

**PACIFIC GAS AND ELECTRIC COMPANY
Gas Pipeline Safety OIR
Rulemaking 11-02-019
Data Response**

PG&E Data Request No.:	CCSF_001-06		
PG&E File Name:	GasPipelineSafetyOIR_DR_CCSF_001-Q06		
Request Date:	September 23, 2011	Requester DR No.:	001
Date Sent:	October 7, 2011	Requesting Party:	City and County of San Francisco (CCSF)
PG&E Witness:	Todd Hogenson	Requester:	Dennis Herrera

QUESTION 6

In the chapter 3 of the testimony supporting PG&E’s Pipeline Safety Enhancement Plan, PG&E states:

“Despite Decision 11-06-017 stating that each Implementation Plan “should start with pipeline segments located in Class 3 and Class 4 locations and Class 1 and Class 2 high consequence areas,” this represents far too large of a work scope for PG&E to accomplish in a 4-year period (2011-2014) in Phase 1.” PG&E Testimony at p. 3-37.

- A. Please quantify the number of miles would be subject to the Implementation Plan if PG&E used “pipeline segments located in Class 3 and Class 4 locations and Class 1 and Class 2 high consequence areas.” Within this group, please state how many miles would be replaced, pressure tested, in-line inspected, or retrofitted to accommodate in-line inspection technologies. In Phase I, PG&E proposes to “prioritize a subset of that broader scope into Phase 1, consisting of the pipe segments in urban areas (Class 2, 3 and 4 and Class 1 HCA) operating at or greater than 30 percent SMYS without strength tests and those segments characterized with a manufacturing threat at or greater than 20 percent SMYS.... The remaining urban pipe (Class 2, 3 and 4 and Class 1 HCA) operating between 20 percent SMYS and 30 percent SMYS characterized with a Fabrication and Construction (F&C) threat construction threat and/or a corrosion and latent mechanical damage threat, will be addressed at the beginning of Phase 2 commencing in 2015.” PG&E Testimony at p. 3- 37.
- B. Please quantify the number of miles included in “the remaining urban pipe (Class 2, 3 and 4 and Class 1 HCA) operating between 20 percent SMYS and 30 percent SMYS characterized with a Fabrication and Construction (F&C) threat construction threat and/or a corrosion and latent mechanical damage threat, will be addressed at the beginning of Phase 2 commencing in 2015.” Within in this group, please state how many miles would be replaced, pressure tested, in-line inspected, or retrofitted to accommodate in-line inspection technologies.

ANSWER 6

- A. The number of miles that would be subject to the Implementation Plan if PG&E used “pipeline segments located in Class 3 and Class 4 locations and Class 1 and Class 2 high consequence areas” is 1,805 miles. Summarized below is breakout of the miles of pipe proposed to be replaced, strength tested and ILI retrofitted by Class Location and HCA within Phase 1 of the Pipeline Safety Enhancement Plan.

Summary of Phase 1 work per HCA and Class Location

Pipeline Replacement					
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA
<i>feet</i>	980,753	0	728,020	23,869	228,864
<i>miles</i>	185.7	0.0	137.9	4.5	43.3

Pipeline Pressure Test					
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA
<i>feet</i>	4,134,487	0	2,499,775	185,967	1,448,745
<i>miles</i>	783.0	0.0	473.4	35.2	274.4

ILI Projects (Retrofit / Inspections)					
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA
<i>feet</i>	1,241,067	5,449	240,457	33,455	961,706
<i>miles</i>	235.1	1.0	45.5	6.3	182.1

Phase 1 Enhancement Plan projects were developed using the Pipeline Modernization Program Decision Tree and engineering judgment to define individual project scopes that were constructible and captured project efficiency by minimizing the number of unique projects, and project mobilization/demobilizations. Unit production costs (\$/ft) will escalate if the number of individual projects increase and the overall miles of pipe strength tested or replaced per project decreases. Please see PG&E’s response below concerning pipeline segments with MAOP’s between 20% and 30% SMYS.

- B. The remaining urban pipe (Class 2, 3 and 4 and Class 1 HCA) operating between 20 percent SMYS and 30 percent SMYS characterized with a Fabrication and Construction (F&C) threat and/or a corrosion and latent mechanical damage threat, is 176 miles of pipe spread over 1,337 pipe segments in 482 separate locations. PG&E currently intends to strength test the majority of these segments and replace where it makes business sense, although actual work beyond 2015 has not been scoped. Therefore, PG&E has not determined precisely the actual numbers of pipe replacements, strength testing, and in-line inspection retrofitting per year without the initial project engineering (used in Chapter 3 for project and cost forecasting, page

3-39). This level of project engineering has not yet been completed for Phase 2 work. This level of detail will be presented in a subsequent filing.