



May 28, 2019
Michael and Gina Dawson
711 Los Palos Drive
Lafayette, CA 94549

Dear Mr. and Mrs. Dawson,

Thank you for your questions in the meeting on April 25, 2019, at the Lafayette City Offices between the Lafayette Planning Department, Safe Lafayette Trees (SLT), the CPUC and PG&E, and the opportunity to engage in meaningful conversations targeted at continuing to improve pipeline safety in Lafayette.

At the meeting, you provided a one-page document titled, "Dig-Ins in Lafayette" ["SLT Dig-Ins Document"], which briefly summarized SLT's understanding of PG&E's PHMSA significant incident trends and their relationship to 3rd party dig-ins. This was followed by a series of questions. Many of the answers to these questions have inter-relationships. As such, we are providing the following information in context as well as specific answers to each of the questions you provided

PG&E's Significant¹ Transmission Incident rate between 2016 and 2017 was rising. However, in 2018, there was only one Significant Transmission Incident on the PG&E Transmission system, causing the Significant Transmission Incident rate to begin trending downward.

PG&E's Significant Distribution Incident rate was also rising between 2016 and 2017. However, in 2018, there were only two Significant Distribution Incidents on the PG&E Distribution system, also causing the Significant Distribution Incident rate to begin trending downward.

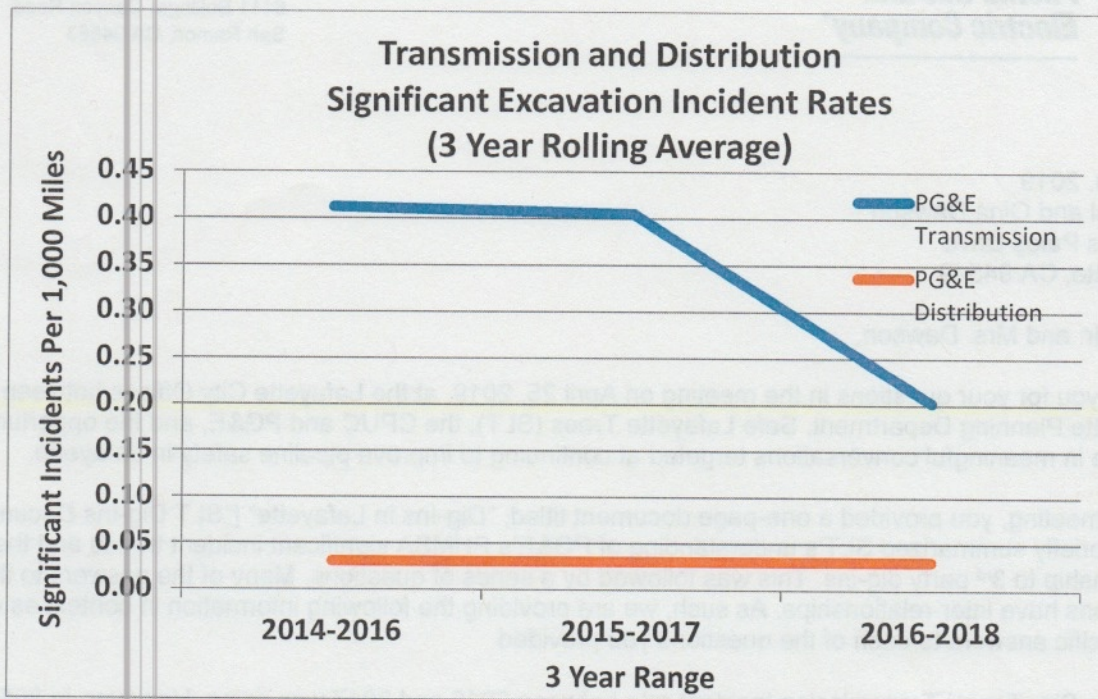
In Lafayette, there have been no PHMSA reportable incidents on Transmission since PHMSA started collecting incident data in 1986. On Distribution, there was one third party damage incident reportable to PHMSA in 2014 since 1986.

On both Transmission and Distribution systems, between 2016 and 2018, excavation damage (dig-ins) continues to be the largest cause of Significant Incidents (33% for Transmission and 41% for Distribution). It is useful to use rolling 3 year averages to assess trending. The rolling 3-year average Transmission Significant Incident rate for excavation damage is trending downward, as shown in the following chart. The rolling 3-year average Distribution Significant Incident rate for excavation damage remains relatively flat. For the trends to be decreasing or flat is noteworthy in an environment where the USA ticket volumes² have increased over that time period by approximately 25%.

¹ PHMSA defines significant incidents as those which result in any of the following consequences:

- (1) Fatality or injury requiring in-patient hospitalization
- (2) \$50,000 or more in total costs, measured in 1984 dollars

² USA ticket volumes are a measure of excavation activity near our pipelines. An increasing ticket volume is an indicator of an increased threat of 3rd party dig-ins.



Not all dig-ins result in incident reporting to PHMSA because they do not often meet the reporting criteria.³ Therefore, PG&E collects data when a dig-in occurs to assist in better understanding the causes of dig-ins.

Between 2016 and 2018, in Lafayette, there were a total of 44 3rd party dig-ins on PG&E's system. All of these were on the Distribution system with 42 being on Distribution Service lines. While nearly 70% of these dig-ins involved a gas release, they were not large enough to become PHMSA reportable incidents. During this period, nearly 90% of the third party dig-ins have occurred in residential locations.

The following are answers to your specific questions:

³ 49 CFR §191.3 defines Incident as:

- (1) An event that involves a release of gas from a pipeline, gas from an underground natural gas storage facility, liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences:
 - (i) A death, or personal injury necessitating in-patient hospitalization;
 - (ii) Estimated property damage of \$50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost; or
 - (iii) Unintentional estimated gas loss of three million cubic feet or more. [(iii) was added in 2010].
- (2) An event that results in an emergency shutdown of an LNG facility or an underground natural gas storage facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident.
- (3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraph (1) or (2) of this definition.

“Dig-Ins In Lafayette” Questions

1. How many 811 tickets are granted each year in Lafayette?

The table below shows the number of USA (811) tickets in Lafayette as compared to PG&E's entire operating system:

Year	Lafayette	PG&E's Operating System	Lafayette %
2013	2,153	639,149	0.34%
2014	1,939	669,402	0.29%
2015	2,526	786,181	0.32%
2016	2,868	856,045	0.34%
2017	2,831	942,665	0.30%
2018	2,942	1,069,710	0.28%

2. Where are the dig-ins occurring, i.e. residential, public property, commercial?

Between 2016 and 2018, nearly 90% of the third party dig-ins have occurred in residential locations.

3. Identification of pipelines breached, i.e. service, distribution, transmission.

PG&E understands the term “breached” to be synonymous with “dig-in”, noting that not all dig-ins resulted in a release of gas.

Between 2016 and 2018, 3rd party dig-ins were all on the Distribution system with 42 of the 44 dig-ins being on Distribution Service lines.

4. Which particular pipelines have been breached (if identifiable distribution or transmission lines).

PG&E understands the term “breached” to be synonymous with “dig-in”, noting that not all dig-ins resulted in a release of gas.

Between 2016 and 2018, 3rd party dig-ins were all on the Distribution system with 42 of the 44 dig-ins during this period being on Distribution Service lines, which are not named pipelines.

5. Does PG&E map dig-in incidents? Are there mapping trends to look further into?

Yes. PG&E maps Division and City dig-in data to determine focus areas for increased proactive outreach and damage prevention efforts.

6. What are the causes of the line breaks? (some of this has been provided, more detail may be helpful)

PG&E interprets "line breaks" to mean "unintentional releases of gas" that meet PHMSA's definition of significant incident. As noted in the response to question 12, in Lafayette, there have been no PHMSA reportable incidents on Transmission since PHMSA started collecting incident data in 1986. On Distribution, there was one third party damage incident reportable to PHMSA in 2014.

When applying this question to PG&E's entire system, between 2010 and 2017, transmission significant incidents were caused predominantly by excavation damage (47%) and distribution significant incidents were caused predominantly by excavation damage (38%). It should be noted that PG&E's USA ticket counts have increased nearly 67% since 2013, demonstrating that excavation activity near PG&E's pipelines has been steadily increasing year-over-year.

7. How severe was the gas release? What are the leak classifications?

Typically, a "line break" as referenced in response to question 6, would be classified as a Grade 1 leak, also referred to as a "hazardous" leak. In Lafayette, there have been no PHMSA reportable incidents on either Distribution or Transmission since PHMSA started collecting incident data in 1986.

All other leaks are classified as non-hazardous leaks.

8. What is the response time of leak report to PG&E response and repair?

A Grade 1 leak requires immediate repair or continuous action until conditions are no longer hazardous. A Grade 2+ leak is non-hazardous and requires a scheduled priority repair completed within 90 days. A Grade 2 leak is non-hazardous and requires periodic surveillance and a scheduled repair no later than 15 months from the date reported. A Grade 3 leak is non-hazardous and can reasonably be expected to remain non-hazardous and is monitored for change at 15 months to the date or during the next scheduled survey, whichever comes first.

9. What type of reporting does PG&E complete?

PG&E completes many reports, including the following key reports to PHMSA and CPUC:

- PHMSA Annual Report 7100.2-1
- GO-112F Annual Report
- Gas Transmission and Storage Safety Report,
- PHMSA incident reports for Transmission/Gathering (including Gas Storage) and Distribution.

10. Can PG&E provide data on incident related injury or material damage that did not have reached PHMSA threshold of reporting? (serious injury; fatality; \neq >\$50K material damage)

PG&E annually reports leaks to PHMSA. For Transmission these are reported on the PHMSA Annual Report 7100.2-1, Part M and for Distribution these are reported on PHMSA Annual Report 7100.1-1, Part C. This data includes both PHMSA incident reported leaks and those not meeting the PHMSA incident reporting thresholds.

Annual report data can be found on the PHMSA website at <https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids>.

11. We would like records as far back as possible regarding dig-in incidents in Lafayette.

Please see the following table for all 3rd party dig-ins in Lafayette dating back to 2013. PG&E limits certain gas pipeline, valve, regulator and station information, including its detailed and extensive construction, maintenance, inspection and testing records, from public disclosure for national security reasons consistent with federal laws that protect this type of information. Therefore, per PG&E's policies, PG&E is unable to provide information about the specific location of these dig-ins. Please note that PG&E makes its pipeline-related records available for inspection at all times by the CPUC.

Date	USA Ticket	Cause of Dig-In	At-Fault Party
1/9/2013	No	No USA Ticket	Excavator
1/25/2013	No	No USA Ticket	Excavator
2/21/2013	Yes	Failure to dig with care	Excavator
2/27/2013	Yes	Failure to dig with care	Excavator
3/5/2013	No	No USA Ticket	Excavator
6/12/2013	No	No USA Ticket	Excavator
6/24/2013	Yes	Failure to dig with care	Excavator
7/1/2013	Yes	Failure to dig with care	Excavator
8/7/2013	No	No USA Ticket	Excavator
8/27/2013	No	No USA Ticket	Excavator
9/23/2013	No	No USA Ticket	Excavator
11/7/2013	No	No USA Ticket	Excavator
3/16/2014	No	No USA Ticket	Excavator
4/7/2014	Yes	Locating Wire Missing or Broken	PG&E
4/14/2014	No	No USA Ticket	Excavator
5/14/2014	Yes	Failure to dig with care	Excavator
5/22/2014	No	No USA Ticket	Excavator
5/30/2014	Yes	Failure to dig with care	Excavator
6/4/2014	Yes	Failure to dig with care	Excavator
6/5/2014	Yes	Failure to dig with care	Excavator
6/16/2014	Yes	Locating Wire Missing or Broken	PG&E
7/7/2014	No	No USA Ticket	Excavator
7/26/2014	No	No USA Ticket	Excavator
8/4/2014	Yes	Failure to dig with care	Excavator
9/15/2014	Yes	Failure to dig with care	Excavator
9/18/2014	Yes	Locating Wire Missing or Broken	PG&E
10/4/2014	No	No USA Ticket	Excavator
1/9/2015	No	No USA Ticket	Excavator
1/11/2015	No	No USA Ticket	Excavator
4/29/2015	No	No USA Ticket	Excavator
5/12/2015	Yes	Failure to dig with care	Excavator
6/4/2015	Yes	Failure to dig with care	Excavator
6/8/2015	Yes	Failure to dig with care	Excavator

Date	USA Ticket	Cause of Dig-In	At-Fault Party
6/19/2015	Yes	Inaccurate Mapping	PG&E
8/13/2015	Yes	Inaccurate Mapping	PG&E
9/19/2015	No	No USA Ticket	Excavator
10/20/2015	No	No USA Ticket	Excavator
10/26/2015	No	No USA Ticket	Excavator
11/17/2015	No	No USA Ticket	Excavator
2/23/2016	No	No USA Ticket	Excavator
2/25/2016	No	No USA Ticket	Excavator
3/22/2016	Yes	No Locating Wire and Inaccurate Mapping	PG&E
3/22/2016	Yes	No Locating Wire and Inaccurate Mapping	PG&E
5/11/2016	Yes	Unknown Tracer Wire Issue	PG&E
5/13/2016	No	No USA Ticket	Excavator
5/18/2016	Yes	Failure to dig with care	Excavator
5/20/2016	Yes	Failure to dig with care	Excavator
7/12/2016	Yes	Failure to dig with care	Excavator
9/27/2016	No	No USA Ticket	Excavator
11/11/2016	No	No USA Ticket	Excavator
11/29/2016	No	No USA Ticket	Excavator
12/12/2016	Yes	Failure to dig with care	Excavator
1/12/2017	Yes	Failure to dig with care	Excavator
1/23/2017	No	No USA Ticket	Excavator
3/18/2017	No (expired)	Failure to maintain marks	Excavator
3/30/2017	Yes	Failure to maintain marks	Excavator
5/1/2017	No	No USA Ticket	Excavator
5/16/2017	No	No USA Ticket	Excavator
7/11/2017	Yes	Failure to dig with care	Excavator
7/23/2017	No	No USA Ticket	Excavator
8/24/2017	No	No USA Ticket	Excavator
9/15/2017	Yes	Failure to dig with care	Excavator
10/4/2017	No	No USA Ticket	Excavator
10/10/2017	Yes	Failure to dig with care	Excavator
10/17/2017	No	No USA Ticket	Excavator
10/27/2017	Yes	Failure to dig with care	Excavator
3/2/2018	Yes	Failure to dig with care	Excavator
3/27/2018	No	No USA Ticket	Excavator
4/2/2018	No	Failure to dig with care	Excavator
4/27/2018	No	Failure to dig with care	Excavator
5/24/2018	Yes	Failure to dig with care	Excavator

Date	USA Ticket	Cause of Dig-In	At-Fault Party
6/7/2018	No (expired)	Failure to dig with care	Excavator
7/11/2018	No	Failure to dig with care	Excavator
7/17/2018	No	No USA Ticket	Excavator
8/14/2018	Yes	Failure to dig with care	Excavator
8/29/2018	No	No USA Ticket	Excavator
9/11/2018	No (expired)	Failure to dig with care	Excavator
9/24/2018	No (expired)	Failure to dig with care	Excavator
10/24/2018	Yes	Failure to dig with care	Excavator
10/24/2018	Yes	Failure to dig with care	Excavator
11/2/2018	No	No USA Ticket	Excavator
11/16/2018	Yes	Failure to dig with care	Excavator
12/28/2018	No	No USA Ticket	Excavator

12. Have there been any incidents in Lafayette history that were reportable to PHMSA?

In Lafayette, there have been no PHMSA reportable incidents on Transmission since PHMSA started collecting incident data in 1986. On Distribution, there was one third party damage incident reportable to PHMSA in 2014.

Thank you for your questions and continued interest in PG&E's gas safety work within the Lafayette community.

Sincerely,

Bennie Barnes
 Chief Engineer of Transmission Integrity Management
 Pacific Gas and Electric
 Phone: 1-925-348-5847
 Email: bennie.barnes@pge.com