

Root Cause Analysis of Girth Weld Leak

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

PG&E Data Request No.:	NTSB_080-001-S2		
PG&E File Name:	San Bruno GT Line Incident DR_NTSB_080-001-S2		
Request Date:	May 23, 2011	Requesting Party:	NTSB
Date Sent:	June 22, 2011	Requestor:	Operations (Chhatre/Shori)

QUESTION 1

As a follow-up to our earlier teleconference, PG&E's A-Form shows that a leak on the girth weld was found on 11/16/2009 (Leak# 09-30255-1). The location of the leak was at 1236 Mission Rd, SSF. Specifications for the pipe are: 30-inch DSAW, .375-inch wall, installed under Job #98015. The line was isolated and repaired via a sleeve installed on the pipe in front of 1230 Mission Rd. The project is detailed in response to NTSB_080-001.

We would like to receive a copy of the root cause analysis performed for the leak and who within PG&E's IM Group was involved in reviewing the repair and determining how the leak on the girth weld affected the threats on the segment and the overall pipeline.

ANSWER 1 – SUPPLEMENTAL 2

While the A form typically constitutes PG&E's root cause analysis for leaks, this small leak was selected for further review because it occurred within an HCA for which an integrity assessment had been completed. That review has been assigned to Dave Aguiar, and the attached email contains a summary of his root cause analysis; a formal write-up is pending.

The last system wide threat analysis was completed in December of 2010 and the results incorporated into the 2010 revision to PG&E's Base Assessment Plan. That plan was prepared by Thach Ha and approved by William Manegold, Sara Peralta, Robert Fassett and Kirk Johnson.

This section of line 132 successfully passed a subpart J hydrotest on June 13, 2011.

From: Aguiar, David (GT&D)
Sent: Monday, February 01, 2010 2:17 PM
To: Manegold, William (CGT); Armato, Kevin M (GT&D); West, Mike (GT&D); Haynes, Lee (GT&D); Dauby, Frank (GT&D); Ha, Thach N;
Burke, Sara E; Arnett, Todd (GT&D); McCorkle, Dennis
Cc: Kelly, Drew; Bronner, Joe (GT&D)
Subject: Leak in 30-inch L-132 on Mission St South City

All-

I was in SF today working some interference testing with the SFPUC, and stopped by the referenced location until the leak cause was determined. It was a leak in the field girth weld along the weld toe at approx the 4:00 - 5:00 position. It is not a crack, but appears to be a crack-like fab defect. Most likely cause will be pre-existing welding defects (IF, IP) that "popped open" - opossibly due to soil stresses. It was NOT related to external corrosion. I think Drew is looking at a grinding and fill welding repair on the leaking surface.

At this point it can be said that the ECDA surveys performed in this area were properly conducted and interpreted. With 3/4 of the coating removed, there was no corrosion found anywhere on the pipe so far.

Regards,

Dave Aguiar

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