

Questions and Answers on Gas Transmission and Distribution System Terms

POLICY

Q1: In a nutshell, what are the most impactful changes being proposed?

A1: Effective January 1, 2015, the Company will implement revised definitions for “transmission lines” and “distribution center” that more closely align PG&E’s treatment of the location of distribution centers with recent Department of Transportation Pipeline and Hazardous Materials Safety Administration (DOT PHMSA) guidance. As a result, approximately 920 miles of line pipe, and certain other assets, will be defined and treated as transmission rather than distribution assets. This is estimated to bring the total of transmission pipe operated by PG&E as of January 1, 2015 to approximately 6,750 miles.

The revised PG&E definition uses the language from 49 CFR 192.3, as follows:

Transmission line is a pipeline, other than a gathering line, that meets ANY one of the following criteria:

1. Transports gas from a transmission line, gathering line, or storage facility to any of the following:
 - a) Distribution Center
 - b) Storage Facility
 - c) Large Volume Customer ($\geq 40,000$ standard cubic feet per hour [scfh]) upstream of a Distribution Center, or
2. Operates at or above a hoop stress of 20% SMYS, or is upstream of a segment of pipe operating at or above a hoop stress of 20% SMYS, or
3. Transports gas within a storage field

In addition, PHMSA guidance indicates that a drop in operating pressure to a hoop stress below 20% SYMS, alone, is insufficient to change the designation of a segment of pipe from transmission to distribution. Accordingly, PG&E’s revised definition adds the clarification that any portion of pipe upstream of a segment that operates $\geq 20\%$ SMYS is also classified as transmission pipe.

Distribution Center: The location at which a transmission line changes function to a distribution line. It occurs at the downstream side of the inlet fire valve to a regulator station transporting natural gas into a distribution main primarily serving non-large volume customers who purchase gas for consumption (as opposed to purchasing for resale).

Q2: Why is the Company changing the definition of a transmission line?

A2: As we prepared for PAS-55 certification by grouping assets into asset families, PG&E reviewed the categorization of our transmission and distribution assets. This revision to the definition of a transmission line more closely aligns PG&E’s treatment of the location of distribution centers with recent DOT PHMSA guidance and will help us gain increased consistency in operation and maintenance practices. Other benefits of the change include:

- 1) Increased scope of integrity management program inspections required for transmission lines, as well as increased frequency of leak surveys and pipeline patrols which will enhance public safety;
- 2) Improved alignment of the definition of a transmission line and increased clarity and consistency of treatment of facilities across all programs (e.g., integrity management, leak survey, and patrolling).

Q3: How does the implementation of the revised definition fit in with the Company's PAS-55 (Gas Safety Excellence) program?

A3: As mentioned earlier, the revision flowed from the PAS-55 certification efforts and supports the Company's Gas Safety Excellence program by aligning facilities with asset families, increasing consistency and clarity of implementation of maintenance and operations, and integrity management to facilitate increased levels of safety and reliability of PG&E's gas transmission system.

Q4: Please summarize the impacts of this change on the operations?

A4: As a result of the revision, PG&E will add approximately 920 miles of line pipe, and certain other assets, that will be defined and treated as transmission rather than distribution assets. This is estimated to bring the total of transmission pipe operated by PG&E as of January 1, 2015 to approximately 6,750 miles. In addition, the revised definition adds approximately 265 more miles into the transmission integrity management program.

This means some additional miles and facilities that are within HCAs in the redefined transmission pipe will be subject to baseline integrity assessments along with increased frequency of pressure tests, increased frequency of patrols and leak surveys.

COMPLIANCE

Q5: Why is this revision necessary now? Have government regulations (from the CPUC or PHMSA) changed?

A5: The language in the code of federal regulations that defines transmission and distribution facilities has not changed. In recent years, however, government regulators have issued guidance clarifying their view on the most appropriate location of a "distribution center" when operating both transmission and distribution companies. PG&E is revising its definition to be better aligned with the recent government guidance with the recognition that doing so has benefits of increasing the safe operation of our pipelines.

Q6: Does changing PG&E's definition of a transmission line mean the Company's previous definition was not compliant with code?

A6: No. The federal pipeline safety regulations on how operators were to distinguish between transmission and distribution assets do not specify only one way to implement the definitions. Instead, natural gas pipeline operators have some latitude in determining how to apply the language. PG&E's prior application of the definition of transmission and distribution lines was reasonable and to our understanding, consistent with other utilities' application of those definitions at the time. As noted earlier, however, DOT PHMSA has provided some additional guidance on the location of the distribution center for those operators with both transmission and distribution assets. PG&E is revising its definition for better alignment with this guidance with the recognition that doing so has benefits of increasing the safe operation of our pipelines.

OPERATIONS

Q7: Describe more details the impacts of the new transmission line definition on integrity management programs?

A7: Currently PG&E has classified about 5830 miles of its line pipe (including Standard Pacific miles) to be transmission pipe rather than distribution pipe. As a result of the revised definitions, it is anticipated that approximately 920 miles of distribution pipeline will be re-classified as transmission pipeline. This includes distribution feeder mains operating greater than 60 psig. As approximately 28% of the total transmission pipeline under the current definition is located in high consequence areas (HCA) currently, we are estimating that approximately 28%, or 265 miles, of the re-classified pipe likely will be located in HCAs. As we continue with the work related to implementing the revised definition, the specific numbers of pipeline miles and those within an HCA may change as the implementation efforts are further developed and refined. In general, the re-classification of assets impact the scheduling and frequency of the following work:

- Leak Surveys
- Patrols
- Integrity Management Assessments

MAINTENANCE

Q8: What are the maintenance requirements for HPR sets that feed large volume customers exclusively?

A8: Large volume customer regulator sets receive a Class A inspection at least once each calendar year at intervals not to exceed 15 months to the date of the previous Class A or Class B inspection. If the regulator set utilizes HPR-type equipment, no other maintenance is required. If the regulator set uses non HPR-type equipment there is an additional requirement for a Class B inspection every 8 calendar years and a Class C inspection after construction or reconstruction. See TD-4540S, "Gas Pressure Regulation Maintenance Requirements" for details.

Q9: If an HPR set is converted from a large volume customer set to a district regulator station, what are the changed maintenance requirements?

A9: None. The maintenance requirements will be the same. (See A8 above).

Q10: Will customers on Gas Transmission rate schedules be affected by this revision?

A10: No, customers currently on gas transmission rate schedules are not affected by the change. Currently our tariffs split customers between distribution and transmission based only on the operating pressure of the gas line used to serve the customer.

Q11: If a customer is currently on a distribution feeder main that is currently classified as a distribution line, and under the revised definition that DFM will become a transmission line, does that customer get transferred to the gas transmission rate schedule?

A11: Each customer's situation will be looked at individually. Generally, customers who have been receiving gas service from a line operating at 60 psig or greater are already on a gas transmission schedule.

FINANCIAL / RATE CASE

Q12 What additional costs will be incurred by implementing this revision? Are these costs included in the GT&S rate case that was filed in December 2013?

A12: This revision results in incremental increased costs of approximately \$18.6 million in 2015 expenses. The additional transmission miles were taken into account in the process of forecasting the programs presented in the GT&S Rate Case. This means the costs associated with the revised application of the definition of transmission pipelines are included in the rate case.

Q13 What benefits can customers expect for the increased costs?

A13: As detailed in A2, customers benefit from the increased frequency of inspections and testing as well from the efficiencies likely to arise from the increased consistency and clarity of implementation of maintenance and operations, and integrity management programs which facilitate increase levels of safety and reliability of PG&E's gas transmission system.

Q14 Is this revision in alignment with expectations of government regulators?

A14: Since this revision is driven by the desire to become more aligned with recent DOT PHMSA guidance, we believe the revision is in alignment with the expectations of PG&E's regulators, including the CPUC and PHMSA. As noted above, PG&E is seeking recovery of the additional costs associated with the implementation are included in the 2015 GTS rate.

Q15: If the CPUC does not approve the funds for implementing the revised definitions in the 2015 GTS rate case, how will the company proceed?

A15: We believe the Company's forecast in the 2015 GTS rate case reflects the right scope – including the implementation of the revised definitions – as well as the right pace and prioritization of work that provides an appropriate risk reduction over time given resource and execution constraints and the need to continue to deliver gas to customers while work is performed. We await the CPUC's decision in the upcoming case.

DEVELOPMENT

Q16 How were these revised definitions developed?

A16: As mentioned earlier, this effort began in the PAS-55 certification work and the development of PG&E's Gas Operations' Asset Families. The revisions to the definitions were developed through the efforts of a cross functional team representing several lines of business within Gas Operations supported by the Law Department over the course of a number of months. Among other items, the stakeholder team reviewed and discussed these industry sources:

- 49 CFR 192 (the federal gas pipeline safety code)
- Department of Transportation Pipeline and Hazardous Materials Administration (DOT PHMSA) Interpretation letters
- PHMSA glossary
- Gas Pipeline and Technology Committee (GPTC) glossary
- ASME B31.8-2012
- American Gas Association (AGA) glossary

Q17 Are other utilities implementing this transmission line definition?

A17: Some utilities have implemented a definition of transmission facilities similar to PG&E's revised definitions, often at the prompting of DOT PHMSA or state regulators.

DEFINITION OF TRANSMISSION LINE

Q18: Are all Distribution Feeder Mains (DFMs) now regarded as transmission lines regardless if the DFM is operating at a hoop stress $\geq 20\%$ SMYS or $< 20\%$ SMYS?

A18: Yes. In general, this change arises from re-defining the location of the "distribution center" to focus on the function of the pipeline rather than the operating pressure of the line. In the previous interpretation for transmission line, PG&E would treat DFMs as transmission or distribution depending on the %SMYS of the line. Of course, there may be some complex situations which could deviate from the general statement, so when in doubt, please contact the Asset Knowledge Management department (Data Delivery and Quantitative Analysis manager) for an authoritative decision on whether a DFM line is transmission or distribution.

Q19: Is any pipe downstream of the upstream fire valve of a District Regulator Station with a downstream set point of 60 psig or less considered a Distribution Main?

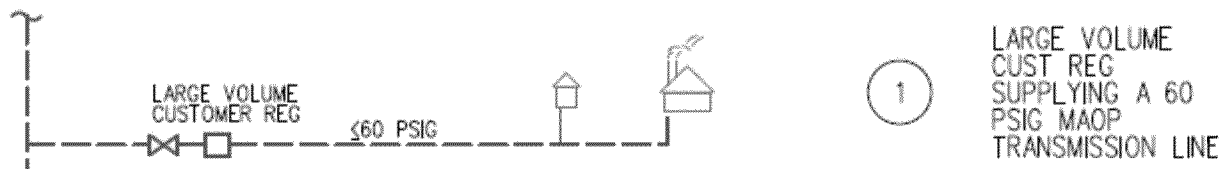
A19: Yes. In general, this is another change arising from the implementation of the revised definitions for transmission lines and distribution centers. Of course, there may be some complex situations which could deviate from that general statement. When in doubt, please contact the Asset Knowledge Management department (Data Delivery and Quantitative Analysis manager) for the authoritative decision on whether the line or facilities is transmission or distribution.

Q20: If a District Regulator Station operates at 60 psig and serves other Semi-High and Low Pressure Stations, is the downstream line from the 60 psig regulator to the semi-high and low pressure stations a transmission line?

A20: No, the Company has identified the upstream fire valve of the District Regulator station that outputs 60 psig as the location at which the function of the pipeline assets shifts from transmission to distribution which makes this location the Distribution Center, as that term is used in the federal regulations. This means that any pipelines downstream of that regulator station's upstream fire valve are considered and treated as distribution lines.

Q21: Is it possible that we may end up with plastic transmission lines as a result of these changes?

A21: Yes, it is possible. The federal pipeline safety code doesn't use the line's material as a factor in characterizing the pipeline as transmission or distribution. Pipelines used to serve a large volume customer may be plastic lines downstream of a large volume customer regulator set. Therefore, the Company would treat those lines as transmission lines. See Scenario 1 from Attachment 3, "Gas Transmission and Distribution System Diagrams," depicted below is an example of where plastic lines serving a large volume customer would be classified as a transmission line.



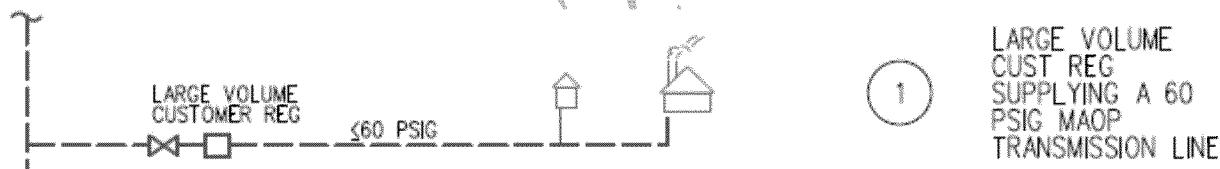
Q22: Is the revised definition of a transmission line more complex than the previous one?

A22: The revision may seem more complex at first, but the revised definition actually simplifies the current situation where the Company's characterization of a line as transmission or distribution depends on the program (e.g. Integrity Management) or process (leak survey) being conducted. Over time, the expectation is that the revised definition will reduce confusion, increase clarity, and enhance efficiencies as everyone gets used to applying one consistent definition to all facilities in the system. For complex situations on which you need additional guidance, please contact the asset knowledge management department for an authoritative decision.

EXAMPLES

The following questions refer to the example diagrams in Attachment 3, "Gas Transmission and Distribution System Diagrams" that were developed to illustrate the application of the new transmission line definition for various situations.

Q23: Scenario 1 shows one potential large volume customer and one small customer being fed from a large volume customer regulator that receives gas from a tap off a transmission line, which is then cut to 60 psig or less. Why is that service line not a distribution line?

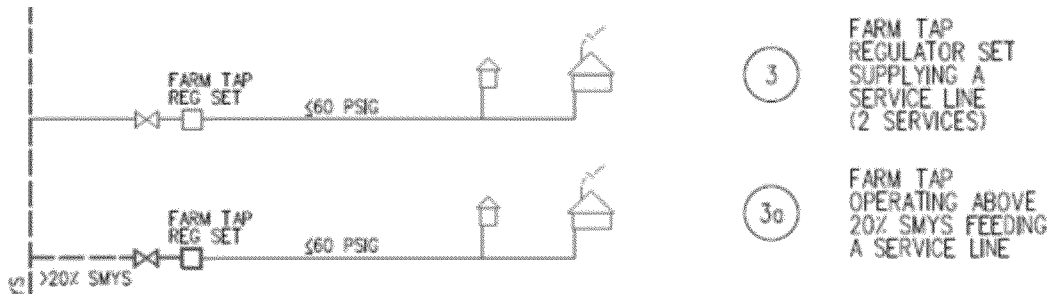


A23: This scenario shows that adding one more adjacent service (e.g., customer) to the large volume customer transmission line does not change that line from a transmission line to a distribution line, despite operating at 60 psig (or less) operating pressure. The new transmission line definition does not specifically preclude a transmission line from operating at pressure at or lower than 60 psig. Rather, the definition focuses on the function of the line. In this case, the function of the line is to feed a large volume customer that is not already downstream of a Distribution Center, therefore the entire line feeding the large volume customer from the upstream transmission tap to the downstream point of connection to the customer's piping is considered to be part of the transmission line system. Note that the other small customer's line is still considered a distribution line. If another service is added to this particular line, then the Large Volume Customer Regulator station would convert to a District Regulator station with all of the downstream piping and services being reclassified as part of the distribution system.

Q24: In Scenario 1, it is possible that the pipe downstream of the large volume customer regulator station could be made of plastic pipe. Would that plastic line be considered a transmission line?

A24: Yes, that plastic line would be considered as part of the transmission system.

Q25: Scenario 3 shows the pipe upstream of a farm tap regulator set operating less than 20% SMYS, but greater than 60 psig, is classified as a distribution line. Should it be classified as a transmission line?



A25: No, in Scenario 3, this line is considered to be a “farm tap” since there are one or two customers (who are not large volume customers) being served directly from the transmission line and the upstream line is operating less than 20% SMYS, it is classified as a distribution line. In recent interpretation letters, PHMSA has been clear that “farm taps” are to be considered part of the distribution system and monitored in the Company’s Distribution Integrity Management Program. This is another case where distribution lines could be operating greater than 60 psig. Scenario 3a shows a situation when the facilities upstream of the farm tap regulator station would be considered transmission line – when the facilities are designed to operate greater than 20% SMYS.

IMPLEMENTATION

Q26: What department owns the implementation of this new definition?

A26: While this revision may impact your work, the Asset Knowledge Management department is accountable for ensuring consistency in the implementation of this new definition. Please contact them if you have any questions on how to apply this new definition.

Q27: What is that plan to implement?

A27: The Company has prepared a significant communication and implementation plan in an effort to prepare the Company for the changes that accompany the revision and to ensure accurate implementation of the revised definitions. . After the initial communications, affected departments will conduct additional training or communication efforts to ensure employees know how to implement needed changes in certain departments, especially within the integrity management, leak survey and patrolling processes.

Q28: What guidance documents need to be updated?

A28: Several guidance documents are affected and will be updated over time to ensure the new definition is fully institutionalized.

RECORDS AND MAPPING

Q29: Currently, how do I look up whether a line is transmission or distribution?

A29: Use the current GasMap's TransmissionMain table "Transdef" column. In this column, the transmission line designation is "T" or "TI" or "TP" or "TC" or "TL" or "Ta."

Q30: What database is the system of record for this determination?

A30: Currently it is GasMap. By the time this revision is fully implemented in January 1, 2015 the database of record will be the Enhanced Geographical Information System (EGIS).

Q31: How will this change impact the number of miles of transmission line reported to government agencies?

A31: While the final number is being determined, we estimate that approximately 920 miles of transmission pipe will be added to the current number of miles of transmission pipe being reported. This means as of January 1, 2015, the transmission miles of natural gas pipeline PG&E will operate (which includes the Standard Pacific mileage) is estimated to be 6750.

Q32: Who keeps track of the large volume customers? Where is the list kept and how is updated?

A32: Asset Knowledge Management personnel keep track of large volume customers. A special GIS shapefile of large volume customers is being develop and will be updated annually.