 7 | 2 | 26,999.96 |
| <mark>18484</mark> | SOUTHERN CALIFORNIA GAS CO | <mark>26.12</mark> | <mark>35.88</mark> | <mark>26</mark> | <mark>18</mark> | 101,317.06 |
| 12350 | CENTERPOINT ENERGY RESOURCES CORP., DBA CENTERPOINT ENERGY MINNESOTA GAS | 24.05 | 15.63 | 6 | 2 | 25,745.82 |
| 13710 | NORTHERN ILLINOIS GAS CO | 23.70 | 15.86 | 15 | 5 | 63,201.67 |
| 18536 | SOUTHWEST GAS CORP | 23.06 | 18.89 | 12 | 5 | 53,545.92 |
| 4499 | CENTERPOINT ENERGY RESOURCES CORPORATION | 19.63 | 15.22 | 12 | 5 | 67,245.81 |
| 12876 | DOMINION ENERGY UTAH/WYOMING/IDAHO | 18.98 | 6.92 | 5 | 1 | 28,918.16 |
| 603 | CENTERPOINT ENERGY RESOURCES CORP. | 17.56 | 19.94 | 5 | 3 | 30,682.42 |
| 13730 | NORTHERN INDIANA PUBLIC SERVICE CO | 16.39 | 6.07 | 5 | 1 | 34,099.96 |
| 32513 | AMEREN ILLINOIS COMPANY | 10.17 | 13.54 | 3 | 2 | 29,551.86 |
| 15518 | PIEDMONT NATURAL GAS CO INC | 9.45 | 9.14 | 4 | 2 | 43,982.86 |







