

**Testimony of Paul Clanon**

**Executive Director of the California Public Utilities Commission**

**Before**

**The Senate Committee on Commerce, Science and Transportation**

**Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety and Security**

**September 28, 2010 Hearing Titled "Assessing the San Bruno, California Explosion and Other Accidents"**

Thank you Chairman Lautenberg and Ranking Member Thune for the opportunity to testify before you and the other Committee Members about the investigation of the September 9, 2010 explosion and fire that occurred on Pacific Gas and Electric's (PG&E) natural gas transmission pipeline explosion in San Bruno, California, the implications of that explosion and fire, current pipeline safety legislative efforts and how improvements to pipeline safety can be made to decrease the risk of accidents. You've asked that I focus my testimony on these issues, highlighting matters in which I have particular expertise and bringing before the Committee any other related matters that the California Public Utilities Commission (CPUC) and I wish to bring to your attention.

Lastly I'd like to thank all of the members of the Committee, the staff and the members of the public who have expressed their condolences to the families and friends of all of the victims of the San Bruno tragedy, including CPUC employee Jacki Greig and her 13 year old daughter Janessa – both of whom perished in the September 9<sup>th</sup> conflagration.

Along with me today is Richard Clark, the Director of the Consumer Protection and Safety Division of the California Public Utilities Commission, who has the responsibility of influencing and implementing the Commission's consumer protection and safety policies relative to California's electric system, natural gas system, communications system, freight rail system, inter-city passenger rail system, commuter rail system, rail transit systems, plus household goods carriers and passenger carriers. He has also been appointed to Secretary La Hood's Transit Rail Advisory Committee on Safety (TRACS).

### **The Investigation**

As you know, the NTSB has asserted primacy in this investigation and, as a Party to that investigation, I am limited in what I can discuss about that investigation. What I can say is as

follows: The explosion happened at approximately 6:15 PM at milepost 39.33 on PG&E's intrastate natural gas transmission Line 132, a line which is mostly constructed of 30 inch steel pipe that was installed in 1948. Line 132 is one of three intrastate transmission lines that run from Milpitas, California north along the Peninsula and terminate in San Francisco. Line 132 transitions to 24 inch diameter pipe just north of the section that failed in San Bruno. The section of the 30 inch pipe that failed was installed in 1956. The explosion that occurred ripped a 28 foot section from the 1956 vintage pipe and propelled it some 100 feet way from the location where it was previously buried approximately four feet beneath an asphalt paved street. A huge fire ensued, and it took PG&E approximately 1 hour and 48 minutes to close the manual valves located approximately one mile and one and one-half miles to the north and south of the ruptured section of pipe. It has not yet been determined how long it took for the fire to burn all of the residual gas left in the then closed off sections of Line 132. The explosion and fire killed seven people, injured sixty-six people, destroyed 34 homes, caused major damages to three homes, moderate damage to 16 homes and minor damage to 32 homes. The failed section of pipe has been transported to the NTSB lab here in Washington, DC, where it will undergo metallurgical testing later this week. A CPUC utility safety engineer was on-site the evening of the explosion, and an investigative team was present throughout, and integrally involved in the NTSB's week-long on-site investigation. We continue to participate fully in the NTSB's investigation, and will be present during the metallurgical testing. We are also conducting a separate and parallel investigation, and will issue our own report after the NTSB issues its report in approximately 12 – 15 months.

On Monday, September 12, 2010 and Tuesday, September 13, 2010, CPUC President Michael Peevey, acting through me, the CPUC's Executive Director, Paul Clanon, called for the creation of an expert independent review panel and directed Pacific Gas and Electric to:

- 1) Reduce the operating pressure on PG&E's Line 132 to a pressure level of 20% below the operating pressure at the time of the failure and retain that lower pressure level until such time as the Commission allows PG&E to return to Line 132's normal operating pressure;
- 2) Ensure that there are no additional risks to the residents of San Bruno by conducting an integrity assessment of all gas facilities in the impacted area;
- 3) Conduct an accelerated leak survey of all transmission lines in PG&E's service territory, giving priority to segments in class 3 and class 4 locations, and take corrective action as required and report the results to the CPUC on or before October 12, 2010;
- 4) Evaluate records of customer leak-complaint response times and response effectiveness system-wide, take immediate mitigation measures if deficiencies are found, and report the results to the CPUC;

5) Prepare a plan for a complete safety inspection of PG&E's entire natural gas transmission pipeline system and provide the plan to CPUC no later than September 23, 2010;

6) Make all employees and contractors available for interviews with federal and state investigators, including if requested, examinations under oath;

7) Preserve all records related to the incident, including work at the Milpitas Terminal during the month of September 2010;

8) Preserve all records related to the maintenance or modification of Line 132 by PG&E and/or its contractors performed within the City of San Bruno over the past ten (10) years;

9) Review the classification of natural gas transmission lines and determine if the classification has changed since the initial designation and report the results to the Executive Director;

10) Investigate and report to the Executive Director PG&E's forecasted versus actual levels of spending on pipeline safety and pipeline replacements from 2005 to the present; and

11) Conduct a review of all gas transmission line valve locations in order to determine locations where it would be prudent to replace manually operated valves with automated valves and report the results to the CPUC.

On September 23, 2010, in Resolution Number L-403 (copy attached) the Commission voted unanimously to open a fact-finding investigation, to establish an independent review panel of experts to assist in the fact-finding investigation, and to ratify and approve the September 13<sup>th</sup> mandates of the Executive Director.

The charter for the Independent Review Panel is as follows:

The investigation shall include a technical assessment of the events and their root causes, and recommendations for action by the Commission to best ensure such an accident is not repeated elsewhere. The recommendations may include changes to design, construction, operation, maintenance, and replacement of natural gas facilities, management practices at PG&E in the areas of pipeline integrity and public safety, regulatory changes by the Commission itself, statutory changes to be recommended by the Commission, and other recommendations deemed appropriate by the Panel. The latter shall include examining whether there may be systemic management problems at the utility and whether greater resources are needed to achieve fundamental infrastructure improvements.

### Specific Questions to Guide the Fact-Finding Investigation:

- What happened on September 9, 2010?
- What are the root causes of the incident?
- Was the accident indicative of broader management challenges and problems at PG&E in discharging its obligations in the area of public safety?
- Are the Commission's current permitting, inspection, ratemaking, and enforcement procedures as applied to natural gas transmission lines adequate?
- What corrective actions should the Commission take immediately?
- What additional corrective actions should the Commission take?
- What is the public's right to information concerning the location of natural gas transmission and distribution facilities in populated areas?

### **The Implications of the Pipeline Failure, Explosion and Fire and How Improvements to Pipeline Safety Can Be Made to Decrease the Risk of Accidents**

While all of the implications of the explosion and fire will not be known until the investigation is completed, the CPUC and the public cannot wait until then to begin improving the safety of the state's 122,217 miles of hazardous liquid, natural gas transmission and natural gas distribution pipelines.

The PG&E/ San Bruno explosion and fire, may be the largest transmission explosion in an urban/suburban setting in U.S. history. It is certainly the most catastrophic in California history. The CPUC, working independently, with its Independent Panel of Experts, with the NTSB, and with the Pipeline and Hazardous Materials Safety Administration (PHMSA), will examine the physics of the September 9<sup>th</sup> pipeline failure. Among other things, we will also examine, make recommendations, issue directives and take enforcement actions when necessary with respect to:

1. The safety culture of PG&E and the other utilities operating natural gas transmission and distribution pipelines in California;
2. The natural gas utilities' plans for the replacement of manual shut off valves with automatic and/or remotely controlled valves;
3. The natural gas utilities' use of "smart pigs" and other methods of in-line corrosion and damage assessment, the use of ultrasonic testing and other methods of external corrosion and damage assessment, and the development of new technologies that will improve the ability of pipeline owners to identify internal and external corrosion and other pipeline integrity issues before they result in failures;
4. Strengthening the requirements of the natural gas transmission and distribution pipeline integrity management programs required by state and federal laws, and

- developing an oversight program which more thoroughly examines the utilities' risk management decision making processes;
5. Requiring more regular reporting of utilities' planned and actual expenditures on pipeline maintenance and replacement projects.

The CPUC views this event as a system accident (an accident that has had serious consequences and has caused a major system disruption for natural gas transmission operators, legislators, regulators and the general public). Obviously, a system accident in an industry with a significantly safe operating record is cause for us taking a new look at the elements of the safety system and fixing those elements which failed. This is why the CPUC has convened an independent panel of experts to review all elements of the natural gas safety system that exists at the federal level and in California and make recommendations for improvements to that system. I personally believe that all those who seek an improvement in pipeline safety would do well to pay close attention to the significant body of work developed by numerous scholars and practitioners in developing a systems approach to safety and that done in developing high reliability operations.

I want to thank the committee for inviting me to testify today. I look forward to answering your questions.