PACIFIC GAS AND ELECTRIC COMPANY
San Bruno Gas Transmission Line Incident
Data Response

PG&E Data Request No.:	NTSB_055-001		
PG&E File Name:	San Bruno GT Line Incident_DR_NTSB_055-001		
Request Date:	March 16, 2011	Requesting Party:	NTSB
Date Sent:	March 25, 2011	Requestor:	Operations (Chhatre/ Nicholson)

QUESTION 1

For Lines 101 and 109 please provide the following information: length and configuration, date installed, pipe specification (e.g., diameter, API grade, wall thickness, manufacturer, type of seam, coating, CP details), past leak and repair history, MAOP/MOP, results of any mechanical testing done on the pipe material over the years, past pressure test details and girth and seam weld X-ray results as applicable.

ANSWER 1

Attached please find two spreadsheets for L101 and L109 with the pipeline data requested (see L101-PFL-STPR-10Dec2010-PipeOnly-NTSB18Mar11.xls and L109-PFL_REV01-dlhf-28Oct2010-PipeOnly-NTSB18Mar11.xls). In addition, images of x-ray testing data have been provided for L101 and L109.

Also included is an ATC Corporation report on measurement mechanical testing prepared on October 15, 2010.

The MAOP for Line 101 is 400 psig between Milpitas Terminal Station and the San Francisco Airport (SFO) tap, 396 psig between the SFO tap and the Lomita Park meter station, and 275 psig between the Lomita Park meter station and the San Francisco Gas Load Center. The MAOP for Line 109 is 375 psig between Milpitas Terminal Station and Sullivan Ave. regulator station and 150 psig between the Sullivan Ave. regulator station and the San Francisco Gas Load Center.

The MOP of Line 101 between Milpitas Terminal Station and the Lomita Park meter station is normally 375 psig, but the pressure has been reduced 20% to 300 psig following the San Bruno incident. The MOP of Line 101 from the Lomita Park meter station to the San Francisco Gas Load Center is 145 psig. The MOP of Line 109 between Milpitas Terminal Station and the Sullivan Ave. regulator station is normally 375 psig, but the pressure has been reduced 20% to 300 psig following the San Bruno Incident. The MOP of Line 109 between the Sullivan Ave. regulator station and the San Francisco Gas Load Center is 145 psig.

Both lines are under active cathodic protection and have rectifiers which are read annually, and PG&E takes pipe-to-soil potential readings every other month. The lines have had several External Corrosion Direct Assessments (ECDAs) over the past few years as follows:

L-101 - MP Ranges Assessed in 2004 (Also will be done in 2011)

0.000-0.330
9.000-9.300
9.807-12.400
12.450-12.612
12.835-16.641
16.657-27.740
27.772-32.172
32.175-32.493
33.064-33.414
33.420-33.440
33.444-33.509

L-101 - MP Ranges Assessed in 2006

0.651-2.000
2.450-2.490
9.300-9.436

L101 - MP Ranges Assessed in 2008

2.000-2.450
2.490-2.777
4.413-7.220
8.620-9.000
33.840-33.904
33.936-33.960
34.060-34.244
34.319-37.021
38.316-38.733
38.854-39.074
39.230-39.737
39.809-41.701
41.990-42.170
42.218-44.610

L-109 - MP Ranges Assessed in 2006

0.000-1.000
28.056-28.094
32.367-32.410
36.435-36.506
41.620-41.900

L-109 - MP Ranges Assessed in 2009

3.113-3.318
38.860-39.443
40.015-41.304
41.364-41.620

L-109 - MP Ranges Assessed in 2003 & 2009

11.500-14.671
16.012-16.191
16.329-16.796
17.010-19.000

L-109 - MP Ranges Assessed in 2004 & 2009

0.000-0.263
1.000-1.925
2.064-2.926
3.439- 6.967
7.462-10.909
10.910-11.500
21.630-21.758
21.831-23.251
33.429-34.045
36.506-36.733
37.067-38.319
38.347-38.860
41.900-42.533
42.556-42.990
43.000-43.477
43.492-44.206
44.432-45.000
45.160-52.710

L-109 - MP Ranges Assessed in 2003 and 2010

28.094-28.510
32.410-32.600

L-109 - MP Ranges Assessed in 2006 & 2009

34.045-34.073
36.733-36.816
36.950-37.067

L-109 - MP Ranges Assessed in 2010

31.655-31.934
32.600-32.771
41.304-41.364

Leak History and Repair:

We have records of three leaks on a body of pipe for Lines 101 and 109. The details are as follow:

Line 101: Leak #99-30059-1, segment 167.1, MP 32.61, OD: 20", found 03/15/1999 and repaired on 4/3/1999, **cause:** third party damage, **repair:** welded sleeve, **long seam per GIS:** SMLS

Line 109: Leak #03-60335 -1, segment 137.5, MP 16.12, OD: 22", found on 12/16/2003 and repaired on 12/17/2003, **cause:** external corrosion, **repair:** patch weld, **long seam per GIS:** SSAW

Line 101: Leak #09-80035-1, segment 191, MP 42.34, OD: 20", found on 11/11/2009 and repaired on 11/13/2009, **cause:** third party damage, **repair:** welded sleeve, **long seam per GIS:** DSAW