

# **Exhibit A**

**DECLARATION OF MICHAEL J. ROSENFELD**

**TO**

**BRIEF OF PACIFIC GAS AND ELECTRIC COMPANY REGARDING ORDER  
TO SHOW CAUSE WHY ALL COMMISSION DECISIONS AUTHORIZING  
INCREASED OPERATING PRESSURE SHOULD NOT BE STAYED  
PENDING DEMONSTRATION THAT RECORDS ARE RELIABLE**

I, Michael J. Rosenfeld, hereby declare as follows:

1. I am the Chief Engineer of Kiefner and Associates. I received a B.S. in Mechanical Engineering from the University of Michigan in 1979, and a M.S. in Mechanical Engineering from Carnegie-Mellon University in 1981. I am a Registered Professional Engineer in the State of Ohio. I am a member of the American Society for Mechanical Engineers (ASME) B31 Standards Committee, the ASME B31 Mechanical Design Technical Committee, and ASME B31.8 Gas Transmission Piping Systems Section Committee. I am an ASME-designated instructor for ASME B31.8 gas transmission and distribution system piping workshops. I have personal knowledge of the facts stated herein and could and would competently testify thereto.
2. I have reviewed the December 13, 2013 Testimony of ORA witness Thomas Roberts. I have also reviewed records of PG&E's Line 147, including PG&E's Pipeline Features List (PFL) database, hydrostatic pressure test records, metallurgical examinations, cathodic protection records, direct examination records, geotechnical information, photographic records, historical operating pressure data, fracture mechanics analyses, and structural analyses, among others.
3. Mr. Roberts' testimony raised two categories of concerns with respect to PG&E's drawings. One was that the drawings could not be used or interpreted to his satisfaction independently or unaided, and that this represented an inherent shortcoming. The second was that the drawings system was inadequate because it did not conform to a particular hierarchical scheme. I do not share Mr. Roberts' concerns.

4. Mr. Roberts' testimony states that California Public Utilities Commission (CPUC) engineers should be able to independently use a utility's records and information systems to verify compliance with regulations. However, Mr. Roberts presents no evidence that the CPUC had difficulty interpreting PG&E's drawings. In any case, the purpose of the drawings is to enable PG&E's engineers and contractors to do their jobs.
  
5. Mr. Roberts' testimony correctly described the drawings of Line 147 pressure test projects as complicated by multiple distance or locational reference systems. In my experience, most pipeline system operators must work with and reconcile different distance or locational references. These differences arise due to physical modifications to the pipeline over time that add to or subtract from the total footage, elevation changes along the route that result in more three-dimensional footage than is apparent in a Cartesian projection, inconsistencies between differing survey methods used over time, and other reasons such as crossing regions that reinitiate locational references (some interstate pipeline systems use stationing that starts over when crossing a state line, for example). I doubt that anybody unfamiliar with a particular pipeline system would, in every case, be able to independently understand all locational data.

6. During the November 19, 2013 Line 147 drawings review workshop, Mr. Marc Cabral and Mr. David Harrison, both former PG&E engineers now working as contractors to PG&E, demonstrated on command that they could fully explain and reconcile the locational data on the drawings as they pertained to the segmentation of the line for pressure testing. That exercise satisfied me that PG&E's engineers and contractors are able to use the drawings to correctly locate and execute pressure tests.
  
7. Mr. Roberts' testimony stated that his overarching conclusion is that PG&E's drawings do not represent a modern drawing or document control system. He described attributes that, in his opinion, an effective drawing system would include such as a hierarchy that would facilitate navigation through the system, or computer generated drawings organized in layers by data attributes. By presenting this description, Mr. Roberts implied that such attributes must or should be present in PG&E's pipeline drawings. I have searched for requirements on pipeline drawings and documents systems in CPUC and PHMSA regulations, pipeline safety standards, and pipeline integrity management-related recommended practices. I am unaware of any guidance documents recognized by the pipeline industry, let alone a pipeline regulation, that specifies that pipeline drawings systems exhibit a particular hierarchy scheme, level of user convenience, be organized in a particular way, or be presented in specific formats. I see no compliance or safety-related reason for PG&E to organize their drawings differently than their current practice.

8. Mr. Roberts' concerns about the adequacy of the drawing system appear to be based on the difficulties he encountered in interpreting the drawings. He correctly pointed out that there was no single drawing showing all of Line 147, there was no consistent, continuous footage stationing system, and separate new drawings were completed for each new job instead of updating old drawings. However, I observed PG&E engineers demonstrate the use of the drawings to explain the tests on Line 147. If the engineers and contractors can carry out their work using the drawings, then they are adequate irrespective of whether the system is complicated or even cumbersome.
  
9. Subsequent to the workshop, I independently reviewed drawings of pressure testing projects from three other PG&E pipelines after a brief orientation session with Mr. Harrison. Some tests were original construction work that took place in the 1960s. Other tests were associated with pipe replacement projects in the 1990s or more recently. I was able to determine what portions of the lines and which pipeline features had been tested, using the project drawings and other documents linked through the Pipeline Features Lists.
  
10. Mr. Roberts' testimony also expressed concerns about whether pressure-volume charts for hydro tests conducted on Line 147 indicate yielding in the pipe during the tests. As I testified during an evidentiary hearing held on November 18, 2013, there is no evidence that any yielding took place. These pressure-volume charts were the subject of the first half of a workshop held on November 19, 2013. As Mr. Roberts testified on November

20, 2013, the participants at the workshop (including Mr. Roberts) agreed that the pressure-volume charts did not show yielding.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct

Executed January 15, 2014

/s/ Michael J. Rosenfeld  
Michael J. Rosenfeld