

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company to Determine Violations of Public Utilities Code Section 451, General Order 112, and Other Applicable Standards, Laws, Rules and Regulations in Connection with the San Bruno Explosion and Fire on September 9, 2010.

I.12-01-007
(Filed January 12, 2012)

OPENING BRIEF OF THE CITY OF SAN BRUNO

STEVEN R. MEYERS
BRITT K. STROTTMAN
JESSICA R. MULLAN
Meyers, Nave, Riback, Silver & Wilson
555 12th Street, Suite 1500
Oakland, CA 94607
Phone: (510) 808-2000
Fax: (510) 444-1108
E-mail: smeyers@meyersnave.com
Attorneys for CITY OF SAN BRUNO

March 11, 2013

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY 1

II. BACKGROUND 4

 A. Loss of Life and Injuries Caused by the Line 132 Explosion 5

 B. Destruction of the Crestmoor Neighborhood by the Line 132 Explosion 8

 C. Emergency Response to the Line 132 Explosion 8

 D. San Bruno’s Response to the Line 132 Explosion 9

III. LEGAL ISSUES OF GENERAL APPLICABILITY 11

IV. OTHER ISSUES OF GENERAL APPLICABILITY 13

 A. The Commission Failed to Oversee PG&E Operations and Enforce
 Applicable Safety Requirements 13

 B. The Commission’s Investigatory Process is Not Efficient 15

 C. The Commission’s Adjudicatory Process is Flawed 18

 1. PG&E Witnesses Lack Personal Knowledge 18

 2. PG&E Witnesses Lack Credibility 19

V. CPSD ALLEGATIONS 21

 A. Construction of Segment 180..... 21

 B. PG&E’s Integrity Management Program..... 21

 C. Recordkeeping Violations 21

 D. PG&E’s SCADA System and the Milpitas Terminal 21

 E. PG&E’s Emergency Response 21

 1. PG&E’s Emergency Response 22

 2. Public Awareness program 26

 F. PG&E’s Safety Culture and Financial Priorities 27

 1. The Commission Has the Authority to Impose a Stand-Alone
 Section 451 Violation 28

 2. PG&E’s Inability to Remedy Well-Known Gas System
 Vulnerabilities 29

3. PG&E’s Chronic Underinvestment in its Natural Gas System	33
4. PG&E’s Distorted Incentive Structure for Top Executives and Managers	34
5. Financial and Legal Professionals, Not Engineering or Operational Experts, Disproportionately Occupy Top PG&E Posts	37
VI. ALLEGATIONS RAISED BY TESTIMONY OF TURN	38
VII. ALLEGATIONS RAISED BY TESTIMONY OF CCSF	38
VIII. ALLEGATIONS RAISED BY TESTIMONY OF THE CITY OF SAN BRUNO	38
IX. CONCLUSION	39

TABLE OF AUTHORITIES

	Page(s)
CASES	
<i>Carey v. Pacific Gas & Electric Company</i> 85 Cal.P.U.C.2d 682 (1999).....	13, 28
<i>Pacific Bell Wireless, LLC v. Public Utilities Commission</i> 140 Cal.App. 4th 718 (2006)	13, 28, 29
STATUTES	
49 U.S.C. § 60102(a)(1)	12
49 U.S.C. § 60105	11
49 U.S.C. § 60105(a)	12
49 U.S.C. § 60105(b)	12
Evidence Code:	
§ 780	19
§ 780(f).....	19
§ 800.....	18
Public Utilities Code:	
§ 315	15
§ 451.....	passim
§ 701	11
§ 702	11, 18
§ 761	11
§ 768	11
§ 1701.....	18
§ 2109.....	13

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company to Determine Violations of Public Utilities Code Section 451, General Order 112, and Other Applicable Standards, Laws, Rules and Regulations in Connection with the San Bruno Explosion and Fire on September 9, 2010.

I.12-01-007
(Filed January 12, 2012)

OPENING BRIEF OF THE CITY OF SAN BRUNO

Pursuant to the Administrative Law Judges' Ruling Adopting Revised Schedule and Common Briefing Outlines dated February 4, 2013,¹ the City of San Bruno (the "City" or "San Bruno") submits this Opening Brief concerning the California Public Utilities Commission's (the "Commission") formal investigation into whether PG&E and its officers, directors, and managers, violated federal and state safety laws applicable to its natural gas system.² In addition to the events of September 9, 2010, the Commission's investigation expressly includes all past operations, practices, and other events or courses of conduct that could have led to or contributed to the explosion of PG&E's Line 132.³

I. INTRODUCTION AND SUMMARY

In opening argument, lead counsel for PG&E stated that PG&E put a bad piece of pipe in the ground in 1956, doesn't know where it came from and regrets the consequences of that

¹ Administrative Law Judges' Ruling Adopting Revised Schedule and Common Briefing Outlines at Attachment 1. (February 4, 2013).

² Order Instituting Investigation ("OII") at 2 (January 12, 2012).

³ OII at 2.

mistake.⁴ If only it was that simple. The Line 132 disaster in San Bruno was not a “one off” accident.⁵ Rather it was a series of mistakes, failures and deadly errors on behalf of PG&E, the Commission, the US Department of Transportation Pipeline and Hazardous Materials Safety Administration (“PHMSA”) and all those whose sworn duty is to protect and serve the public by assuring the safe operation of natural gas utility service. There were many opportunities to prevent the Line 132 disaster and avoid the cremation of eight souls in their homes:

- PG&E should have proceeded with the recapitalization and renovation programs promoted by its engineers in the 1980’s and not relied on its lawyers, bean counters and stock analysts to do otherwise;
- PG&E should have chosen an integrity management system that relied upon *actual* inspections rather than algorithms;
- PG&E should have invested in a proper and robust document management system that would have prevented a “garbage in, garbage out” inventory of their facilities.
- PG&E should have realized that safety always trumps corporate earnings, profits and incentive bonuses to executives;
- The Commission should have recognized that a “grandfather clause” for the maximum allowable operating pressure (“MAOP”) of old transmission pipe was akin to being asleep at the wheel;
- PHMSA should have insisted upon a regulatory compliance scheme that was deliberative and based upon sound engineering and safety practices, as opposed to a “check the box” regulatory practice; and
- In what is the culmination of this tragedy, the entire three year process of investigation and truth finding of this Commission is designed to prevent just that by treating an engineering and corporate failure like a tort case.

San Bruno participated in this OII because PG&E killed eight San Bruno residents on September 9, 2010.⁶ PG&E injured or burned sixty-six San Bruno residents.⁷ PG&E destroyed

⁴ Reporter’s Transcript, Volume 3 at 49-52 (September 25, 2012).

⁵ See, e.g., *Pacific Gas & Electric Company Natural Gas Pipeline Puncture, San Francisco, California, August 25, 1981*, Pipeline Accident Report NTSB/PAR-82/01, Washington, DC: National Transportation Safety Board, 1982; *See Explosion, Release, and Ignition of Natural Gas, Rancho Cordova, California, December 24, 2008*, Pipeline Accident Brief NTSB/PAB-10/01 [Washington, DC: National Transportation Safety Board, 2010.]

⁶ NTSB Report at 18.

⁷ NTSB Report at 18.

thirty-eight San Bruno homes, left another seventeen home uninhabitable, and damaged fifty-three other homes.⁸ San Bruno first responders and their counterparts from throughout the Bay Area and the State nobly confronted and quelled a conflagration, wholly of the utility's making, without vital information or assistance concerning what caused the massive blaze.⁹ For San Bruno, this is not an abstract debate about metallurgy, pipe specifications, records or ASME standards. This is real.

This Commission is not without its own share of blame either. It did not fulfill its obligation to oversee PG&E's practices or halt the utility's operation of a highly dangerous natural gas system. The Commission's investigatory process is inefficient (particularly when compared with the National Transportation Safety Board's ("NTSB") inquiry). In addition, the Commission's adjudicatory process is not designed to identify the truth or prevent future disasters.

The PG&E natural gas transmission system was not safe on September 9, 2010. PG&E is responsible for its natural gas business. The buck does, or at least it should stop with PG&E. PG&E operates a system that transports highly valuable, yet flammable and deadly product. PG&E's attempts to alibi and excuse its wrongful actions, omissions and failures are an affront to the community of San Bruno. Each PG&E expression of regret for putting the defective Segment 180 of Line 132 in service is qualified by a disclaimer or excuse. Admitting to inadvertent installation of defective pipe is not nearly enough. PG&E must admit its entire corporate approach to safety is flawed. PG&E must admit its integrity management system was non-functional. PG&E must admit that its records were missing or useless. PG&E must admit that it was completely unprepared to respond to the Line 132 emergency. PG&E must admit that its testing process, validation efforts and employee training are faulty. Without completely confessing to these deficiencies, this Commission cannot be assured of PG&E's good faith efforts to achieve compliance going forward.

⁸ NTSB Report at 19.

⁹ NTSB Report at 77.

For this reason, San Bruno demands nothing less than a full accounting and explanation from PG&E of each and every action, omission or failure that led to the Line 132 explosion.

The Commission must find that:

- PG&E's emergency response and public awareness activities violated numerous federal and state laws;
- The Commission's investigation process is fundamentally flawed; and
- PG&E's singular focus on financial performance, which disproportionately rewards cost cutting and discourages necessary investments in infrastructure and safety, is an unreasonable practice that has resulted in the unsafe provision of natural gas service by PG&E for decades, in violation of Section 451 of the California Public Utilities Code; and
- The Commission failed in its obligation to oversee PG&E's operation of its highly dangerous system.

The Line 132 explosion was *not* an accident. PG&E is culpable. PG&E's systematic corporate exaltation of earnings over everything else all but guaranteed that the Line 132 explosion would happen somewhere, sometime. That somewhere happened to be San Bruno on September 9, 2010.

II. BACKGROUND

In the early evening of September 9, 2010 decades of PG&E mismanagement culminated in the explosion of PG&E's natural gas pipeline 132 and the destruction of the Crestmoor neighborhood in San Bruno, California. When Segment 180 of Line 132 failed and ruptured on that quiet late summer evening, it released 47.6 millions of cubic feet of flammable natural gas¹⁰—enough gas to meet customers' need in San Bruno for a month. As the flames overtook the neighborhood, people ran for their lives with just the clothes on their back. A section of the ruptured pipe was eventually found 100 feet south of the crater in the Crestmoor neighborhood.¹¹ The displaced pipeline section was 28 feet long and weighed 3,000 pounds.¹²

The immediate cause of the explosion was Segment 180, a flawed, 30-inch diameter section of Line 132. PG&E's mismanagement of its natural gas system and cavalier attitude towards protecting its customers is the root cause. Segment 180 of Line 132 was comprised of

¹⁰ NTSB at 1.

¹¹ NTSB at 1.

¹² NTSB at 1.

“substandard and poorly welded pipe section with a visible seam weld flaw”¹³ comprised of six short “pups.”¹⁴ PG&E placed the defective line in service over 54 years ago and never gave it a second thought. Had PG&E ever tested Line 132 over its half decade in service, it would have detected its mistake. PG&E never did so.

A. Loss of Life and Injuries Caused by the Line 132 Explosion

PG&E’s actions, omissions and failures to construct, operate and maintain a safe natural gas system in San Bruno caused the deaths of Gregory, William and Lavonne Bullis, James Franco, Jacqueline and Janessa Greig, Jessica Morales and Elizabeth Torres.

The Bullis Family lived at 1690 Claremont Drive.¹⁵ Gregory Bullis, 50 and his wife, Sue were both nurses.¹⁶ Mr. Bullis, his mother, Lavonne Bullis, 82; and his son, William Bullis, 17 were all killed in the blast.¹⁷ Mr. Bullis’ remains were identified using DNA testing.¹⁸ They are survived by Gregory’s wife and William’s mother, Sue Bullis, and the couple’s daughter Janine.¹⁹ At the time of the explosion, Ms. Bullis was at work in Sunnyvale.²⁰

James Franco, 58, did not survive the serious injuries that he sustained at home, which was two hundred and fifty feet from the explosion’s epicenter.²¹ The home’s owner, Jose Alvarado, assisted Mr. Franco in escaping the fire, but Mr. Franco’s injuries were extremely serious.²² Mr. Franco was placed in a drug-induced coma because of the severe burns he suffered. After being transferred to UCSF Medical Center, Mr. Franco passed away.²³ Jose Alvarado was not hurt, but his home was destroyed.²⁴ Mr. Franco was originally from Pacifica, and worked in pest control. He is survived by a brother and niece.

¹³ NTSB at 127.

¹⁴ NTSB at x.

¹⁵ Chronicle Staff Report, *San Bruno Fire Death toll now 7*, San Francisco Chronicle, September 23, 2010, available at: <http://www.sfgate.com/bayarea/article/San-Bruno-fire-death-toll-now-7-3252175.php>

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ Joshua Melvin, *Death toll in San Bruno pipeline explosion climbs to eight*, San Mateo County Times, Posted 9/28/10, Updated 11/11/10, http://www.mercurynews.com/san-bruno-fire/ci_16196672

²² Justin Berton, *San Bruno's 8th fatality from PG&E blast*, San Francisco Chronicle, September 29, 2010, available at: <http://www.sfgate.com/bayarea/article/San-Bruno-s-8th-fatality-from-PG-E-blast-3251748.php>

²³ *Id.*

²⁴ *Id.*

Jacqueline Greig, 44, was employed by the CPUC for more than two decades.²⁵ She had spent part of the summer evaluating PG&E's expansion plans and investment proposals to replace out-of-date pipelines for the committee of the National Association of State Utility Consumer Advocates.²⁶ Janessa Greig, 13, was an eighth grader at St. Cecelia Catholic school, which she had attended since kindergarten.²⁷ She was a writer for the school paper, in the school drama club, played the piano, volunteered with the Society for the Prevention of Cruelty to Animals, played basketball, volleyball and participated in traditional Mexican folk dancing.²⁸ She was also student body president.²⁹ Jacqueline and Janessa Greig are survived by Greig's husband and 16 year-old daughter, who were attending a back-to-school function at the time of the explosion.³⁰

Jessica Morales, 20, was visiting her boyfriend, Joseph Ruigomez, to watch the NFL game when the initial explosion hit.³¹ The couple tried to flee the house, but there was a second blast after the first.³² Even though Mr. Ruigomez suffered severe burns himself, he ran back into the house for Ms. Morales, but "[b]y then, the house was engulfed."³³ Ms. Morales was an aspiring fashion designer attending classes in San Francisco.³⁴ After attempting to rescue Ms. Morales, Mr. Ruigomez collapsed on a neighbor's lawn before spending five months in the

²⁵ Lisa Fernandez, *San Bruno fire victims: Jacqueline Greig and daughter Janessa were waiting for family to come home*, San Jose Mercury News, Posted 9/13/2010, Updated 11/19/2010, available at: http://www.mercurynews.com/bay-area-news/ci_16063528

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ Jaxon Van Derbeken and Will Kane, *San Bruno fire victim Jessica Morales, 20*, San Francisco Chronicle, September 12, 2010, available at: <http://www.sfgate.com/news/article/San-Bruno-fire-victim-Jessica-Morales-20-3253346.php>

³² Shaun Bishop, *Wrongful-death lawsuit filed against PG&E for San Bruno blast*, January 26, 2011, San Francisco Examiner available at: <http://www.sfexaminer.com/local/bay-area/2011/01/wrongful-death-lawsuit-filed-against-pge-san-bruno-blast#ixzz2NBK7Xdf>

³³ Julia Scott, *San Bruno family describes burn victim's ordeal, mourn death of girlfriend*, San Jose Mercury News, September 11, 2010, available at: http://www.mercurynews.com/ci_16043667?IADID=Search-www.mercurynews.com-www.mercurynews.com

³⁴ Jaxon Van Derbeken and Will Kane, *San Bruno fire victim Jessica Morales, 20*, San Francisco Chronicle, September 12, 2010, available at: <http://www.sfgate.com/news/article/San-Bruno-fire-victim-Jessica-Morales-20-3253346.php>

hospital undergoing treatment for third degree burns.³⁵ His father, James Ruigomez, said his son experienced lasting physical and emotional injuries, and vowed his family would do whatever they can prevent other pipeline disasters.³⁶

A mother of nine, Elizabeth Torres, 81, lived near the blast site on Claremont Drive.³⁷ Prior to the explosion she had been waiting that Thursday for PG&E to visit her home to light her gas stove, which had not been working.³⁸ According to family and friends, Ms. Torres was vibrant and enjoyed taking trips, including to the casino, in spite of having her hip replaced twice and walking with a cane.³⁹

According to news reports, victims of the explosion arrived at local hospitals in critical condition.⁴⁰ At least 15 patients were taken by ambulance to nearby hospitals, including four sent to the Bothin Burn Center at St. Francis Memorial in San Francisco.⁴¹ Thirty seven other injured people arrived at hospitals on their own.⁴² Doctors and nurses worked through the night to treat victims ranging in age from their 20s to 50s.⁴³ At least three patients were burned on over 50 percent of their bodies, and at least one other had burns on 40 percent of the body.⁴⁴ Burn victims underwent multiple, difficult procedures, and in some cases were sedated and required machines to assist with breathing. Doctors urgently worked to prevent infection.⁴⁵ In the days

³⁵ *Id.*

³⁶ Garance Burke, *Scars remain for San Bruno survivors*, Associated Press, September 6, 2011, available at: <http://www.businessweek.com/ap/financialnews/D9PJ19L80.htm>

³⁷ Sandra Gonzalez, Mike Rosenberg, Sean Maher, *Search for Bodies in Deadly San Bruno PG&E Gas Line Explosion Ends*, San Jose Mercury News, Posted 9/10/10, Updated 11/11/10, available at: http://www.mercurynews.com/san-bruno-fire/ci_16045798

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Natural gas explosion rocks San Bruno; 4 dead*, KGO News, September 10, 2010 available at: <http://abclocal.go.com/kgo/story?section=news/local/peninsula&id=7660103>

⁴¹ Sandra Gonzalez, Mike Rosenberg, Sean Maher, *Search for Bodies in Deadly San Bruno PG&E Gas Line Explosion Ends*, San Jose Mercury News, Posted 9/10/10, Updated 11/11/10, available at: http://www.mercurynews.com/san-bruno-fire/ci_16045798

⁴² *Id.*

⁴³ Julia Scott, *San Bruno family describes burn victim's ordeal, mourn death of girlfriend*, San Jose Mercury News, September 11, 2010, available at: http://www.mercurynews.com/ci_16043667?IADID=Search-www.mercurynews.com-www.mercurynews.com

⁴⁴ *Id.*

⁴⁵ Sandra Gonzalez, Mike Rosenberg, Sean Maher, *Search for Bodies in Deadly San Bruno PG&E Gas Line Explosion Ends*, San Jose Mercury News, Posted 9/10/10, Updated 11/11/10, available at: http://www.mercurynews.com/san-bruno-fire/ci_16045798

that followed, burn patients underwent skin grafts and procedures to remove non-viable tissue.⁴⁶ Skin from areas that was not damaged was used as grafts.⁴⁷ In total, these procedures can take up to two years.⁴⁸

B. Destruction of the Crestmoor Neighborhood by the Line 132 Explosion

In addition to the loss of life, PG&E effectively wiped San Bruno's quiet Crestmoor neighborhood off the map and displaced an entire community. According to news reports, Mr. Carlos Balagot, 29, and his wife bought their first home in San Bruno neighborhood three years prior.⁴⁹ He heard the blast of Line 132's rupture before a piece of asphalt crashed through the roof and a ceiling beam toppled.⁵⁰ He fled down the street before watching his house burn to the ground.⁵¹ The San Bruno residents that lost their homes completely or whose residences sustained damages faced months of negotiations with contractors, insurance companies, and PG&E. For some residents, weeks passed before it was possible to return to what was left and assess the damage. When residents could return, the City's infrastructure in the area was destroyed, including water and sewer lines, storm drains, streets, sidewalks and surfaces, streetlights and vegetation in Crestmoor Canyon.

C. Emergency Response to the Line 132 Explosion

San Bruno received the first 911 call within seconds though the San Bruno Fire Department. Fire fighters saw the explosion from their station. More than 900 first-responders, including mutual aid responders and San Bruno's Fire, Police, Public Works, and citywide departments, responded to the explosion⁵²—setting a new standard for emergency response for cities in California and across the country. Once the flow of natural gas was stopped, firefighting operations continued for 2 days.⁵³

But these first responders were working at a disadvantage. PG&E had not previously provided the San Bruno Fire Department with detailed maps showing the location of Line 132

⁴⁶ *Natural gas explosion rocks San Bruno; 4 dead*, KGO News, September 10, 2010 available at: <http://abclocal.go.com/kgo/story?section=news/local/peninsula&id=7660103>

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ John Hoefel, Molly Hennessy-Fiske and Christopher Goffard, *San Bruno explosion death toll climbs to seven; six are missing*, Los Angeles Times, September 12, 2010, available at: <http://articles.latimes.com/2010/sep/12/local/la-me-0912-san-bruno-explosion-20100912>

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² NTSB Report at 90.

⁵³ NTSB Report at x.

nor important information about the pipeline, such as the size, operating pressure and expected consequences if it ruptured.⁵⁴ PG&E's on scene emergency personnel were unable to quickly recognize that the pipeline had ruptured.⁵⁵ According to the CPSD Report, "PG&E offered no specific training for its first responders on how to recognize the differences between fires of low-pressure natural gas, high-pressure natural gas, gasoline fuel, or jet fuel."⁵⁶ Nor did PG&E have emergency response procedures in place to contact San Bruno and regional emergency response personnel.⁵⁷

Once it was apparent that this major gas transmission line had failed, PG&E took over 95 minutes to stop the flow of gas and isolate the rupture site.⁵⁸ This delay put the emergency responders in defensive mode instead of offensive mode to control the fire.⁵⁹ The NTSB specifically determined that PG&E's 95 minute delay was "excessive" and "contributed to the severity and extent of property damage and increased risk to the residents and emergency responders."⁶⁰

D. San Bruno's Response to the Line 132 Explosion

In an effort to hold PG&E accountable, San Bruno has been a fixture at each federal and state agency investigation for nearly three years. San Bruno has actively participated in the NTSB hearings.⁶¹ San Bruno is an intervenor in three investigatory proceedings and one rulemaking proceeding before this Commission.⁶² San Bruno assigned a full time police officer to the Criminal Task Force investigating the Line 132 explosion. The City has monitored third party civil cases⁶³ and engaged in its own negotiations with PG&E to obtain seventy million dollars in reparations for the San Bruno community. The City has been relentless, because it is important. Each time PG&E or its witnesses and counsel suggest that San Bruno or the other

⁵⁴ NTSB Report at 77.

⁵⁵ CPSD Report at 102.

⁵⁶ CPSD Report at 102.

⁵⁷ NTSB Report at 78 ("PG&E procedures do not require SCADA operators to immediately notify the applicable 911 emergency call center in the event of a possible pipeline rupture")

⁵⁸ CPSD at 102.

⁵⁹ NTSB at 90 (finding that "because of the flow of natural gas from the pipeline during the first 95 minutes after the rupture, firefighters conducted defensive operations until the pipeline valves were closed, at which time they were able to access the area.")

⁶⁰ CPSD at 102, 124.

⁶¹ NTSB hearings were held over a three day period in Washington, DC from March 1-3, 2011.

⁶² Rulemaking 11-02-019 (February 24, 2011); Investigation 11-02-016 (February 24, 2011); I.11-11-009 (November 10, 2011); I.12-01-007 (January 12, 2012).

⁶³ San Bruno Pipeline Coordinated Case, J.C.P. 4648.

parties to these proceedings are somehow persecuting the utility, PG&E entirely misses the point. PG&E is not an innocent scapegoat. PG&E's practices are dangerous.

San Bruno has dedicated itself to the restoration of the Crestmoor community. Immediately following the blast, San Bruno "activated its emergency operations center and opened a facility staffed by the American Red Cross for evacuees."⁶⁴ Elected officials, city staff, volunteers and Crestmoor neighborhood residents all mobilized to work with the Red Cross and others to assist with shelters, provide food and water, clothing, information, advice and anything else that might comfort and aid those affected and displaced.

The City implemented an expedited review process to rebuild homes in the Crestmoor neighborhood that were destroyed or severely damaged by the explosion and fire.⁶⁵ The City has already approved projects at 1710 Claremont Drive, 1611 Claremont Drive, 1701 Claremont Drive, 960 Glenview Drive, 1642 Claremont Drive, 1646 Claremont Drive 1621 Claremont Drive, 2725 Concord Drive, 1101 Fairmont Drive, 1720 Claremont Drive, 1115 Glenview Drive, 1645 Claremont Drive, 1650/1660 Claremont Drive, 1121 Fairmont Drive, 2731 Concord Way, and 1631 Claremont Drive.⁶⁶ In addition, City staff has proceeded with infrastructure repairs, replacement and improvements, including

- Replacement and upsizing of waterlines and sewer lines and laterals within the neighborhood;
- Storm drain repair and construction to alleviate some of the current street drainage issues,
- Repair and replacement of damaged streets, sidewalks and other surface features;
- Replacement of the streetlight system with new, more reliable, energy efficient streetlights;
- Replacement of the Earl/Glenview park; and
- Replanting the Crestmoor Canyon.⁶⁷

⁶⁴ NTSB Report at 90.

⁶⁵ See Rebuilding the Crestmoor Neighborhood, City of San Bruno, Community Development Department (Revised September 2011) Available at: http://www.sanbruno.ca.gov/Glenview_rebuild.html

⁶⁶ Copies of the public meeting notice, agenda and staff report for each product are available at: http://www.sanbruno.ca.gov/Glenview_rebuild.html

⁶⁷ A brief overview of planned infrastructure improvements is available at the City of San Bruno's Crestmoor Neighborhood Reconstruction Project, http://www.rebuildcrestmoor.org/app_pages/view/8

The City has created a website where residents can learn how far San Bruno has come towards restoring the community and can monitor the continuing progress. San Bruno has also held informational workshops, study sessions, town hall meetings, and has worked diligently with individuals and families to discuss how to restore this once vibrant community. The City has continued to support the victims of the tragedy with referral to services and a program to fund counseling sessions. There have already been two anniversary events to remember, celebrate and mark all that was lost on September 9, 2010.

As the victims work to rebuild their homes and their lives, they and other residents are acutely aware of the long and difficult road to full recovery still ahead. That recovery includes a commitment by the City of San Bruno and the San Bruno community we represent to do all we can to ensure this tragedy does not happen anywhere ever again.

III. LEGAL ISSUES OF GENERAL APPLICABILITY

According to the Commission, “[t]he duty to furnish and maintain safe equipment and facilities is paramount for all California public utilities.”⁶⁸ Under both the California Constitution and the Public Utilities Code, the Commission has broad authority to ensure that public utility operations and practices, including those at PG&E, uphold that duty. Section 701 of the California Public Utilities Code affords the Commission wide latitude to do so,

The commission may supervise and regulate every public utility in the State and *may do all things, whether specifically designated in this part or in addition thereto*, which are necessary and convenient in the exercise of such power and jurisdiction. (emphasis added)

Sections 761 and 768 of the California Public Utilities Code allow the Commission to prescribe rules and requirements related to safety. Pursuant to Section 702 of the California Public Utilities Code, every public utility and its officers, agents and employees must comply with Commission orders, decisions, directions and rules.

This Commission may specifically exercise all such Public Utilities Code authority over intrastate natural gas pipelines, including Line 132, under provisions of the federal Pipeline Safety Act.⁶⁹ Congress adopted the Pipeline Safety Act of 1968 to establish core safety standards and principles of enforcement applicable to system operators transporting natural gas via both interstate and intrastate pipelines. The stated purpose of Pipeline Safety Act standards is

⁶⁸ D.11-06-017 at 16.

⁶⁹ 49 U.S.C. Section 60105.

“to provide adequate protection against risks to life and property posed by pipeline transportation and pipeline facilities....”⁷⁰ Under the Pipeline Safety Act, PHMSA may regulate both interstate and intrastate pipelines; however in practice state agencies frequently take primary responsibility for safety and enforcement on intrastate pipelines pursuant to the annual certification provisions.⁷¹ In order to maintain its authority over intrastate pipelines each year, the Commission certifies to PHMSA that it:

- Has regulatory jurisdiction over the safety standards and practices of all intrastate pipeline transportation within California;
- Has adopted PHMSA’s federal safety standards;
- Is enforcing PHMSA’s federal safety standards;
- Has the authority to enforce PHMSA’s federal safety standards with injunctive and monetary sanctions;
- Is encouraging and promoting programs designed to prevent damage to pipeline facilities as a consequence of demolition, excavation, tunneling, or construction activity; and
- Has authority to require natural gas transporters and pipeline operators, where applicable (a) to establish and maintain records, to make reports, and to provide information; and (b) to file a plan for inspection and maintenance.⁷²

Once certified, the Commission assumes primary responsibility for inspection and enforcement over intrastate facilities.⁷³

Commission General Order 112-E adopts, and automatically incorporates all updates to federal pipeline safety regulations, including 49 CFR Parts 190, 191, 192, 193, and 199.⁷⁴ Among those federal pipeline safety regulations incorporated into GO 122-E are those that require PG&E to “prepare and follow” a procedural manual for operations, maintenance, and

⁷⁰ 49 U.S.C. § 60102(a)(1).

⁷¹ Written Statement of Cynthia L. Quarterman, Administrator Pipeline And Hazardous Materials Safety Administration Before the Committee On Commerce, Science And Transportation Subcommittee On Surface Transportation and Merchant Marine Infrastructure, Safety; and Security, United States Senate (October 18, 2011).

⁷² 49 U.S.C. Section 60105(b). *See, e.g.*, 2008 Natural Gas Certification for the California Public Utilities Commission at 2, available at: http://www.cpuc.ca.gov/NR/rdonlyres/7F90FC83-8B3B-4625-8DB7-82EFF000CC52/0/2008_Certification.pdf

⁷³ 49 U.S.C. Section 60105(a).

⁷⁴ GO 112-E, Section 104.1.

emergencies,⁷⁵ establish an emergency plan,⁷⁶ and develop and implement a public awareness program.⁷⁷

Beyond the specific requirements set forth in GO 112-E, Section 451 generally requires that public utilities provide and maintain “adequate, efficient, just and reasonable” service and facilities as are necessary for the “*safety, health, comfort and convenience*” of its customers and the public. For PG&E and other natural gas operators under the Commission’s jurisdiction, Section 451 is a distinct and independent obligation to operate a safe natural gas system.⁷⁸ Acts, omissions and failures of any officer, agent or employee of a public utility within the scope of official duties and employment are considered an act, omission or failure of the utility itself.⁷⁹

IV. OTHER ISSUES OF GENERAL APPLICABILITY

The Commission initiated this OII on its own motion to consider violations of (1) applicable California statutes, including the California Public Utilities Code; (2) any Commission order, resolution, general order or other directive or regulation; or (3) any other applicable requirements, including federal gas safety requirements, or industry safety standards by PG&E and its officers, directors and managers that caused and contributed to the severity of the deadly explosion of the utility’s Line 132.⁸⁰

Although the Commission’s focus is properly on PG&E’s malfeasance, the Commission itself is also complicit. PG&E’s dangerous practices developed and were allowed to persist in the context of lax Commission oversight and enforcement. In addition, Commission investigations are not efficient. The Commission’s adjudicatory process is also embedded with flaws.

The Commission failed to protect San Bruno from PG&E on September 9, 2010. As part of this comprehensive examination into PG&E’s federal and state law violations, San Bruno urges the Commission to confront its own mistakes and acknowledge its weaknesses in order to prevent their recurrence at the expense of another community in PG&E’s service territory.

A. The Commission Failed to Oversee PG&E Operations and Enforce Applicable Safety Requirements

⁷⁵ 49 C.F.R. Section 192.605.

⁷⁶ 49 C.F.R. Section 192.615.

⁷⁷ 49 C.F.R. Section 192.616.

⁷⁸ *Carey v. Pacific Gas & Electric Company*, 85 Cal.P.U.C.2d 682, 689 (1999); *Pacific Bell Wireless, LLC v. Public Utilities Commission*, 140 Cal.App. 4th 718, 741 (2006).

⁷⁹ Cal. Public Utilities Code §2109.

⁸⁰ Order Instituting Investigation (“OII”) at 11, ordering par. 1.

Contrary to PG&E contentions, past Commission failures to enforce federal safety requirements do not relieve PG&E of its responsibility to obey the law. However, both the NTSB and the Independent Review Panel (“IRP”) established by the Commission recognized that the Commission’s anemic regulatory program enabled PG&E’s longstanding disregard for its legal obligations. According to the NTSB, “the ineffective enforcement posture of the CPUC permitted PG&E’s organizational failures to continue over many years.”⁸¹ The NTSB found the Commission’s oversight and enforcement was inadequate as follows:

The CPUC, as the regulator for pipeline safety within California, failed to uncover the pervasive and long-standing problems within PG&E. Consequently, this failure precluded the CPUC from taking any enforcement action against PG&E. The CPUC lost opportunities to identify needed corrective action and to follow through and ensure that PG&E completed the prescribed corrective actions in a timely manner.⁸²

The IRP reached a similar conclusion in the report it submitted directly to the Commission. According to the IRP report, “the struggle for adequate resources affects almost every aspect of the [Commission’s] program for monitoring pipeline construction, operations, and integrity.”⁸³ The IRP report specifically cited the following weaknesses in the Commission’s regulatory program:

- The audit staff appears to be generalist engineers at a time when the PHMSA regulations militate for greater levels of specialization in the various disciplines associated with pipeline integrity management.
- As PG&E’s activities of integrity management have increased, the CPUC staff does not have the internal resources to evaluate the activities, nor is it likely to develop the depth of expertise necessary for highly technical and management evaluation.
- The CPUC needs to have talent on par with what is being hired in the industry, but the state pay scale is not comparable to either other governmental units or the private sector.
- The safety staff does have the ability to issue relatively small penalties and citations with respect to pipeline safety violations on the small distribution systems (propane and mobile home parks), but does not have authority to fine the large operators. Furthermore, enforcement is uneven across the Commission because utilities can be and are penalized by the Staff for billing errors (e.g., overcharging) while safety violations are, for the most part, only documented.⁸⁴

⁸¹ NTSB at 126.

⁸² NTSB at 122.

⁸³ IRP at 20.

⁸⁴ IRP at 20-21.

The Commission itself has acknowledged the problem. In an August 2011 hearing before the Assembly Committee on Accountability and Administrative Review, Commission Executive Director Paul Clanon admitted that the Commission “complacently fell into a 'check the box' style of regulation.”⁸⁵ Clanon’s testimony acknowledged that the Commission was simply looking for compliance with specific rules, rather than investigating the dangers presented by aging pipelines in densely populated areas.⁸⁶ Clanon’s assessment was consistent with the NTSB’s finding that the Commission

[C]onduct[s] audits that focus on verification of paper records and plans rather than on gathering information on how performance-based safety systems are implemented, executed, and evaluated, and whether problem areas are being detected and corrected.⁸⁷

Executive Director Clanon declared that “the days of assuming a pipeline is safe unless [the Commission] ha[s] a reason to think it isn't - those days are over.”⁸⁸ San Bruno is hopeful that this, and other public proclamations issued by the Commission concerning reform are an indication that the Commission is taking the IRP Report’s twenty separate recommendations⁸⁹ for improving Commission oversight and enforcement seriously.

B. The Commission’s Investigatory Process is Not Efficient

Section 315 of the California Public Utilities Code requires the Commission to investigate all accidents involving a public utility as follows,

The Commission shall investigate the cause of all accidents occurring within this State upon the property of any public utility or directly or indirectly arising from or connected with its maintenance or operation, resulting in loss of life or injury to person or property and requiring, in the judgment of the commission, investigation by it, and may make such order or recommendation with respect thereto as in its judgment seems just and reasonable...⁹⁰

The Commission has the authority to institute investigations on its own motion, pursuant

⁸⁵ Wyatt Buchanan, *PUC Chief promises stricter oversight of pipelines*, San Francisco Chronicle, August 18, 2011, available at: <http://www.sfgate.com/bayarea/article/PUC-chief-promises-stricter-oversight-of-pipelines-2334904.php#ixzz2N6alDdif>

⁸⁶ *Id.*

⁸⁷ NTSB at 121.

⁸⁸ Wyatt Buchanan, *PUC Chief promises stricter oversight of pipelines*, San Francisco Chronicle, August 18, 2011, available at: <http://www.sfgate.com/bayarea/article/PUC-chief-promises-stricter-oversight-of-pipelines-2334904.php#ixzz2N6alDdif>

⁸⁹ IRP at Appendix A at 115-118

⁹⁰ Cal. Pub. Util. Code Section 315

to Commission Rule 5.1.⁹¹ Commission Rule 6.1 authorizes the Commission to institute rulemaking proceedings on its own motion to (a) to adopt, repeal, or amend Commission rules, regulations, and guidelines; (b) to amend the Commission's Rules; or (c) to modify Commission decisions adopted in a prior rulemaking.⁹²

Despite its unfettered discretion to initiate investigatory and legislative proceedings in the aftermath of the Line 132 explosion, the Commission has struggled to develop relevant facts, identify root causes and implement necessary reforms in a timely and efficient manner.

Beginning approximately five months after the Line 132 explosion, in early 2011, the Commission initiated a series of complex and overlapping proceedings as follows:

- Recordkeeping investigation into whether PG&E violated applicable rules or requirements pertaining to safety recordkeeping for Line 132 and the remainder of the gas services and facilities across its system (February 24, 2011) (the “Recordkeeping Investigation”),⁹³
- Rulemaking to consider a “new model of natural gas pipeline safety regulation applicable to all California pipelines.” (February 24, 2011) (the “Rulemaking”);⁹⁴
- Investigation to determine whether PG&E’s natural gas transmission pipeline system was safely operated in areas of greater population density or other areas identified as High Consequence Areas (“HCAs”) (November 10, 2011) (the “HCA Investigation”),⁹⁵ and
- This Investigation into whether PG&E and its officers, directors, and managers, violated federal and state safety laws applicable to its natural gas system (January 12, 2012) (the “Root Cause Investigation”).⁹⁶

Intervenors prepare and file four sets of testimony, four sets of briefs, four sets of comments, and participate in four sets of evidentiary hearings. Beyond the cumbersome nature of the four Line 132 proceedings, the related and often overlapping nature of each proceeding complicates identification of the proper forum to raise and address critical issues. PG&E’s recordkeeping practices are addressed in both the Recordkeeping Investigation and the Root Cause Investigation.⁹⁷ PG&E’s use of assumed Specified Minimum Yield Strength (“SMYS”)

⁹¹ Commission Rules of Practice and Procedure, Rule 5.1.

⁹² Commission Rules of Practice and Procedure, Rule 6.1

⁹³ I.11-02-016.

⁹⁴ R.11-02-019.

⁹⁵ I.11-11-009.

⁹⁶ I.12-01-007.

⁹⁷ Cf. Records Management within the Gas Transmission Division of Pacific Gas and Electric Company prior to the

values arose in both the Root Cause Investigation and the HCA Investigation.⁹⁸ Disputes have arisen concerning whether the Rulemaking or the Root Cause Investigation are the proper forum for evidence related to PG&E's forward looking efforts to remedy past natural gas system deficiencies.⁹⁹ Intervenor briefs covering the fines and remedies the Commission should impose on PG&E will cover all three investigatory proceedings, but will be filed separately from the respective brief the Intervenor filed in each proceeding covering facts and alleged violations.¹⁰⁰ Over two and a half years have passed since the Line 132 explosion. None of the Commission's four proceedings related to PG&E's misconduct have reached final conclusion. Fines and remedial measures in the three investigatory proceedings have not been proposed.¹⁰¹

By contrast, the NTSB initiated and completed its investigation into the Line 132 explosion within one year of its occurrence.¹⁰² It employs interdisciplinary experts, provides a public forum for deliberations and its decision makers avoid political entanglements. The NTSB issued a brief preliminary report on the explosion on October 13, 2010 and conducted interviews with over a dozen PG&E employees in November and December 2010.¹⁰³ In three days of hearings in March of 2011, the NTSB heard from at least ten PG&E witnesses, three CPUC witnesses, six PHMSA witnesses, San Bruno's Fire Chief and a host of other witnesses.¹⁰⁴ The NTSB adopted its final report on August 30, 2011.¹⁰⁵ The NTSB Report sets forth

Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, California September 9, 2010, Consumer Protection and Safety Division (I.11-02-016, March 5, 2012) *with* Consumer Protection and Safety Division Incident Investigation Report, September 9, 2010 PG&E Pipeline Rupture in San Bruno, California at Chapter VI (I.12-01-007, January 12, 2012).

⁹⁸ See Administrative Law Judge's Ruling Confirming Date for Evidentiary Hearing and Briefing Schedule in I.11-11-009 at 1-2 (September 6, 2012)

⁹⁹ See, e.g. Administrative Law Judge's Ruling on (1) PG&E's Objection and Motion to Exclude Portions of CPUC's Rebuttal Testimony and (2) Joint Motion to Exclude Exhibit PG&E-43 and Related Examination in (I.12-01-007, I.11-02-016, I.11-11-009, February 13, 2013).

¹⁰⁰ *Administrative Law Judges' Ruling Granting Motions of Consumer Protection and Safety Division for Leave to Serve Additional Prepared Testimony and for Permission to file a Single Coordinated Brief Regarding Fines and Remedies and Notice of Hearing* (I.12-01-007, I.11-02-016, I.11-11-009 September 25, 2012)

¹⁰¹ PG&E caused a natural gas release, ignition and explosion in Rancho Cordova, California on December 24, 2008. The NTSB issued its Pipeline Accident Brief on May 18, 2010. Rancho Cordova, California. (See Explosion, Release, and Ignition of Natural Gas, Rancho Cordova, California, December 24, 2008, Pipeline Accident Brief NTSB/PAB-10/01). The Commission did not issue an order instituting investigation into the Rancho Cordova explosion until nearly two years later. (See, Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company, Regarding the Gas Explosion and Fire on December 24, 2008 in Rancho Cordova, California, I.10-11-013, 2010 Cal. PUC LEXIS 505 (Nov. 19, 2010)).

¹⁰² See NTSB Report (adopted August 30, 2011).

¹⁰³ NTSB Report at 140.

¹⁰⁴ NTSB Notice of Public Hearing Public Hearing: Natural Gas Pipeline Explosion and Fire, San Bruno, CA, September 9, 2010, available at: http://www.nts.gov/news/events/2011/sanbruno_ca_ph/bios.html#witnesses

¹⁰⁵ NTSB at 134.

comprehensive findings of fact and the probable cause of the Line 132 explosion.¹⁰⁶

C. The Commission's Adjudicatory Process is Flawed

Section 1701 of the California Public Utilities Code and Commission Rule 13.6. both provide that “technical rules of evidence ordinarily need not be applied in Commission hearings, provided that the “substantial rights of the parties” are preserved.¹⁰⁷ Although not bound by the California Evidence Code, the Commission frequently looks to it as persuasive authority.¹⁰⁸

The witnesses proffered by PG&E in this proceeding, lack personal knowledge and credibility. Under the California Evidence Code, their testimony would either be inadmissible, or would not be afforded any weight by the trier of fact. To the extent the Commission elects to rely on testimony that would otherwise be inadmissible or of negligible value under the California Evidence Code, the Commission exposes a fundamental flaw in its own adjudicatory process.

1. PG&E Witnesses Lack Personal Knowledge

PG&E employees frequently lacked sufficient personal knowledge to serve as a competent witness. Section 702 of the California Evidence Code provides, in relevant part, [T]he testimony of a witness concerning a particular matter is inadmissible unless he has personal knowledge of the matter.¹⁰⁹

Where a witness is not testifying as an expert, Section 800 of the California Evidence Code requires that “testimony in the form of an opinion” be limited to opinions that are “rationally based on the perception of the witness.”¹¹⁰

Ms. Sara Peralta was PG&E's manager of integrity management on September 9, 2010. Initially, Ms. Peralta sponsored PG&E's Chapter 4 testimony regarding integrity management.¹¹¹ During evidentiary hearings, PG&E abruptly substituted Ms. Kris Keas, a manager in the Transmission Integrity Manager Program, for Ms. Peralta.¹¹² According to Ms. Keas' testimony, an unknown “scheduling conflict” prevented Ms. Peralta's attendance, even after evidentiary

¹⁰⁶ NTSB Report at 124-134.

¹⁰⁷ California Pub. Util. Code Section 1701; Commission Rule 13.6

¹⁰⁸ See, e.g. General Order 66-C, Section 2.8; Decision 07-04-044 at 9 (April 12, 2007).

¹⁰⁹ Cal. Evidence Code Section 702.

¹¹⁰ Cal. Evidence Code Section 800.

¹¹¹ January 16, 2013 transcript; page 1033, lines 5-8.

¹¹² Revised testimony of Kris Keas (Chapter 4, Integrity Management) served on parties to I.12-01-007 on October 2, 2012.

hearings dates were modified on several occasions.¹¹³

Ms. Keas has no basis on which to testify regarding PG&E's past integrity management practices that are the subject of this proceeding. Ms. Keas has only been at PG&E for a year and a half.¹¹⁴ Ms. Keas was not a PG&E employee at the time of the Line 132 explosion, let alone a member of the integrity management team.

2. PG&E Witnesses Lack Credibility

Section 780 of the California Evidence Code provides that the trier of fact should consider witness credibility in any matter that proves or disproves the truthfulness of the witness' testimony. Character for honesty and veracity are also important.¹¹⁵ In addition, a trier of fact may consider the existence of bias, interest, or other motive when evaluating witness credibility.¹¹⁶

PG&E witness testimony is drafted, reviewed and routed through the utility's lawyers. PG&E witness Mr. David Harrison, a consultant for PG&E, testified that approximately 5-15 people reviewed his testimony.¹¹⁷ In addition to the 5-15 people that assisted Mr. Harrison with preparation of his "adopted" testimony, his testimony was also "routed through law."¹¹⁸ PG&E's Vice President of Standards and Policies, Ms. Jane Yura, testified that she only prepared half of her testimony.¹¹⁹ According to Ms. Yura's testimony, two high level attorneys, one in-house and the other lead outside counsel also reviewed her testimony.¹²⁰

While PG&E witnesses are on the stand, utility attorneys improperly coach them using unfounded or lengthy speaking objections. During testimony of PG&E consultant Mr. David Harrison concerning whether PG&E took responsibility for the Line 132 explosion, Mr. Thomas Long, counsel for TURN and Mr. Joseph Malkin, counsel for PG&E had the following exchange:

[MR. LONG]: When you say accepting responsibility or accepted responsibility or PG&E is accepting responsibility, does that mean PG&E failed to do things that it should have done?

¹¹³ January 16, 2013 testimony, page 1035, lines 15-19.

¹¹⁴ January 16, 2013 testimony; page 1033, lines 1-4.

¹¹⁵ See Cal. Evidence Code § 780.

¹¹⁶ See Cal. Evidence Code § 780(f).

¹¹⁷ October 4, 2012 transcript; page 593; lines 3-9.

¹¹⁸ October 4, 2012 transcript; page 593; lines 10-13.

¹¹⁹ January 14, 2013 transcript; page 985; lines 11-20.

¹²⁰ January 14, 2013, page 986; lines 1-4.

MR. MALKIN: I'm going to object to the question, your Honor. The sentence which Mr. Long keeps omitting, the introductory part to it, is this is a reference to what PG&E has said in the civil litigation.

MR. LONG: Well, on page --

MR. MALKIN: In the civil litigation, PG&E has admitted that it was neglect in using a piece of pipe installed in 1956 that had a defect and has accepted liability to compensate the people injured as a result of that.

MR. LONG: This is what we call a coaching objection, your Honor, and I think it's an inappropriate type of objection. I'm asking about his testimony and what his understanding of PG&E's accepting responsibility for, wherever they may be accepting responsibility. And I want to understand what that means.¹²¹

Shortly thereafter, Mr. Harrison narrowly construes the actions for which PG&E accepts responsibility, just as PG&E counsel suggested he do via speaking objection:

MR. LONG: By accepting responsibility, does that mean that PG&E failed to do things that it should have done?

[MR. HARRISON]: I guess I'd have to just point back to my testimony. You know, the sentence there is -- on 2-5 is that PG&E's design specifications called for the use of this pipe. 30-inch 0.375 weld, 52,000 DSAW. Installation of the pieces pipe not meeting these specifications was unintended and an action for which PG&E accepts responsibility.

[MR. LONG]: Okay. And I'm trying to understand what you mean by that. Does PG&E mean that it failed to do things that it should have done?

[MR. HARRISON]: I think it means that the -- we don't know how the pipe got there. We don't have records of the pipe, but it is in our pipeline, and we accept responsibility that we are responsible for the pipeline.¹²²

PG&E's high priced consultants also lack credibility due to bias, interest or other motive on account of the exorbitant fees they receive and related business they depend on from the utility. PG&E consultant, John Zurcher, received \$390 an hour for his testimony.¹²³ Mr. Zurcher, and his employer were previously hired by PG&E to provide consulting services.¹²⁴ John Zurcher and his company have had a professional relationship with PG&E since 2002.¹²⁵

¹²¹ October 4, 2012 transcript; page 507, lines 11-28; page 508, lines 1-7.

¹²² October 4, 2012 transcript; page 508, lines 13-28; page 509, lines 1-4

¹²³ January 9, 2013 testimony; page 651; lines 10-14.

¹²⁴ January 9, 2013 transcript; page 695; lines 8-18.

¹²⁵ January 9, 2013 transcript; page 695; lines 8-18

The value of previous contracts between PG&E and Mr. Zurcher's company total over \$2 million.¹²⁶ PG&E Consultant Dr. Robert Caligiuri charges \$495 an hour.¹²⁷ Dr. Caligiuri billed between 150-200 hours to PG&E on a discrete subject.¹²⁸

V. CPSD ALLEGATIONS

A. Construction of Segment 180

San Bruno urges the Commission to adopt findings consistent with the issues identified in Chapter IV of the CPSD Incident Investigation Report along with any violations related to such issues advocated by CPSD, as the same may be supplemented by Section V.A of CPSD's Opening Brief.

B. PG&E's Integrity Management Program

San Bruno urges the Commission to adopt findings consistent with the issues identified in Chapter V of the CPSD Incident Investigation Report along with any violations related to such issues advocated by CPSD, as the same may be supplemented by Section V.B of CPSD's Opening Brief.

C. Recordkeeping Violations

San Bruno urges the Commission to adopt findings consistent with the issues identified in Chapter VI of the CPSD Incident Investigation Report along with any violations related to such issues advocated by CPSD, as the same may be supplemented by Section V.C of CPSD's Opening Brief.

D. PG&E's SCADA System and the Milpitas Terminal

San Bruno urges the Commission to adopt findings consistent with the issues identified in Chapter VII of the CPSD Incident Investigation Report along with any violations related to such issues advocated by CPSD, as the same may be supplemented by Section V.D of CPSD's Opening Brief.

E. PG&E's Emergency Response

PG&E's emergency response in the wake of the Line 132 explosion violated multiple sections of state and federal law, including Section 451 of the California Public Utilities Code, 49 CFR 192.605, and 49 CFR 192.615 as applied to the utility pursuant to the Commission's GO 112-E. In addition, the Line 132 explosion revealed that PG&E's public awareness program did not comport with the requirements of Section 451 of the California Public Utilities Code or 49

¹²⁶ January 9, 2013 transcript; page 695; lines 8-18

¹²⁷ January 15, 2013 transcript; page 1160, lines 23-28.

¹²⁸ January 15, 2013 transcript; page 1161; lines 8-12.

CFR 192.616.

1. PG&E's Emergency Response

Section 451 of the California Public Utilities Code demands that PG&E provide and maintain “adequate, efficient, just and reasonable” service and facilities as are necessary for the “*safety, health, comfort and convenience*” of its customers and the public. 49 CFR 192.605 requires PG&E to “prepare and follow” a procedural manual for operations, maintenance, and emergencies. Under 49 CFR 192.616, PG&E is also obligated to adopt an emergency plan.

(a) *PG&E took 95 Minutes to Stop the Flow of Natural Gas*

Public Utilities Code Section 451 and 49 CFR 192.615 (a)(3)(iii) require operators to establish a response time that ensures “prompt and effective response” to emergencies. PG&E’s 95 minute response time was neither prompt, nor effective.

It took PG&E 95 minutes to turn off the gas and isolate the rupture.¹²⁹ The NTSB and CPSD investigations found that ASVs and RCVs could have reduced the amount of time to identify and isolate the line breaks.¹³⁰ According to the NTSB, the 95 minute delay was “excessive” and contributed to the “severity and extent of property damage and increased risk to the residents and emergency responders.”¹³¹ The CPSD Report found that, “the response time for shutting off the valves to isolate the rupture would have been reduced if PG&E had created and followed better procedures resulting in clearer internal coordination and decision-making.”¹³² PG&E’s delay in isolating the ruptured section of pipe in Line 132 required Fire Department and Mutual Aid Responders to delay transitioning its response from a defensive operation to an offensive operation.¹³³

In order to comply with Section 451 and 49 CFR 192.615, PG&E’s natural gas transmission and distribution system must be designed to immediately isolate a catastrophic failure in densely populated areas.¹³⁴ The NTSB found that the use of automatic shut off valves or remote control valves on Line 132 would have “significantly reduced the amount of time

¹²⁹ CPSD report, 102.

¹³⁰ CPSD report, page 102; NTSB report, page 125, finding 13.

¹³¹ CPSD at 102, 124

¹³² CPSD report, page 107.

¹³³ NTSB at 90 (finding that “because of the flow of natural gas from the pipeline during the first 95 minutes after the rupture, firefighters conducted defensive operations until the pipeline valves were closed, at which time they were able to access the area.”)

¹³⁴ NTSB report, page 98.

taken to stop the flow of gas and to isolate the rupture.”¹³⁵ PG&E’s own witness, Keith Slibsager, testified that if an ASV was on Line 132 and provided that the valve operated correctly, it would have cut off the gas right away.¹³⁶

In spite of the well recognized value of ASVs, PG&E has resisted their installation. Chih-hung Lee, PG&E’s former senior consulting gas engineer, drafted a memo arguing that ASVs would have “little or no effecting on increasing human safety or protecting properties” in the event of an explosion.¹³⁷ Mr. Lee did admit however that he only consulted natural gas industry sources and ignored a Department of Transportation memo that concluded that ASVs could reduce damage in his preparation of trial memoranda.¹³⁸

(b) PG&E’s Internal Communication Was Deficient

CPSD’s investigation found that PG&E’s internal communication and its procedures for outlining job descriptions were also deficient.¹³⁹ PG&E’s control room operated with incomplete information that contributed to the delay in emergency response on September 9, 2010. Roles and responsibilities for handling emergencies were “poorly defined.”¹⁴⁰ PG&E’s operating supervisor and control room operators had the authority and capability to dispatch crews to shut off the valves, but the operating supervisor and control room operators didn’t make the critical decision to dispatch crews.¹⁴¹ PG&E’s operating procedures hampered communications between SCADA and dispatch centers.¹⁴² PG&E did not establish a procedure for the dispatch and control rooms that outlined each individual’s roles and responsibilities in the event of an emergency.¹⁴³ PG&E’s control room operators didn’t have procedures to refer to when monitoring specific regions.¹⁴⁴ PG&E didn’t have a centralized command structure, so key information was not relayed in a reliable way.¹⁴⁵ PG&E was overwhelmed by the increase in incoming and outgoing calls, which also contributed to PG&E’s ineffective communication.¹⁴⁶

(c) PG&E’s External Communication Was Deficient

¹³⁵ NTSB report, page 125.

¹³⁶ October 2, 102 transcript; page 201, lines 23-27.

¹³⁷ NTSB Exhibit 2Q: Senior Consulting Engineer RMP-06 Memo to file and supporting documents, pages 5-7.

¹³⁸ <http://dms.nts.gov/pubdms/search/document.cfm?docID=344892&docketID=49896&mkey=77250>

¹³⁹ CPSD report, page 117.

¹⁴⁰ NTSB report, page 98.

¹⁴¹ CPSD report, 102.

¹⁴² NTSB report, page 97.

¹⁴³ CPSD report, page 117.

¹⁴⁴ CPSD report, 102.

¹⁴⁵ NTSB report, 98.

¹⁴⁶ CPSD report, page 117.

PG&E did not call 911 when it recognized a potential line rupture.¹⁴⁷ PG&E's coordination with fire and emergency officials was limited to communications at the explosion site.¹⁴⁸ According to the CPSD Report, it was the external agencies that reached out to PG&E during the emergency response, not the other way around

At 6:54pm, San Bruno Police called Dispatch indicating their need for gas personnel.

At 7:02pm, San Mateo County Sheriff inquired whether the power in the area had been shut off. They also asked PG&E if they knew about the plane crash.

At 7:59pm the first call to Dispatch from San Mateo County Fire Department came in. The message was to inform PG&E of their command post being set up at Lunardi's Market.¹⁴⁹

At the time, these first responders were still under the impression that the explosion may have been caused by a plane crash.¹⁵⁰

PG&E's defective external communication was driven by utility procedures. Pursuant to utility procedure, gas operators may only contact external agencies with supervisor approval.¹⁵¹ In the NTSB investigation, a gas operator confirmed this procedure by stating that outside agencies are only called when a "supervisory out in the field requests it."¹⁵²

(d) PG&E Did Not Immediately Recognize the Break in Line 132

Initially, PG&E did not recognize the explosion was caused by a rupture of one of its lines. PG&E first responders couldn't identify the cause of the fire.¹⁵³ Seven minutes after the explosion, a PG&E gas operator thought that there had been a rupture somewhere within 12 miles of the Peninsula, but didn't know the exact location.¹⁵⁴ Even 20 minutes after the explosion, gas control and dispatch couldn't pinpoint the location of the rupture and thought maybe a gas station had blown up.¹⁵⁵ It was over 30 minutes before PG&E even realized its pipeline was the cause of the blaze.

¹⁴⁷ NTSB report, page 100; CPSD report, 118.

¹⁴⁸ CPSD report, page 118.

¹⁴⁹ CPSD report, page 118.

¹⁵⁰ CPSD report, page 118.

¹⁵¹ CPSD report, page 119.

¹⁵² NTSB Exhibit 2CB: Interview of PG&E employee, January 6, 2011, page 51; CPSD report, page 119.

¹⁵³ CPSD report, page 102.

¹⁵⁴ CPSD report, page 115.

¹⁵⁵ NTSB docket, San Francisco Control Room Transcripts, page 151; CPSD report page 115.

Furthermore, PG&E was unable to determine the exact location of the rupture.¹⁵⁶ Gas control operators still didn't know the location of the explosion forty minutes after the explosion. At least one gas control operator wasn't sure if it was a transmission or distribution line that exploded: "it looks like might [be transmission], if anything, distribution."¹⁵⁷ Forty minutes after the explosion, a San Francisco supervisor communicated to gas control that his crews were responding to the explosion, but they were headed to Martin Station, obviously not the site of the rupture.¹⁵⁸ Surprisingly, 69 minutes after the explosion, PG&E's Senior Dispatch stated that the explosion was "reportable," but people were "running around saying, you know, they think it's a plane."¹⁵⁹

The fact that it took PG&E's gas control over an hour to pinpoint the location of the rupture and respond by shutting Line 132's valves at Martin station, delayed the emergency response and put people's lives and property at risk. PG&E's confused and chaotic response to the emergency made a dangerous situation even more dangerous. By failing to recognize and identify the location of the line break in a densely populated neighborhood, PG&E failed to provide its customers with a safe system and should be found in violation of Public Utilities Code Section 451.

(e) *PG&E's Emergency Response Relied on the Ad Hoc Assistance From Off-Duty Employees*

PG&E's emergency response was not based on a well-coordinated plan. It was entirely dependent on two off-duty mechanics that took it upon themselves to do what was necessary with little to no guidance from superiors. PG&E never gave the mechanics that stopped the flow of gas official orders to do so.¹⁶⁰

During the explosion, it was unclear within PG&E who had the ultimate responsibility for dispatching crews to shut the valve. In the NTSB investigation, PG&E stated that the local operating supervisor has the responsibility to dispatch crews to shut off the valves.¹⁶¹ However, PG&E also claimed that under its gas emergency response plan, gas system operators can close

¹⁵⁶ NTSB report, page 98.

¹⁵⁷ NTSB docket, San Francisco Control Room Transcripts, page 151; CPSD report page 115.

¹⁵⁸ CPSD report, page 116.

¹⁵⁹ NTSB docket, Interview of Senior Distribution Specialist, page 10; CPSD report, page 116.

¹⁶⁰ NTSB report, 102.

¹⁶¹ NTSB_035-013; CPSD report, page 120.

valves in an emergency situation.¹⁶² Either way, no one within PG&E instructed its employees to shut off the valves.

The Peninsula On-Call Supervisor stated that he told the mechanics to “get to the yard,” but didn’t tell them which valves to shut down and when to do it.¹⁶³ Mechanic 1 said that no one gave him orders to shut down the valves. Mechanic 1’s supervisor only told him to “stage” at the Colma yard, not shut down the valve.¹⁶⁴ Mechanic 1, had the idea to shut down the valve of his own volition.¹⁶⁵ After shutting off the initial inlet valve, V38.49, the Mechanic took his own initiative to shut the valves at Healy Station.¹⁶⁶ The supervisor stated that everyone knew where to go on their own because of “familiarity with the system.”¹⁶⁷

During this dire and dangerous situation, the only reason that the gas was shut off was due to the fact a mechanic had the good instinct and sense to turn off the gas. PG&E’s operating supervisor and control room operators, according to PG&E, had the authority to direct and dispatch crews to shut off the gas, but failed to do so. That PG&E did not have an effective policy in place regarding the personnel with ultimate responsibility for shutting off the gas is incredible given the inherently dangerous nature of PG&E’s business.

2. Public Awareness program

PG&E violated 49 CFR 192.616 by failing to establish and implement a public awareness program that effectively informed the public and emergency response agencies about the utility’s operations. PG&E had not provided the San Bruno Fire Department with detailed maps showing the location of Line 132 and had not provided it important information about the pipeline, such as the size, operating pressure and expected consequences if it ruptured. A fire station is located only blocks away from the pipeline rupture site and firemen were on scene minutes after the explosion. Had PG&E provided better information, coordination and training to the Fire Department before the explosion, on scene emergency personnel would likely have quickly recognized that the pipeline had ruptured and been in a position to quickly provide information to PG&E that confirmed the location. A better public awareness program may also have prompted PG&E to be proactive in contacting San Bruno emergency response personnel for

¹⁶² CPUC_212-01.

¹⁶³ Commission EUO of Gas Crew Foreman, page 27; CPSD report, page 121.

¹⁶⁴ NSTB docket, Interview of Gas Measurement and Control Mechanic, page 17; CPSD report 121.

¹⁶⁵ NSTB docket, Interview of Gas Measurement and Control Mechanic, page 17; CPSD report 121.

¹⁶⁶ NSTB docket, Interview of Gas Measurement and Control Mechanic, page 17; CPSD report 121.

¹⁶⁷ NSTB Docket, interview of transmission and regulation supervisor, page 10; CPSD report, page 122.

information that it was seeking to confirm the specific location of the failed pipeline.

PG&E's public awareness program did not effectively educate residents who lived near the pipeline or prepare them for an emergency. Many residents were not aware of the pipeline near their homes and they certainly were not aware of the size and pressure of the pipeline. A better-informed public also may have been helpful to PG&E after the pipeline ruptured by confirming the location and intensity of the failure.

In spite of the well documented deficiencies set forth above, PG&E maintains that its response was "adequate." When asked whether PG&E had any deficiencies in its emergency response to the explosion, Benedict Almario, the Manager of Performance Improvement at PG&E during the explosion, testified that PG&E's emergency response was "adequate."¹⁶⁸ This answer defies all logic and proves that Mr. Almario is not a credible witness. Mr. Almario also went as far as to say that there were no deficiencies in PG&E's emergency response on September 9, 2010.¹⁶⁹ Mr. Almario also had the audacity to state that turning off the gas in 95 minutes was "reasonable."¹⁷⁰

F. PG&E's Safety Culture and Financial Priorities

PG&E's emphasis on profit maximization at the expense of safety is a structural defect in the utility's corporate culture that served as a significant and longstanding contributor to the Line 132 explosion in San Bruno. PG&E's singular focus on financial performance, which disproportionately rewards cost cutting and discourages necessary investments in infrastructure and safety, is an unreasonable practice that has resulted in the unsafe provision of natural gas service by PG&E in violation of Section 451 of the California Public Utilities Code. Should the Commission fail to recognize such a violation, it is only a matter of time before the cascading safety failures that tragically caused the Line 132 explosion repeat themselves with haunting similarity in another community in PG&E's service territory. The Commission must establish a strong precedent against a corporate culture that systematically disregards its fundamental long-term safety obligations in favor of short-term financial gain.

According to this Commission, "[a] basic principle of public utility service is for the public utility to provide safe and reliable service."¹⁷¹ Although PG&E retains the authority to

¹⁶⁸ October 1, 2012 transcript; page 318, lines 11-23.

¹⁶⁹ October 1, 2012 transcript; page 327-328, lines 17-28; 1-11.

¹⁷⁰ October 1, 2012 transcript; page 324; lines 19-24.

¹⁷¹ I.10-11-013, Presiding Officer's Decision Regarding Joint Motion to Approve the Stipulation of Pacific Gas and

manage its internal affairs, the Commission has made clear that Section 451 and the Commission itself, compel PG&E to operate in accordance with this “basic” principle,

PG&E’s underlying public utility service is to provide safe and reliable gas service, and the safety and reliability of its gas system must be PG&E’s primary objective.¹⁷²

Unfortunately, since the 1970’s, safety has not been PG&E’s primary objective. For decades preceding the Line 132 explosion, PG&E has operated in accordance with a corporate culture that facilitates the provision of unsafe utility service in violation of Section 451 of the California Public Utilities Code.

1. The Commission Has the Authority to Impose a Stand-Alone Section 451 Violation

Section 451 of the California Public Utilities Code, provides, in relevant part:

Every public utility shall furnish and maintain such adequate, efficient, just and reasonable service, instrumentalities, equipment, and facilities...as are necessary to promote the safety, health, comfort and convenience of its patrons, employees, and the public.

The Commission has clear authority to impose a stand-alone Section 451 violation on PG&E for its defective corporate culture, even in the absence of a violation of another statute, Commission General Order or Commission Decision.¹⁷³ In *Carey v. Pacific Gas and Electric Company*, a house in Pleasanton, California exploded and injured two employees when a third party fumigation contractor improperly terminated gas service.¹⁷⁴ Following the 1994 explosion, PG&E failed to take sufficient actions to investigate compliance with and to revise the terms of its agreement with third party fumigation contractors.¹⁷⁵ The Commission determined that PG&E’s failure was a Section 451 violation as follows:

We conclude that Pacific Gas and Electric Company (PG&E) engaged in unsafe practices which violated Public Utilities Code § 451 for a period of 1,221 days by not revising its fumigation termination policy in 1994 after adverse events affecting public safety.¹⁷⁶

Electric Company and the Consumer Protection and Safety Division Concerning Rancho Cordova and Related Stipulation at 37. (September 29, 2011) (Citations Omitted)

¹⁷² *Id.*

¹⁷³ *Carey v. Pacific Gas & Electric Company*, 85 Cal.P.U.C.2d 682, 689 (1999); *Pacific Bell Wireless, LLC v. Public Utilities Commission*, 140 Cal.App. 4th 718, 741 (2006).

¹⁷⁴ *Carey v. Pacific Gas & Electric Company*, 85 Cal.P.U.C.2d 682, 689 (1999).

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

The Section 451 violation identified in *Carey v. Pacific Gas and Electric* stood alone.¹⁷⁷ The Commission did not find that PG&E’s ongoing practices violated any other California statute, Commission General Order of Commission Decision.¹⁷⁸

In Decision 01-03-029, the Commission not only demonstrated a willingness to evaluate Section 451 as a stand-alone obligation, it also exerted its authority to specifically examine utility practices (capital expenditure reductions and layoffs) under the Section 451 rubric.¹⁷⁹ In response to a motion filed by a union representing utility workers, the Commission specifically considered the extent to which Southern California Edison and PG&E layoff and cost-cutting plans could reduce service below a level acceptable under Section 451.¹⁸⁰ The Commission shelved PG&E’s layoff plan.

California Courts have ratified the Commission’s Section 451 approach.¹⁸¹ In *Pacific Bell Wireless, LLC v. Public Utilities Commission*, the Court clearly rejected the argument advanced by a telecommunications provider that Section 451 “can only be used to impose a retroactive fine in conjunction with another more specific source of law.”¹⁸² Instead, the Court made clear that prior case law did not compel it to infer that “there must be another statute or rule or order of the Commission that has been violated for the Commission to determine there has been a punishable violation of section 451.”¹⁸³ In summary, the Commission has recognized stand-alone Section 451 violations in investigations involving far less serious and tragic consequences than the Commission is faced with here.

2. PG&E’s Inability to Remedy Well-Known Gas System Vulnerabilities

PG&E ignored specific and persistent warnings concerning clear and present dangers posed by its natural gas system. PG&E allowed the 1994 Gas Pipeline Replacement Program (“GPRP”),¹⁸⁴ which was designed by PG&E engineers to address those clear and present dangers, to languish and ultimately lapse. Not only did PG&E fail to follow through with the GPRP, it did so in spite of available funding and CPUC support.¹⁸⁵ In pursuit of higher returns,

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ D.01-03-029

¹⁸⁰ D.01-03-029 at 15.

¹⁸¹ *Pacific Bell Wireless, LLC v. Public Utilities Commission*, 140 Cal.App. 4th 718, 741 (2006).

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ D.86-12-095.

¹⁸⁵ D.92-12-057 .

PG&E underspent on its natural gas infrastructure to the point of neglect.¹⁸⁶ PG&E was fully aware of the threat posed by its natural gas system well in advance of the Line 132 explosion on September 9, 2010.

Contrary to PG&E's repeated suggestion, the utility's specific ignorance concerning the six defective pups on segment 180 of Line 132 is no excuse. PG&E was warned repeatedly regarding specific vulnerabilities in its natural gas system. In the face of clear warnings, the utility failed to act to address such vulnerabilities, either pursuant to the 1984 GPRP recommended by utility engineers or via some alternative approach.

PG&E's sustained failure to act following identification of safety and reliability threats to its natural gas system demonstrates a fundamental flaw embedded in PG&E's corporate culture. PG&E's corporate commitment to willful ignorance and inaction in response to identified safety risk is a fundamental flaw embedded in PG&E's culture. It also violates Section 451.

In its testimony before this Commission, PG&E repeatedly attempts to narrowly recast the Line 132 disaster as an isolated defect that was impossible for the utility to uncover,

We now know that the cause of the September 9th rupture and explosion was a piece of pipe that did not meet any known PG&E or industry specification and that was missing an interior longitudinal weld.¹⁸⁷

Unknown to PG&E, one section of pipe installed in Segment 180 contained six short pieces of pipe (commonly called "pups"), three of which did not contain the internal weld along the longitudinal seam that should have been present on DSAW pipe.¹⁸⁸

On the stand, PG&E witnesses closely echo the narrowly focused testimony drafted by PG&E lawyers. PG&E Executive Jane Yura testified as follows,

PG&E was *unaware* and has no knowledge how this defective piece of pipe was put into service.¹⁸⁹

Had we known what that pipe was it would have never gone into service.¹⁹⁰

PG&E's narrowly focused denials entirely miss the point. In reality, the defective pups were but one example of system-wide deficiencies in PG&E's natural gas infrastructure and a corporate culture that was ill equipped to address them.

¹⁸⁶ Focused Audit of Pacific Gas & Electric Gas Transmission Pipeline Safety-Related Expenditures Over for the 1996-2010 Period, Overland Consulting, at 1-1; *See also*, Harpster Rebuttal Testimony at 4.

¹⁸⁷ PG&E Testimony Chapter 1, p. 1-3, Lines 1-3 (emphasis added)

¹⁸⁸ PG&E Testimony, Chapter 2, p. 2-3, Lines 23-24, p. 2-4, Lines 1-2 (emphasis added)

¹⁸⁹ Yura, 932, lines 10-12 (emphasis added)

¹⁹⁰ Yura, 934, Lines 16-17 (emphasis added)

PG&E disclaims knowledge of the six pups to distract from the fact that the utility caused, and was aware of widespread deficiencies in its natural gas system. PG&E developed a list of deferred projects involving code compliance, safety and system reliability since 1970.”¹⁹¹ PG&E’s head of Gas System Design admitted that prior pipeline leaks left him concerned about the potential for catastrophic failures:

Q: Did you have any concerns from 1970 up to 1985 , that because of these pipeline failures, that you could have a catastrophic event that would cause injury, harm or property damage?

A: Yes.¹⁹²

According to CPSD, PG&E’s head of Gas System Design expressed the following concern: “due to questionable welding methods used prior to 1950 and recent pipeline failures, that PG&E should start looking at replacing the gas pipeline infrastructure.”¹⁹³ According to the CPSD’s Rebuttal Testimony:

PG&E managing agents including PG&E’s Management Committee and Officers were warned that pipelines installed prior to 1950 (PG&E pipe for Segment 180 had been identified with pipe held as salvage from pipe acquired as early as 1947-1948) were “suspect” and “required attention.”¹⁹⁴

PG&E also portrays the defective pups as an isolated incident that was impossible to uncover to disguise the fact that pursuit of the 1984 GPRP would have identified and eliminated the defects in Segment 180 of Line 132. Information related to PG&E’s GPRP was presented to PG&E’s Capital Expenditure Review Committee on September 5, 1984.¹⁹⁵ With the GPRP, Gas Operations specifically urged PG&E to,

Establish a program to eliminate deteriorating gas piping systems that are, for the most part, over 55 and as much as 94 years old. These lines were constructed prior to enactment of state and federal regulations governing the construction of pipeline systems and often do not meet the current standards.¹⁹⁶

According to Gas Operation’s Capital Expenditure Review Committee presentation,

¹⁹¹ Tateosian Deposition, Exhibit 7 (January 13, 2012)

¹⁹² Tateosian Deposition Vol. I, p. 92, Lines 17-21.

¹⁹³ Rebuttal Testimony of Raffy Stepanian, p. 64, lines 25-29.

¹⁹⁴ Rebuttal Testimony of Raffy Stepanian, p. 65, lines 23-26.

¹⁹⁵ Tateosian Deposition, Exhibit 7 (January 13, 2012), Gas Operations Major Project Assessment, Gas Pipeline Replacement Program, For Presentation to the Capital Expenditures Review Committee on September 25, 1984. (the “GPRP Presentation”)

¹⁹⁶ GPRP Presentation at 1.

“...aging pipe must be replaced to enable PG&E to continue to provide safe, reliable, gas service.”¹⁹⁷ The GPRP was exclusively devoted to improving the safety of PG&E’s natural gas system. The Gas Operations presentation made clear that, “[p]roviding safe, reliable, gas service to customers is a key corporate goal, and[PG&E] is in an era of increasing efforts to market gas. To continue to meet this goal, a safe, reliable, modern gas delivery system is needed.”¹⁹⁸ The “functional purpose” of the GPRP was to “...ensure the ability of the gas piping system to continue to provide safe, reliable service to our customers by replacing aging pipeline.”¹⁹⁹

The GPRP included a Transmission Subprogram.²⁰⁰ Under that Transmission Subprogram, lines and segments thereon were assigned a priority category.²⁰¹ Priority 1 segments under the Transmission Subprogram are “a segment of pipeline that is within 30 feet of a dwelling, place of business or public gathering place...”²⁰² The GPRP specifically references Line 132. According to the GPRP,

Each of the three transmission lines serving the San Francisco Peninsula (L-101, L-109, L-132) were constructed between 1929 and 1947. Each of these pipelines have been replaced partially because of development and freeway construction with piping meeting current standards. However each pipeline still retains extensive segments of the original pipe...²⁰³

The GPRP lists Line 132 as one of the three transmission lines serving the San Francisco Peninsula, and identifies the length of Line 132 as 51.5 miles, with 28 miles of original line remaining in the ground as of 1984.²⁰⁴

Homes destroyed by the Line 132 explosion were built in the late 1950’s and some were within 30 feet of Line 132. The close proximity of Crestmoor homes strongly to PG&E’s Line 132 at the time the GPRP was developed suggests that the defective line would have had received a Priority 1 designation. According to some GPRP documentation, work Priority 1 segments were scheduled for completion within in the first 12 years of the program.²⁰⁵ Other sources suggest that the work may have been completed even faster, by 1988.²⁰⁶

¹⁹⁷ *Id.*

¹⁹⁸ *Id.*

¹⁹⁹ *Id.* at 4.

²⁰⁰ *Id.* at 5.

²⁰¹ *Id.* at 5-6.

²⁰² *Id.* at 5.

²⁰³ *Id.* at 6.

²⁰⁴ *Id.* at 6.

²⁰⁵ *Id.* at 9.

²⁰⁶ Tateosian Deposition, Exhibit 6 (January 13, 2012), Summary 1984-1988, Planned Expenditure to Improve Gas

The GPRP presented various alternatives, including “Alternative 1 – Do Nothing.” The GPRP made clear that the “do nothing” alternative “...will result in a reduction in safety and reliability of gas service to customers.”²⁰⁷

PG&E’s flagrant neglect of its natural gas system compromised customer safety throughout its service territory long before the Line 132 explosion in San Bruno. PG&E risked lives in San Francisco in 1981.²⁰⁸ PG&E killed a customer and destroyed a home in Rancho Cordova in 2008.²⁰⁹ PG&E portrays the defects in Segment 180 of Line32 as an anomaly because PG&E’s corporate culture was so dysfunctional that neither the 1981 line rupture in San Francisco, nor the 2008 explosion in Rancho Cordova motivated the utility to act. The NTSB determined that “PG&E’s multiple, recurring deficiencies are evidence of a systemic problem.”²¹⁰

The NTSB deemed PG&E’s problems “systemic” because a 1981 gas leak in San Francisco also “involved inaccurate record-keeping, the dispatch of first responders who were not trained or equipped to close valves, and unacceptable delays in shutting down the pipeline.”²¹¹ In 2008, the explosion of a PG&E gas pipeline in Rancho Cordova, California, “involved the inappropriate installation of pipe that was not intended for operational use and did not meet applicable pipe specifications.”²¹² The NTSB also noted that PG&E’s response to the Rancho Cordova explosion “was inadequate,” because “PG&E initially dispatched an unqualified person to the emergency, causing an unnecessary delay in dispatching a properly trained and equipped technician.”²¹³

3. PG&E’s Chronic Underinvestment in its Natural Gas System

Not only did PG&E fail to heed warnings regarding natural gas system vulnerabilities or follow through with the GPRP, it did so in spite of available funding and CPUC support. In pursuit of higher returns, PG&E underspent on its natural gas infrastructure to the point of

System Reliability.

²⁰⁷ GPRP Presentation at 10.

²⁰⁸ See *Pacific Gas & Electric Company Natural Gas Pipeline Puncture*, San Francisco, California, August 25, 1981, Pipeline Accident Report NTSB/PAR-82/01, Washington, DC: National Transportation Safety Board, 1982.

²⁰⁹ See *Explosion, Release, and Ignition of Natural Gas*, Rancho Cordova, California, December 24, 2008, Pipeline Accident Brief NTSB/PAB-10/01, Washington, DC: National Transportation Safety Board, 2010.

²¹⁰ NTSB at xi.

²¹¹ *Id.*

²¹² *Id.*

²¹³ *Id.*

neglect.²¹⁴

In a draft presentation for the PG&E Management Committee, “intended to build awareness of Gas Operations efforts to assure continued safe reliable gas service to our customers, consistent with Corporate Goal No. 1,”²¹⁵ Gas Operations frankly stated that “[i]n recent years, financial resource and manpower constraints have retarded existing programs and caused deferral of other major efforts.”²¹⁶ According to the same document, the “1982 and 1983 constraints resulted in gas M&O Budgets substantially below CPUC Rate Case authorization and/or budget requests,”²¹⁷ and “[c]apital budget reductions have caused repeated deferral of reliability programs.”²¹⁸ Gas Operations did not camouflage the risks of PG&E’s underinvestment strategy, declaring as follows,

The alternative of continued budget constraint is not acceptable. Risk of failure escalates as our facilities age. Allocated funds have been inadequate to assure system integrity.²¹⁹

Gas Operations recommended “a more prudent course of action,” which involved “a planned, scheduled set of 3 to 15 year programs directed towards reinforcing the most vulnerable components of a basically sound Gas Transmission and Distribution System.”²²⁰

The GPRP also recognized PG&E’s chronic underinvestment in its system, stating that “[p]revious expenditures of this type have been approved in prior General Rate Cases.”²²¹ In addition, the GPRP stated that “[a]doption of the proposed program will eliminate previous CPUC staff criticism of not completing pipeline replacement work authorized in previous rate cases” and identified this as a distinct advantage of the program.²²²

4. PG&E’s Distorted Incentive Structure for Top Executives and Managers

PG&E investment in infrastructure, safety and reliability was dangerously inadequate because the utility’s primary objective was, and continues to be financial performance. PG&E has adopted an incentive program under which top executives and managers are rewarded for financial performance, not the utility’s safety record. Even top PG&E executives and managers

²¹⁴ Focused Audit of Pacific Gas & Electric Gas Transmission Pipeline Safety-Related Expenditures Over for the 1996-2010 Period, Overland Consulting, at 1-1; *See also*, Harpster Rebuttal Testimony at 4.

²¹⁵ Tateosian Deposition, Exhibit 3 (January 13, 2012), Management Committee Presentation (May 31, 1983) at 5.

²¹⁶ Tateosian Deposition, Exhibit 3 (January 13, 2012), Management Committee Presentation (May 31, 1983) at 2.

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.* at 4.

²²⁰ *Id.*

²²¹ GPRP Presentation at 13.

²²² *Id.*

that depart the utility solely because of dismal operational safety performance suffer no consequences. The incentive structure PG&E adopts for its top executives and managers reflects the utility's values. PG&E's incentive structure should alarm the Commission. PG&E's stock price matters. Financial performance counts. Operation of a safe system is not a significant factor. These perverse incentives are an unreasonable practice that has encouraged the unsafe provision of natural gas services by PG&E in violation of Section 451 of the California Public Utilities Code.

In October 1986, amidst warnings concerning the utility's deteriorating natural gas infrastructure, PG&E implemented a stock option plan designed to "encourage and reward effective management that results in long-term corporate financial success."²²³ PG&E's 1986 Annual Report announced the Commission's approval of its Stock Option Plan.²²⁴ The 1986 Stock Option Plan authorized the utility to "grant options to key management employees."²²⁵ According to Decision 86-10-043, PG&E's Stock Option Plan Application stated that that Plan's purpose was to "encourage and reward effective management that results in long-term corporate financial success."²²⁶ PG&E's Stock Option Plan achieves this goal because it "ties individual management incentives directly to the shareholders' interest in maintaining a competitive level of dividends and growth in common stock price..."²²⁷

By 1992, PG&E developed a Long Term Incentive Plan ("LTIP"), which "amends and restates that Stock Option Plan, and also permits PG&E to use various other forms of long term incentives."²²⁸ The purpose of the LTIP remained the same as the 1986 Stock Option plan, namely to provide "officers and key management employees and other eligible participants with financial incentives tied directly to shareholders' interests in maintaining a competitive level of dividends and growth in the price of PG&E Common Stock..."²²⁹

Safety was not, and to this day is not, a factor in PG&E's LTIP.²³⁰ The utility's related short term incentive plan (STIP), under which non-bargaining unit employees receive their bonus

²²³ Decision 86-10-043 at 2.

²²⁴ 1986 Annual Report at 36.

²²⁵ *Id.*

²²⁶ Decision 86-10-043 at 2.

²²⁷ *Id.*

²²⁸ D.93-06-083 at 3.

²²⁹ *Id.*

²³⁰ CPSD Rebuttal Testimony at 59.

is similarly flawed. STIP is primarily based on PG&E's financial performance.²³¹ Only a nominal component of the STIP award is based on PG&E's safety performance. In the decades preceding the Line 132 explosion, fifty percent of the "final company score" multiplier PG&E uses to calculate employee STIP awards was based on PG&E earnings.²³² According to the CPSD Staff Report, gas system integrity work only accounts for 4.5 % of the final company score used to calculate STIP awards.²³³ CPSD's Rebuttal Testimony discloses that PG&E's much touted adjustment of the STIP formulas only increase the percentage of the final company score attributable to safety to 6%.²³⁴

In addition to a compensation structure that largely disregards safety performance in favor of earnings based incentives, employees dismissed from PG&E because of a poor record on safety suffer no consequence at the hands of PG&E's corporate culture either. The severance provided to former Senior Vice President and Chief Operating Officer, Mr. Keenan, retirement package provided to former CEO Mr. Darbee and "retention award" for PG&E's President, Mr. Johns are prime examples. Each of these officers were at the helm of PG&E when Line 132 exploded and received the following rewards in the wake of the failure:

- Mr. Keenan, PG&E's Senior Vice President and Chief Operating Officer was dismissed in the wake of the Line 132 explosion. As a consequence of that dismissal he became eligible for the benefits generally available under PG&E Corporation's severance policy, which includes a prorated amount of Mr. Keenan's target annual STIP bonus, plus any additional benefits Mr. Keenan was entitled to receive under applicable benefit plans and awards arrangements because Mr. Keenan was terminated when he was retirement eligible. In addition to those benefits, Mr. Keenan received a \$950,000 payment in connection with his severance agreement.²³⁵
- Mr. Darbee abruptly retired and received a retirement package worth an estimated \$35 million²³⁶
- In the aftermath of the Line 132 Explosion, the utility provided a "retention award" to Mr. Johns in the form of restricted stock units, valued at \$1 million.²³⁷

That some, or all of the payments to officers departing because of the safety failures

²³¹ *Id.*

²³² Addendum to the CPSD Staff Report, Section IX, I.1 2-01-007 at 2-3.

²³³ *Id.*

²³⁴ CPSD Rebuttal Testimony at 59.

²³⁵ PG&E Corporation and Pacific Gas and Electric Company Joint Notice of 2012 Annual Meetings, Joint Proxy Statement at 47 (April 2, 2012)

²³⁶ *Id.*

²³⁷ *Id.*

associated with the Line 132 explosion are paid using shareholder dollars is cold comfort. None of the departing or retained officers suffered any actual, personal cost or consequences as a result of their failure to satisfy PG&E's core obligation to provide safe and reliable service.

5. Financial and Legal Professionals, Not Engineering or Operational Experts, Disproportionately Occupy Top PG&E Posts

Although PG&E's distorted priorities should trouble the Commission, the utility's misplaced reliance on financial factors at the expense of basic safety and reliability fundamentals is not altogether surprising given PG&E's disproportionate representation of financial and legal professionals in leadership roles. The Independent Review Panel cites "inconsistent presence of subject matter expertise in the management ranks" as "contributing to a dysfunctional culture" at PG&E.²³⁸ In particular, the IRP report found that the

...interchange of gas and electric supervisors and managers, the homogenization of gas transmission and distribution personnel, the large presence of telecommunications, legal and finance executives in top leadership positions, and the under representation of engineers and professionals with significant operating experience in the natural gas utility industry have impaired the effectiveness of the organization.²³⁹

PG&E's Board of Directors, both at the Corporation and the Utility, are bloated with legal and financial professionals.

According to the IRP, "the main training, experience and professional careers of many in PG&E's top management are in telecommunications, finance, and law, and they have not had operating roles where they could develop the requisite expertise in the reliability and safety aspects of a major gas or electric utility."²⁴⁰ The IRP determined that, as a result, "PG&E sends mixed messages regarding system safety when it brings its own financial performance into the equation."²⁴¹ The IRP specifically cites an interview held with a top PG&E leader in which "recovery of costs for safety improvements," was deemed the "factor that would most positively affect safety in the future."²⁴² The paramount importance of financial rather than safety focused goals was also evident when PG&E's presentation to the panel included "aspiration for financial performance," but no "goals for safety" as part of PG&E's "long term aspirations."²⁴³

²³⁸ IRP Report at 17.

²³⁹ *Id.*

²⁴⁰ *Id.* at 50.

²⁴¹ *Id.*

²⁴² *Id.*

²⁴³ *Id.*

VI. ALLEGATIONS RAISED BY TESTIMONY OF TURN

San Bruno urges the Commission to adopt findings consistent with the issues identified in the Opening Comments of TURN's expert, Marcel Hawiger, as the same may be supplemented by Section VI of CPSD's Opening Brief.

VII. ALLEGATIONS RAISED BY TESTIMONY OF CCSF

San Bruno urges the Commission to adopt findings consistent with the issues identified in the Opening Comments of CCSF's expert, John Gawronski, as the same may be supplemented by Section VII of CPSD's Opening Brief.

VIII. ALLEGATIONS RAISED BY TESTIMONY OF THE CITY OF SAN BRUNO

As set forth in San Bruno's opening and reply testimony in this proceeding, as supplemented by this Opening Brief, San Bruno urges the Commission to find that PG&E's acts, omissions and failures in advance of and on September 9, 2010 violated multiple sections of state and federal law.

PG&E's Emergency Response violated Section 451 of the Public Utilities Code, 49 CFR 192.605 and 49 CFR 192.615 as follows:

- *PG&E took 95 minutes to stop the flow of natural gas*
- *PG&E's internal communications were deficient.*
- *PG&E's external communications were deficient*
- *PG&E did not immediately recognize the break in Line 132*
- *Core elements of PG&E's emergency response relied on ad hoc assistance from off-duty employees*

PG&E's public awareness program violated Section 451 of the Public Utilities Code and 49 CFR 192.616 as follows:

- *PG&E failed to call 911 and provide crucial details to first responders*
- *San Bruno residents were unaware of the proximity of their homes to natural gas pipelines and were provided no information about how to respond to a natural gas disaster*

PG&E's dysfunctional corporate culture violates Section 451 of the Public Utilities Code as follows:

- *Sustained inability to act in the face of well known natural gas system vulnerabilities*

- *Underinvestment relative to rate case allocations and cost-cutting in gas operations*
- *An incentive structure for top executives and managers under which PG&E's stock price and financial performance matters, but operation of a safe system is not a significant factor*
- *Disproportionate representation of financial and legal professionals in top company posts, not engineers or individuals with front-line experience*

It is San Bruno's position that each violation related to corporate culture identified above was ongoing for decades preceding the Line 132 explosion on September 9, 2010.

IX. CONCLUSION

Taking moral responsibility for a great tragedy cannot occur with halfhearted expressions of regret. PG&E had no choice, when presented by the irrefutable fact that segment 180 of Line 132 was wholly defective when installed a half century ago, that it was legally "responsible" for the destruction of life and property. Complete and unqualified acts of contrition whether by an individual or corporation are liberating and provide closure to those harmed. The concept of good faith contrition is built into the very statute that allows the imposition of penalties for violations of law.²⁴⁴ But that has not happened here. From the very start of these adversarial proceedings, PGE has sought to limit its responsibility to an unknown crew of workers who took a unknown quantity of pipe with unknown provenance, from some unknown yard with unknown manufacturing stamps and installed that pipe with or without the supervision of some unknown inspector who might have caught the missing welds. Highly paid consultant after highly paid consultant, well coached witness after well coached witness told of a PG&E safety culture that was "robust," an integrity management system that was "statutorily compliant," an emergency response that was "good," a MAOP validation process that was "correct" and a SCADA system that responded "appropriately". So those "unknown workers" in 1956 bear all the guilt, not a corporation that failed to invest in a program of capital improvement, conduct actual inspections, maintain verifiable records...a corporation that decided that profits and executive compensation, not safety, were paramount. In public service ads which were run by PGE during these

²⁴⁴ See Section 2104.5 PUC

proceedings, PG&E CEO Tony Earley said that he “found a company that had lost its way.”²⁴⁵ As long as PGE instructs its lawyers to claim that the company is being scapegoated and persecuted, it has not yet found its way. We quote again from the opening argument made by PG&E’s lead counsel: “It is human nature when bad things happen to look for someone to blame. And make no mistake about it, that is what this proceeding is all about. While PG&E acknowledges that it is responsible for this terrible accident and its consequences, it does not agree that once that pipe was put in the ground in 1956 there was anything any operator would reasonably have done that would have prevented this tragedy. Nor does PG&E agree that any of the alleged safety violations contributed in any way.”²⁴⁶ The corporate arrogance is staggering; accordingly San Bruno asks that you find for every violation as charged by the CPSD and the Intervenors.

Respectfully submitted,

/s/ Steven R. Meyers

Steven R. Meyers

Britt K. Strottman

Jessica R. Mullan

Meyers, Nave, Riback, Silver & Wilson

555 12th Street, Suite 1500

Oakland, CA 94607

Phone: (510) 808-2000

Fax: (510) 444-1108

E-mail: smeyers@meyersnave.com

Attorneys for CITY OF SAN BRUNO

March 11, 2013

²⁴⁵ Jaxon Van Derbeken, PG&E’s ads: Utility “Lost Its Way,” San Francisco Chronicle, (7/17/12), <http://www.sfgate.com/bayarea/article/PG-E-s-ads-Utility-lost-its-way-3714243.php>

²⁴⁶ Hearing Transcript, Sept. 25, 2012; p. 49, lines 24-28, p. 50, lines 1-7

APPENDIX A: Proposed Findings of Fact (relating to probable cause, emergency response, public awareness, and safety culture)

I. Probable Cause

1. The deficiencies identified during the NTSB and CPSD investigations are indicative of an organizational accident. (CPSD-9, p.125.)
2. The multiple and recurring deficiencies in PG&E operational practices indicate a systemic problem. (CPSD-9, page 125.)
3. Because PG&E had not incorporated the use of effective and meaningful metrics as part of their performance-based pipeline safety management programs, PG&E was unable to effectively evaluate or assess the integrity of its pipeline system. (CPSD-9, p. 126.)
4. The probable cause of the explosion was PG&E's (1) inadequate quality assurance and quality control in 1956 during its Line 132 relocation project, which allowed the installation of a substandard and poorly welded pipe section with a visible seam weld flaw that, over time grew to a critical size, causing the pipeline to rupture during a pressure increase stemming from poorly planned electrical work at the Milpitas Terminal; and (2) inadequate pipeline integrity management program, which failed to detect and repair or remove the defective pipe section. (CPSD-9, page 127.)
5. Contributing to the severity of the explosion was the lack of either automatic shutoff valves or remote control valves on Line 132. (CPSD-9, page xii.)
6. Contributing to the severity of the explosion was PG&E's delay in isolating the rupture to stop the flow of the gas. (CPSD-9, page xii).
7. Contributing to the explosion were the California Public Utilities Commission's (CPUC) and the U.S. Department of Transportation's exemptions of existing pipelines from the regulatory requirement for pressure testing, which likely would have detected the installation defects. (CPSD-9, page xii.)
8. Also contributing to the explosion was CPUC's failure to detect the inadequacies of PG&E's pipeline integrity management program. (CPSD-9, page xii.)

II. Emergency Response to the Explosion

9. At 6:12 p.m., SCADA showed the upstream pressure at the Martin Station on Line 132 had decreased from 361.4 psig to 289.9 psig. At 6:15 p.m., SCADA showed a low-low alarm at the Martin Station that indicated a pressure of 144 psig on Line 132. Pursuant to PG&E's procedure, members of Gas Control attempted to troubleshoot the alarms by examining the pressures and conditions at different stations. (CPSD-1, p.108.)
10. At 6:12 p.m. the first police unit arrived at the scene. At 6:13 p.m., the first San Bruno Fire Department unit arrived at the scene. (CPSD-1, p.11.)
11. No outgoing calls were made by PG&E to fire or police officials upon discovery of the incident. (CPSD-1, p.118.)
12. At 6:18 p.m., an off-duty PG&E employee notified the PG&E Dispatch center in Concord, California, of an explosion in the San Bruno area. Over the next few minutes, the dispatch center received additional similar reports. (CPSD-1, p.11.)
13. At 6:18 p.m., PG&E Dispatch was notified of a fire in San Bruno by an off-duty PG&E employee who speculated a jet crash. The dispatcher responded that a supervisor would be notified. (CPSD-1, p.108.)
14. At 6:21 p.m., an off-duty a Gas Service Representative (GSR) called into Dispatch alerting them that there was a fire in San Bruno that appeared to be gas fed. The dispatcher responded that he would send a GSR out to investigate. (CPSD-1, p.108.)
15. At 6:23 p.m., PG&E Dispatch sent a GSR working in Daly City (about 8 miles from San Bruno) to confirm the report. About the same time, PG&E's Senior Distribution Specialist, who saw the fire while driving home from work, reported the fire to the PG&E Dispatch center and proceeded to the scene. (CPSD-1, p.11.)
16. At 6:25 p.m., PG&E's Dispatch called the Peninsula On-Call Supervisor to advise him of the incident. He responded, "I'm probably on my way." (CPSD-1, p.108.)
17. At 6:27 p.m., while Gas Operators 1 and 2 were still in the process of determining the cause of the alarm, PG&E Dispatch called Gas Operator 3 to inquire if they noticed a loss of pressure in San Bruno. PG&E Dispatch advised about large flames and that a GSR

and a Supervisor were heading to the scene. Gas Operator 3 responded that they had not received any calls yet. (CPSD-1, p.108.)

18. At 6:28 p.m., the PG&E Gas Controllers discussed the low-low pressure alarms amongst themselves and associated the reports of the fire at San Bruno with the pressure drop at Martin Station. At 6:29 p.m., a PG&E Gas Controller mentioned to a caller that pressure on Line 132 had dropped from 396 psig to 56 psig and that “we have a line break in San Bruno... while we have Milpitas going down.” (CPSD-1, p.109.)
19. At 6:30 p.m., PG&E Dispatch called the GSR to check on his status. The GSR was still in traffic at the time. The Measurement and Control (M&C) Superintendent of the Bay Area, on-call 24/7 to respond to any gas event within his area, arrived at the scene just after 6:30 p.m., as the result of seeing news of the explosion and fire on television. (CPSD-1, p.109.)
20. At 6:31 p.m., Gas Operator 1 called PG&E Dispatch regarding the previous inquiry about the loss of pressure and speculated that PG&E’s gas facilities may be involved in the incident. PG&E Dispatch responded to Gas Control that a radio news report claimed the fire was due to a gasoline station explosion. (CPSD-1, p.109.)
21. At 6:32 p.m., Gas Control left a message for San Francisco Transmission and Regulation Supervisor about the low-low alarm at Martin Station, and the possibility of a leak. (CPSD-1, p.109.)
22. At 6:35 p.m., the M&C Superintendent of the Bay Area called Gas Control to inquire about the fire and told them to call the superintendent of the region. He then proceeded to the scene. At about the same time, Mechanic 1 called Dispatch, saying that PG&E’s transmission line ran through the scene of the fire and that the flame was consistent with ignited gas from a transmission line. As Mechanic 1 headed to the Colma yard (Yard), he was called by Mechanic 2, who was then told to head to the Yard. (CPSD-1, p.109.)
23. At 6:36 p.m., the San Francisco T&R Supervisor returned the Gas Control’s call and told them to contact the Peninsula Division T&R Supervisor. The gas controllers had been coordinating with the Sr. Gas Coordinator to make the appropriate contacts. (CPSD-1, p.110.)
24. At 6:40 p.m., after confirming the involvement of PG&E’s facilities with Dispatch and Gas Control, the Peninsula On-Call Supervisor called M&C Mechanics 1 and 2 and told

them to “get to the yard, get their vehicles and head in that direction (of the valves).” (CPSD-1, p.110.)

25. PG&E first responders at the scene of the incident could not identify the cause of the fire. (CPSD-1, p.102.) PG&E had not offered specific training for its first responders on how to recognize the differences between fires of low-pressure natural gas, high-pressure natural gas, gasoline fuel, or jet fuel. (CPSD-1, p.102.)
26. At 6:41 p.m., the GSR and the Senior Distribution Specialist were at the scene and reported to PG&E Dispatch that the fire department did not yet know the cause of the flames. The GSR made PG&E Dispatch aware that there were gas transmission lines in the area. PG&E Dispatch conveyed to the GSR that a jet might have struck a gasoline station, which in turn caused the gas line to blow with it. The GSR called the Gas Service On-Call Supervisor, and the Gas Service Night Supervisor, to let them know he was on site. The Gas Service Night Supervisor arrived on site later. (CPSD-1, p.110.)
27. At 6:48 p.m., the Senior Distribution Specialist told PG&E Dispatch, “We’ve got a plane crash” and “we need a couple of gas crews and electric crews.” Dispatch acknowledged the request. (CPSD-1, p.110.)
28. Mechanic 1 arrived at the Yard at 6:50 p.m. Mechanic 2 arrived soon after. More internal contacts ensued. At 6:51 p.m., a Gas Control Operator claimed, “it looks like it might [be transmission], if anything, distribution.” (CPSD-1, p.110.)
29. At 6:53 p.m., the San Francisco Division T&R Supervisor communicated to Gas Control that he had crews responding, but they might be heading to Martin Station. At 6:54 p.m., San Bruno Police called PG&E Dispatch requesting gas support. PG&E Dispatch replied, “We know, they’re out there already.” PG&E Dispatch then told the Troublemens Supervisor about a plane that had crashed into a gas station, and asked for gas and electric utilities in the area to be turned off. The Troublemens Supervisor replied that he was notifying the troublemen. (CPSD-1, p.110.)
30. At 6:57 p.m., PG&E’s Operations Emergency Center (OEC) was opened. While watching the news on a television at the Yard, Mechanic 1 identified the location of the incident and the nearest valves to be shut to cut off fuel to the fire. (CPSD-1, p.110.)
31. At 7:02 p.m., the San Mateo County Sheriff asked PG&E Dispatch if they were aware of the plane crash; PG&E Dispatch responded, “I’ll go ahead and relay that message.” At

around the same time, Mechanic 1 called Dispatch and notified them of his plan to shut valves to isolate the rupture. (CPSD-1, p.110.)

32. At 7:06 p.m., Mechanic 1 called the Peninsula Division T&R Supervisor for authorization to shut the valves. The Peninsula Division T&R Supervisor approved. Mechanics 1 and 2 proceeded to the first valve location (containing valve V-39.49). Gas Control was continuously making and receiving calls to gather and relay information. (CPSD-1, p.111.)
33. At around 7:07 p.m., a Gas Control Operator mentioned that the M&C Superintendent of the Bay Area was on site but could not get close enough to the actual location itself because of the extent of the fire and that “until the crew arrives, secures it and comes up with a plan, we’re just going to continue to feed it.” (CPSD-1, p.111.)
34. At 7:12 p.m., the Troublemens Supervisor told PG&E Dispatch about his plan to order a mandatory call out requiring all Colma Yard employees to report in. (CPSD-1, p.111.)
35. At 7:15 p.m., a Gas Control operator commented, “The fire is so big I guess they can’t determine anything right now.” At approximately 7:15 p.m., an FAA representative informed PG&E’s M&C Superintendent of the Bay Area that there was no plane involved in the incident. (CPSD-1, p.111.)
36. At 7:16 p.m, PG&E Dispatch began to relay the Troublemens Supervisor’s plan. Minutes later, the M&C Superintendent of the Bay Area instructed the Senior Distribution Specialist, who was with him at the time, to call Gas Control and tell them the fire was gas related and to declare it a reportable incident. (CPSD-1, p.111.)Mechanics 1 and 2 arrived at the first valve location at 7:20 p.m. At 7:22 p.m., the Senior Distribution Specialist contacted PG&E Dispatch and said that while unconfirmed, it looked like gas was involved. At 7:22 p.m., Gas Control told the Senior Vice President that the incident was likely to be a Line 132 break, although nothing had been confirmed. At 7:25 p.m., PG&E Dispatch informed Gas Control that the M&C Superintendent of the Bay Area was on scene and confirmed that the incident was a reportable gas fire. Gas Control confirmed that Line 132 was the involved line. At 7:27 p.m., the SF Division T&R Supervisor requested that Gas Control lower the pressure set points as low as possible at the Martin Station to isolate Line 132 from the north. (CPSD-1, p.112.)

37. At 7:29 p.m., Gas Control remotely closed the involved Line 132 valves at Martin Station to cut off the feed of gas north of the rupture. By 7:46 p.m., Mechanics 1 and 2 had traveled north of the rupture and closed valves V-40.05 and V-40.05-2 at Healy Station to isolate the rupture. (CPSD-1, p.112.)
38. PG&E took 95 minutes to isolate the location of the rupture. The time for isolation could have been reduced had PG&E installed remote control valves (RCVs), automatic shut-off valves (ASVs), and/or appropriately spaced pressure and flow transmitters throughout its system to allow them to quickly identify and isolate line breaks. (CPSD-1, p.102.)
39. By early morning on September 10, firefighters declared 75% of all active fires to be contained. By the end of the day on September 11, 2010, fire operations continued to extinguish fires and monitor the incident area for hot spots and then transferred incident command to the San Bruno Police Department. (CPSD-1, p.13.)
40. During the 50 hours following the incident, about 600 firefighting (including emergency medical service) personnel and 325 law enforcement personnel responded. Fire crews and police officers conducted evacuations and door-to-door searches of houses throughout the response. In total, about 1,000 homes were evacuated. Firefighting efforts included air and forestry operations. Firefighters, police officers, and members of mutual aid organizations also formed logistics, planning, communications, finance, and damage assessment groups to orchestrate response efforts and assess residential damage in the area. (CPSD-1, p.13.)
41. PG&E performed post-incident drug testing of three PG&E employees and a PG&E contractor working on the UPS Clearance at the Milpitas Terminal. The drug testing was administered by a third party independent laboratory on September 10, 2011 between 3:36 a.m. and 5:21 a.m., and all four individuals tested negative. The post-incident alcohol test of the same four individuals was performed on September 10, 2011 between 3:10 a.m. and 5:02 a.m. (CPSD-1, p.99.)

III. Safety Culture

42. Over the period 1997 to 2010, PG&E spent 4.9%, a total of \$39 million less than the Commission authorized, for pipeline transmission operations and maintenance (O&M). (CPSD-1, p.131.) PG&E cannot identify any PG&E requests for the recovery of costs for safety improvements to the natural gas transmission pipeline system that were denied by

the Commission. (CPSD-1, p.131.) Over the past 13 years prior to the San Bruno explosion, PG&E has focused on decreasing O&M expenses (CPSD-1, p.132; CPSD - 168 (Harpster), p. 1-2.)

43. Between 1999 and 2010, PG&E's gas transmission and storage (GT&S) revenues were at least \$435 million higher than the amounts needed to earn the authorized return on equity (ROE). (CPSD-1, p.133; CPSD-170 (Harpster), pp. 5, 9). Stated another way, between 1999 and 2010, PG&E's actual revenues for its GT&S exceeded actual revenue requirements by at least \$435 million. (CPSD-170 (Harpster), pp.5, 10).
44. Between 1997 and 2010, actual functional operations and maintenance for PG&E's GT&S expenditures were approximately \$40 million lower than adopted. (CPSD-170 (Harpster), p.7.) PG&E's GT&S capital expenditures were approximately \$116 million lower than adopted between 1997 and 2000. (CPSD-170 (Harpster), p.8.)
45. Gas transmission and storage rates were not reduced in 2008 through 2010 to reflect the federal bonus tax depreciation adopted as part of the federal economic stimulus measures. (CPSD-1, p.133.)
46. The imputed adopted rate base exceeded the actual rate base by an average of \$60.7 million per year during 1998 to 2010. (CPSD-170 (Harpster), p.86.)
47. As of 2010, approximately 17% of PG&E's overall pipeline transmission system could accommodate ILI tools and slightly more than 21% of its transmission pipeline system located in high-consequence areas could be inspected using ILI tools. At the same time, about 50% of the combined Sempra Energy utilities' natural gas transmission pipelines could accommodate ILI tools, and approximately 80% of Southern California Gas Company's transmission pipeline located in high-consequence areas has been inspected using ILI tools. (CPSD-1, p.134.)
48. PG&E changed assessment methods for some projects from in-line inspections to ECDA to reduce costs. (CPSD-1, p.134.)
49. PG&E deferred some integrity management expense projects to future years. (CPSD-1, p.134.)
50. PG&E changed the definition of the pipelines covered by integrity management rules in 2010 to reduce the scope of the integrity management program. (CPSD-1, p.135.)

51. PG&E's 2009 Investor Conference presentation included a slide on "Expenditures," which showed decreasing investments in gas transmission infrastructure; from \$250 million in 2009 to \$200 million in 2010. (CPSD-1, p.135.)
52. On February 16, 2005, the Chairman of the Board, Chief Executive Officer and President presented the idea of "Transformation" to the boards of directors, a company-wide business and cultural transformation campaign to reduce operating costs and instill a change in its corporate culture. As stated in the 2006 Annual Report, the reason for the investment in Transformation was, "If the actual cost savings are greater than anticipated, such benefits would accrue to shareholders." (CPSD-1, p.135.)
53. PG&E reduced its revenue requirements by \$41 million in 2008 and another \$56 million in 2009. PG&E under-spent its adopted functional operations and maintenance amount by \$2.9 million in 2006, \$2.2 million in 2007, and \$3.5 million in 2008. (CPSD-1, p.137.)
54. In 2008, presentations from PG&E leadership highlight that PG&E had a plan to "Deliver on its Financial Objectives." The presentations did not mention Transformation. (CPSD-1, p.138.)
55. PG&E Company's 2009 Annual Report discloses that the utility accrued \$38 million, after-tax, of severance costs related to the elimination of approximately 2% of its workforce. (CPSD-1, p.139.) PG&E stated the 2% workforce reduction equated to about 409 employees. (CPSD-1, p.139.)
56. PG&E's actual return on equity for gas transmission and storage operations averaged 14.3% during 1999 to 2010. PG&E's authorized return on equity averaged 11.2% over that period. (CPSD-1, p.140; CPSD-170 (Harpster), p.10.)
57. PG&E Company authorized a cash dividend in 2005 of \$476 million; in 2006, \$494 million; in 2007, \$547 million; in 2008, \$589 million; and, in 2009, \$624 million. (CPSD-1, p.140.)
58. PG&E's 2010 Annual Report stated that during each of 2008, 2009, and 2010, the utility paid \$14 million of dividends on preferred stock. On December 15, 2010, the board declared a cash dividend on its outstanding series of preferred stock totaling \$4 million that was paid on February 15, 2011. (CPSD-1, p.141.)

59. On December 15, 2004, PG&E's board authorized a purchase of shares of the company's issued and outstanding common stock with an aggregate purchase price not to exceed \$1.8 billion, not later than December 31, 2006. By June 15, 2005, the Company projected that it may be able to repurchase additional shares of common stock through the end of 2006 in an aggregate amount of \$500 million and, as such, increased the amount of the common stock repurchase authorization for a total authorization of \$2.3 billion. (CPSD-1, p.141.)
60. The 2010 Annual Report notes that \$57 million was provided in each year of 2008 and 2009, and \$56 million was provided in 2010 as bonus compensation to PG&E Corporation employees and non-employee directors. (CPSD-1, p.142.) PG&E provides a Short-term Incentive Plan, a "Pay-for-Performance" bonus, and a Reward and Recognition Program. (CPSD-1, p.142.)

IV. Previous NTSB Investigations Regarding PG&E

61. The NTSB previously found several deficiencies in PG&E's poor pipeline installation and inadequate emergency response in the 2008 Rancho Cordova, California explosion. (CPSD-9, pages 87, 116-117; see NTSB Investigation PAB-10/10.)
62. The NTSB found that the Rancho Cordova explosion involved the inappropriate installation of a pipe that was not intended for operational use and did not meet application pipe specifications. (CPSD-9, pages 87, 116-117; see NTSB Investigation PAB-10/10.)
63. The NTSB found that PG&E's emergency response to the Rancho Cordova explosion was inadequate. (CPSD-9, pages 87, 116-117; see NTSB Investigation PAB-10/10.)
64. The NTSB found that PG&E initially dispatched an unqualified person to the emergency, causing an unnecessary delay in dispatching a properly trained and equipped technician. (CPSD-9, pages 87, 116-117; see NTSB Investigation PAB-10/10.)
65. The NTSB concluded that some of the deficiencies found in the Rancho Cordova explosion were also factors in the 1981 PG&E gas pipeline leak in San Francisco, which involved inaccurate recordkeeping, the dispatch of first responders who were not trained or equipped to close valves, and unacceptable delays in shutting down the pipeline. (CPSD-9, pages 87, 116-117; see NTSB Investigation PAB-10/10.)

APPENDIX B: Proposed Conclusions of Law (relating to probable cause, emergency response, public awareness, and safety culture)

I. Emergency Response

1. PG&E's failure to create and follow good emergency plans created an unreasonably unsafe system in violation of Public Utilities Code Section 451.
2. The inconsistencies between corporate and divisional level Emergency Plans violate the legal requirement in 49 CFR Part 192.615(a)(3) for a "prompt and effective response" to an emergency notice.
3. By failing to create an assistance agreement for notifying and coordinating with appropriate fire, police, and other public officials of gas pipeline emergencies, PG&E violated 49 CFR Part 192.615(a)(8).
4. By failing to have mutual assistance agreements with local first responders, PG&E violated 49 CFR Part 192.615(c)(4), which requires operators to establish and maintain liaisons with appropriate fire, police, and other public officials to plan how the operator and the officials can engage in mutual assistance to minimize hazards to life of property.
5. PG&E's slow and uncoordinated response to the explosion violates the requirement of 49 CFR Part 192.615(a)(3) for an operator to respond promptly and effectively to an emergency.
6. PG&E did not adequately receive, identify, and classify notices of the emergency, in violation of 49 CFR Part 192.615(a)(1).
7. PG&E did not provide for the proper personnel, equipment, tools and materials at the scene of an emergency, in violation of 49 CFR Part 192.615(a)(4).
8. PG&E's efforts to perform an emergency shutdown of its pipeline were inadequate to minimize hazards to life or property, in violation of 49 CFR Part 192.615(a)(6).
9. Rather than make safe any actual or potential hazards to life or property, PG&E's response made the hazards worse, in violation of 49 CFR Part 192.615(a)(7).

10. PG&E's failure to notify the appropriate first responders of an emergency and coordinate with them violated 49 CFR Part 192.615(a)(8). It is clear that PG&E's emergency plans were ineffective, and were not followed.
11. PG&E violated 49 CFR Part 192.605(c)(1) and (3) by failing to have an emergency manual that properly directed its employees to respond to and correct the cause of Line 132's decrease in pressure, and its malfunction which resulted in hazards to persons and property, and notify the responsible personnel when notice of an abnormal operation is received.
12. PG&E failed to establish and maintain adequate means of communication with the appropriate fire, police and other public officials, in violation of 49 CFR Part 192.615(a)(2).
13. PG&E failed to protect "people first and then property", in violation of 49 CFR Part 192.615(a)(5).
14. PG&E failed to establish and maintain a liaison with fire, police, and others to plan how to engage in mutual assistance to minimize hazards to life and property, in violation of 49 CFR Part 192.615(c)(4).
15. PG&E's inadequate training resulted in a slow and ineffective recognition of the incident, in violation of 49 CFR Part 192.615(a)(3).
16. PG&E failed to train the appropriate operating personnel to assure they are knowledgeable about procedures and verify that the training is effective, in violation of 49 CFR Part 192.615(b)(2).
17. PG&E failed to train its employees and determine whether procedures were effectively followed in emergencies, in violation of 49 CFR Part 192.615(b)(3).
18. PG&E failed to periodically review its emergency response by its personnel to determine the effectiveness of the procedures, in violation of 49 CFR Part 192.605(c)(4).
19. PG&E did not educate the public and governmental organizations as to hazards associated with unintended releases on a gas pipeline and steps that should be taken for public safety in the event of a gas pipeline release, in violation of 49 CFR Part 192.616(d).

II. Safety Culture

20. PG&E created an unreasonably unsafe system in violation of Public Utilities

Code section 451, by continuously cutting its safety-related budgets for its GT&S and, therefore, causing the following: 1) spending less than the Commission authorized to replace PG&E's aging transmission pipeline through its GPRP and ending the transmission replacement part of its GPRP prematurely well before its original goal, 2) choosing lower cost integrity management methods such as ECDA over ILI, and 3) reducing its safety-related workforce. During the same time period, PG&E provided bonuses or "incentives" to management and employees, paid quarterly cash dividends to shareholders from retained earnings, repurchased stock from PG&E Corporation or from a PG&E subsidiary, expended funds to enhance public perception of PG&E, and expended money to affect ballot initiatives.