

## **SAFETY RELATED CONDITION REPORT**

**Name of Operator:** Pacific Gas and Electric Company

**Address:** 375 N. Wiget Lane, Suite 200, Walnut Creek, CA 94598

**Date of Report:** August 3, 2011

**Person Submitting Report:** Karen Roth

**Job Title:** Director of Integrity Management, Gas Engineering and Operations

**Telephone Number:** 925-974-4159

**Person Determining Condition:**

**Job Title:** Gas Engineer, In-Line Inspection, Gas Engineering and Operations

**Telephone Number:**

**Date Discovered:** July 28, 2011

**Date Determined:** July 28, 2011

**Condition Location:** Line 21E between Mile Points 53.12 (Santa Rosa) to 64.36 (Healdsburg)

**Condition Description:** Three types of anomalies were identified by the In-Line Inspection (ILI) vendor to be interacting with the seam weld of Line 21E's Low-Frequency ERW pipe. The anomalies were reported to PG&E on July 28, 2011, and they were classified by the ILI Vendor as metal loss, crack-like, and a dent. A crack-like anomaly is an anomaly that the ILI vendor cannot be certain if it is a crack or some type of other flaw, such as a manufacturing imperfection that occurs within or immediately adjacent to the long seam. PG&E's ILI Engineer determined that these anomalies met the "Immediate" condition per PG&E's Risk Management Procedure RMP-11, *In-Line Inspections*.<sup>1</sup>

**How Condition was Discovered:** Data was gathered by the ILI vendor on March 10, 2011 when performing an In-Line Inspection of Line 21E. The ILI vendor analyzed the data and informed PG&E of these conditions on July 28, 2011, upon submitting a draft ILI Vendor Report for Line 21E.

**Condition's Effect on Safety:** The long-seam weld of pre-1970 ERW pipe is known to display lower toughness values compared to the base metal properties. Therefore, extra caution is taken when evaluating anomalies which interact with this type of seam weld. This section of Line 21E is also located primarily in High Consequence Areas.

**Current Action Taken:** On July 28, 2011, Line 21E's operating pressure was reduced to 402 psig, which is 20% below the maximum pressure of 503 psig achieved during the In-Line Inspection on March 10, 2011 (Discovery Pressure). The Maximum Allowable Operating Pressure (MAOP) of Line 21E is 610 psig.

**Planned Future Action:** The pressure reduction will be maintained until the "Immediate" anomalies have been further evaluated. PG&E has performed extensive mechanical testing on

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<sup>1</sup> RMP-11, Table 5.5-1 identifies criteria for the prioritization of anomalies, in which dents with metal loss, cracks or a stress riser are considered an "Immediate" condition.

pipe samples removed from Line 21E, and will use this data to generate an Acceptance Criteria for anomalies affecting the seam weld. Any anomalies which do not pass the Acceptance Criteria will be directly examined and repaired as necessary. Additionally, at a minimum, the most significant anomalies in each classification of immediate anomalies will be excavated and examined in order to validate tool accuracy. The dent anomaly will be excavated, examined, and repaired as necessary.

**Future Action Start Date:** PG&E is nearly finished developing the Acceptance Criteria and will evaluate all reported “Immediate” anomalies using the developed Acceptance Criteria.