

**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)

**REPLY BRIEF
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TABLE OF CONTENTS

	Page
I. INTRODUCTION AND SUMMARY	1
II. BACKGROUND (PROCEDURE/FACTS)	5
III. LEGAL ISSUES OF GENERAL APPLICABILITY.....	6
A. CPSD Has The Burden To Prove Its Allegations By Clear And Convincing Evidence; PG&E Has No Burden Of Proof	6
1. The Commission Should Apply The Clear And Convincing Evidence Standard	6
2. CPSD’s Unsupported Report And Testimony Fail To Meet Its Burden Of Proof	7
3. The Burden Of Proof Cannot Be Shifted To PG&E	9
a. PG&E Has Not Asserted Affirmative Defenses That Impose A Burden Of Proof	9
b. PG&E Cannot Be Required To Prove Its Conduct Was “Prudent” Or “Reasonable” In This Enforcement Proceeding.....	10
c. CCSF’s “Uncontroverted” Evidence Theory Is Erroneous And Attempts To Improperly Shift The Burden Of Proof To PG&E	13
B. Public Utilities Code Section 451 Is Not, And Cannot Constitutionally Be, A Safety Regulation	15
C. Consideration Of Violations Alleged By CPSD After The Close Of Evidence Would Violate Constitutional Due Process Requirements	19
D. CPSD Improperly Alleges “Continuing” Violations	26
E. CPSD’s Delay In Raising Alleged “Continuing” Violations Constitutes Laches	28
IV. OTHER ISSUES OF GENERAL APPLICABILITY	34
A. CPSD Alleges Violations Based On Hindsight	34
B. PG&E’s Post-Accident Improvement Efforts	34
C. Attacks On The Credibility And Personal Knowledge Of PG&E’s Witnesses Are Misplaced	35
1. PG&E’s Witnesses Testified Competently Based On Personal And Obtained Knowledge	35
2. Attacks On Witness Credibility Are Misplaced	37

TABLE OF CONTENTS
(continued)

	Page
V. CPSD ALLEGATIONS 38
A. Construction Of Segment 180	39
1. Yield Strength	39
2. Wall Thickness.....	41
3. Welds	42
4. Failure To “Sufficiently Inspect”	43
5. Duty Of Reasonable Care	44
6. Minimum Length	45
7. MAOP	45
8. The Commission Did Not Conclude That Section 451 Gave ASME Industry Standards The Force Of Law Before 1961	47
9. Section 2108 “Continuing” Violations and Construction of Segment 180.....	47
B. PG&E’s Integrity Management Program.....	48
1. PG&E’s Data Gathering Satisfied Regulatory Requirements	49
a. ASME B31.8S Expressly Authorizes Using Assumed Values In Threat Identification	50
b. PG&E’s Practice Of Using Assumed SMYS Values Consistent With Historic Pipe Procurement Minimums Complies With Regulations	52
c. PG&E’s Two-Step Data Gathering Process Satisfies Data Gathering Regulatory Requirements	54
d. CCSF Erroneously Asserts That PG&E Did Not Properly Identify And Consider Potential Integrity Threats On Pipe Segments Identified In 1965, 1975, and 1996 Reports	56
2. PG&E’s Threat Identification Meets Regulatory Requirements And Comports With Industry Practice And Understanding Prior To San Bruno.....	58
a. “Defects” Identified By CPSD (NTSB) Do Not Show The Presence Of Unstable Manufacturing Threats	60
(i) Longitudinal Seam Cracks From 1948 Construction.....	60
(ii) 1958 Seam Leak On DSAW Pipe In Line 300B.....	61
(iii) 1964 Leak On A Wedding Band On Line 132	61

TABLE OF CONTENTS

(continued)

	Page
(iv) 1974 Hydrostatic Test Failure On Line 300B	62
(v) 1988 Pinhole Leak In Line 132	62
(vi) 1992 Longitudinal Seam Defect In Line 132	62
(vii) 1996 Line 109 Seam Cracking And Seam Weld With Lack Of Penetration	62
(viii) 1996 Defect In Forge Seam Weld On DFM-3	63
(ix) 1999 Leak On Line 402 ERW Seam Weld	63
(x) Line 132 Miter Joints	63
(xi) 2009 Leak On Line 132 Girth Weld	63
(xii) 2009 Defective SAW Repair Weld On Line 132.....	63
(xiii) Defects Identified In 2011	64
b. PG&E Does Not Have A History Of Long Seam Failure On DSAW Pipe	64
(i) CPSD And The Intervenors Must Prove PG&E Had A History Of Long Seam Failures On DSAW Pipe To Show That PG&E Was Required To Consider DSAW As Subject To A Manufacturing Seam Threat	65
(ii) 1948 Construction Records, The 1988 Pinhole Leak, And The Integrity Characteristics of Vintage Pipelines Are Not Evidence Of Long Seam Failures On DSAW Pipe In PG&E's System	66
c. Pipe Age Is Irrelevant To Manufacturing Seam Threat Analysis.....	67
d. CPSD Fails To Prove The Presence Of Unstable Manufacturing Threats on ERW Pipe In Line 132	69
e. PG&E's Post-Accident Enhanced Manufacturing Threat Definition Is Not Evidence That PG&E Failed To Identify Manufacturing Threats Prior To San Bruno	71
f. Mill Tests Are Acceptable Strength Tests For Manufacturing Seam Threat Stability Analysis	72
3. CPSD Did Not Prove That PG&E Failed To Evaluate Cyclic Fatigue As Required By Law	74

TABLE OF CONTENTS

(continued)

	Page
a. CPSD And CCSF’s Allegations Rely On Hindsight Judgment And Ignore Relevant Pre-Incident Industry Perspective	75
b. CPSD Fails To Prove That PG&E Did Not Appropriately Evaluate The Threat Of Cyclic Fatigue	76
c. CCSF’s Additional Allegations Regarding Cyclic Fatigue Are Erroneous And Unfounded	78
4. CPSD Has Not Proven A Violation Of Law In PG&E’s Selection Of Assessment Tools	79
5. CPSD Has Not Proven That PG&E’s Risk Assessment Model Violated The Law	80
6. CPSD Has Not Properly Alleged Or Proven A Violation Regarding PG&E’s Planned Pressure Increases	82
7. CPSD Fails To Properly Allege or Prove Continuing Violations.....	84
C. Recordkeeping Violations	85
D. PG&E’s SCADA System And The Milpitas Terminal	86
E. PG&E’s Emergency Response	89
1. CPSD Cannot Assert New Violations With Respect To Emergency Response	90
2. CPSD’s Utility Safety Reliability Branch Found PG&E In Compliance With 42 C.F.R. §§ 605, 615, and 616	91
3. CPSD Failed To Establish That PG&E’s Emergency Response Plans Violated The Law	95
a. An Inconsistency Between The Descriptions Of The Emergency Escalation Procedures In The Company And Peninsula Emergency Plans Does Not Constitute A Violation Of 49 C.F.R. § 192.615(a)(3).....	95
b. 49 C.F.R. § 192.615(a)(8) Does Not Require An Operator To Have A Written External Mutual Assistance Agreement	96
c. 49 C.F.R. § 192.615(c)(4) Does Not Require An Operator To Have A Written External Mutual Assistance Agreement	97
d. Public Utilities Code Section 451 Does Not Require An Operator To Have Written External Mutual Assistance Agreement	98
4. CPSD Failed To Prove That PG&E’s “Emergency Response Actions” Violated The Law	98

TABLE OF CONTENTS

(continued)

	Page
a. CPSD’s Undefined, Subjective Evaluation Of PG&E’s Emergency Response Does Not Support A Finding That PG&E Violated The Law	98
b. CPSD’s Summary Of PG&E’s “Operational Awareness and Control” On The Day Of The Incident Does Not Provide A Basis For Violations Of 49 C.F.R. § 192.615(a) Or Section 451	101
c. CPSD’s Summary Of PG&E’s “Internal Communications” On The Day Of The Incident Does Not Provide A Basis For Asserting Violations Of 49 C.F.R. §§ 192.615(a), 192.605(c)(1), (c)(3), Or Section 451	103
d. CPSD’s Characterizations Of PG&E’s “External Communications” On The Day Of The Accident Does Not Provide A Basis For Violations Of 49 C.F.R. § 192.615(a) or 49 C.F.R. § 192.605(c)(1), (3)	108
5. CPSD Fails To Prove That PG&E’s Training And Public Awareness Efforts Violate 49 C.F.R. §§ 192.615, 192.616, And 192.605(c)	110
6. CPSD Has Not Asserted A Legal Violation Relating To Remote Control Valves, Automatic Shutoff Valves, and Pressure and Flow Transmitters	112
7. PG&E Admits It Did Not Timely Conduct Alcohol Testing Or Prepare An Explanatory Report	112
8. CPSD Fails To Substantiate Its Allegations Regarding Continuin Violations	113
F. PG&E’s Safety Culture And Financial Priorities	113
1. CPSD Failed To Prove That PG&E Spent Less Than The O&M And Capex Amounts Implicit In GT&S Rates	117
a. CPSD Did Not Prove That PG&E Spent Less Than Authorized On Safety	118
b. CPSD’s Criticisms Of Mr. O’Loughlin’s Analysis Reflect A Misunderstanding Of The Purpose Of Comparing PG&E’s Actual Expenditures To The Imputed Adopted Amounts And The Testimony Of Its Own Expert	119
(i) CPSD Never Tried To Prove What PG&E Should Have Spent To Maintain A Safe System	119

TABLE OF CONTENTS

(continued)

	Page
(ii) CPSD’s Position That It Is “Improper” To Use The Settlement Revenue Requirements As The Basis For The Imputed Adopted O&M And Capex Amounts Has No Support In The Record	122
c. Mr. O’Loughlin’s Comparison Of PG&E’s Actual Costs To The Amounts Implicit In Rates Is Reasonable And Reliable Whereas Mr. Harpster’s Is Not	126
2. CPSD Did Not Prove That PG&E Should Be Penalized Based On the Returns Of Its GT&S Business	133
3. CPSD Did Not Prove That PG&E Placed Profits Over Safety	137
a. The Overland Report Cannot Prove That PG&E Operated An Unsafe System.....	137
b. CPSD Did Not Prove That GT&S Staffing Levels Contributed To An Unsafe Gas Transmission System	139
c. CPSD Did Not Prove That PG&E Underfunded GT&S Safety-Related Capital Expenditures Or That The Implementation Of The Risk Management Program Contributed To An Unsafe System	140
d. CPSD Did Not Prove That PG&E’s Funding Of Gas Transmission O&M Expenses Showed That It Placed Profits Over Safety	144
e. CPSD Did Not Prove A Violation Based On Spending On Integrity Management	147
4. CPSD Did Not Prove That Budgetary Considerations Detrimentially Affected The Safety Of Line 132	150
a. PG&E Would Not Have Replaced All Of Line 132 Or Segment 180 Under The GPRP	150
b. CPSD Has Not Proven That Budgetary Considerations Harmed The Maintenance Or Integrity Management Of Line 132	153
5. CPSD Has Not Proven That PG&E’s Safety Culture Was A Continuing Violation Of Section 451	158
VI. INTERVENORS LACK AUTHORITY TO ALLEGE VIOLATIONS	159
A. Only CPSD Can Allege Violations	159
B. Intervenors’ Post-Hearing Assertion Of Violations Violates Due Process	162

TABLE OF CONTENTS
(continued)

	Page
VII. CONCLUSION	165
APPENDIX A – ADDITIONAL PROPOSED FINDINGS OF FACT	
APPENDIX B – ADDITIONAL PROPOSED CONCLUSIONS OF LAW	
APPENDIX C – RESPONSES TO PROPOSED FINDINGS OF FACT	
APPENDIX D – RESPONSES TO PROPOSED CONCLUSIONS OF LAW	
APPENDIX E – RESPONSES TO CPSD’S REVISED APPENDIX C	

TABLE OF AUTHORITIES

Page

CASES

Adams v. Woods,
6 U.S. 336 (1805)30

Armstrong v. Manzo,
380 U.S. 545 (1965)163

Barnett v. Delta Lines, Inc.,
137 Cal. App. 3d 674 (1982)18

Brown v. State Pers. Bd.,
166 Cal. App. 3d 1151 (Ct. App. 1985)29, 30

Cannon v. Comm’n on Judicial Qualifications,
14 Cal. 3d 678 (1975)20, 164

Cent. Pathology Serv. Med. Clinic, Inc. v. Superior Court,
3 Cal. 4th 181 (1992)27

Cleveland Bd. of Educ. v. Loudermill,
470 U.S. 532 (1985)163

Danjaq LLC v. Sony Corp.,
263 F.3d 942 (9th Cir. 2001)32, 33

England v. La. State Bd. of Med. Exam’rs,
375 U.S. 411 (1964)1

FCC v. Fox Television Stations, Inc.,
132 S. Ct. 2307 (2012)18, 28

Fountain Valley Reg’l Hosp. & Med. Ctr. v. Bonta,
75 Cal. App. 4th 316 (1999)29

Fuentes v. Shevin,
407 U.S. 67 (1972)163

Gabelli v. SEC,
No. 11-1274, slip op. (U.S. Sup. Ct. Feb. 27, 2013)29

Garrity v. Miller,
204 Cal. 454 (1928)32

Gates v. DMV,
94 Cal. App. 3d 921 (1979)33

TABLE OF AUTHORITIES

(continued)

	Page
<i>Gay Law Students Ass'n v. Pac. Tel. & Tel. Co.</i> , 24 Cal.3d 458 (1979)	17, 18
<i>Geneva Towers Ltd. P'ship v. City of San Francisco</i> , 29 Cal. 4th 769 (2003)	30
<i>Getty v. Getty</i> , 187 Cal. App. 3d 1159 (1986)	32
<i>Glade v. Hawes Firearms Co.</i> , 226 Cal. App. 3d 314 (1990)	14
<i>Goss v. Lopez</i> , 419 U.S. 565 (1975)	163
<i>Griffith v. Los Angeles Cty</i> , 267 Cal. App. 2d 837 (1968)	13
<i>Grubb Co., Inc. v. Dep't of Real Estate</i> , 194 Cal. App. 4th 1494 (2011)	6
<i>Hackethal v. Cal. Med. Ass'n</i> , 138 Cal. App. 3d 435 (1982)	20, 163
<i>Hale v. Morgan</i> , 22 Cal. 3d 388 (1978)	27, 28
<i>Heckler v. Chaney</i> , 470 U.S. 821 (1985)	161
<i>In re Ruffalo</i> , 390 U.S. 544 (1968)	passim
<i>Jackson v. Axton</i> , 25 F.3d 884 (9th Cir. 1994)	32
<i>Langley v. Pacific Gas & Electric Co.</i> , 41 Cal. 2d 655 (1953)	17
<i>Little Co. of Md. Hosp. v. Belshe</i> , 53 Cal. App. 4th 325 (1997)	30
<i>Mathews v. Eldridge</i> , 424 U.S. 319 (1976)	163

TABLE OF AUTHORITIES

(continued)

	Page
<i>People ex rel. Lockyer v. R.J. Reynolds Tobacco Co.</i> , 37 Cal. 4th 707 (2005)	28
<i>Lozano v. Pac. Gas & Elec. Co.</i> , 70 Cal. App. 2d 415 (1945)	16
<i>Pac. Bell Wireless, LLC (Cingular) v. Pub. Utils. Comm’n</i> , 140 Cal. App. 4th 718 (2006)	16
<i>People v. Cortes</i> , 71 Cal. App. 4th 62 (1999)	162
<i>People v. Jones</i> , 51 Cal. 3d 294 (1990)	163
<i>People v. Morris</i> , 46 Cal. 3d 1 (1988)	27
<i>People v. Urbano</i> , 128 Cal. App. 4th 396 (2005)	28
<i>Pinsker v. Pac. Coast Soc’y of Orthodontists</i> , 12 Cal. 3d 541 (1974)	20, 163
<i>Robert F. Kennedy Med. Ctr. v. Belshe</i> , 13 Cal. 4th 748 (1996)	29
<i>Rosenblit v. Superior Court</i> , 231 Cal. App. 3d 1434 (1991)	passim
<i>Salkin v. Cal. Dental Ass’n</i> , 176 Cal. App. 3d 1118 (1986)	20, 163
<i>Smith v. State Bd. of Pharmacy</i> , 37 Cal. App. 4th 229 (1995)	20, 22, 163, 164, 165
<i>United States v. Bajakajian</i> , 524 U.S. 321 (1998)	28
<i>Walsh v. West Valley Mission Comm. College Dist.</i> , 62 Cal. App. 4th 1532 (1992)	10
<i>People ex rel. Younger v. Superior Court</i> , 16 Cal. 3d 30 (1976)	27

TABLE OF AUTHORITIES

(continued)

Page

STATUTES AND CONSTITUTION

Cal. Const. art. I, § 7(a)10, 18, 28, 159

Cal. Const. art. I, § 1728

Cal. Civ. Proc. Code § 338(a)30

Cal. Civ. Proc. Code § 340(b)30

Cal. Civ. Proc. Code § 34330

Cal. Evid. Code § 5507

Cal. Evid. Code § 70235

Cal. Gov’t Code §§ 11180161

Cal. Gov’t Code §§ 11180–11191160

Cal. Pub. Util. Code

§ 7.....161

§ 451..... passim

§ 453(a) 17, 18

§ 463..... 5, 11, 12

§ 1757(a)(4) 7

§ 1801.3(a) 160

§ 2104.5.....28

§ 2107.....28, 30

§ 2108..... passim

Cal. Water Code § 13350(a)27

1998 Cal. Stat., ch. 886 (S.B. 779)7

REGULATIONS AND OTHER AUTHORITIES

49 C.F.R. § 191.23(a)(5)83

49 C.F.R. 192 (2012)

§ 192.13(c)86

§ 192.107(b) 40, 53

§ 192.113..... 65

§ 192.150.....148

§ 192.201(a)(2)(i)82

§ 192.605..... 91, 95, 108

TABLE OF AUTHORITIES

(continued)

	Page
§ 192.605(b)	91, 92
§ 192.605(c)	passim
§ 192.605(c)(1)	103, 107, 108
§ 192.605(c)(3)	103, 107, 108
§ 192.605(c)(4)	109, 110
§ 192.615.....	passim
§ 192.615(a)	passim
§ 192.615(a)(1)	101, 103
§ 192.615(a)(2)	108, 109
§ 192.615(a)(3)	95, 101, 103, 110
§ 192.615(a)(4)	101, 103
§ 192.615(a)(5)	109
§ 192.615(a)(6)	101, 103
§ 192.615(a)(7)	101, 103
§ 192.615(a)(8)	passim
§ 192.615(b)	110, 111
§ 192.615(b)(2)	110
§ 192.615(b)(3)	110
§ 192.615(c)	97
§ 192.615(c)(4)	97, 110
§ 192.616.....	91, 95, 110
§ 192.616(d)	110, 111, 112
§ 192.619(c)	46
§ 192.917(a)	59, 60
§ 192.917(b)	53
§ 192.917(c)	80
§ 192.917(e)(2)	58, 74, 76
§ 192.917(e)(3)	58, 61, 65, 66
§ 192.917(e)(4)	59, 65, 68, 70, 71
§ 192.921.....	148
§ 192.921(a)	150
§ 192.921(d)	149, 150
§ 192.923.....	80
49 C.F.R. § 199.225(a).....	112
68 Fed. Reg. 4,280	149
68 Fed. Reg. 69,778	31, 85
68 Fed. Reg. 69,804	71
69 Fed. Reg. 2,307	31, 85
CACI No. 107	13

TABLE OF AUTHORITIES

(continued)

Page

Ex Parte Contacts and Separation of Functions,
125 FERC ¶ 61,063 (2008)161

COMMISSION DECISIONS

Application of Pac. Gas & Elec. Co.,
D.04-05-055, 2004 Cal. PUC LEXIS 254121

Application of Pac. Gas & Elec. Co.,
D.01-10-031, 2001 Cal. PUC LEXIS 9177

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D.00-02-046, 2000 Cal. PUC LEXIS 239142

Application of Pac. Gas & Elec. Co.,
D.97-08-055, 1997 Cal. PUC LEXIS 763162

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D.92-12-057, 1992 Cal. PUC LEXIS 971142

Application of Pac. Gas & Elec. Co.,
D.85-08-102, 1985 Cal. PUC LEXIS 78111

Application of S. Cal. Edison Co.,
D.93-05-013, 1993 Cal. PUC LEXIS 36811

Application of S. Cal. Edison Co.,
D.90-09-088, 1990 Cal. PUC LEXIS 84712

Application of S. Cal. Edison Co.,
D.84-09-120, 1984 Cal. PUC LEXIS 104411

Application of San Diego Gas & Elec. Co.,
D.05-08-037, 2005 Cal. PUC LEXIS 56212

Application of Union Pac. R.R. Co.,
D.09-05-020, 2009 Cal. PUC LEXIS 250161

Carey v. Pac. Gas & Elec. Co.,
D.99-04-029, 1999 Cal. PUC LEXIS 21515, 30

In re Cal.-Am. Water Co.,
D.07-08-030, 2007 Cal. PUC LEXIS 44430

In re Elec. Distribution Facility Standard Setting,
D.97-03-070, 1997 Cal. PUC LEXIS 124312

TABLE OF AUTHORITIES

(continued)

	Page
<i>Investigation of the Conlin-Strawberry Water Co., Inc.</i> , D.05-07-010, 2005 Cal. PUC LEXIS 294	7, 10, 160
<i>Investigation of the Mohave Coal Plant Accident</i> , D.94-03-048, 1994 Cal. PUC LEXIS 216	11, 16
<i>Investigation of the Need of a General Order</i> , D.61269 (1960)	16, 17, 47
<i>Investigation of Prime Time Shuttle Int'l, Inc.</i> , D.96-08-034, 1996 Cal. PUC LEXIS 854	160, 162
<i>Investigation of Qwest Commc'ns Corp.</i> , D.03-01-087, 2003 Cal. PUC LEXIS 67	7, 26, 48
<i>Investigation of S. Cal. Edison Co.</i> , D.04-04-065, 2004 Cal. PUC LEXIS 207	12, 28
<i>Marin Telemanagement Corp. v. Pac. Bell</i> , D.95-01-044, 1995 Cal. PUC LEXIS 43	28
<i>Order Instituting Rulemaking</i> , D.12-12-30, 2012 Cal. PUC LEXIS 600	17, 47, 146
<i>Order Instituting Rulemaking</i> , D.06-03-013, 2006 Cal. PUC LEXIS 86	162
<i>Union Pac. R.R. Co.</i> , D.93105, 1981 Cal. PUC LEXIS 1290	7, 160

I. INTRODUCTION AND SUMMARY¹

PG&E is deeply sorry for the San Bruno pipeline accident; the human consequences and the effect on the San Bruno community are tragic. PG&E has accepted responsibility and legal liability and, while recognizing that it cannot undo the lives lost, is compensating the injured.

The accident shined a spotlight on PG&E and revealed to the company, the Commission, and the public at large that PG&E's gas system operations were not what they should be. PG&E has acknowledged its shortcomings and has undertaken major improvement efforts. PG&E believes that bringing its gas operations up to the highest quality is the most sincere amends it can make to those hurt by the September 9, 2010 accident.

This proceeding has a narrower focus than confirming PG&E's acknowledgement of responsibility for the accident, as PG&E observed in its opening brief.² Its focus is to determine whether PG&E has violated pipeline safety laws. The evidence shows that, once the defective pup was put in the ground in 1956, there was nothing any pipeline operator – without knowledge of the presence of the pup – would reasonably have done that would have revealed the defective pipe.

The ultimate question for the Commission is whether CPSD has carried its burden to prove to the requisite standard (clear and convincing, as PG&E contends, or preponderance, as the other parties claim) that PG&E violated legal requirements. Although it has the burden, CPSD's opening brief does little to attempt to meet that burden. Reading CPSD's brief, one would hardly know that PG&E put on any defense. It is not until page 66 – nearly two-thirds of the way through CPSD's brief – that CPSD first cites any evidence but its own, instead repeating statements from its own and the NTSB reports. Until page 91, where it begins to attack PG&E's budget and financial witness, CPSD's brief does not even attempt to address PG&E's testimony and documentary evidence. One is left with the impression that either CPSD has nothing to say or it is holding its argument until its reply brief, when PG&E cannot correct any misstatements.

¹ Pursuant to *England v. La. State Bd. of Med. Exam'rs*, 375 U.S. 411 (1964), PG&E expressly reserves its federal constitutional and any other federal claims and reserves its right to litigate such claims in federal court following any decision by the Commission, if necessary. While PG&E cites federal cases, including Supreme Court decisions, in this brief, they are cited only to the extent that they provide analogous authority for construing the California Constitution and/or California law.

² PG&E OB at 1.

If the former, CPSD has failed to carry its burden; if the latter, the Commission should view its reply brief with skepticism since CPSD was unwilling to expose its arguments to reply.

In a section entitled, “PG&E’S VIOLATIONS OF APPLICABLE LAWS AND REGULATIONS,” CPSD’s January 12, 2012 report listed the violations CPSD claimed to have found in its investigation.³ CPSD alleged 18 violations, counted liberally. After the close of evidence, in its opening brief CPSD tripled the number of alleged violations to 55.⁴ Intervenors, though lacking legal authority to do so and not having previously alleged them, added approximately another 30.⁵ As PG&E demonstrated in its March 18, 2013 Motion to Strike Appendix C, and further discusses below in Section III.C, fundamental due process defects would flow from the Commission’s consideration of these belated allegations.⁶

Even with its new alleged violations and the help of Intervenors, CPSD’s opening brief fails to prove its allegations. To support the alleged violations, CPSD primarily restated parts of its January 12, 2012 report and its August 20, 2012 rebuttal testimony, with occasional reference to the NTSB Report.⁷ As a result, many of CPSD’s allegations lack substantive support. The “evidence” is in many instances merely a reiteration of CPSD’s prior statement of the same conclusory allegation, now having the status of testimony but without independent factual support.⁸ Labeling as testimony a prior unsupported conclusory allegation may give it evidentiary status but it does not provide substance. Factually unsupported testimony is entitled to little, if any, weight and is not sufficient to meet CPSD’s burden of proof. Intervenors largely reiterate the factual and legal theories advanced by CPSD, and though generally citing to more from the evidentiary record, the evidence they rely on does not demonstrate violations.

³ Ex. CPSD-1 at 162-63 (CPSD/Stepanian).

⁴ CPSD OB, Appendix C.

⁵ It is difficult to count the violations due to the broad and ambiguous language used at times, as well as overlap and duplication, making it unclear what or how many violations CPSD and Intervenors allege. As discussed in Section VI below, in addition to providing no prior notice to PG&E of the violations they allege, Intervenors’ assertion of violations is an improper assumption of the Commission’s investigative power, a power the Commission has expressly delegated to CPSD.

⁶ As discussed more fully in Section III.C, the Revised Appendix C the ALJ permitted CPSD to file does not cure the constitutional defect created by CPSD’s assertion of new violations after the close of evidentiary hearings.

⁷ To support its “safety culture” allegations, CPSD primarily relied on the Overland Report (Ex. CPSD-168 (CPSD/Harpster)), the IRP Report (Ex. CPSD-10), and its written rebuttal to PG&E’s budget and finance expert’s testimony (Ex. CPSD-170 (CPSD/Harpster)).

⁸ CPSD’s January 12, 2012 report was sponsored as testimony. Ex. CPSD-1 (CPSD/Stepanian). Content in the NTSB Report, though not testimony, was adopted by CPSD in the January 12, 2012 report.

CPSD and Intervenors all highlight CPSD’s safety culture allegations,⁹ which, in its opening brief, CPSD elevates to a stand-alone alleged Section 451 violation.¹⁰ A centerpiece of the safety culture claim is CPSD’s allegations related to PG&E’s Gas Pipeline Replacement Program (GPRP).¹¹ CPSD bases its claim on retired PG&E employee Charles Tateosian’s civil deposition testimony,¹² which is taken out of context in CPSD’s allegations. CPSD asserts that in the 1970s and 1980s, PG&E concluded that all of Line 132 needed to be replaced, planned to do so in the GPRP, but did not in order to save money.¹³ CPSD claims, “The [GPRP] presentation specifically identified Line 132 . . . as needing to be replaced to be capable of operating at high pressures . . . due to questionable welding methods used prior to 1950 and recent pipeline failures . . .”¹⁴ From this (and other select citations to Mr. Tateosian’s deposition), CPSD tries to convey that long seam welds were the concern and Segment 180 would have been replaced (and the San Bruno accident avoided) had PG&E followed through with its purported GPRP commitments.¹⁵

CPSD’s allegations and selected references create a false impression about PG&E’s GPRP that is refuted by the evidence. As Mr. Tateosian stated throughout his testimony,¹⁶ PG&E established the GPRP to address pipeline segments that contained certain pre-1950s girth welds, cast iron pipe, and vintage distribution piping. Some of Line 132, installed in 1948 and earlier, met those criteria. Segment 180 did not. Segment 180 was never among the pipeline segments the GPRP was intended to address. Mr. Tateosian’s testimony (not cited by CPSD) conclusively proves this:

⁹ CPSD OB at 80-112; DRA OB at 27-66; TURN OB at 31-38; San Bruno OB at 27-37; CCSF OB at 47-48.

¹⁰ CPSD OB, Revised Appendix C at 10.

¹¹ The other two elements of CPSD’s safety culture claim are snippets taken out of context from PG&E internal documents and the claims of underspending by CPSD’s consultant, Overland. As demonstrated in Section V.F of this reply, the documentary snippets were compiled by individuals with a financial and ratemaking background. Their selection does not reflect any engineering analysis or expertise. Even the snippets fail to show any instance in which budgetary constraints compromised safety. In context, the documents Overland and CPSD excerpted show PG&E’s engineers were making judgments about the work that needed to be done with safety and compliance paramount. In fact, in the only area in which Overland specifically analyzed safety-related spending – capital expenditures from 2003 to 2010 – it found that PG&E spent more than the amounts implicit in rates.

¹² Ex. CPSD-162 through CPSD- 167 contain excerpts from Mr. Tateosian’s civil deposition, but omit the critical testimony, which PG&E cites and quotes herein.

¹³ CPSD OB at 24-25.

¹⁴ CPSD OB at 24-25.

¹⁵ The City of San Bruno suggests Segment 180 would have been replaced under the GPRP by 1988. San Bruno OB at 32.

¹⁶ See note 17, below.

[F]rankly, what's covered in this document **doesn't specifically cover that pipeline that failed** . This covers the old oxyacetylene welded pipe, the cast iron and the older distribution steel lines.¹⁷ [. . .]

The piping that was covered by this replacement program at the time was cast iron piping, the oxyacetylene welded piping and the older distribution piping, **it did not involve the piping that failed at San Bruno**.¹⁸

Lacking sufficient evidence to meet the burden of proof, CPSD and Intervenors attempt to shift the burden of proof to PG&E.¹⁹ CPSD repeatedly contends that PG&E's purported failure to produce evidence rebutting an alleged violation means the violation exists. CCSF claims that testimony from its consultant that PG&E purportedly did not directly refute should be deemed true and reliable, an assertion that, if accepted, shifts the burden of proof to PG&E.²⁰ Testimony is not automatically correct or adequate to satisfy the burden of proof; among other reasons, testimony may not be directly challenged because it is patently wrong or immaterial. TURN mischaracterizes PG&E's submission of responsive evidence as asserting an affirmative defense for which, it says, PG&E has the burden of proof.²¹ TURN's contention is legal sleight-

¹⁷ Transcript of Civil Deposition of Charles Tateosian ("Tateosian Depo."), Vol. II at 326-27 (emphasis added); Tateosian Depo., Vol. I at 159 ("[T]he piping that's going to be replaced, which was the oxyacetylene welded pipe, the cast iron, and the old distribution lines. . ."); *id.*, Vol. I at 181 ("The most important thing in my mind was replacement of the old oxyacetylene welded pipe, and then the cast iron, and the old distribution pipe."); *id.*, Vol. I at 242-43 ("The way I gathered that information was I contacted the division gas – the division superintendents and asked them to forward information on the three classifications of piping we were interested in. Mainly the oxyacetylene welded, the cast iron and the older gas distribution steel mains."); Tateosian Depo., Vol. II at 472 -73 ("The proposed replacement is part of an ongoing program to replace large diameter gas transmission lines containing oxyacetylene girth welds and/or bell-bell and chill-ring girth welds in high – high density housing areas and near major transportation facilities."); *id.*, Vol. II at 487 ("Q: So the three parts that were involved were, one, oxyacetylene bell-bell and chill-ring and bell and spigot girth welded transmission lines, that was one part of it, correct? A. Yes."); *id.*, Vol. II at 528- 29 (Q: "So that generally speaking the program that we're talking about here, the pipeline replacement program, generally speaking, did not involve replacing any pipe that was made 1948 or after; is that right? A. Yes."); Ex. CPSD -166 at 4 ("Replace 539 miles of pre -1947 pipe containing oxyacetylene, bell-bell and chill ring or bell and spigot girth welds in the 30 years at a financial cost of \$580 million.").

¹⁸ Tateosian Depo., Vol. II at 463 (emphasis added). CPSD incorrectly describes Mr. Tateosian as Vice President of Gas Operations. See CPSD OB at 24, 81, 113. He was the manager of gas system design. Ex. CPSD-165 at 60.

¹⁹ In addition, rather than deal with the substance of their testimony, Intervenors launch a series of *ad hominem* attacks on PG&E's witnesses, including some of the leading experts in the industry. Largely, Intervenors urge the Commission to disregard this testimony because these experts, like all outside experts (including those working for CPSD and CCSF), were paid for their work. TURN OB at 37 n.121; CCSF OB at 9-13; DRA OB at 25-26; San Bruno OB at 18-20.

²⁰ CCSF OB at 6-7.

²¹ TURN OB at 6; see *id.* at 12, 15, 19, 21-22, 26, 28- 29, 37 (mischaracterizing PG&E's rebuttal as affirmative "defenses").

of-hand; PG&E's submission of evidence that rebuts allegations, or PG&E's arguments refuting untenable interpretations of law, do not constitute affirmative defenses that carry with it a burden of proof. TURN also advocates that, even if the Commission finds PG&E did not violate the law, the Commission should make "prudence" or "reasonableness" determinations on which PG&E bears the burden of proof.²² This assertion is extraordinary – in effect, TURN suggests that, after the Commission concludes that PG&E's conduct did not violate the law, it should judge whether PG&E *proved* that *the same conduct* was "prudent" and "reasonable," or face cost disallowances equivalent to or in excess of the penalties it faced for violations of law. Having failed to prove violations of law, Intervenors cannot convert this proceeding into a prudence review. Each attempt to shift the burden of proof to PG&E is improper – CPSD alone bears the burden of proof on every violation alleged against PG&E.²³

PG&E deeply regrets the loss of life and injuries and the effect on the San Bruno community. PG&E is morally and legally responsible for this tragic accident and has acknowledged liability to those injured. This proceeding is thus not about proving PG&E responsible for the accident or whether PG&E's practices could have been better or fell short of expectations, but whether they constituted legal violations of applicable laws. The only determination to be made in this proceeding is one based solely on the evidence presented: whether CPSD met its burden of proving PG&E violated the law in the many ways alleged. The evidence shows that it has not.

II. BACKGROUND (PROCEDURE/FACTS)

[Intentionally left blank]

²² TURN OB at 6- 7. DRA suggests the Commission should make "reasonableness" determinations in this enforcement proceeding for the purpose of imposing disallowances under Public Utilities Code Section 463, presumably in the PSEP proceeding. DRA OB at 9-11. CCSF similarly contends that PG&E is subject to a "reasonableness" determination in this proceeding. CCSF OB at 5 -6. Neither expressly state that PG&E should bear the burden of proof as to the "reasonableness" of its conduct, but PG&E presumes that is their position.

²³ Intervenors may properly submit evidence to support CPSD's allegations. Intervenors do not have legal authority to assert violations of law against PG&E. *See infra* Section VI.

III. LEGAL ISSUES OF GENERAL APPLICABILITY

A. CPSD Has The Burden To Prove Its Allegations By Clear And Convincing Evidence; PG&E Has No Burden Of Proof

1. The Commission Should Apply The Clear And Convincing Evidence Standard

CPSD and Intervenors²⁴ together allege some 90 violations against PG&E, many of which they characterize as continuing violations dating back as far as 54 years.²⁵ The fines and penalties to which PG&E is exposed in this proceeding are unprecedented. The Commission has indicated that it may impose substantial restrictive remedial relief for found violations.²⁶ In addition to massive fines and penalties, the parties have asked the Commission to adjust PG&E's rate recovery and order refunds within the PSEP proceeding based on any violations found here.²⁷ The stakes for PG&E, the Commission, CPSD, Intervenors, and the public could not be higher. Under these circumstances, the clear and convincing standard is warranted.

Grubb Co., Inc. v. Dep't of Real Estate, 194 Cal. App. 4th 1494 (2011) demonstrates why. In *Grubb*, the court required a "clear and convincing" standard where the sanction involved a 30-day license suspension or a \$3,000 fine in lieu thereof. The court set aside the penalty because the alleged misconduct was not established by clear and convincing evidence. Clear and convincing proof is all the more necessary here than in *Grubb*, since CPSD is seeking penalties many thousands of times greater than a \$3,000 fine. In fact, the threatened monetary sanctions here are potentially so large that the Commission has received testimony to help it determine how large a fine the Commission could impose without significantly impairing PG&E's finances on a going-forward basis. Merely asking that question – how big a penalty can we impose on PG&E without seriously eroding the company's credit quality? – demonstrates that this case raises considerations beyond the typical enforcement proceeding. Questions such as these are asked in punitive damage cases for which the "clear and convincing" standard

²⁴ As discussed in Section VI below, Intervenors' assertion of independent violations in this Commission-initiated enforcement proceeding is improper.

²⁵ Ex. CPSD-1 at 162-63 (CPSD/Stepanian); CPSD OB, Appendix C; CCSF OB, Appendix B; TURN OB at 39-41; San Bruno OB at 50-52. As noted, PG&E cannot precisely determine how many violations are alleged against it due to ambiguous language, overlap, and duplication.

²⁶ *Order Instituting Investigation*, I.12-01-007 at 10 (Jan. 12, 2012).

²⁷ *See, e.g.*, TURN OB at 1-2; DRA OB at 9-11, 59-61. Those requests are not proper in an enforcement proceeding.

applies. Accordingly, and as demonstrated in PG&E’s opening brief, the Commission should apply the higher clear and convincing evidentiary standard in this proceeding.²⁸

But even if the Commission decides not to apply the clear and convincing standard, it must ensure that CPSD is required to prove and has actually proved each of its allegations by a preponderance of the evidence before penalties or remedial relief are imposed. As discussed below, the parties have attempted to shift to PG&E the burden of proving it did not violate the law, and if PG&E achieves that, then proving all the same actions were “prudent” and “reasonable.” Permitting any form of burden shifting to PG&E would infect this proceeding with a constitutional defect. *See, e.g., Investigation of Qwest Commc’ns Corp.*, D.03-01-087, 2003 Cal. PUC LEXIS 67, at *12-13 & n.5 ; *see also Investigation of the Conlin-Strawberry Water Co., Inc.*, D.05-07-010, 2005 Cal. PUC LEXIS 294, at *22 (concluding that it would “violate[] California constitutional law” to place the burden of proof on respondents in an enforcement proceeding “where substantial property rights are at issue”).

If violations are found, the Commission’s findings must be “supported by substantial evidence” to survive judicial review.²⁹ This standard of review is more rigorous than the “any evidence” standard previously applied to Commission proceedings. *Application of Pac. Gas & Elec. Co.*, D.01-10-031, 2001 Cal. PUC LEXIS 917, at *4; *see also* 1998 Cal. Stat., c. 886 (S.B. 779), § 12 (imposing the “substantial evidence” standard). And CPSD bears not only the burden of persuasion, but also the burden of production.³⁰

To ensure the likelihood of finality, for the benefit of the Commission, PG&E, the City of San Bruno, the other Intervenors and the public, the Commission must rigorously apply the appropriate evidentiary standard and burden of proof. That standard is clear and convincing evidence, and the burden is CPSD’s.

2. CPSD’s Unsupported Report And Testimony Fail To Meet Its Burden Of Proof

Throughout its opening brief, CPSD relies on citation to its January 12, 2012 report,³¹ its August 20, 2012 rebuttal testimony³² and statements from the NTSB Report³³ that CPSD

²⁸ PG&E OB at 24-27 and legal authorities cited therein.

²⁹ Pub. Util. Code § 1757(a)(4).

³⁰ Evid. Code § 550; *see also Union Pac. R.R. Co.*, D.93105, 1981 Cal. PUC LEXIS 1290, at *10.

³¹ Ex. CPSD-1 (CPSD/Stepanian).

incorporated into the January 12, 2012 report and the August 20, 2012 rebuttal testimony.³⁴ In fact, CPSD’s opening brief is in large part a reiteration of the text of the January 12, 2012 report and the August 20, 2012 rebuttal testimony, with minor modifications and incorporation of statements from the NTSB Report.³⁵ Absent from CPSD’s opening brief are references or citations to PG&E’s testimony and the documentary evidence PG&E submitted during the evidentiary hearings refuting many of the assertions CPSD continues to rely on.³⁶ Reading CPSD’s opening brief, a stranger to the action would have difficulty knowing PG&E had submitted evidence in response to CPSD’s allegations or that an evidentiary hearing had taken place. CPSD’s nearly exclusive reliance on its own prior report and rebuttal testimony renders its evidentiary showing weak and short of meeting its burden of proof.

For instance, CPSD asserts in its opening brief: “PG&E did not always gather all relevant leak data on Line 132 and integrate it into its Geographical Information System (GIS).”³⁷ For evidentiary support, CPSD cites to “CPSD -1, p. 26” – which is CPSD’s January 12, 2012 report.³⁸ Page 26 of CPSD’s January 12, 2012 report contains essentially the identical statement: “PG&E failed to gather all relevant leak data on Line 132 and integrate it into its Geographical Information System (GIS).”³⁹ But CPSD does not cite any evidence in support of this statement in the January 12, 2012 report.⁴⁰ Thus, the only evidentiary support for this assertion in CPSD’s opening brief is the same (unsupported) conclusory assertion from the January 12, 2012 report. While CPSD’s January 12, 2012 report now has the status of testimony, many of CPSD’s contentions in its opening brief remain empirically unsupported, in addition to doing nothing to respond to PG&E’s evidence. PG&E submitted testimony and evidence rebutting the accuracy and significance of the contentions in CPSD’s January 12, 2012 report, but CPSD does not

³² Ex. CPSD-5 (CPSD/Stepanian).

³³ Ex. CPSD-9 (NTSB Report).

³⁴ See CPSD OB at 4-27, 33- 80, Appendix A. For its “safety culture” discussion (CPSD OB at 80 -112), CPSD heavily relies on the Overland Report, Ex. CPSD-168 (CPSD/Harpster), the IRP Report, Ex. CPSD-10 and the rebuttal to PG&E’s financial consultant’s testimony, Ex. CPSD-170 (CPSD/Harpster).

³⁵ Compare Ex. CPSD-1 (CPSD/Stepanian) and Ex. CPSD-5 (CPSD/Stepanian) with CPSD OB at 4-27, 33-80.

³⁶ See CPSD OB at 4-27, 33-80, Appendix A.

³⁷ CPSD OB at 21.

³⁸ CPSD OB at 21.

³⁹ Ex. CPSD-1 at 26 (CPSD/Stepanian).

⁴⁰ Ex. CPSD-1 at 26 (CPSD/Stepanian).

reference much less confront PG&E’s responsive testimony and evidence. CPSD’s evidentiary showing cannot meet its burden of proving the alleged violation.

In another example, CPSD asserts in its opening brief, “CPSD staff determined that PG&E personnel at Milpitas had little recognition that they were working with a very critical system that demands a high level of care in planning and execution of their work.”⁴¹ CPSD cites to “CPSD-1, p. 98” as support for this assertion. Again, page 98 of CPSD’s January 12, 2012 report contains essentially the same statement without citation to factual support.⁴² As a result, the only evidentiary support for CPSD’s contention in its opening brief – that PG&E personnel at Milpitas did not recognize that a gas transmission system is potentially dangerous – is CPSD’s prior statement of the same conclusory contention. And as with the prior example, CPSD’s opening brief did not address any of PG&E’s evidence refuting CPSD’s unsupported contention.

Because it is based largely on conclusory assertions without additional evidence, and because it fails entirely to confront PG&E’s testimony and evidence, CPSD’s opening brief lacks substantive evidentiary support that should be given correspondingly little weight.⁴³

3. The Burden Of Proof Cannot Be Shifted To PG&E

a. PG&E Has Not Asserted Affirmative Defenses That Impose A Burden Of Proof

TURN attempts to shift the burden of proof to PG&E by contending PG&E bears the burden of proof “as to its defenses.”⁴⁴ PG&E does not dispute the notion that a defendant has the burden to establish affirmative defenses. However, with the exception of laches (discussed in Section III.E below), PG&E has not asserted affirmative defenses. Rather, TURN mischaracterizes PG&E’s presentation of evidence responding to the allegations against it as “defenses” for which PG&E has the burden of proof.⁴⁵ TURN’s contention is not a correct statement of the law.

⁴¹ CPSD OB at 56.

⁴² Ex. CPSD-1 at 98 (CPSD/Stepanian).

⁴³ This defect arises in many instances because CPSD cites in its opening brief to summary discussions in the prior reports and testimony. Even if there is evidentiary support somewhere for the assertions CPSD makes in its opening brief, neither PG&E nor the Commission can identify it based on CPSD’s references.

⁴⁴ See, e.g., TURN OB at 6.

⁴⁵ See, e.g., TURN OB at 12, 19, 21, 22, 26.

PG&E's submission of evidence refuting CPSD and Intervenors' evidence does not constitute the assertion of an "affirmative defense." PG&E is defending itself by rebutting evidence and allegations, *i.e.*, showing that the evidence marshaled against it is not correct or persuasive. An affirmative defense, in contrast, is a legal theory on which a defendant can exonerate itself even where the allegations against it are conclusively proven by the evidence, such as a statute of limitations defense. *See Walsh v. West Valley Mission Comm. College Dist.*, 62 Cal. App. 4th 1532, 1546 (1992) ("An 'affirmative defense' is one which sets forth facts from which it results that, notwithstanding the truth of the allegations of the complaint, no cause of action existed in the plaintiff at the time the action was brought.") (citation and internal quotations omitted). PG&E's act of defending itself with evidence rebutting the allegations against it is not an "affirmative defense," as TURN suggests, and does not impose a burden of proof on PG&E.

b. PG&E Cannot Be Required To Prove Its Conduct Was "Prudent" Or "Reasonable" In This Enforcement Proceeding

TURN and CCSF contend, even if CPSD fails to prove any violation of law against PG&E, the Commission should make "prudence" or "reasonableness" determinations in this proceeding, and PG&E bears the burden of proof on such determinations.⁴⁶ In short, they argue that PG&E should be tried twice for the same conduct, the second time bearing the burden of proof. Thus, if the evidence does not establish a legal violation, the Commission should require PG&E to have proven that the same conduct was "prudent" and "reasonable"; if PG&E fails to meet that burden, the Commission should disallow additional costs in the PSEP proceeding, notwithstanding the lack of any proven violation of law.⁴⁷ If TURN and CCSF's view were adopted, the Commission would judge PG&E on issues and a burden of proof that the Commission did not articulate until the hearing was long over.

The constitutional defects and unfairness in this suggestion are manifest. Cal. Const. art. I, § 7(a); D.05-07-010, 2005 Cal. PUC LEXIS 294, at *22 (concluding that placing the burden of proof on the respondents in an enforcement proceeding, where substantial property rights are at issue, violates California constitutional law). This is an enforcement proceeding in which PG&E

⁴⁶ TURN OB at 6-8; CCSF OB at 5-6. TURN assigns the burden of proof to PG&E; CCSF does not address it.

⁴⁷ TURN OB at 6-8; CCSF OB at 5-6.

is a respondent potentially subject to massive fines and penalties and invasive remedial relief.⁴⁸ The sole purpose of this proceeding is and has been from the outset to “focus on PG&E’s past actions and omissions, to determine whether PG&E has violated laws requiring safe utility gas system practices.”⁴⁹ PG&E defended itself against alleged legal violations, not alleged lack of “prudence” or “reasonableness.” The evidence PG&E introduced has been for that purpose.⁵⁰ Nor did PG&E receive constitutionally required notice before presenting its defense that it would be required to *prove* that its actions were “prudent” and “reasonable,” in addition to defending against alleged violations on which CPSD has the burden of proof. See *In re Ruffalo*, 390 U.S. 544, 550 (1968); *Rosenblit v. Superior Court*, 231 Cal. App. 3d 1434, 1445–48 (1991) (reversing hospital’s removal of a physician where he “was kept in the dark about the specific charges made against him”). Were the Commission to adopt TURN and CCSF’s suggestion and make “prudence” and “reasonableness” determinations on which PG&E bears the burden of proof, this enforcement proceeding would be constitutionally defective.

Putting constitutional defects aside, TURN’s proffered authorities for assigning PG&E the burden of proof as to the “prudence” of its conduct do not lead to the result TURN advocates.⁵¹ Rather, these decisions make it clear that this enforcement proceeding is not the appropriate forum for “prudence” or “reasonableness” determinations. Both cited decisions involved rate setting issues, not enforcement proceedings.⁵² Nor do Public Utilities Code Section 463, D.94-03-048, and D.84 -09-120, cited by TURN, mandate a different result. These authorities speak to reasonableness in the context of rate recovery and rate setting, which is outside of the scope of the present enforcement proceeding. See *Investigation of the Mohave Coal Plant Accident*, D.94-03 -048, 1994 Cal. PUC LEXIS 216, at *26-27 (reasonableness of plant operation inquiry tied to rate recovery requests); *Application of S. Cal. Edison Co.*, D.84-09-120, 1984 Cal. PUC LEXIS 1044, at *1-3 (reasonableness inquiry related to annual adjustment clause rate review proceeding); Pub. Util. Code § 463 (discussing Commission ability to disallow expenses associated with unreasonable error in rate setting context). The parties’

⁴⁸ I.12-01-007 at 10.

⁴⁹ I.12-01-007 at 10.

⁵⁰ See, e.g., PG&E-1 (PG&E/Variou s).

⁵¹ *Application of Pac. Gas & Elec. Co.*, D.85-08-102, 1985 Cal. PUC LEXIS 781, at *27; *Application of S. Cal. Edison Co.*, D.93-05-013, 1993 Cal. PUC LEXIS 368, at *2.

⁵² D.85-08-102, 1985 Cal. PUC LEXIS 781 at *27; D.93-05-013, 1993 Cal. PUC LEXIS 368 at *2.

attempt to use Section 463 to, in effect, impose duplicative and continuing penalties into the future against PG&E based on findings in an enforcement proceeding is not supported by the statute, Commission precedent or due process.

CCSF's argument that the Commission must decide whether PG&E acted "reasonably," regardless of whether those actions violated the law, similarly fails. In addition to the constitutional defect discussed above, CCSF's cited authority is inapplicable. D.90-09-088, which CCSF cites for the proposition that compliance with guidelines does "not relieve [a] utility of its burden to show that its actions were reasonable in light of the circumstances existent at the time," did not involve an enforcement proceeding, like this, where there has been no allegation or evidence as to "reasonableness." Rather, that proceeding involved a utility contract where self-dealing was suspected and the purpose and scope of the "reasonableness" inquiry was identified at the outset and prior to the evidentiary hearings.⁵³

Likewise, CCSF's use of D.04-04-065 to argue that, even if a utility complies with a General Order it may have acted unreasonably, is misleading. In that decision, the Commission recognized that GO 165 requires the exercise of judgment to conduct inspections as often as necessary, stating that GO 165 requirements are "in addition to the requirements under GO 95 and 128 to maintain a safe and reliable electric system."⁵⁴ Thus, the text of GO 165 mandated the reasonableness inquiry, not a generalized reasonableness determination in an enforcement proceeding. D.97-03-070 is inapplicable for the same reason; the underlying requirement at issue incorporated continuing obligations under other GOs and inspections "as necessary," but not less often than the times indicated.⁵⁵

None of the authorities relied on by TURN or CCSF support what they suggest – that the Commission judge the "reasonableness" or "prudence" of PG&E's actions even after those actions have been determined to comply with the law, and that the Commission do so by imposing a burden to prove prudence on PG&E that it has not previously spelled out in this proceeding. More importantly, the California Constitution and due process forbid it.

⁵³ *Application of S. Cal. Edison Co.*, D.90-09-088, 1990 Cal. PUC LEXIS 847, at *15, 21-22.

⁵⁴ *Investigation of S. Cal. Edison Co.*, D.04-04-065, 2004 Cal. PUC LEXIS 207, at *41-42.

⁵⁵ *In re Elec. Distribution Facility Standard Setting*, D.97-03-070, 1997 Cal. PUC LEXIS 1243, at *17-18. CCSF's final authority offers no additional support. D.05-08-037 was a rate setting proceeding for reimbursement of costs associated with the 2003 wildfires, not an enforcement proceeding to determine violations of law. *Application of San Diego Gas & Elec. Co.*, D.05-08-037, 2005 Cal. PUC LEXIS 562, at *2, *9.

c. CCSF’s “Uncontroverted” Evidence Theory Is Erroneous And Attempts To Improperly Shift The Burden Of Proof To PG&E

CCSF suggests the Commission simply accept as correct and reliable the purportedly “uncontroverted” evidence of CCSF’s consultant, Mr. Gawronski.⁵⁶ CCSF is mistaken on two counts: first, that purportedly “uncontroverted” evidence must automatically be deemed correct and reliable; and second, that CCSF’s consultant’s testimony is “uncontroverted.” Contrary to CCSF’s claim, none of Mr. Gawronski’s testimony is undisputed, whether or not PG&E specifically referenced it when rebutting it. The same is true for similar assertions made by CPSD, DRA, and TURN.⁵⁷

That proffered testimony is not directly addressed does not transform its subjective character into conclusive truth. Testimony from a retained consultant is no different:

[E]xpert opinions, even though uncontradicted, are worth no more than the reasons and factual data upon which they are based. An expert's opinion is no better than the reasons given for it. If his opinion is not based upon facts otherwise proved . . . it cannot rise to the dignity of substantial evidence.⁵⁸

Even if some of Mr. Gawronski’s testimony was not directly challenged, that fact does not establish the veracity or reliability of his statements. This conclusion makes sense in addition to being the law. For instance, testimony, or any type of evidence, may not be directly challenged because it is patently incorrect and does not require a rebuttal. Testimony also may not be directly rebutted because it is immaterial or irrelevant, or for numerous other reasons. CCSF’s suggestion that Mr. Gawronski’s testimony, if “uncontroverted,” should be automatically relied on is contrary to the law.

CCSF also appears to assert that CPSD meets its burden of proof by merely submitting evidence, unless PG&E affirmatively rebutted it. CCSF states:

[W]here PG&E did not rebut evidence introduced by the parties with the burden of proof, it may not simply hide behind the

⁵⁶ CCSF OB at 6-7.

⁵⁷ CPSD, DRA and TURN imply, less directly, that some of their evidence remains undisputed and should, therefore, be accepted as conclusive. *See, e.g.*, CPSD OB at 83, 91, 112; DRA OB at 60; TURN OB at 35. As with CCSF’s contention, none are correct.

⁵⁸ *Griffith v. Cnty. of Los Angeles*, 267 Cal. App. 2d 837, 847 (1968) (internal quotations omitted); *see* CACI No. 107 (“Witnesses”) (indicating that a jury may properly “believe all, part, or none of a witness’s testimony”).

“burden of proof” as a substitute for offering germane evidence on an issue.⁵⁹

In CCSF’s view, PG&E is “hid[ing] behind the ‘burden of proof’” if it exercises its due process right to require that CPSD submit evidence qualitatively sufficient to meet its burden of proof, before PG&E submits evidence in rebuttal.

As CCSF structures the law, the burden of proof shifts to PG&E. Unless PG&E submits what CCSF considers “germane evidence” rebutting CPSD and Intervenors’ evidence, they have satisfied the burden of proof. This is true even if their “evidence” does not meet the evidentiary standard required under the law. Stated plainly, CCSF’s position is that, unless PG&E proves it did not violate the law, it did.⁶⁰

CCSF also is incorrect regarding what constitutes “uncontroverted” evidence. PG&E is not required to directly connect its evidence to every factual assertion made by the opposing parties. Rather, PG&E’s evidence can rebut the testimony asserted against it whether presented in a general context or in direct response to particular contentions.⁶¹ For example, Mr. Gawronski asserted the 1988 pinhole leak on Line 132 was a “failure” under TIMP regulations.⁶² Without naming Mr. Gawronski or referring to his testimony, PG&E presented evidence demonstrating that a pinhole leak is not considered a “failure” for integrity management purposes.⁶³ Rather, these leaks are commonplace and have been occurring without incident on pipeline systems since the industry began tracking them forty years ago.⁶⁴ Mr. Gawronski’s assertion was wrong, and his testimony controverted (and refuted), whether or not PG&E identified him when doing so.

⁵⁹ CCSF OB at 6-7.

⁶⁰ Other parties suggest the same result. See CPSD OB at 83 (referring to Mr. Harpster’s conclusion that was purportedly “not disputed or rebutted by PG&E”); *id.* at 91 (“PG&E presented no meaningful rebuttal . . .” and Mr. Harpster’s testimony was “never refuted by PG&E”); DRA OB at 60 (repeatedly asserting “PG&E has not contested” or “it is uncontested”); TURN OB at 35 (“PG&E’s response to these allegations is almost nonexistent” and “Mr. Martinelli does not even attempt to rebut . . .”).

⁶¹ *Cf. Glade v. Hawes Firearms Co.*, 226 Cal. App. 3d 314, 324-25 (1990) (focus in deciding whether the burden of proof has been met is a determination on the “quality” or “convincing force” of the evidence, not the “quantity”).

⁶² Ex. CCSF-1 at 5 (CCSF/Gawronski).

⁶³ PG&E OB 82-84; Ex. PG&E-1c at 4-14 to 4-15 (PG&E/Keas); Ex. PG&E-7 (Tab 4-16); Ex. PG&E-1 at 5-10 to 5-11 (PG&E/Zurcher); Joint R.T. 870-71 (PG&E/Zurcher).

⁶⁴ Joint R.T. 871 (PG&E/Zurcher) (further indicating the number of pinhole leaks per year has been decreasing from nearly 20,000 reported 40 years ago when the industry first began tracking such leaks to 1,500 last year). It is not significant that a pinhole leak may be a “reportable incident” under integrity management rules, as the cost of repairing a pinhole leak may make it reportable. *Id.*

B. Public Utilities Code Section 451 Is Not, And Cannot Constitutionally Be, A Safety Regulation

As discussed in PG&E's opening brief,⁶⁵ Public Utilities Code Section 451 is a ratemaking provision that cannot properly serve as an independent source of safety violations. CPSD and Intervenor take an opposing view, asserting that the Commission can appropriately rely on Section 451 to find violations of law and impose fines and penalties against PG&E.⁶⁶ CPSD and Intervenor claim the propriety of utilizing Section 451 as a stand-alone safety provision has been conclusively settled and need not long detain the Commission.⁶⁷

CPSD's reliance on Section 451 in this proceeding, however, far exceeds the scope of any prior use sanctioned by the Commission or the courts. The unprecedented breadth CPSD reads into Section 451 is evidenced by CPSD's own words: "Any unsafe condition or violation of a utility safety practice may be a violation of Section 451."⁶⁸ Section 451 cannot act as an independent source for the wide-ranging alleged violations CPSD asserts against PG&E.⁶⁹

In *Carey v. Pacific Gas & Electric Co.*, D.99-04-029, 1999 Cal. PUC LEXIS 215, one of the cases relied on by CPSD, the Commission determined that any reasonableness obligation imposed by Section 451 was objectively ascertainable by reference to an existing definition, standard or common industry understanding identifiable in that action.⁷⁰ Unlike *Carey*, in asserting the broad violations against PG&E, CPSD fails to reference an existing definition, standard or common understanding among utilities or address the "reasonable service, instrumentalities, equipment and facilities" clause of Section 451.⁷¹ On the contrary, CPSD

⁶⁵ PG&E OB at 28-35.

⁶⁶ CPSD OB at 29-31; TURN OB at 3-5; CCSF OB at 3-5; DRA OB at 8-11; San Bruno OB at 13.

⁶⁷ CPSD OB at 29-31; TURN OB at 3-5; CCSF OB at 3-5; DRA OB at 8-11; San Bruno OB at 13. CPSD claims the issue is so clear that "PG&E cannot claim that Section 451 does not create a duty separate from GO 112 for PG&E to provide safe service."). CPSD OB at 31. TURN describes it as "the longstanding, bedrock obligation under Section 451 to maintain and operate a safe gas transmission system." TURN OB at 4.

⁶⁸ CPSD OB at 29 (emphasis added).

⁶⁹ PG&E contends that Section 451 cannot validly serve as an independent source of safety violations in any context, and that to the extent prior decisions held to the contrary, they were wrongly decided. Regardless, CPSD's use of Section 451 in this proceeding is beyond the scope of any such decision.

⁷⁰ *Carey*, D.99-04-029, 1999 Cal. PUC LEXIS 215; PG&E OB at 33.

⁷¹ *Carey*, D.99-04-029, 1999 Cal. PUC LEXIS 215; PG&E OB at 33-34. The only industry standard cited by CPSD is ASA B31.1.8-1955, but that voluntary standard does not apply to all the Section 451 violations CPSD alleges and cannot be enforced through Section 451 in any event. If it could, the Commission's adoption of GO 112 would have been an unnecessary rulemaking exercise. See PG&E OB at 39. And if CPSD were correct, ASA B31.1.8 would only be relevant to Section 451's application from 1955 to 1961. After 1961, when GO 112 rendered the standard

creates a heretofore unforeseen and infinitely broad standard that “ *[a]ny* unsafe condition or violation of a utility safety practice may be a violation of Section 451.”⁷²

Likewise, *Pacific Bell Wireless, LLC (Cingular) v. Public Utilities Commission*, 140 Cal. App. 4th 718 (2006) is not controlling because that utility had notice that its conduct “in this instance” was unlawful through prior Commission decisions and marketplace reaction.⁷³ PG&E had no such notice. Overlooked by CPSD, the critical conclusion from *Cingular*, quoting *Carey*, was that Section 451 was not void for vagueness “in application to the instant case.”⁷⁴ The Commission has never applied Section 451 to punish a utility for what CPSD contends were a broad array of shoddy gas operations, or actions that indisputably complied with pipeline safety regulations. For instance, CPSD continues to assert that conditions at Milpitas Terminal and on PG&E’s SCADA system constituted a Section 451 violation despite the undisputed fact that on September 9, 2010, PG&E’s pressure control systems worked as designed to keep pressure on Line 132 far below allowed regulatory limits.⁷⁵

Attempting to justify its unprecedented use of Section 451, CPSD cites a collection of cases and Commission decisions in its Response to PG&E’s Request for Official Notice (filed March 11, 2013) and in its opening brief in the parallel Records OII.⁷⁶ Most of these authorities do not mention Section 451, and those that do involve contexts very different from this enforcement proceeding. *Investigation of the Mohave Coal Plant Accident*, D.94-03-048, for instance, was a prudence review decision that never mentions Section 451.⁷⁷ A prudence review is distinguishable from an enforcement proceeding for several reasons, including that the utility, not CPSD, bears the burden of proof in a prudence review.⁷⁸ Similarly irrelevant is *Lozano v. Pacific Gas & Electric Co.*, 70 Cal. App. 2d 415 (1945), a negligence action that also does not mention Section 451. Nor does D.61269’s broad statement that GO 112 did not remove the

mandatory, CPSD has identified no other industry definition, standard or common understanding defining the boundaries of what Section 451 prohibits.

⁷² Ex. CPSD-5 at 1 (CPSD/Stepanian) (emphasis added).

⁷³ *Cingular*, 140 Cal. App. 4th at 741-43.

⁷⁴ CPSD OB at 30; see *Cingular*, 140 Cal. App. 4th at 741-43.

⁷⁵ CPSD OB at 59-61; Ex. CPSD-1 at 8, 24 (CPSD/Stepanian); Ex. CPSD-9 (NTSB Report) at 12, 124; Ex. PG&E-1 at 8-7 (PG&E/Kazimirsky/Slibsager); Ex. PG&E-1 at 9-13 to 9-14 (PG&E/Miesner); Joint R.T. 193 (PG&E/Kazimirsky).

⁷⁶ CPSD’s Response to PG&E’s Request for Official Notice at 9, filed March 20, 2013 (I.12-01-007).

⁷⁷ D.94-03-048, 1994 Cal. PUC LEXIS 216.

⁷⁸ D.94-03-048, 1994 Cal. PUC LEXIS 216, at *35.

“primary obligation” to provide safe service shed any light on the proper interpretation of Section 451. The decision does not refer to Section 451, let alone an enforceable legal requirement imposed by Section 451.⁷⁹ *Order Instituting Rulemaking*, D.12-12-030, 2012 Cal. PUC LEXIS 600, mentions Section 451, but in the context of a rulemaking proceeding that also addresses rate recovery. In rulemaking proceedings, the Commission has unquestioned authority to adopt safety rules, and Section 451 properly applies to the determination of rates. Thus, far from supporting CPSD, D.12-12-030 illustrates the proper approach to safety regulation provided for in the Public Utilities Code: the adoption of concrete and intelligible safety standards and measures to be applied prospectively. Under CPSD’s interpretation of Section 451, however, such rulemakings would be unnecessary because Section 451 would supplant all prescriptive safety rules with a strict liability provision to be applied based on hindsight – as CPSD has in this proceeding.

Langley v. Pacific Gas & Electric Co., 41 Cal. 2d 655 (1953), does not support CPSD either. *Langley* involved a damages action for breach of contract.⁸⁰ The majority opinion mentioned Section 451 once. A written contract obligated the utility to furnish electricity according to the Commission’s rules and regulations.⁸¹ The Court cited Section 451 to support its determination that, under the terms of the contract, the utility owed its ratepayers a “general duty to exercise reasonable care in operating its system to avoid unreasonable risks of harm to the[ir] persons and property.”⁸² At most, *Langley* stands for the proposition that utilities owe their ratepayers a duty of reasonable care in the delivery of power service. That is hardly noteworthy, since basic principles of tort law impose this duty irrespective of Section 451. *See, e.g., id.* at 662-63 (noting that the Court’s analysis and result would have been the same under a negligence theory).

Gay Law Students Ass’n v. Pacific Telephone & Telegraph Co., 24 Cal.3d 458 (1979), is also beside the point. The Court did not discuss Section 451. It held that arbitrary employment discrimination violates Public Utilities Code Section 453(a), which provides in relevant part: “No public utility shall . . . in any . . . respect . . . subject any . . . person to any prejudice or

⁷⁹ *Investigation into the Need of a General Order, etc.*, D.61269 (1960) (“D.61269”).

⁸⁰ *Langley*, 41 Cal. 2d at 657.

⁸¹ *Langley*, 41 Cal. 2d at 658.

⁸² *Langley*, 41 Cal. 2d at 660-61.

disadvantage.”⁸³ The Court based its statutory holding on four factors: (1) the broad and unqualified language of the statute; (2) the statute’s legislative history; (3) “the evolution of the common law principle which the section codifies”; and (4) “constitutional considerations” – specifically, the Court’s prior holding in the case that equal protection forbids a utility from discriminating in employment on the basis of sexual orientation.⁸⁴ In *Barnett v. Delta Lines, Inc.*, 137 Cal. App. 3d 674, 682- 83 (1982), the court noted in dicta that “[i]t could be argued” that Section 451 applies outside the ratemaking context based on the reasoning of *Gay Law Students Ass’n*. If anything, the *Barnett* court’s cautious suggestion underscores that Section 451 is most naturally read as a ratemaking provision. In any event, the plausible argument it identifies does not withstand scrutiny because none of the considerations relied on in *Gay Law Students Ass’n* – text, legislative history, common law evolution, and constitutional considerations – support interpreting Section 451 as a free-floating safety standard.

CPSD’s inconsistent articulation of the standard that it seeks to enforce under Section 451 further underscores the impropriety of CPSD’s reliance on Section 451 in this proceeding. CPSD has described the standard as “good utility safety practices,” “good engineering practices,” and “best engineering practices,” all of which necessarily have different meanings. For instance, a “good” practices standard would allow a utility to choose between various good options, while a “best” practices standard would require the utility to choose the best one available. In its opening brief, CPSD now refers to “unreasonably dangerous” and “unreasonably unsafe” standards, which may be additional different standards CPSD seeks to impose through Section 451, though CPSD does not clarify.⁸⁵

In sum, PG&E cannot have had notice of what Section 451 requires, or what it prohibits, when the standard it purportedly imposes is infinitely broad and CPSD’s application of it repeatedly changes. Sanctioning CPSD’s use of Section 451 in this manner will infect this OII with a constitutional defect.⁸⁶ Cal. Const. art. I, § 7(a).

⁸³ *Gay Law Students Ass’n*, 24 Cal. 3d at 477 (“*No public utility shall, as to rates, charges, service, facilities, or in any other respect, make or grant any preference or advantage to any corporation or person or subject any corporation or person to any prejudice or disadvantage.*” (quoting Pub. Util. Code § 453(a)) (emphasis in original)).

⁸⁴ *Gay Law Students Ass’n*, 24 Cal. 3d at 485-86.

⁸⁵ CPSD OB at 31, 32, 34, 38, 39, 47, 50, 55, 60, 61, 64, 65, 68, 75, 83.

⁸⁶ See also *FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307, 2317 (2012); PG&E OB at 35-38.

C. Consideration Of Violations Alleged By CPSD After The Close Of Evidence Would Violate Constitutional Due Process Requirements

When it filed its opening brief on March 11, 2013, CPSD included Appendix C, listing 55 distinct violations alleged against PG&E. In its January 12, 2012 initial report, CPSD specified “PG&E’S VIOLATIONS OF APPLICABLE LAWS AND REGULATIONS,” charging 18 violations.⁸⁷ Thus, CPSD had not previously alleged most of the 55 violations set forth in Appendix C, including all but one of 37 alleged continuing violations that CPSD claims go back as far as 54 years.

On March 18, 2013 PG&E moved to strike Appendix C and to have the proceeding decided on CPSD’s original charges on the grounds that basic due process principles guarantee PG&E adequate prior notice of all the charges against it, and CPSD’s assertion of new violations after the close of evidence fell far short of meeting that mandate.⁸⁸ On April 2, 2013, the ALJ granted in part and denied in part PG&E’s motion to strike. The ALJ struck Appendix C, but permitted CPSD to resubmit it after adding a column with “specific reference to where the OII or one or more of its referenced documents provides PG&E with notice of the factual basis for the allegation.”⁸⁹

The April 2nd Ruling’s rationale for allowing CPSD to resubmit Appendix C is the following:

I do not find that the Commission intended Section X of the CPSD Report to be the exclusive charging document in this investigation. On the contrary, if a statement of alleged facts constituting a violation is set forth in the OII or in its referenced documents, then PG&E had adequate notice prior to evidentiary hearings of the factual allegations that it needed to defend against.⁹⁰

⁸⁷ Ex. CPSD-1, Section X at 162-63 (CPSD/Stepanian).

⁸⁸ See PG&E’s Motion to Strike Appendix C, filed March 18, 2013.

⁸⁹ See Administrative Law Judge’s Ruling On Pacific Gas and Electric Company’s Motion to Strike Appendix C to the Opening Brief of the Consumer Protection and Safety Division, April 2, 2013 (the “April 2nd Ruling”). On April 8, 2013, CPSD filed a revised Appendix C that only addressed alleged violations related to emergency response. The ALJ issued another order on April 12, 2013, directing CPSD to submit a second revised Appendix C addressing all 55 alleged violations with “reference[s] to where the OII or one or more of its referenced documents provides PG&E with notice of the factual basis for the allegation.” See Administrative Law Judge’s Ruling Addressing Motion of the Consumer Protection and Safety Division for Clarification and Setting Date for Reply Briefs, April 12, 2013 (the “April 12th Ruling”). On April 18, 2013, CPSD submitted its further revised Appendix C (“Revised Appendix C”).

⁹⁰ On this basis, the ALJ stated, “I find that it is necessary for CPSD to provide additional information to confirm that PG&E was given timely and adequate notice of the factual bases for each of CPSD’s alleged violations.” The ALJ reaffirmed this direction in his April 12th Ruling.

That conclusion is erroneous. Due process requires more than a mere factual description in the OII or “referenced documents” that CPSD will later – after the close of evidence – turn into alleged violations.

Among the “basic” requirements of due process are notice of **the charges** and a reasonable opportunity to respond.⁹¹ These “basic ingredient[s]” of fair procedure are essential safeguards of the “fundamental principle of justice” that no party may be “prejudiced in [its] rights without an opportunity to make [its] defense.” *Pinsker v. Pac. Coast Soc’y of Orthodontists*, 12 Cal. 3d 541, 555 (1974); see also *Salkin*, 176 Cal. App. 3d at 1122 (“The individual must have the opportunity to present a defense.”) (citing *Pinsker*, 12 Cal. 3d at 555). A severe violation of these basic guarantees occurs where, as CPSD has done here, new charges are introduced after the accused has already made its defense.⁹²

California courts have condemned the late assertion of new charges in administrative enforcement proceedings. In *Rosenblit*, for example, the court of appeal decried disciplinary proceedings in which the accused “was kept in the dark about the specific charges made against him” as being “a charade” and “offen[sive]” to “even an elementary sense of fairness.”⁹³ In *Smith v. State Bd. of Pharmacy*, 37 Cal. App. 4th 229 (1995), the court denounced the board’s mid-hearing change of legal theories as violative of “the basic . . . elements” of due process because the respondent was “misled by the [initial] accusation” as to what charges he would have to defend against.⁹⁴ “[F]undamental fairness,” the court concluded, “requires **notice of the statutory theory in the accusation**.”⁹⁵ And in *Cannon v. Commission on Judicial Qualifications*, 14 Cal. 3d 678 (1975), the California Supreme Court held that a charge not “contained in the formal notice” of proceedings had to “be stricken as irrelevant.”⁹⁶ In so holding, the Court relied on *In re Ruffalo*, which found a due process violation where a county bar association added a new charge midway through a disbarment proceeding.⁹⁷ The *Ruffalo* Court found that procedure unconstitutional due to the “absence of **fair notice as to . . . the precise nature of the charges**,”

⁹¹ *Salkin v. Cal. Dental Ass’n*, 176 Cal. App. 3d 1118, 1121 (1986) (quoting *Hackethal v. Cal. Med. Ass’n*, 138 Cal. App. 3d 435, 442 (1982)).

⁹² See *Salkin*, 176 Cal. App. 3d at 1122.

⁹³ *Rosenblit*, 231 Cal. App. 3d at 1447-48.

⁹⁴ *Smith*, 37 Cal. App. 4th at 242.

⁹⁵ *Smith*, 37 Cal. App. 4th at 243 (emphasis added).

⁹⁶ *Cannon*, 14 Cal. 3d at 695-96.

⁹⁷ *In re Ruffalo*, 390 U.S. at 552.

and emphasized that this deficiency “serious[ly] prejudice[d]” the respondent’s right to mount a defense, saying: “How the charge would have been met had it been originally included in those leveled against [the respondent] no one knows.”⁹⁸ See also *Rosenblit*, 231 Cal. App. 3d at 1446 (“It is impossible to speculate how [the respondent] might have defended had he been informed of the specific problems with each patient.”). In each of these cases the reviewing court granted relief.

The basic constitutional principle derived from these cases is that due process requires that an accused receive notice of the charge, *i.e.*, what the charge is and that it is being asserted, not merely notice of facts that may or may not later be the basis for charging a violation of law. The references in CPSD’s Revised Appendix C to documents that purportedly provided PG&E prior notice “of the factual basis” for legal violations CPSD did not allege until after the close of evidence do not demonstrate constitutionally-sufficient notice **of the alleged violations**. As a matter of law, those references do not demonstrate that PG&E received adequate prior notice of the new violations CPSD alleges and they do not overcome the constitutional infirmity of the original Appendix C. This infirmity is even more pronounced with respect to CPSD’s alleged “continuing violations,” which went from 1 in the January 12, 2012 report⁹⁹ to 37 in Appendix C,¹⁰⁰ increasing by several orders of magnitude the potential fines and penalties to which PG&E is exposed.

At best, the factual references in Revised Appendix C describe PG&E’s purported conduct and CPSD’s contention that the conduct was deficient in some manner. But CPSD’s prior discussion of PG&E’s conduct, even where CPSD asserted a purported deficiency, does not provide notice to PG&E that, based on that conduct, CPSD **is alleging or intends to allege a violation of law** for which PG&E can be subject to fines, penalties, and remedial directives.¹⁰¹ In an enforcement proceeding, PG&E must defend against alleged violations of law, not the myriad allegedly deficient actions CPSD describes in its reports and testimony.¹⁰² Telling PG&E that its actions were deficient is not the same as telling PG&E that its actions violated a law and

⁹⁸ *In re Ruffalo*, 390 U.S. at 551-52 & n.4 (emphasis added).

⁹⁹ Ex. CPSD-1 at 162-63 (CPSD/Stepanian).

¹⁰⁰ CPSD OB, Appendix C. CPSD realleged all 37 continuing violations in Revised Appendix C.

¹⁰¹ See I.12-01-007 at 9-10 (stating Commission’s intent to impose substantial fines, penalties and remedial relief if violations of law are proven).

¹⁰² See generally Ex. CPSD-1 (CPSD/Stepanian) and Ex. CPSD-5 (CPSD/Stepanian).

it is being “prosecuted” for it; or even more, that it is being prosecuted as a continuing violation recurring every day for the last 54 years. Absent a prior, specific allegation of a violation of law, including whether the alleged violation is purportedly a continuing one, CPSD has not satisfied its constitutional obligation to put PG&E on notice of the legal charges against it in a time and manner that permits PG&E to defend itself against those legal charges. *See, e.g., Smith*, 37 Cal. App. 4th at 243 (holding that an agency violated due process by raising a new legal theory midway through the hearing because due process “requires *notice of the statutory theory in the accusation*” (emphasis added)). Appendix C failed that test on its face, and CPSD’s addition of “references” in Revised Appendix C did not cure the defect.

Even assuming prior notice of the factual basis for a later-alleged legal violation could satisfy constitutional requirements, many of the “references” in Revised Appendix C fail to demonstrate even that level of notice. Some “references” have no discernible connection to the alleged violation at all. For instance, CPSD supports its two alleged violations regarding emergency response mutual assistance agreements by referencing a PG&E data response that attached PG&E’s several hundred page emergency plan because “Mutual Assistance Agreements are discussed on F- 2.1” of the emergency plan.¹⁰³ That page F-2.1 of PG&E’s emergency plan discusses mutual assistance agreements provides no support for CPSD’s contention that it provided PG&E adequate prior notice of alleged deficiencies, let alone legal violations, related to mutual assistance agreements.

Similarly, the documents referenced in Revised Appendix C did not provide PG&E notice of CPSD’s new standalone allegation that PG&E violated Section 451 by “fail[ing] to place safety over profits.”¹⁰⁴ CPSD contends, first, that PG&E received notice of this claim in the OII and the introduction to CPSD’s January 2012 report.¹⁰⁵ But those references are very general and give no indication that CPSD was alleging a standalone violation of Section 451 based on PG&E’s safety culture.¹⁰⁶ CPSD contends that the entire “safety culture” section of its January 12, 2012 report and the entire Overland Report provided PG&E with notice of its alleged

¹⁰³ CPSD OB, Revised Appendix C at 7.

¹⁰⁴ CPSD OB, Revised Appendix C at 10.

¹⁰⁵ CPSD OB, Revised Appendix C at 10.

¹⁰⁶ *See* OII at 2 (referring to a “systemic failure of PG&E’s corporate culture” as one of many alleged causes of the San Bruno accident); Ex. CPSD- 1 at 3 (CPSD/Stepanian) (identifying PG&E’s corporate culture as one of a “combination of multiple contributing factors” allegedly causing the San Bruno accident).

safety culture violation.¹⁰⁷ The fact that CPSD was unable to point to a single specific reference anywhere in the 36 -page “safety culture” discussion in its report or the 118 -page Overland Report demonstrates the inadequacy of CPSD’s notice of this alleged violation. CPSD’s references fail to provide PG&E notice of which conduct CPSD alleged was unlawful or against what standard PG&E’s safety culture was to be judged, which is contrary to the ALJ’s April 2nd and April 12th rulings directing CPSD to provide “specific reference[s]” and to delete any violation from Revised Appendix C for which “no such reference can be identified.”

Even if the OII and page 3 of the CPSD Report provided notice that CPSD intended to allege *some type* of standalone corporate-culture-related violation – which they did not – those documents failed to provide PG&E notice of the nature of the alleged violation, or that it began in 1998 and has continued every day thereafter. “Safety culture” or “corporate culture” is a broad and amorphous topic. To say “your corporate culture violates the law” is not much more specific than saying “everything you do violates the law.” That is not the type of notice due process requires. *See, e.g., Rosenblit*, 231 Cal. App. 3d at 1446 (finding a due process violation where the prosecuting entity “refused to disclose the *specific acts or omissions*” it was alleging prior to the hearing (emphasis added)). The fact that CPSD relies on the entire Overland Report and the “safety culture” section of the CPSD Report as its purported notice of the alleged violation underscores this point. Those reports discuss hundreds of different topics,¹⁰⁸ present a wide range of disparate data¹⁰⁹ and quote from numerous sources ranging from PG&E’s annual reports to texts discussing organizational behavior.¹¹⁰ Knowing that CPSD wanted to paint

¹⁰⁷ CPSD OB, Revised Appendix C at 10.

¹⁰⁸ For example, the “safety culture” section of the CPSD Report addresses, among other topics, the alleged effect of deregulation on PG&E’s corporate culture (Ex. CPSD-1 at 127 (CPSD/Stepanian)), PG&E’s bankruptcy (*id.* at 128), the Business Transformation initiatives that ended in 2007 (*id.* at 135-37), a 2009 reduction in PG&E’s workforce (*id.* at 139), common and preferred stock dividends (*id.* at 140-41), employee compensation (*id.* at 141-43), environmental cleanup (*id.* at 143), the fact that PG&E’s parent has other subsidiaries (*id.* at 144), public relations issues (*id.* at 145-46), PG&E’s acquisitions beginning in 1905 (*id.* at 147), PG&E’s involvement in the political process dating back to 1927 (*id.* at 147-48), PG&E’s alleged concern about competition (*id.* at 147-49), PG&E’s response to a leak in Elk Grove (*id.* at 150), the Rancho Cordova accident (*id.* at 150-51), whether PG&E mentioned public safety in its publicly filed documents (*id.* at 151-52), PG&E’s Pipeline 2020 Program (now superseded by the PSEP) (*id.* at 152-54), internal communications about organizational changes (*id.* at 156-58), and whether PG&E was sufficiently forthcoming about its revenues in the GT&S rate cases (*id.* at 159). The Overland Report touches on still many other issues.

¹⁰⁹ *See, e.g.*, Ex. CPSD-168, Chapter 6 (CPSD/Harpster) (presenting statistics regarding, among other things, staffing, integrity management assessments, risk reduction, leaks and leak repairs, and corrective work requests).

¹¹⁰ *See, e.g.*, Ex. CPSD-1 at 151, 161 (CPSD/Stepanian).

PG&E in a negative light is not the same thing as having notice of an alleged violation of the law spanning more than a decade.

It was not until CPSD filed its post-hearing brief that CPSD identified how it claims PG&E's corporate culture allegedly violated the law. CPSD now alleges for the first time that PG&E violated Section 451 by "reducing safety-related budgets; spending less than authorized on safety; prematurely ending its transmission pipeline replacement plan; not seeking sufficient O&M funds; using less effective and cheaper IM tools; reducing safety-related personnel; while at the same time using retained earnings to pay dividends, repurchasing stock, providing bonuses, expending funds on public relations and ballot initiatives."¹¹¹ If CPSD had intended to allege a standalone violation of Section 451 based on PG&E's safety culture, it could and should have identified the violation on its list of "PG&E'S VIOLATIONS OF APPLICABLE LAWS AND REGULATIONS" in its January 12, 2012 report, and explained the basis for its alleged violation long before the evidentiary hearings, and not waited until PG&E had no opportunity to defend against these new allegations.

Nor could PG&E have gleaned the nature of the purported safety culture violation that CPSD now alleges from the CPSD or Overland Reports. Some of the issues CPSD now claims contributed to a violation of Section 451 are not even mentioned in those reports and *none of them are discussed in terms that would indicate that CPSD intended to allege that they contributed to a violation of law*. For example, neither report addresses whether PG&E should have sought more O&M funds in its GT&S rate case applications much less that its failure to do so violated the law. CPSD's report never once mentions the GPRP, and there are only a few passing references to the GPRP in the Overland Report in the context of statistics about miles of pipeline replaced and the introduction of the RMP.¹¹² Those references do not hint at the fact that CPSD considered PG&E's decision to move transmission pipe out of the GPRP and into the RMP to be a centerpiece of an alleged standalone safety-culture-related violation of Section 451, with CPSD now even contending that the San Bruno accident might not have occurred if PG&E had not "prematurely" ended the transmission component of the GPRP.¹¹³ Similarly, while the Overland Report presented staffing-related data, there is no indication there that CPSD believed

¹¹¹ CPSD OB, Revised Appendix C at 10.

¹¹² See Ex. CPSD-168 at 6-13, 7-1 (CPSD/Harpster). The GPRP is not mentioned in Overland's list of "key findings." See Ex. CPSD-168 at 1-1 to 1-2 (CPSD/Harpster).

¹¹³ See *infra* Section V.F.4.a.

PG&E's staffing contributed to a violation of the law.¹¹⁴ Lastly, the CPSD Report mentions dividends, stock repurchases, bonuses, and public relations initiatives, but that discussion begins with the acknowledgement that PG&E "is generally permitted to redirect funds."¹¹⁵ Once again, CPSD never indicated that it claimed that PG&E's actions violated the law.

Given the numerous references CPSD added to Revised Appendix C, PG&E has prepared a table in which PG&E responds to CPSD's "references" for each of the 55 alleged violations. That table is attached to this reply brief as Appendix E, and demonstrates that in numerous instances CPSD's references do nothing to establish that PG&E received adequate prior notice of the factual basis for alleged violations, much less adequate notice of the alleged violations themselves.

As PG&E discussed in its Motion to Strike Appendix C, CPSD listed the legal violations it was pursuing against PG&E in Section X of its January 12, 2012 report, entitled "PG&E's VIOLATIONS OF APPLICABLE LAWS AND REGULATIONS."¹¹⁶ Until it submitted Appendix C with its opening brief on March 11, 2013, CPSD did not update or revise the alleged violations against PG&E (other than withdrawing one that it revived in Appendix C, *see infra* Section V.A.3). On June 26, 2012, PG&E responded to CPSD's charges with written testimony addressing both the facts and the legal violations CPSD asserted in the January 12, 2012 report.¹¹⁷ PG&E also prepared the defense it presented at the evidentiary hearings based on the violations CPSD asserted in Section X of the January 12, 2012 report. Accordingly, the appropriate result, and the one consistent with due process, is to strike or ignore Appendix C and Revised Appendix C entirely and permit CPSD to pursue only the alleged violations stated in Section X of CPSD's January 12, 2012 report, which were the only alleged violations for which PG&E had constitutionally-adequate notice.¹¹⁸ Because Revised Appendix C does not cure the due process violation Appendix C created, for the Commission to consider the newly alleged violations would violate constitutional due process.

¹¹⁴ The Overland Report does not even present information about specific reductions in "safety -related personnel," *see infra* Section V.F.3.b, so it could not have provided notice of the alleged violation.

¹¹⁵ Ex. CPSD-1 at 140 (CPSD/Stepanian).

¹¹⁶ Ex. CPSD-1 at 162-63 (CPSD/Stepanian).

¹¹⁷ *See generally* Ex. PG&E-1 (PG&E/VariouS).

¹¹⁸ PG&E's Motion to Strike at 1, 7, 10-11.

D. CPSD Improperly Alleges “Continuing” Violations

In Appendix C to its opening brief, CPSD for the first time characterizes many of the alleged violations against PG&E as “continuing” violations under Public Utilities Code Section 2108.¹¹⁹ PG&E addresses factual defects in particular alleged “continuing” violations in its substantive discussions in Section V, below. CPSD’s alleged continuing violations, however, suffer from a common defect, which PG&E discusses here.

CPSD’s view seems to be that an offense arises on the day of an event and continues for as long as the resulting consequence or condition continues, with each intervening day constituting a new and separate violation. For instance, CPSD contends that PG&E violated Section 451 “by failing to visually inspect segments,” which CPSD asserts is a separate violation every day from 1956 to September 9, 2010.¹²⁰ Though CPSD does not explain it, PG&E understands CPSD to be referring to PG&E’s alleged failure to visually inspect the inside of the pups in Segment 180 during installation. If PG&E failed to visually inspect the pups during installation, that event occurred once in 1956 and not again every day thereafter through September 9, 2010. The law does not permit CPSD to compound a single act into daily violations for 54 years.

The plain text of Section 2108 forecloses CPSD’s boundless theory. Public Utilities Code Section 2108 provides: “[I]n case of a *continuing violation* each day’s *continuance thereof* shall be a separate and distinct offense.”¹²¹ As its language makes clear, Section 2108 applies only to violative conduct that continues over time, not to specific instances of violations. *Accord Qwest*, 2003 Cal. PUC LEXIS 67, at *20- 21 (“The Commission has calculated fines on the basis of Section 2108 in cases where the evidence established that . . . practices that violated statutory or decisional standards had occurred over a period of time, rather than specific instances of violations.”). It is not enough to contend, as CPSD does, that the continued result of a violation makes a violation continuing. CPSD’s approach conflates the specific act that constitutes the violation (*e.g.*, the alleged failure to visually inspect the pups) with a consequence that flows from that act (the inside of the pups remain visually uninspected indefinitely). Under Section 2108, it is the violation that must be ongoing, not its natural result.

¹¹⁹ CPSD reiterated the alleged continuing violations in its Revised Appendix C, submitted April 18, 2013.

¹²⁰ CPSD OB, Appendix C at 1; CPSD OB, Revised Appendix C at 1.

¹²¹ Pub. Util. Code § 2108 (emphasis added).

Even if the statute could bear CPSD's theory that consequences cause a violation to continue indefinitely, that theory would transgress the narrow construction rule the California Supreme Court applies to statutes that permit the aggregation of daily penalties. See *Hale v. Morgan*, 22 Cal. 3d 388, 401 (1978) ("Uniformly, we have looked with disfavor on ever mounting penalties and have narrowly construed the statutes which either require or permit them.").¹²² For example, in *People ex rel. Younger v. Superior Court*, 16 Cal. 3d 30 (1976), the Court narrowly construed Water Code Section 13350(a), which at the time imposed a penalty of \$6,000 "for each day in which [an unlawful oil] deposit occurs." The Court found this language to be ambiguous between the two competing interpretations urged by the parties: (1) each day the oil remained on the water; or (2) each day the process of deposit lasted.¹²³ The Court adopted the latter, narrower construction because the alternative – each day the oil remained on the water – was unduly harsh and made little sense. *Younger*, 16 Cal. 3d at 43-44 (explaining that under the broader construction "liability is measured by a critical factor normally beyond the control of the violator, namely the time in which the oil spill is or reasonably can be cleaned up"); see also *Hale*, 22 Cal. 3d at 401 (citing *Younger* as an application of the narrow construction rule for civil penalty provisions). Unlike the statute in *Younger*, Section 2108 is not ambiguous. But even if it were, the narrow construction rule precludes CPSD's expansive theory of what makes a "continuing violation."

Accepting CPSD's theory would also produce incongruous results, in violation of a basic rule of statutory construction. "[I]t is fundamental that a statute should not be interpreted in a manner that would lead to absurd results."¹²⁴ Once the pups in Segment 180 were installed, it is unlikely another occasion for an internal visual inspection would arise. Yet, according to CPSD, PG&E may be subject to daily penalties for as long as a visual inspection of the interior of these pieces of pipe remains undone, even though the pipe is in the ground and PG&E was not required or called upon in the normal course to conduct an interior visual inspection.¹²⁵ It would

¹²² These statutes are anomalies. Civil penalty provisions are generally "limited either to a fixed multiple of actual damages, to a specified total amount per 'violation' or to a fixed duration." *Hale*, 22 Cal. 3d at 401.

¹²³ *Younger*, 16 Cal. 3d at 43.

¹²⁴ *Cent. Pathology Serv. Med. Clinic, Inc. v. Superior Court*, 3 Cal. 4th 181, 191 (1992) (quoting *People v. Morris*, 46 Cal. 3d 1, 15 (1988)).

¹²⁵ Even integrity management assessments do not involve internal visual inspections. The closest would be an in-line inspection with an electronic tool, which is not the visual inspection CPSD alleges as a violation here and physically could not be performed on Segment 180 without modifying the pipeline.

constitute a continuing violation notwithstanding the fact that PG&E had no notice of the alleged violation and that the violation was not realistically curable. Nonetheless, PG&E would be subject to a fine under Sections 2107 and 2108 of “not less than \$500” for each day between 1956 and September 9, 2010. The total *minimum* penalty for this single act: \$9.8 million (54 years x 365 days x \$500). The maximum authorized penalty would exceed \$140 million.¹²⁶

The Commission considers notice and an opportunity to cure a violation as prerequisites to imposing fines: “[W]e believe the proper enforcement policy is to impose fines in situations where (a) there is a violation of a GO of which the utility either knows or should have known; and (b) after acquiring either actual or constructive knowledge of the violation, the utility fails to cure it within a reasonable period.” *Investigation of S. Cal. Edison Co.*, D.04-04-065, 2004 Cal. PUC LEXIS 207, at *23; *see also* Pub. Util. Code § 2104.5 (requiring penalty determinations to take into account, among other factors, the “good faith of the person charged in attempting to achieve compliance, after notification of a violation”). In short, notice and curability are essential elements of a “continuing violation” and elements that are lacking in CPSD’s use of Section 2108.

Section 2108, Commission precedent and the California Constitution prohibit CPSD’s “continuing” violations theory.

E. CPSD’s Delay In Raising Alleged “Continuing” Violations Constitutes Laches

CPSD has overseen and regulated PG&E’s gas operations for decades. Among the many activities involved in that oversight and regulation have been numerous audits and inspections. Throughout this time period, CPSD has made findings and asserted violations against PG&E

¹²⁶ The applicable fine range is determined by the statutory fines available at the time of the violation. *See Marin Telemanagement Corp. v. Pac. Bell*, D.95-01-044, 1995 Cal. PUC LEXIS 43, at *33-34 n.34. From 1930 through 1993, the authorized fine range under Section 2107 was \$500-\$2,000 per violation per day. From 1994 through 2010, the minimum fine remained \$500 and the maximum fine increased to \$20,000. Any penalty within this range for this single, one-time alleged violation would be contrary to California’s Excessive Fines Clause. *See* Cal. Const. art. I, § 17; *People v. Urbano*, 128 Cal. App. 4th 396, 406 (2005) (quoting *United States v. Bajakajian*, 524 U.S. 321, 334 (1998)); *see also* *People ex rel. Lockyer v. R.J. Reynolds Tobacco Co.*, 37 Cal. 4th 707, 728 (2005) (explaining that the “touchstone of the constitutional inquiry under the Excessive Fines Clause is the principle of proportionality” (internal quotation marks omitted)). Any such penalty would also violate due process. *See* Cal. Const. art. I, § 7(a); *Hale*, 22 Cal. 3d at 399 (explaining that “‘oppressive’ or ‘unreasonable’ statutory penalties may be invalidated as violative of due process” and invalidating a \$17,300 fine imposed under a statute that provided for a penalty of \$100 for each day a landlord willfully deprived a tenant of utilities for the purpose of evicting the tenant). Such a penalty would also violate due process because PG&E did not have notice of CPSD’s extraordinary view of what qualifies as a continuing violation under Section 2108 prior to this investigation. *See, e.g., Fox Television Stations*, 132 S. Ct. at 2317-18.

whenever CPSD identified deficiencies. Yet, in this proceeding CPSD asserts pervasive and continuing deficiencies in PG&E's gas operations that CPSD claims constitute continuing legal violations, dating back as far as 1970, though CPSD never raised them in an audit or inspection. Laches precludes CPSD from pursuing these belated allegations.¹²⁷

Administrative laches has two elements: (1) unreasonable delay; and (2) prejudice.¹²⁸ If these elements are met, an administrative agency is barred from bringing its claims.¹²⁹ Laches may be established in either of two ways. The party asserting laches may prove its elements "by the evidence in the case."¹³⁰ Alternatively, laches may be established by means of an evidentiary presumption.

Where an agency's delay would violate an analogous statute of limitations, laches is presumed and "the burden of proof shifts to the administrative agency" to "(1) show that the delay ... was excusable, and (2) rebut the presumption that such delay resulted in prejudice to the opposing party."¹³¹ In such cases, courts "borrow" the analogous statute of limitations "as a measure of the outer limit of reasonable delay."¹³² Doing so makes sense because laches and statutes of limitation serve the same policy objectives: "to promote justice by preventing surprises through the revival of claims that have been allowed to slumber until evidence has been lost, memories have faded, and witnesses have disappeared."¹³³ The policy of borrowing limitations statutes is especially strong in a penalty action. *See Gabelli v. SEC*, No. 11-1274, slip op. at *9 (U.S. Sup. Ct. Feb. 27, 2013) ("Chief Justice Marshall used particularly forceful language in emphasizing the importance of time limits on penalty actions, stating that it 'would

¹²⁷ Laches applies to CPSD's alleged continuing violations regarding PG&E's Integrity Management program and emergency plans. PG&E does not contend that laches applies to violations related to the Segment 180 construction CPSD alleged in its January 12, 2012 report because the facts related to those alleged violations could not have been discovered and pursued as alleged violations prior to the San Bruno accident. The additional alleged continuing violations in CPSD's Appendix C and Revised Appendix C, however, are invalid under due process because CPSD did not allege them until after the close of evidence. *See* PG&E's Motion to Strike Appendix C, filed March 18, 2013, *supra* Section III.C.

¹²⁸ *Robert F. Kennedy Med. Ctr. v. Belshe*, 13 Cal. 4th 748, 760 n.9 (1996).

¹²⁹ *Robert F. Kennedy Med. Ctr.*, 13 Cal. 4th at 760, n.9.

¹³⁰ *Fountain Valley Reg'l Hosp. & Med. Ctr. v. Bonta*, 75 Cal. App. 4th 316, 323-24 (1999).

¹³¹ *Fountain Valley Reg'l Hosp.*, 75 Cal. App. 4th at 324.

¹³² *Brown v. State Pers. Bd.*, 166 Cal. App. 3d 1151, 1160 (1985). Analogous statutes of limitations must be "borrowed" because they do not apply directly in administrative proceedings. *See Fountain Valley Reg'l Hosp.*, 75 Cal. App. 4th at 325.

¹³³ *Brown*, 166 Cal. App. 3d at 1161 (internal quotation marks omitted).

be utterly repugnant to the genius of our laws’ if actions for penalties could ‘be brought at any distance of time.’” (quoting *Adams v. Woods*, 6 U.S. 336, 342 (1805)).

In this case, the result is the same under either method of proof: laches bars CPSD’s alleged continuing violations related to PG&E’s Integrity Management program and emergency plans. PG&E can affirmatively demonstrate laches as explained below, but it is not required to do so. The delay in bringing these alleged violations exceeds the analogous statute of limitation. CPSD therefore bears the burden of proof as to each element of laches.

The most closely analogous statute of limitations is the one-year period for commencing “[a]n action upon a statute for a forfeiture or penalty to the people of this state.”¹³⁴ CPSD relies on two penalty statutes, Sections 2107 and 2108, and any penalties assessed there under are paid to the state’s General Fund.¹³⁵ Applying Section 340(b)’s one-year period “as a measure of the outer limit of reasonable delay,”¹³⁶ claimed continuing violations arising before January 12, 2011 – one year before CPSD brought this proceeding – are barred unless CPSD can overcome the presumption of laches. Even if it were determined that Section 340(b)’s one-year statute of limitations is not analogous, CPSD had at most three or perhaps four years in which to proceed before it must overcome the presumption of laches. See Civ. Proc. Code § 338(a) (providing a three-year limitation period for “[a]n action upon a liability created by statute, other than a penalty or forfeiture”); Civ. Proc. Code § 343 (providing a four-year limitations period where no other limitations period applies); *Geneva Towers Ltd. P’ship v. City of San Francisco*, 29 Cal. 4th 769, 773 (2003) (explaining that Section 343 “is a catchall provision that provides a statute of limitations in situations where no specific limitations period applies”). CPSD’s alleged violations involving PG&E’s Integrity Management program (dating back to 1970 and December 2003) fall well out of even a four year analogous limitations period.¹³⁷

CPSD’s delay in asserting continuing violations going back as far as 1970 is unreasonable. With respect to PG&E’s Integrity Management program, CPSD asserts two

¹³⁴ Civ. Proc. Code § 340(b). PG&E recognizes this statute does not apply directly to the Commission’s enforcement proceedings. See *Carey*, D.99-04-029, 1999 Cal. PUC LEXIS 215 (citing *Little Co. of Md. Hosp. v. Belshe*, 53 Cal. App. 4th 325, 329 (1997)). Since it is a statute of limitations applicable to court proceedings for a civil penalty, however, it is analogous to the civil penalties that will be sought here by CPSD.

¹³⁵ See, e.g., *In re Cal.-Am. Water Co.*, D.07-08-030, 2007 Cal. PUC LEXIS 444, at *88.

¹³⁶ *Brown*, 166 Cal. App. 3d at 1160.

¹³⁷ CPSD OB, Appendix C; CPSD OB Revised Appendix C. CPSD’s alleged continuing violations related to emergency response would not be barred by laches if a three or four year analogous statute of limitations applied.

continuing violations dating to August 19, 1970, and 13 more that allegedly began on December 15, 2003.¹³⁸ Putting aside the fact that the integrity management regulations did not become effective until February 14, 2004,¹³⁹ CPSD's attempt to reach back in time is barred by laches. CPSD conducted audits of PG&E's Integrity Management program in 2005 and May 2010.¹⁴⁰ CPSD did not assert any of the numerous alleged violations it now contends permeated PG&E's Integrity Management program since December 2003.¹⁴¹ For instance, CPSD did not state in its audit findings that PG&E was violating regulations by failing "to assign a yield strength of 24,000 psi when strength was unknown[;]" or by failing to "gather and integrate required pipeline data[;]" or by failing "to analysis [sic] manufacture threat of weld defect[;]" or any of the other 13 integrity management violations CPSD asserts against PG&E.¹⁴²

PG&E recognizes that a CPSD audit cannot identify every deficiency in an operator's practices. But to overcome administrative laches, CPSD must show that it was reasonable to wait nearly 10 years (43 years in two instances) to allege pervasive violations despite twice auditing PG&E's Integrity Management program and never expressing such concerns. CPSD has not made that showing.¹⁴³

The same problems preclude CPSD from pursuing alleged continuing violations related to PG&E's emergency plans. CPSD asserts six continuing violations against PG&E involving its emergency plans that CPSD contends began on August 31, 2009.¹⁴⁴ CPSD conducted Operations, Maintenance and Emergency Plan (OM&E) audits of PG&E in May 2009 and

¹³⁸ CPSD OB, Appendix C at 2-3; CPSD OB Revised Appendix C at 3-5.

¹³⁹ 68 Fed. Reg. 69,778 (Dec. 15, 2003) ; 69 Fed. Reg. 2,307 (Dec. 15, 2003). Thus, CPSD alleges PG&E violated integrity management regulations before the regulations were in place. In addition, CPSD provides no evidence demonstrating what specific unlawful action or event began on the referenced dates, rendering CPSD's "violation initiation date" arbitrary. In short, CPSD picked (erroneously) the date the federal regulations first came into effect (1970 for Part 192) and assumed PG&E violated those regulations beginning the first day and every day thereafter. *See supra* Section V.B.

¹⁴⁰ Ex. PG&E-7 (Tabs 4-13 and -4-25).

¹⁴¹ Ex. PG&E-7 (Tabs 4-13 and -4-25). In 2005, CPSD issued its audit report on July 1, 2005. The auditors spent 15 days evaluating PG&E's Integrity Management Program. Ex. PG&E-7 (Tab 4-25) at 1, 3. CPSD issued its 2010 audit report in October 2010, after the San Bruno accident, but did not identify the violations it now asserts. Ex. PG&E-7 (Tab 4-13).

¹⁴² *See, e.g.*, PG&E OB at 58-74 and record citations therein.

¹⁴³ By contrast, in its post-San Bruno integrity management audit, CPSD asserted numerous alleged violations against PG&E, most of which identically reiterated the deficiencies CPSD described in its January 12, 2012 report. *See* Ex. Joint-39.

¹⁴⁴ CPSD OB, Appendix C at 4-6; CPSD OB, Revised Appendix C at 7-9.

August 2010.¹⁴⁵ In both instances, CPSD concluded that PG&E’s emergency plans complied with the regulatory provisions it now claims PG&E violated beginning August 31, 2009 (49 C.F.R. §§ 192.605(c) and 192.615).¹⁴⁶ Thus, a year after these continuing violations purportedly began, CPSD audited PG&E’s emergency plans and found no violations. It is irrelevant whether that incongruity results from an inadequate audit or from CPSD’s present attempt to reach back in time – the evidence shows that CPSD unreasonably delayed asserting these alleged continuing violations.

PG&E does not contend that CPSD is responsible (and PG&E is not) for alleged violations because CPSD did not previously identify them. But requiring that CPSD meet its obligation to timely identify and pursue violations is not shifting blame. If the practices CPSD alleges have been occurring within PG&E for years, it is not reasonable for CPSD to act only now, alleging continuing violations reaching well beyond when CPSD should have acted if the allegations have merit.

Assuming for the sake of argument CPSD could demonstrate that its delay was reasonable, it would still have to rebut the presumption that the delay was prejudicial to PG&E. It cannot carry this burden either. Rather, the evidence demonstrates PG&E suffered prejudice as a result of CPSD’s delay. Prejudice exists ““where the difficulty of doing entire justice arises . . . by reason of the original transactions having become so obscured by time as to render the ascertainment of the exact facts impossible.”” *Getty v. Getty*, 187 Cal. App. 3d 1159, 1170 (1986) (quoting *Garrity v. Miller*, 204 Cal. 454, 458 (1928)); *see also Danjaq LLC v. Sony Corp.*, 263 F.3d 942, 955 (9th Cir. 2001) (explaining that prejudice is established where there is “lost, stale, or degraded evidence, or witnesses whose memories have faded or who have died”). Prejudice may also exist where the defendant took actions or suffered consequences it would not have, had the plaintiff brought suit promptly. *Jackson v. Axton*, 25 F.3d 884, 889 (9th Cir. 1994) (“Here, Appellees have shown that circumstances have changed in a way that would not have occurred had [Plaintiff] sued earlier.”).

CPSD alleges continuing violations it claims began as many as 43 years ago, and many more nearly 10 years ago. The broad time frame and scope of the allegations forces PG&E to defend itself by recreating long-past events and records. Percipient witnesses may no longer be

¹⁴⁵ Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario).

¹⁴⁶ Ex. PG&E-1 at 10-2 to 10-3, Appendices A & B (PG&E/Almario); CPSD OB, Appendix C at 4-6; CPSD OB, Revised Appendix C at 7-9.

available, many may have separated from the Company or may no longer recall enough about the events to allow PG&E to adequately respond. (PG&E says “may” because, as noted, CPSD did not allege most of these continuing violations until it filed Appendix C with its opening brief on March 11, 2013, after the close of evidence. PG&E has no way of knowing whether it could gather evidence to defend against these newly-alleged continuing violations. It obviously had no opportunity to do so since it did not learn of them until CPSD filed its opening brief. That fact alone underscores the prejudice to PG&E, as well as the previously-discussed constitutional defect CPSD has created.) Moreover, prejudice exists due to the substantially larger penalties and invasive remedial relief to which PG&E may be subject as a result of CPSD’s delay. Had CPSD timely pursued these alleged violations, the consequences to PG&E would have been very different. *See Danjaq*, 263 F.3d at 956 (“We agree that the record supports Danjaq’s claim of economic prejudice, and that this prejudice is also sufficient to support the second element of laches.”).

The evidentiary prejudice here is more severe than in *Gates v. DMV*, 94 Cal. App. 3d 921, 924 (1979), where the court found the agency’s fifteen -month pre-accusation delay to be prejudicial. In that case, an automobile dismantler claimed that the DMV’s delay between its investigation and initiation of license revocation proceedings had caused him and his wife, the bookkeeper for the business, to forget “the circumstances surrounding the dismantling of the particular vehicles involved.”¹⁴⁷ The delay also resulted in the DMV’s witnesses having “no recollection of many of the events they testified to and . . . simply reading their records.”¹⁴⁸ Because the licensee could not put on his own witnesses or effectively cross-examine the agency’s witnesses, the appellate court affirmed the trial court’s ruling that the agency’s delay was unreasonable and had prejudiced the licensee.¹⁴⁹ The showing of prejudice in *Gates*, based on a fifteen-month delay, pales by comparison to this case where CPSD alleges continuing violations going back as many as 43 years.

Because CPSD cannot rebut the evidentiary presumption of laches, and alternatively because the evidence affirmatively establishes that laches applies, CPSD’s continuing violations

¹⁴⁷ *Gates*, 94 Cal. App. 3d at 924.

¹⁴⁸ *Gates*, 94 Cal. App. 3d at 924.

¹⁴⁹ *Gates*, 94 Cal. App. 3d at 924.

regarding PG& E's Integrity Management program and emergency plans are barred by administrative laches.

IV. OTHER ISSUES OF GENERAL APPLICABILITY

A. CPSD Alleges Violations Based On Hindsight

As underscored in the discussion of CPSD's allegations below, CPSD's case is based on hindsight knowledge acquired after the accident.

B. PG&E's Post-Accident Improvement Efforts

As anticipated in PG&E's opening brief,¹⁵⁰ CPSD and Intervenors characterize PG&E's post-San Bruno improvement efforts as evidence of past deficiencies. For instance, DRA comments, "PG&E's extensive remedial activities undertaken since the San Bruno explosion, in large part pursuant to recommendations of the NTSB and orders of the Commission, also belie PG&E's argument that it had been following industry standards since the 1956 installation."¹⁵¹ PG&E discussed in its opening brief the impropriety of using post-accident improvement measures as evidence of pre-accident culpability.¹⁵² PG&E will not repeat that discussion here.

However, conclusions like that offered by DR A – that improvement efforts necessarily mean prior lack of compliance with industry standards – are both incorrect and have no evidentiary value. The record evidence demonstrates, repeatedly, that the industry as a whole confronts many of the issues PG&E is addressing following the San Bruno accident.¹⁵³ For example, Mr. Zurcher testified:

I have looked at records of a hundred different pipeline companies across the U.S., and everybody, as a good industry practice, as you mentioned, everybody is in the same situation. There are records that are either missing or assumed values that – assumed values that they had to use in order to comply with it.¹⁵⁴

PG&E does not claim that historical industry practices relieve PG&E of responsibility for compliance with applicable laws and regulations. Industry practices, however, cannot be

¹⁵⁰ PG&E OB at 45-47.

¹⁵¹ DRA OB at 7.

¹⁵² PG&E OB at 46-47.

¹⁵³ Ex. PG&E-1 at 5-4 to 5-8 (PG&E/Zurcher); Joint R.T. 21-22, 662-63, 706-08, 710-13 (PG&E/Zurcher); Joint R.T. 487 (PG&E/Harrison).

¹⁵⁴ Joint R.T. 21-22 (PG&E/Zurcher).

disregarded when determining how often-uncertain regulations were understood in the pre-San Bruno world and evaluating whether PG&E's conduct fell short of regulatory requirements. Industry participants certainly intend to comply with the law, thus their common practices should be indicative of what constitutes compliance (or, at minimum, what practices are thought to be compliant). That PG&E or the industry as a whole has areas that need improvement does not demonstrate prior non-compliance with the law.

C. Attacks On The Credibility And Personal Knowledge Of PG&E's Witnesses Are Misplaced

1. PG&E's Witnesses Testified Competently Based On Personal And Obtained Knowledge

The City of San Bruno and DRA contend that the testimony of PG&E's integrity management witness was not competent testimony under evidentiary rules.¹⁵⁵ DRA objects to the testimony as hearsay while the City of San Bruno objects based on Evidence Code Section 702 addressing personal knowledge.¹⁵⁶ Neither objection has merit.

DRA's contention that Ms. Keas' testimony is objectionable as hearsay is contrary to the Commission's Rules of Practice and Procedure,¹⁵⁷ and inconsistent with DRA's (and the other parties') reliance on the IRP and NTSB reports.¹⁵⁸ DRA claims that Ms. Keas' testimony is:

[C]lassic hearsay testimony – “evidence not proceeding from the personal knowledge of the witness, but from the mere repetition of what she has heard others say” – and it is being offered for the truth of the matter asserted. As such, it should be disregarded.¹⁵⁹

In the next sentence of its opening brief, DRA cites the NTSB Report to contend that PG&E's Integrity Management program was deficient.¹⁶⁰ DRA relies on the NTSB Report for the truth of the matter asserted, but does not acknowledge a hearsay concern. Rather, DRA,

¹⁵⁵ DRA OB at 25-26; San Bruno OB at 18-21.

¹⁵⁶ DRA OB at 25-26; San Bruno OB at 18-21.

¹⁵⁷ Commission Rule of Practice and Procedure, Rule 13.6 states the “technical rules of evidence ordinarily need not be applied” in Commission proceedings.

¹⁵⁸ DRA OB at 25-26. CPSD and all Intervenors heavily rely on the IRP and NTSB reports in support of the alleged violations against PG&E.

¹⁵⁹ DRA OB at 25 (citing Black's Law Dictionary).

¹⁶⁰ DRA OB at 26 (emphasis in original) (citing Ex. CPSD-9 (NTSB Report) at 108).

CPSD and the other Intervenors accept statements from the NTSB Report as conclusive.¹⁶¹ The NTSB Report, however, is hearsay itself, and the content within it is multiple hearsay given that the NTSB Report is based on information obtained from others.¹⁶² The same is true of the IRP Report (Ex. CPSD-10). Due to their extensive reliance on these reports, eliminating hearsay evidence from this proceeding would eliminate much of the evidence on which CPSD and Intervenors rely. That is not the result DRA seeks by objecting to PG&E's testimony as hearsay, nor it is a result PG&E advocates; in PG&E's view, the record should be as comprehensive as possible. But, the incongruity in DRA's objection to Ms. Keas' testimony demonstrates that rejecting hearsay evidence at this point is incompatible with the conduct of this proceeding.

Objections to Ms. Keas' testimony based on asserted lack of personal knowledge are similarly off-base. As the Commission is aware, it is common practice in Commission proceedings for parties to present witnesses that have some knowledge based on personal experience but also have knowledge of a wider range of issues obtained by talking to others and/or reviewing relevant materials. The Commission's Rules of Practice and Procedure do not prohibit this approach, and the broad range of information commonly involved in Commission proceedings necessitates it.¹⁶³ Were the Commission to mandate that witnesses could only testify based on personal knowledge, in every Commission proceeding parties could have to present dozens of witnesses instead of a few.

For instance, with respect to Ms. Keas' testimony, different personnel within PG&E's Integrity Management and pipeline engineering groups are the "most knowledgeable" about specific topics relevant in this proceeding, such as the different assessment methodologies (ECDA, ICDA, ILI, SCCDA, hydro testing); cyclic fatigue issues; Line 132 baseline assessments and LTIMP; the different Risk Management Procedures; utilization of GIS and field documents in the Integrity Management program; the 1988 leak on Line 132; data gathering and integration, and so on. Presenting as a witness the "most knowledgeable" person for each topic and issue involved in this proceeding, and those issues and topics that arose during the evidentiary hearing,

¹⁶¹ See, e.g., DRA OB at 2 ("The National Transportation Safety Board (NTSB), the Independent Review Panel (IRP), and the Commission's Consumer Protection and Safety Division (CPSD) have all completed investigations into the causes of the incident. Each of these investigations has found PG&E responsible for the explosion on multiple levels.").

¹⁶² Ex. CPSD-9 (NTSB Report). The NTSB Report's discussion of the metallurgical analysis is only one layer of hearsay, the report itself, as the findings reported in that section were derived by NTSB staff from their own work.

¹⁶³ See, e.g., Comm'n Rules of Practice & Proc., Rule 13.5 (limiting witnesses), Rule 13.8 (providing for prepared direct testimony).

would involve many witnesses, substantially extending the duration of the hearing and increasing the complexity of the evidentiary record. For these reasons, the practice in Commission proceedings is to present witnesses who start with foundational knowledge but gather and come prepared to testify about additional issues or topics involved in their aspect of the proceeding.

In sum, there was nothing unusual or improper with the level of personal knowledge each PG&E witness possessed, including Ms. Keas.¹⁶⁴

2. Attacks On Witness Credibility Are Misplaced

CCSF, DRA and the City of San Bruno in varying degrees make *ad hominem* attacks on PG&E's witnesses.¹⁶⁵ Credibility determinations are for the trier of fact, and PG&E is confident the ALJ recognized the knowledge, experience and integrity PG&E's witnesses possessed.¹⁶⁶ These characteristics are particularly obvious in the expert witnesses the opposing parties primarily attack, Mr. Zurcher and Mr. Kiefner.¹⁶⁷

Each of PG&E's expert witnesses are leaders in their fields. Given their credentials and experience, it is not surprising the parties attempt to undermine their credibility.¹⁶⁸ No witness offered by CPSD or Intervenors has the extensive knowledge and experience possessed by Mr. Zurcher, Dr. Kiefner, Dr. Caligiuri, Mr. Bull, Mr. Martinelli, and Mr. Miesner.¹⁶⁹ In particular, Mr. Zurcher has long been a member of the committee that *writes* the integrity management standards and regulations, thus his opinions on what they mean and what actions are required for compliance are authoritative. Dr. Kiefner is widely considered to be *the* expert on metal fatigue

¹⁶⁴ On a related issue, the parties misunderstood the reason Ms. Peralta was not available as a witness. It was not because she had a specific scheduling conflict on any particular day of the hearings. Ms. Keas was substituted for Ms. Peralta due to general availability issues. Ms. Peralta, who has the personal knowledge the parties demand, prepared the testimony that Ms. Keas wound up adopting with slight modifications. Joint R.T. 906-08 (PG&E/Keas).

¹⁶⁵ CCSF OB at 9-13; DRA OB at 25-26; San Bruno OB at 18-21. TURN also comments that Ms. Keas' "oral testimony was extremely evasive." TURN OB at 17 n.54.

¹⁶⁶ DRA challenges the credibility of PG&E's witnesses despite not being in the hearing room during much of the testimony.

¹⁶⁷ CCSF OB at 9-13; DRA OB at 25-26; San Bruno OB at 18- 21. The City also impugns Dr. Caligiuri's integrity based on his hourly rate (San Bruno OB at 21), as does TURN regarding Mr. Martinelli (TURN OB at 37 n.121).

¹⁶⁸ See Ex. PG&E-1, Chapter 5, Appendix A (PG&E/Zurcher); Ex. PG&E-1, Chapter 6, Appendix A (PG&E/Kiefner).

¹⁶⁹ The only area in which CPSD tendered a witness of comparable qualifications was in the rate and finance area, where both PG&E witness Matthew O'Loughlin and CPSD witness Gary Harpster have extensive experience. However, as discussed in Section V.F.3.a, *infra*, Mr. Harpster lacks the engineering and operational expertise to support his testimony outside the financial and ratemaking context.

and manufacturing defects in pipelines.¹⁷⁰ Neither is a professional witness facile in handling skillful cross-examination; that the parties extract passages from lengthy transcripts to construct inconsistencies does not undermine the weight or veracity of their testimony. The Commission should recognize and use the substantial knowledge and experience provided by Mr. Zurcher and Dr. Kiefner, and all of PG&E's testifying consultants, as it weighs the facts in this case.

The parties' focus on the alleged financial interests of PG&E's consultants is also misplaced. Consultants are paid for their work; consultants get hired based on the depth and quality of their knowledge and expertise, and in large part based on the integrity their opinions carry. A consultant without a reputation for integrity is of little value, as both the client and the consultant know. Financial interests in any particular engagement cannot compare to the long-term value of integrity. The same is true of CPSD's and Intervenors' testifying consultants. PG&E knows CPSD's consultants are being compensated because PG&E is receiving and paying the invoices. PG&E presumes CCSF's consultant is also being compensated for his services. That the opinions of PG&E's expert witnesses, who are preeminent in their fields, support the conclusion PG&E did not violate the law in the many ways alleged should indicate that the conclusion is correct, not that the witnesses' opinions were purchased.

V. CPSD ALLEGATIONS

CPSD's opening brief is in large part a reiteration of its January 12, 2012 report, its August 20, 2012 rebuttal testimony, and excerpts from the NTSB Report, the IRP report and the Overland Report.¹⁷¹ CPSD fails to refer to, much less confront, the evidence submitted by PG&E. CPSD's evidentiary showing falls far short of meeting its burden of proof, whether clear and convincing or preponderance of the evidence. CPSD must prove violations with evidence, not unsupported contentions. The evidence does not support the numerous violations CPSD alleges against PG&E.

¹⁷⁰ See Ex. PG&E-1, Chapter 5, Appendix A (PG&E/Zurcher); Ex. PG&E-1, Chapter 6, Appendix A (PG&E/Kiefner).

¹⁷¹ See generally CPSD OB.

A. Construction Of Segment 180

In its opening brief, PG&E again acknowledged its responsibility for installing defective pieces of pipe in 1956 in Segment 180.¹⁷² CPSD looks past this central issue to pursue multiple alleged violations of law related to the Segment 180 construction based on inapplicable and voluntary standards. In 1956, there were no regulations related to the construction of Segment 180, and CPSD's attempt to use Section 451 to make voluntary industry guidelines mandatory fails for the reasons discussed above (Section III.B) and in PG&E's opening brief.¹⁷³ Nothing in CPSD's opening brief demonstrates that CPSD has met its burden of proof on the violations it alleges.

1. Yield Strength

There is no dispute that the pups installed in Segment 180 did not meet the specified minimum yield strength (SMYS) for API 5LX Grade X52 pipe, as PG&E specified for the Segment 180 construction.¹⁷⁴ PG&E's use of pipe with a SMYS lower than 52,000 psig does not support a legal violation. CPSD bases its allegations regarding yield strength on ASA B31.1.8-1955, the voluntary industry guideline in effect in 1956. Nothing in ASA B31.1.8-1955 mandates the use of X52 pipe, or any particular yield strength pipe, for gas transmission pipeline construction.¹⁷⁵ That PG&E inadvertently installed pups that were of a lower yield strength than the intended 52,000 psig did not contravene any standard or mandate, even assuming ASA B31.1.8-1955 had legal effect in 1956.¹⁷⁶

CPSD's reliance on ASA B 31.1.8-1955, Section 805.54, does not change this result. CPSD quotes Section 805.54 in full: "Specified minimum yield strength is the minimum yield strength prescribed by the specification under which pipe is purchased from the manufacturer

¹⁷² PG&E OB at 48; Ex. PG&E-1 at 1-1 (PG&E/Yura).

¹⁷³ Ex. CPSD-1 at 18 (CPSD/Stepanian) ("At the time Segment 180 was constructed in 1956, the Commission had jurisdiction over the safety of PG&E natural gas facilities *but there were no specific federal or state safety regulations applicable to transmission line construction.*") (emphasis added); see PG&E OB at 28-39.

¹⁷⁴ PG&E OB at 48; Ex. PG&E-1 at 2-1 n.1, 2-5 (PG&E/Harrison). Pups 4 and 6 met the minimum yield strength values required by API 5LX Grade X42.

¹⁷⁵ See ASA B31.1.8 (1955) (PG&E's Request for Official Notice, Ex. 5).

¹⁷⁶ Again, PG&E is not pushing off responsibility for the accident. But by alleging a legal violation based on yield strength, CPSD disregards the facts: (1) the voluntary ASA B31.1.8-1955 did not mandate any particular yield strength and (2) the lower than specified yield strength of the pups did not cause or contribute to the rupture. Ex. PG&E-1 at 2-5 (PG&E/Harrison); Ex. PG&E-1 at 3-5 to 3-6 (PG&E/Caligiuri).

(psi).”¹⁷⁷ Section 805.54 is not an industry standard, voluntary or not. Section 805.54 is a definition of specified minimum yield strength.¹⁷⁸

For the first time, CPSD alleges in its opening brief that PG&E violated Section 811.27(G) “[b]y assigning a yield strength value for Segment 180 above 24,000 psi when the yield strength was actually unknown.”¹⁷⁹ As discussed in PG&E’s Motion to Strike CPSD’s Appendix C,¹⁸⁰ this never-before-seen violation after the close of evidence is impermissible on due process grounds.¹⁸¹ Moreover, CPSD’s reliance on Section 811.27(G) is based solely on hindsight. Before September 9, 2010, PG&E did not know the pups existed, much less that the yield strength differed from what PG&E specified for the construction.¹⁸² CPSD applies hindsight knowledge and circular reasoning to assert a legal violation for not using a conservative value for an “unknown” yield strength when PG&E did not know the yield strength was unknown in the first place.¹⁸³

In its opening brief, CPSD also for the first time combines PG&E’s alleged failure to hydro test Segment 180 with its yield strength allegations.¹⁸⁴ CPSD contends PG&E violated ASA B31.1.8-1955, Sections 841.411 and 841.412(c) by not hydro testing Segment 180.¹⁸⁵ In

¹⁷⁷ CPSD OB at 36.

¹⁷⁸ Section 805.54 is in the “Index of Definitions” (Section 805.01) found within “Units and Definitions” (Section 805).

¹⁷⁹ CPSD OB at 37.

¹⁸⁰ See PG&E’s Motion to Strike Appendix C from CPSD’s Opening Brief, filed March 18, 2013.

¹⁸¹ CPSD’s introduction of this alleged violation at this time is also inconsistent with the Commission’s directive in the OII regarding the procedure CPSD must use to allege new violations. See I.12-01-007 at 10. CPSD’s Revised Appendix C did not cure the constitutional defect. See *supra* Section III.C.

¹⁸² Joint R.T. 324, 337-38, 368 (PG&E/Harrison); Joint R.T. 1210 (PG&E/Keas); Ex. PG&E-1 at 2-1, 2-5 (PG&E/Harrison).

¹⁸³ The purpose of Section 811.27(G), and its modern counterpart 49 C.F.R. § 192.107(b), is that an operator use a conservative pipe specification value *when it knows it does not know* a particular pipe specification. Section 811.27(G) of ASA B31.1.8-1955 states: “When the manufacturer’s specified minimum yield strength, tensile strength or elongation for the pipe is unknown, and no physical tests are made, the minimum yield strength for purposes of design shall be taken as not more than 24,000 psi.” Likewise; Section 192.107(b) states: “For pipe that is manufactured in accordance with a specification not listed in section I of appendix B to this part or whose specification or tensile properties are unknown, the yield strength to be used in the design formula in § 192.105 is one of the following....” To apply these provisions an operator must be aware that it is installing pipe with an unknown specification. Additionally, had PG&E been aware of the existence of the pups and their condition, it would not have assumed a yield strength value for an “unknown” specification; PG&E would not have installed them in the first place, or would have immediately removed them had it become aware after installation. Joint R.T. 367-38 (PG&E/Harrison); Joint R.T. 1019, 1066 (PG&E/Keas); Joint R.T. 692 (PG&E/Kiefner).

¹⁸⁴ CPSD OB at 36-37. See Ex. CPSD-1 at 22 (CPSD/Stepanian) (addressing hydro test issues separately from yield strength).

¹⁸⁵ CPSD OB at 35.

1956, however, no legal requirement to hydro test Segment 180 existed, and as noted, ASA B31.1.8-1955 did not carry the force of law.¹⁸⁶ CPSD also ignores the evidentiary record, which contains substantial evidence that PG&E did hydro test Segment 180: (1) the testimony of a former PG&E employee who observed a hydro test on a newly-installed transmission pipeline in the vicinity of Segment 180;¹⁸⁷ (2) Mr. Harrison’s testimony regarding invoices in the Segment 180 job file for purchase of materials that would only be used to conduct a hydro test;¹⁸⁸ and (3) the uncontradicted testimony of expert metallurgist, Dr. Caligiuri, that a post-installation hydro test on Segment 180 in 1956 was the likely single loading event that caused the ductile tear in the long seam weld on pup 1.¹⁸⁹ No record evidence suggests a different plausible theory, and the NTSB viewed Dr. Caligiuri’s conclusion as credible.¹⁹⁰ And according to Dr. Caligiuri, the pups likely would have survived a hydro test in 1956, whether at a pressure of approximately 500 psig or 560 psig.¹⁹¹

Based on the evidence in the record, and the absence of applicable law, CPSD cannot meet its burden of proof for the violations it alleges related to yield strength and hydro testing.

2. Wall Thickness

CPSD alleges that PG&E violated Subpart (C) of Section 811.27.¹⁹² As demonstrated in PG&E’s opening brief, Section 811.27(C) does not apply.¹⁹³

¹⁸⁶ Ex. PG&E-1 at 2-7 to 2-8 (PG&E/Harrison); Ex. PG&E-1 at 3-11 (PG&E/Caligiuri). See Ex. CPSD-1 at 18 (CPSD/Stepanian) (“At the time Segment 180 was constructed in 1956, the Commission had jurisdiction over the safety of PG&E natural gas transmission facilities but there were no specific federal or state safety regulations applicable to transmission line construction.”). See also PG&E OB at 28-39.

¹⁸⁷ Ex. CPSD-156 at 38-61.

¹⁸⁸ Joint R.T. 413-14 (PG&E/Harrison); Ex. Joint-10 at HRG-0008, HRG-0019, HRG-0073, HRG-0095, HRG-0119, HRG-0203.

¹⁸⁹ Ex. PG&E-1 at 3-5 to 3-17 (PG&E/Caligiuri).

¹⁹⁰ R.T. 1084 (PG&E/Caligiuri).

¹⁹¹ Referring to the margins built into the applicable calculations, Dr. Caligiuri explained: “I think that it certainly changes some of the margins you have in there. But it does not change my opinion that if they had tested this section of pipe to 560 psig, I believe it’s possible that those three pups would have survived.” R.T. 1070 -71 (PG&E/Caligiuri). As Dr. Caligiuri further explained, though the pipe section “was designed and constructed” with the expectation it would eventually be a Class 3 location, the pipe was not necessarily tested to a pressure of 560 psig.

¹⁹² For the first time in its opening brief, CPSD alleges this violation with specific reference to subsection (C). See Ex. CPSD-1 at 20-21 (CPSD/Stepanian).

¹⁹³ PG&E OB at 49-50.

CPSD misapprehends the meaning of wall thickness as that term is used in the industry and in Section 811.27(C).¹⁹⁴ It is clear from the language of Section 811.27(C) that wall thickness is a metric specific to the pipe wall or pipe body, and is not applicable to the dimensions of long seam welds.¹⁹⁵ “Unless the nominal wall thickness is known with certainty, it shall be determined by measuring the thickness at quarter points on one end of each piece of pipe.”¹⁹⁶ Specifications related to longitudinal seam welds are determined according to an altogether different metric.¹⁹⁷ Recognizing this, the NTSB, on which CPSD relies to support its allegations, did not treat the long seam weld on the pups in determining wall thickness.¹⁹⁸ On the contrary, the NTSB concluded that the wall thickness of the pipe in Segment 180, including the pups, was consistent with the 0.375-inch specification.¹⁹⁹ Even assuming Section 811.27(C) had the force of law, CPSD has not satisfied its burden to prove that PG&E violated Section 811.27(C).

3. Welds

CPSD asserted in its January 12, 2012 report that the welds in the Segment 180 pups contained deficiencies in violation of Section 811.27(E).²⁰⁰ PG&E’s responsive written testimony showed Section 811.27(E) was inapplicable.²⁰¹ Mr. Harrison explained that Section 811.27(E) relates to the suitability of different types of pipe for welding and is not a source for evaluating the quality of girth welds.²⁰² Recognizing PG&E’s written testimony was correct, CPSD withdrew its allegation based on Section 811.27(E) in its August 20, 2012 rebuttal testimony, saying, “CPSD withdraws this allegation.”²⁰³ In its opening brief, however, CPSD appears to attempt to revive this alleged violation.²⁰⁴ CPSD cannot be permitted to assert a

¹⁹⁴ Ex. PG&E-1 at 2-5 to 2-6 (PG&E/Harrison); Joint R.T. 399-400 (PG&E/Harrison); PG&E’s Request for Official Notice, Ex. 5 (ASA B31.1.8 § 811.27 (1955)).

¹⁹⁵ PG&E’s Request for Official Notice, Ex. 5 (ASA B31.1.8 § 811.27 (1955)).

¹⁹⁶ PG&E’s Request for Official Notice, Ex. 5 (ASA B31.1.8 § 811.27 (1955)).

¹⁹⁷ Joint R.T. 399-400 (PG&E/Harrison).

¹⁹⁸ Ex. CPSD-9 (NTSB Report) at 41.

¹⁹⁹ Ex. CPSD-9 (NTSB Report) at 41.

²⁰⁰ Ex. CPSD-1 at 20-21 (CPSD/Stepanian).

²⁰¹ Ex. PG&E-1 at 2-6 (PG&E/Harrison).

²⁰² Ex. PG&E-1 at 2-6 (PG&E/Harrison).

²⁰³ Ex. CPSD-5 at 7 (CPSD/Stepanian)

²⁰⁴ CPSD OB at 37-38, Appendix C at 1; CPSD OB, Revised Appendix C at 2.

violation, explicitly withdraw it before the evidentiary hearing, and then assert it again after the close of evidence.²⁰⁵

As an apparent substitute, CPSD also alleges that purported deficiencies in the girth welds between the pups in Segment 180 constituted a violation of API 1104, Section 1.7.²⁰⁶ In support, CPSD cites only its January 12, 2012 report and an NTSB metallurgical report.²⁰⁷ Though overlooked by CPSD,²⁰⁸ the NTSB Metallurgical Group Chairman stated that API Standard 1104 was a voluntary standard that did not have legal effect until 1961, five years after the installation of Segment 180.²⁰⁹

More fundamentally, there is no record evidence that the purported defects in the pup girth welds fell below the acceptance criteria in API 1104. As Dr. Caligiuri explained, there are imperfections in every weld, which are evaluated against established acceptance criteria.²¹⁰ The NTSB, on which CPSD exclusively relies for this alleged violation, did not make any findings that the imperfections in the girth welds in the pups fell below the acceptance standards applicable in 1956.²¹¹ Absent such a determination, CPSD has no evidentiary basis to allege a violation based on the quality of the girth welds.

4. Failure To “Sufficiently Inspect”

TURN alleges PG&E failed “to sufficiently inspect” Segment 180 in violation of Section 451.²¹² TURN asserts that PG&E should have been alerted to the presence of the pups when the pipe was reconditioned, claiming the defects in the pups would have been exposed and readily apparent.²¹³

²⁰⁵ See also *supra* Section III.C.

²⁰⁶ CPSD OB at 37-38. Previously, CPSD asserted the girth welds were deficient, without specifying what provision of API 1104 they allegedly violated. Ex. CPSD-1 at 21 (CPSD/Stepanian).

²⁰⁷ CPSD OB at 38.

²⁰⁸ CPSD OB at 38.

²⁰⁹ Ex. CPSD-16 at 6 (“Adherence to API 1104 was not a code requirement until January 17, 1961 when it became incorporated into CPUC General Order 112.”).

²¹⁰ Ex. CPSD-16 at 6, 72-73; R.T. 1135-36 (PG&E/Caligiuri).

²¹¹ Ex. CPSD-16 at 6-7, 72-76. The NTSB made no determinations relating to the acceptance criteria applicable in 1956. See Ex. CPSD-16 at 75, Table B3: “Radiographic discontinuities found on girth welds C1 -C4. An “X” designates a defect that did not meet the *present day* API 1104 acceptance criteria. An “O” designates a discontinuity that was within the acceptance criteria of present day API 1104. The location numbers indicate distance in inches around the circumference of the pipe.” (Emphasis added).

²¹² TURN OB at 9-12. TURN cannot lawfully allege independent violations against PG&E. See *infra* Section VI.

²¹³ TURN OB at 11-12.

By the time of the Segment 180 project in 1956, the anti-corrosion wrapping on the outside of the pipe would have deteriorated in the sun, and, at a minimum, the old wrapping would need to be removed and the pipe re-wrapped.²¹⁴

TURN's contention is not based on evidence, but on a series of assumptions, each of which lacks support in the record. TURN's assertion assumes: (1) the joint containing the pups was stored outside in PG&E's storage yard prior to installation of Segment 180; (2) the joint containing the pups was located on the top of all other pipe in storage, or was otherwise exposed to sunlight while in storage; (3) the anti-corrosion wrapping or coating on the joint containing the pups significantly deteriorated while in storage; and (4) re-coating or re-wrapping was conducted by PG&E or supervised by PG&E in a way the existence of the pups would have been observed. TURN has not introduced evidence to establish any of these facts. On the contrary, the record evidence shows that the pups may have been delivered to the job site, wrapped in a heavy protective coating and welded in the middle of a larger piece of pipe, which would have concealed the pups and the defects they contained during installation.²¹⁵ TURN simply assumes the pups were in PG&E's possession, required reconditioning, and were reconditioned by PG&E personnel; and only by making these unsupported assumptions can TURN get to the conclusion it asserts. TURN's speculation is not evidence, and there is no evidentiary support for this alleged violation.²¹⁶

5. Duty Of Reasonable Care

CPSD alleges another new violation based on ASA B31.1.8-1955, Section 810.1.²¹⁷ By installing the pups, CPSD claims that PG&E violated "the general duty of reasonable care" that is "*codified* in Section 810.1 of [ASA] B31.1.8- 1955."²¹⁸ CPSD has taken a voluntary industry guideline and elevated it to "codified" status on par with laws enacted by the California

²¹⁴ TURN OB at 11.

²¹⁵ Ex. PG&E-1 at 2-6 to 2-7 (PG&E/Harrison); Joint R.T. 379-88, 411-12 (PG&E/Harrison).

²¹⁶ Alleging another violation for the first time, CPSD asserts PG&E violated ASA B31.1.8-1955, Section 811.27(A), entitled "Inspection." CPSD OB at 35-36. As discussed in PG&E's Motion to Strike Appendix C, filed March 18, 2013, and above in Section III.C, alleging a new violation at this stage runs afoul of constitutional due process. CPSD's alleged violation of Section 811.27(A) also fails for the same reasons discussed above regarding TURN's speculative inspection theory (but alleged under Section 451).

²¹⁷ CPSD OB at 34-35.

²¹⁸ CPSD OB at 34-35 (emphasis added).

Legislature. ASA B31.1.8-1955 is not statutory law, or even administrative law, despite CPSD's characterization.

In addition, the provision does not impose a general duty of care. Section 810.1 is in the nature of a preamble to Chapter 1 of ASA B31.1.8- 1955, entitled "Materials and Equipment."²¹⁹ The words "duty" and "reasonable care" do not appear. It states in relevant part that "[i]t is intended that all materials and equipment that will become a permanent part of any piping system constructed under this code shall be suitable and safe for the conditions under which they are used."²²⁰ ASA B31.1.8-1955, Section 810.1 does not establish a statutory or common law duty of reasonable care anymore than does any other section of ASA B31.1.8-1955. For CPSD to suggest otherwise, in particular for the first time at this stage in the proceeding, is misplaced. In addition to being invalid as a newly-alleged violation, this alleged violation has no basis in fact or law. On the contrary, in specifying API 5XL pipe, PG&E provided that the pipe it used in Segment 180 would be suitable and safe for use.

6. Minimum Length

CPSD alleges, "By installing sections in Segment 180 that were less than 5 feet in length, PG&E violated API 5LX Section VI, creating an unsafe system in violation of Section 451."²²¹ Short lengths of pipe, properly made and installed, do not present a safety concern; there is no legal requirement that pipe be of a minimum length.²²² In addition, API 5LX Section VI cannot support a violation of law; it is a manufacturing standard that does not apply to PG&E and other pipe operators and pipe purchasers.²²³ PG&E does not manufacture pipe and did not manufacture the pups in Segment 180.²²⁴ CPSD has failed to prove any violation of law based on the API 5LX manufacturing standard.

7. MAOP

It is undisputed that, from 1970 forward, the MAOP on Line 132 was appropriately established at 400 psig based on a pressure log from Milpitas Terminal, dated October 16,

²¹⁹ PG&E's Request for Official Notice, Ex. 5 at § 810.1.

²²⁰ PG&E's Request for Official Notice, Ex. 5 at § 810.1.

²²¹ CPSD OB at 36.

²²² R.T. 1059-61 (PG&E/Caligiuri); Joint R.T. 410-11 (PG&E/Harrison).

²²³ Ex. CPSD-1 at 22 (CPSD/Stepanian).

²²⁴ Ex. PG&E-1 at 3-4, 3-16 (PG&E/Caligiuri); Joint R.T. 375-76 (PG&E/Harrison); R.T. 1081 (PG&E/Caligiuri).

1968.²²⁵ It is also undisputed that the pressure on Line 132 on September 9, 2010 did not exceed the maximum operating pressure allowed by pipeline safety regulations.²²⁶ Nonetheless, CPSD continues to allege that PG&E violated Section 845.22 of ASA B31.1.8-1955 for not properly establishing the MAOP on Segment 180 in 1956. CPSD again fails to meet its burden of proof.

As an initial matter, CPSD attempts to rely on a lack of documentation (from half a century ago) to prove this violation. CPSD states, “ *PG&E did not produce evidence* that it established an MAOP for Segment 180 at the time of construction.”²²⁷ CPSD’s allegation that “PG&E did not produce evidence . . .” exposes an impermissible attempt to shift the burden of proof onto PG&E. PG&E need not “produce evidence” to establish the absence of any alleged violation.

In its January 2012 report, CPSD alleged that PG&E “did not follow ASA B31.1.8 -1955 when it initially established the MAOP for the failed segment.”²²⁸ Now, in its opening brief, CPSD offers a different theory. CPSD alleges that PG&E could not have validly established the MAOP for Segment 180 at the time of construction based on design pressure calculations because “PG&E clearly did not incorporate the pups.”²²⁹ CPSD again relies on hindsight knowledge. CPSD contends that PG&E failed to correctly calculate the MAOP on Segment 180 in 1956 because it did not use in its design pressure calculations information it did not have. In the alternative, CPSD alleges that PG&E should have used an assumed yield strength value (24,000 psig) in calculating the MAOP, because the yield strength of the pups was “unknown.”²³⁰ Both of CPSD’s theories and this alleged violation are based on a flawed premise: PG&E could not have possibly calculated MAOP as CPSD insists it should have when the information needed to do so was unknown until after the San Bruno accident. Moreover, had PG&E known about the pups, it would have excavated and replaced them, not recalculated the MAOP based on different pipe characteristics.²³¹

²²⁵ CPSD OB, Appendix A, Finding of Fact 13 (citing CPSD-1 at 23 (CPSD/Stepanian)); 49 C.F.R. § 192.619(c).

²²⁶ Ex. CPSD-1 at 24 (CPSD/Stepanian).

²²⁷ CPSD OB at 38 (emphasis added).

²²⁸ Ex. CPSD-1 at 23 (CPSD/Stepanian).

²²⁹ CPSD OB at 39.

²³⁰ CPSD OB at 40.

²³¹ Joint R.T. 337-38 (PG&E/Harrison); Joint R.T. 1051 (PG&E/Keas).

8. The Commission Did Not Conclude That Section 451 Gave ASME Industry Standards The Force Of Law Before 1961

TURN argues the Commission’s decision D.12 -12-30 “compels” the conclusion that noncompliance with ASA B31.8 prior to 1961 constituted a violation of Section 451.²³² TURN is wrong. The passage from D.12-12- 30 on which TURN relies merely explains that PG&E’s ratepayers will not bear the cost PG&E incurs in re-testing pipelines it had installed between 1956 and 1961 due to the absence of pressure test records.²³³ In disallowing these potential re-testing costs, the Commission reasoned that ratepayers already “paid for such testing once,” since PG&E’s practice was generally to comply with the ASA B31.8 voluntary standards.²³⁴ Contrary to TURN’s contention, D.12-12-30 did not purport to state a legal requirement or draw conclusions regarding legal mandates before 1961. Rather, the Commission was careful to stress that it was “express[ing] *no opinion* on whether PG&E’s natural gas system records violated federal or state law or regulations because those questions are pending in I.11-02 -016.”²³⁵ It was based on that understanding, *i.e.*, that the Commission had not reached a conclusion of law, that PG&E withheld comment on that portion of the proposed decision (and did not seek rehearing).

Between 1956 and 1961, PG&E generally adhered to the ASA B31.8 voluntary industry standards, as did other California utilities. But no one at the time, including the Commission, understood that any California utility adhered to those standards in every instance or that they were required to do so by law.²³⁶ The adoption of GO 112 marked a significant change in the legal requirements governing California utilities. It was not a meaningless development, as it necessarily would be under the theory that Section 451 incorporated the ASA B31.8 voluntary industry standard prior to GO 112’s adoption.

9. Section 2108 “Continuing” Violations and Construction of Segment 180

CPSD contends that the violations relating to the construction of Segment 180 are “continuing” violations under Public Utilities Code Section 2108. CPSD’s application of

²³² I.12-01-007; TURN OB at 13-14.

²³³ D.12-12-030, 2012 Cal. PUC LEXIS 600, at *112-13.

²³⁴ D.12-12-030, 2012 Cal. PUC LEXIS 600, at *112-13.

²³⁵ D.12-12-030, 2012 Cal. PUC LEXIS 600, at *169-70 (emphasis added).

²³⁶ *See* D.61269 (with GO 112 attached), Appendix A at 6 (recognizing that “gas utilities in this State *generally* have voluntarily followed recognized national standards” (emphasis added)).

Section 2108 to the construction of Segment 180 is improper. On its face, the language of Section 2108 shows that it targets repeat and continuing occurrences of the same violation over time. “[I]n the case of a continuing violation each day’s continuance thereof shall be a separate and distinct offense.”²³⁷ Commission precedent confirms Section 2108 does not apply to specific instances of violations.²³⁸ The Commission has found that Section 2108 was designed to penalize “practices” that “occurred over a period of time,” but does not contemplate “continuing” treatment to “specific instances of violations.” *Qwest*, 2003 Cal. PUC LEXIS 67, at *20-21 (“The Commission has calculated fines on the basis of Section 2108 in cases where the evidence established that...practices that violated statutory or decisional standards had occurred over a period of time, *rather than specific instances of violations.*”) (emphasis added).

In alleging “continuing” violations relating to the Segment 180 construction, CPSD improperly multiplies distinct actions or events that occurred once during the 1956 construction into violations that repeated daily over several decades. Any violations that occurred in the Segment 180 construction, however, began and ended in a finite time period in 1956, namely, the period in which the construction (and the alleged violations) took place. That the pups remained in the ground after installation does not transform a single act or omission into a reoccurring violation over 54 years.²³⁹

B. PG&E’s Integrity Management Program

Despite bearing the burden of proof on each alleged violation, CPSD’s opening brief mostly reiterates in truncated form the integrity management allegations contained in its January 12, 2012 report. Without more, and in light of PG&E’s rebuttal of each of the violations alleged in that report, CPSD has failed to prove that PG&E’s Integrity Management program was deficient as a matter of law.

In contrast to CPSD, Intervenors have gone to considerable effort to convince the Commission of PG&E’s wrongdoing. However, Intervenors’ arguments often mischaracterize and misrepresent what is required by the integrity management regulations, ignore contravening record evidence, and seek to impose requirements that are not found in law or industry practice.

²³⁷ Pub. Util. Code § 2108.

²³⁸ *Qwest*, 2003 Cal. PUC LEXIS 67, at *20-21.

²³⁹ *Qwest*, 2003 Cal. PUC LEXIS 67, at *20-21.

Intervenors similarly fail to introduce evidence that PG&E's Integrity Management program did not satisfy regulatory requirements.

PG&E's opening brief addressed and rebutted each of the integrity management violations for which PG&E had notice. Here, PG&E provides additional support and evidence demonstrating that PG&E gathered and reviewed the required data elements, properly conducted threat identification, including consideration of manufacturing seam threats and cyclic fatigue, properly assessed the relative risk of the segments in its pipeline system, and properly assessed the threats that the integrity management regulations identify on pipeline in PG&E's system (including Segment 180).

1. PG&E's Data Gathering Satisfied Regulatory Requirements

PG&E's opening brief detailed the substantial record evidence demonstrating that PG&E's data gathering and integration procedures complied with regulatory requirements and comported with industry practice.²⁴⁰ PG&E presented the findings from two integrity management program audits conducted by CPSD, in which CPSD found that PG&E gathered data from the required sources enumerated in ASME B31.8S.²⁴¹ PG&E explained its two-step data gathering process, in which PG&E conducts an initial data gathering using centralized data elements in order to meet the yearly baseline assessment requirement, and then conducts a second data gathering during the pre-assessment phase of each integrity assessment to gather additional data from non-centralized sources.²⁴² PG&E identified limitations of the NTSB's investigation of PG&E's data gathering practices that led CPSD to wrongly conclude that PG&E did not gather minimum data elements.²⁴³ PG&E detailed its use of conservative, assumed values in instances where pipeline attribute data is not available, and provided expert testimony demonstrating that this practice is authorized in integrity management regulations and is commonplace in the natural gas pipeline industry.²⁴⁴ PG&E demonstrated that CPSD's pre-San Bruno 2010 audit did not identify any shortcomings in PG&E's data accuracy, in stark and

²⁴⁰ PG&E OB at 58-71.

²⁴¹ PG&E OB at 60.

²⁴² PG&E OB at 61-64.

²⁴³ PG&E OB at 64-65.

²⁴⁴ PG&E OB at 65-68.

unexplained contrast with CPSD’s present allegations.²⁴⁵ PG&E showed that neither regulations nor industry practice require an operator to document pipeline installations at the joint- by-joint level, rebutting CPSD’s allegation that PG&E’s GIS was deficient for not identifying six short lengths of pipe totaling 23 feet in an 1,800-foot segment. In short, PG&E rebutted each of CPSD’s allegations with significant and compelling evidence, validated by expert testimony from a drafter of the integrity management rules.

In contrast, CPSD’s opening brief uses less than three pages to reiterate allegations from the January 12, 2012 report. CPSD expends little effort on each allegation, using a sentence or two to state the charge, identify the relevant regulation, and, occasionally, provide a footnote or parenthetical in support of the allegation.²⁴⁶ What little evidence CPSD marshals consists entirely of citations to the NTSB’s accident investigation report or references to CPSD’s January 12, 2012 Staff Report that, in turn, cite the NTSB report.²⁴⁷ CPSD’s theories, allegations, and evidence are fully addressed in PG&E’s opening brief. In the interest of brevity, PG&E limits this section of its reply to address (1) CPSD’s misrepresentations of the consequence of using assumed values in threat identification, (2) the propriety of using assumed specified minimum yield strength (SMYS) values greater than 24,000 psig, and (3) the significance of the use of data that is verifiable or obtained in a timely manner in the first data gathering step.

a. ASME B31.8S Expressly Authorizes Using Assumed Values In Threat Identification²⁴⁸

CPSD’s interpretation of data gathering requirements in ASME B31.8S is confusing. CPSD states: “When data is missing from the minimum data sets identified in Appendix A, the threat is assumed to exist.”²⁴⁹ CPSD’s very next sentence contradicts this assertion: “In addition, where there is missing data, conservative assumptions should be used.”²⁵⁰ CPSD does not explain why an operator would need to conduct a risk assessment using assumed values if the consequence of missing data is the threat is deemed to exist. Contrary to CPSD’s interpretation,

²⁴⁵ PG&E OB at 68-70.

²⁴⁶ CPSD OB at 41-43.

²⁴⁷ CPSD OB at 41-43.

²⁴⁸ The use of assumed values is more properly characterized as a threat identification issue. However, PG&E addresses the issue in the data gathering section, as presented by CPSD, for clarity.

²⁴⁹ CPSD OB at 41.

²⁵⁰ CPSD OB at 41 (citing Ex. CPSD-1 at 28 (CPSD/Stepanian)).

ASME B31.8S allows operators to use conservative assumptions in the place of actual attribute data during threat identification.²⁵¹ Indeed, ASME B31.8S was written “with full recognition that records and a lot of other information would not be available[.]”²⁵² CPSD’s interpretation is unsupported, and its allegations based on that interpretation should be disregarded.

CPSD’s interpretation is premised upon an isolated sentence lifted without context from ASME B31.8S, Section 4.2.1. This section describes, generally, the data gathering process for prescriptive integrity management programs,²⁵³ and directs operators to follow the threat-specific data gathering instructions contained in ASME B31.8S, Appendix A.²⁵⁴ For each threat, the Appendix states that an operator may use conservative assumptions when the operator is missing data.²⁵⁵ The Appendix does not state that the operator must assume the threat exists. CPSD’s interpretation would require an operator to possess a perfect data set (which no operator has) in order to conduct the threat identification process, a clear contradiction of the plain language and intent of ASME B31.8S.²⁵⁶

The express authorization in ASME B31.8S to use assumed values where actual data is unavailable undercuts CPSD’s allegations relating to “missing or inaccurate” data for Line 132. For example, CPSD claims that the use of assumed values for pipe wall thickness and SMYS are “in error, but not discovered by PG&E.”²⁵⁷ CPSD does not specify how the use of assumed values for these elements is inaccurate, nor does CPSD explain how PG&E could be unaware that it was using assumed values, as assumed values are specifically identified in GIS. However, using assumed values is allowed by ASME B31.8S. CPSD cannot credibly claim that following ASME constitutes an error, or a violation of law.

PG&E acknowledges its GIS did not identify the pipe manufacturer for much of Line 132. However, for purposes of manufacturing seam threat identification, the longitudinal seam type, joint efficiency, date of installation, and whether or not the segment was subjected to a

²⁵¹ Joint R.T. 1186-87 (PG&E/Keas).

²⁵² Joint R.T. 653 (PG&E/Zurcher).

²⁵³ Ex. Joint-28 (ASME B31.8S), § 4.2.1.

²⁵⁴ ASME B31.8S, Appendix A is a step-by-step guide for operators to follow when conducting threat identification, including data gathering, analysis, and assessment.

²⁵⁵ Ex. Joint-28 (ASME B31.8S), Appendix A, §§ A1.2, A2.2, A3.2, A4.2, A5.2, A6.2, A7.2, A8.2, A9.2.

²⁵⁶ Joint R.T. 21-22, 653 (PG&E/Zurcher).

²⁵⁷ CPSD OB at 42. The list of “missing or inaccurate data in PG&E’s records” is reiterated from CPSD’s January 12, 2012 Staff Report (Ex. CPSD-1 at 31-32 (CPSD/Stepanian)). PG&E OB at 65-72.

qualifying pressure test are the relevant data points.²⁵⁸ PG&E assumes the most conservative values for the longitudinal seam and joint efficiency for segments where this information is unavailable.²⁵⁹

b. PG&E's Practice Of Using Assumed SMYS Values Consistent With Historic Pipe Procurement Minimums Complies With Regulations

Despite the authorization in ASME B31.8S to use conservative assumptions where data attributes (including SMYS) are unavailable, CPSD claims operators must use 24,000 psig as the assumed SMYS value "if the data is missing."²⁶⁰ CPSD's argument is unsupported by law, as the code section cited by CPSD relates to pipe design, not integrity management. Moreover, integrity management regulations specifically allow the use of conservative, assumed values informed by historic pipe data. Even if CPSD's argument is accepted as true, CPSD presents no evidence that the specification or tensile properties of the segments in question are actually unknown.

As PG&E discussed in its opening brief, pipeline operators are allowed to use conservative, assumed values derived from the minimum (most conservative) values of the pipeline attribute in question for pipe used in contemporaneous pipeline installations, as determined by research into historic pipe purchasing practices.²⁶¹ This applies equally to SMYS values.²⁶² Contrary to CPSD's assertion, operators are not limited to either actual, verified pipeline SMYS or 24,000 psig. Instead, an operator may use other information known about the pipe (*e.g.*, year of installation, seam type, diameter) to determine the minimum possible SMYS for pipe of that vintage.²⁶³ This practice finds explicit support in ASME B31.8S, which allows operators to use assumed values for pipeline attributes (including SMYS)²⁶⁴ based on historic pipeline specifications.²⁶⁵

²⁵⁸ *E.g.*, Records R.T. 1469-72, 1693-94 (PG&E/Keas). (All of Ms. Keas testimony was admitted in the San Bruno OII record.)

²⁵⁹ *E.g.*, Records R.T. 1469-72 (PG&E/Keas).

²⁶⁰ CPSD OB at 41.

²⁶¹ PG&E OB at 65-67.

²⁶² Joint R.T. 9 (PG&E/Zurcher).

²⁶³ Joint R.T. 15-16 (PG&E/Zurcher).

²⁶⁴ Joint R.T. 17 (PG&E/Zurcher).

²⁶⁵ Ex. Joint-28 (ASME B31.8S), § A4.2.

CPSD’s opening brief does not even refer to the authorization in ASME B31.8S (incorporated in the integrity management rules) or expert testimony (by one of the authors of the ASME B31.8S standard) that support the practice of using assumed SMYS values greater than 24,000 psig based on historic minimum pipe specifications. Instead, CPSD alleges a violation based on a regulation that is not found within the integrity management rules (49 C.F.R. subpart O), but is instead grouped with regulations establishing pipe design requirements to be used when designing and installing new pipe (49 C.F.R. § 192.107(b), part of 49 C.F.R. subpart C, “Pipe Design”).²⁶⁶ As CPSD admits, data gathering requirements are stated in 49 C.F.R. § 192.917(b) and ASME B31.8S, including Appendix A.²⁶⁷ Section 192.107(b) is not related to data gathering requirements, and cannot plausibly be construed to support CPSD’s allegation.

Assuming that 49 C.F.R. § 192.107(b) requires an operator to use 24,000 psig during integrity management data gathering where the actual SMYS value is unavailable, CPSD still fails to present evidence to support a violation. To support its claim, CPSD would have to prove that the segments at issue are truly “unknown” within the meaning of the regulation. CPSD’s opening brief contains both a general²⁶⁸ and a specific²⁶⁹ reference to PG&E’s use of assumed SMYS values greater than 24,000 psig. In neither case does CPSD present any evidence that identifies the segment in question, nor does CPSD present evidence that the SMYS value of the segment was unknown. CPSD simply assumes a violation because PG&E did not use 24,000 psig as the SMYS value. As explained by Mr. Zurcher, an operator may have some information regarding a pipe segment that allows the operator to make a fact-based assumption regarding the SMYS of the segment in question.²⁷⁰ For the operator to be required to use the 24,000 psig value, the operator must know *nothing* about the pipe segment, or otherwise be unable to determine the SMYS value based on the attributes the operator does know.²⁷¹

²⁶⁶ CPSD OB at 42.

²⁶⁷ CPSD OB at 41.

²⁶⁸ CPSD OB at 41 (“By routinely using yield strength values above 24,000 psi, PG&E violated Part 192.107(b)(2).”).

²⁶⁹ CPSD OB at 42 (“two segments with unknown SMYS were assigned values of 33,000 psi and 52,000 psi, not 24,000 psi”).

²⁷⁰ Joint R.T. 15-17 (PG&E/Zurcher).

²⁷¹ Joint R.T. 28-29 (PG&E/Zurcher).

CPSD provides no evidence supporting the conclusion that PG&E knows nothing about every segment that has an assumed SMYS value greater than 24,000 psig. CPSD’s specific allegation regarding two segments on Line 132 only asserts that the segments had an “unknown SMYS” value without establishing that PG&E lacked other information that allowed it to determine the appropriate SMYS value for that vintage pipe.²⁷² An assumed SMYS value higher than 24,000 psig is not automatically incorrect, as CPSD contends. CPSD failed to meet its burden of proof that the SMYS values of the segments were actually unknown, that PG&E was required to use the 24,000 psig SMYS value, or that PG&E’s use of assumed SMYS values in any instance constituted a violation.²⁷³

c. PG&E’s Two -Step Data Gathering Process Satisfies Data Gathering Regulatory Requirements

As it did in its January 12, 2012 report, CPSD seizes upon a single sentence in PG&E’s Risk Management Procedure (RMP) 06 in support of its claim that PG&E’s data gathering was deficient. The sentence is located in section 2.4 of RMP- 06 and addresses “Data Elements Selected for *Initial* Analysis.”²⁷⁴ This sentence states: “For the risk analysis process, the Company has chosen pipeline attributes based upon available, verifiable information or information that can be obtained in a timely manner.”²⁷⁵ Based solely on this sentence, CPSD asserts that “[a]s a policy, PG&E did not always seek the most accurate data”²⁷⁶ and concludes “[t]hus, if pipeline data could not be verified, PG&E’s policy allowed it to substitute information that can be obtained in a timely manner, which would not preclude assumed values. As a result, an in-depth understanding of the threats on Line 132 and Segment 180 was not achieved.”²⁷⁷ CPSD’s current assertion regarding the sufficiency of PG&E’s data gathering process is refuted by prior CPSD audits that found PG&E’s data gathering procedures (including RMP -06) to be adequate, and by PG&E’s testimony and opening brief explaining the significance of the

²⁷² CPSD OB at 42.

²⁷³ Requiring PG&E to demonstrate that CPSD’s unsupported assertion is incorrect would shift the burden of proof onto PG&E. CPSD must prove that PG&E unlawfully used assumed SMYS values in excess of 24,000 psig or the violation cannot be found.

²⁷⁴ Ex. PG&E-6 (Tab 4-6) (PG&E RMP-06, Rev. 5) (emphasis added).

²⁷⁵ Ex. PG&E-6 (Tab 4-6) (PG&E RMP-06, Rev. 5), § 2.4.

²⁷⁶ CPSD OB at 42.

²⁷⁷ CPSD OB at 43 (citing Ex. CPSD-1 (CPSD/Stepanian)).

sentence in the context of the yearly baseline assessment process. CPSD’s mere reiteration of its criticism presents no evidence to substantiate its claim.

As described in PG&E’s opening brief, the “timely” qualifier in this sentence in RMP -06 reflects the fact that the initial data gathering process (the first step explained in PG&E’s June 26, 2012 testimony)²⁷⁸ addresses the reality that data must be gathered each year in order to complete the yearly baseline assessment plan.²⁷⁹ During the initial step, PG&E gathers pipeline attributes and other information from centralized data sets, often contained in GIS.²⁸⁰ PG&E performs this initial data gathering step to facilitate the threat identification process for all nine categories of pipeline threats, and gathers data from the minimum data elements outlined in ASME B31.8S, Appendix A,²⁸¹ as confirmed by CPSD’s 2010 audit.²⁸² During the second step in the data gathering process, non-centralized sources, such as job files or leak records stored in local offices, are reviewed as part of the pre-assessment phase for every integrity assessment.²⁸³ The second step in data gathering assures that, prior to an integrity assessment being carried out, PG&E Integrity Management personnel develop a qualitative understanding of the maintenance history and characteristics of the pipeline to be assessed, and verify that the proper assessment tool is selected for the threats identified during both steps in the data gathering process.²⁸⁴ ASME B31.8S committee member John Zurcher verified that PG&E’s data gathering process satisfied the requirements of ASME B31.8S.²⁸⁵

CPSD cannot meet its burden of proof by extracting a single sentence from the 99-page RMP-06 document. Indeed, CPSD’s argument is defeated through a simple review of RMP -06 Section 2.4. The sentence CPSD seizes on is part of a larger two paragraph description of the two-step data gathering process. The first paragraph, which contains CPSD’s sentence, discusses the initial data gathering step.²⁸⁶ CPSD’s argument ignores the second paragraph, which explains that the data gathering process will be repeated on an annual basis, and new or revised

²⁷⁸ Ex. PG&E-1c at 4-8 (PG&E/Keas).

²⁷⁹ Joint R.T. 1081-82 (PG&E/Keas).

²⁸⁰ Ex. PG&E-1c at 4-7 (PG&E/Keas).

²⁸¹ Ex. PG&E-1c at 4-7 to 4-9 (PG&E/Keas); Joint R.T. 1081-82 (PG&E/Keas).

²⁸² Ex. PG&E-7 (Tab 4-13).

²⁸³ Joint R.T. 1075 (PG&E/Keas); Ex. PG&E-1c at 4-8 (PG&E/Keas).

²⁸⁴ Ex. PG&E-1c at 4-8 (PG&E/Keas); Joint R.T. 1176-77 (PG&E/Keas).

²⁸⁵ Joint R.T. 797 (PG&E/Zurcher).

²⁸⁶ Ex. PG&E-6 (Tab 4-6) at 22.

information regarding pipe properties, location, inspection information, and assessment information (gathered during the second step) will be incorporated into GIS for use in future annual risk calculations. ²⁸⁷ CPSD’s disregard of the entirety of PG&E’s data gathering procedures is not a substitute for evidence.

d. CCSF Erroneously Asserts That PG&E Did Not Properly Identify And Consider Potential Integrity Threats On Pipe Segments Identified In 1965, 1975, And 1996 Reports

Based on PG&E’s response to a single data request, CCSF erroneously concludes PG&E did not adequately consider potential integrity management threats on Lines 101 and 109. ²⁸⁸ CCSF’s conclusion ignores testimony (and even the data response cited by CCSF) that demonstrates PG&E was aware of the threats and segments identified in the reports, and took adequate and appropriate steps to analyze and mitigate the threats.

CCSF claims PG&E’s Integrity Management program was either unaware of, or improperly considered, construction threats posed by oxyacetylene girth welds detailed in three metallurgical investigation reports on Lines 101 and 109. ²⁸⁹ CCSF states that, despite PG&E’s acknowledgement of the presence of a construction threat present in pipelines joined using oxyacetylene girth welds, “PG&E continued to use pipelines with oxy-acetylene girth welds through out [sic] its system.”²⁹⁰ CCSF’s claim is contradicted by ASME B31.8S provisions that relate to identifying and addressing the threat posed by oxyacetylene girth welds and other construction threats.

ASME B31.8S identifies oxyacetylene girth welds as one of the threats that an operator must consider in the integrity management program. ²⁹¹ ASME B31.8S does not specify the operator must immediately replace all pipe constructed with such welds. In fact, ASME explicitly states the presence of oxyacetylene girth welds alone is not a threat to pipeline integrity:

²⁸⁷ Ex. PG&E-6 (Tab 4-6) at 22.

²⁸⁸ CPSD OB at 21-23.

²⁸⁹ CCSF OB at 21-22 (citing Ex. CCSF-1 (Exhibit 6 (1975 test of vintage girth welds on Lines 101 and 109), Exhibit 7 (metallurgical analysis of oxyacetylene girth weld on Line 109), and Exhibit 8 (metallurgical evaluation of oxyacetylene girth welds on Line 109)).

²⁹⁰ CCSF OB at 22.

²⁹¹ Ex. Joint-28 (ASME B31.8S), §§ A4.3 (non-seam manufacturing threat), A5.1 (construction threat).

The existence of these construction- related threats alone does not pose an integrity issue. The presence of these threats in conjunction with the potential for outside forces significantly increases the likelihood of an event. The data must be integrated and evaluated to determine where these construction characteristics coexist with external or outside force potential.²⁹²

Contrary to CCSF’s assertion that an operator must replace all oxyacetylene -welded pipeline, ASME B31.8S requires the operator to (1) identify oxyacetylene-welded segments (and other segments with construction threats); (2) monitor the segment for ground movement, such as an earthquake or landslide; and (3) stabilize or replace pipe that is subject to **both** conditions.²⁹³

PG&E’s Integrity Management program complies with ASME B 31.8S direction to identify and assess construction threats such as oxyacetylene girth welds. Oxyacetylene girth welds are an outdated method of constructing girth welds that was common in the pipeline industry into the 1940s.²⁹⁴ PG&E’s Integrity Management program takes a conservative approach and assumes all pipelines constructed during the era in which oxyacetylene welding was used are subject to this threat.²⁹⁵ PG&E appropriately monitors these segments for ground movement, including earthquake, landslide, and removal of support as a result of third party damage.²⁹⁶

CCSF also faults PG&E for failing to identify and address an unstable manufacturing seam threat discussed in a 1996 report regarding an internal camera inspection of the longitudinal seam on Line 109.²⁹⁷ CCSF concludes that, based solely on PG&E’s response to a data request that asked how PG&E interpreted this report, PG&E did not properly address the seam irregularities.²⁹⁸ CCSF mischaracterizes PG&E’s response by stating that PG&E “provided no documentation demonstrating how these reports were incorporated into PG&E’s TIMP . . .

²⁹² Ex. Joint-28 (ASME B31.8S), § A5.4. *See also* Ex. Joint 28 (ASME B31.8S), §§ A4.3-A4.4.

²⁹³ Ex. Joint-28 (ASME B31.8S), §§ A4.3-4.4, A5.4-A5.5 (emphasis added).

²⁹⁴ *E.g.*, Ex. PG&E-6 (Tab 4-5) (RMP-05).

²⁹⁵ *E.g.*, Ex. PG&E-6 (Tab 4-5) (RMP-05).

²⁹⁶ Joint R.T. 1142-44 (PG&E/Keas).

²⁹⁷ CCSF OB at 22-23 (citing Ex. CCSF-1 (Exhibit 9)).

²⁹⁸ CCSF OB at 23 (citing Ex. Joint-34 (PG&E Response to Data Request CCSF-001-Q05)).

rather, the response just notes how the reports *should have been incorporated.*²⁹⁹ In fact, PG&E's response contained much more information.

PG&E's response to CCSF's data request indicated that the 1996 report related to a metallurgical investigation of sections of Line 109 originally installed in 1935, with a longitudinal seam manufactured by the single submerged arc welding (SSAW) process.³⁰⁰ PG&E explained its integrity management program identifies pipe manufactured using the SSAW process as subject to a potential manufacturing threat, and assigns such pipe a joint efficiency factor of 0.8.³⁰¹ PG&E's Integrity Management program subjects pipe with a reduced joint efficiency (anything less than 1.0) to a stability evaluation to determine whether any conditions on the pipeline would render the manufacturing threat unstable pursuant to 49 C.F.R. § 192.917(e)(3).³⁰² Thus, PG&E affirmatively stated that the segment identified in this report is characterized as having, and is assessed for, a potential manufacturing threat.

CCSF's mistaken understanding of proper identification and mitigation of construction threats, and mischaracterization of PG&E's data response are not evidence that PG&E failed to properly assess the pipe segments identified in CCSF's opening brief. CCSF's argument that PG&E's Integrity Management program failed to properly gather or review these reports, or take the proper actions based on the information therein, is incorrect and should be disregarded.

2. PG&E's Threat Identification Meets Regulatory Requirements And Comports With Industry Practice And Understanding Prior To San Bruno

CPSD's January 12, 2012 report alleged that PG&E violated 49 C.F.R. § 192.917(e)(3) for failing to identify Segment 181 and similar segments as having a potentially unstable manufacturing threat, and Section 192.917(e)(2) for failing to adequately consider cyclic fatigue in its threat analysis.³⁰³ PG&E refuted CPSD's allegations at length in its opening brief.³⁰⁴ CPSD's opening brief reiterates assertions from the January 12, 2012 report, and also raises new violations based on different regulations:

²⁹⁹ CCSF OB at 23 (emphasis in original).

³⁰⁰ Ex. Joint-34.

³⁰¹ Ex. Joint-34.

³⁰² Ex. Joint-34 (citing Ex. PG&E-6 (Tab 4-6) (RMP-06)).

³⁰³ Ex. CPSD-1 at 163.

³⁰⁴ PG&E OB at 72-81 (cyclic fatigue), 81-92 (threat identification, including Segment 181).

- CPSD presents an unsubstantiated list of “defects” found by the NTSB.³⁰⁵ CPSD misrepresents the seam integrity significance of these “defects,” and presents no evidence as to why any of the “defects” are relevant to the threat identification process.³⁰⁶
- CPSD dismisses PG&E’s consideration of cyclic fatigue without addressing the testimony of Dr. John Kiefner (universally regarded as the authority on cyclic fatigue) that affirms the validity of PG&E’s approach.³⁰⁷
- CPSD charges PG&E with a failure to deem all DSAW pipe, considered to be the highest quality welded pipe, as subject to manufacturing seam threats. CPSD reiterates its unsupportable argument that, as a consequence of an exercise intended to raise the pressure in Line 132 to the maximum allowable operating pressure prior to the *publication* of the final integrity management rules, PG&E triggered a requirement to assess the longitudinal integrity of the DSAW seam under regulations that were not yet in force.³⁰⁸
- Finally, in a new violation not alleged in the January 12, 2012 report, CPSD asserts (without citing any evidence) that PG&E failed to assess ERW segments on Line 132 that CPSD *assumes* are low-frequency ERW.³⁰⁹

Intervenors raise additional (but similarly unfounded) criticisms of PG&E’s threat identification process. CCSF and TURN allege that pipe older than 50 years is subject to a manufacturing seam threat similar to low-frequency ERW pipe³¹⁰ and that such pipe, regardless of seam type or lack of incident history, must be assessed for seam integrity under 49 C.F.R. § 192.917(e)(4).³¹¹ CCSF impermissibly offers as evidence post-incident measures undertaken by PG&E that broadened PG&E’s definition of potential manufacturing seam threats above and beyond regulatory requirements.³¹² Finally, TURN argues that PG&E should not be able to rely upon hydrostatic pressure tests conducted at the pipe mill to determine the stability of manufacturing defects. PG&E addresses each of these issues below.

³⁰⁵ CPSD OB at 43-44.

³⁰⁶ Nor does CPSD explain why it is only now asserting a violation of 49 C.F.R. § 192.917(a).

³⁰⁷ CPSD OB at 44-45.

³⁰⁸ CPSD OB at 46.

³⁰⁹ CPSD OB at 46. Only low-frequency ERW is relevant to the manufacturing threat discussion. *See* 49 C.F.R. § 192.917(e)(4); Ex. Joint-28 (ASME B31.8S-2004), Appendix A, § 4.3.

³¹⁰ CCSF OB at 16-17.

³¹¹ TURN OB at 24.

³¹² CCSF OB at 30-31.

a. “Defects” Identified By CPSD (NTSB) Do Not Show The Presence Of Unstable Manufacturing Threats

For the first time in its opening brief, CPSD alleges PG&E violated 49 C.F.R. § 192.917(a) and ASME B31.8S, Section 2.2 for failing to incorporate a list of “defects” that CPSD asserts (without analysis or justification) are relevant to the manufacturing threat assessment process for segments on Line 132 with similar characteristics to Segments 180 or 181.³¹³ These “defects” are a collection of data points gathered from Table 2 in the NTSB Report³¹⁴ and CPSD’s Table V -2.³¹⁵ PG&E addresses each “defect” and explains why they did not indicate a potentially unstable manufacturing threat on Segment 180.

(i) Longitudinal Seam Cracks From 1948 Construction

As discussed in PG&E’s opening brief, indications of long seam imperfections noted on girth weld x-rays of the pipe used during the 1948 construction of Line 132 are not evidence of unstable manufacturing threats.³¹⁶ As described by the 1949 Moody inspection report, the method of fabricating DSAW pipe used by Consolidated Western in 1948 often resulted in cracking in the external longitudinal weld at the ends of pipe joints due to “spring -back” of the plate.³¹⁷ Workers at the pipe mill expected and repaired the small cracks in the exterior weld prior to fabricating the interior longitudinal weld.³¹⁸ The finished pipe length was then inspected inside and out, and subjected to a 90-percent SMYS hydrotest at the pipe mill prior to being placed in service.³¹⁹ Any long seam imperfections that did not fail during this strength test are too small to fail at the allowable operating pressure established by the mill test.³²⁰ CPSD did not provide any evidence to the contrary.

³¹³ CPSD OB at 43-44. CPSD did not allege a violation of 49 C.F.R. § 192.917(a) or ASME B31.8S, § 2.2 in its January 12, 2012 staff report.

³¹⁴ Ex. CPSD-9 (NTSB Report) at 39.

³¹⁵ Ex. CPSD-1 at 33-35 (CPSD/Stepanian).

³¹⁶ PG&E OB at 84-85.

³¹⁷ Ex. PG&E-7 (Tab 4-18) (Moody inspection report – Consolidated Western).

³¹⁸ Ex. PG&E-7 (Tab 4-18) (Moody inspection report – Consolidated Western).

³¹⁹ Ex. PG&E-7 (Tab 4-18) (Moody inspection report – Consolidated Western).

³²⁰ Ex. PG&E-1 at 6-5 (PG&E/Kiefner); R.T. 691-92, 786-87; 832 (PG&E/Kiefner).

(ii) 1958 Seam Leak On DSAW Pipe In Line 300B

CPSD’s assertion that a seam leak on Line 300B is relevant to the manufacturing threat analysis on Line 132 requires proof of all of the following: (1) the seam leak must be the result of a failure of the long seam (which would cause the operator to determine that this type of pipe is subject to a manufacturing threat and conduct the stability analysis required by 49 C.F.R. § 192.917(e)(3)), rather than a pinhole leak;³²¹ and (2) the pipe installed in Line 300B is “similar” to the pipe installed in Line 132.³²² CPSD’s assertion fails for lack of evidence on both fronts. CPSD has presented no evidence that the leak discovered in 1958 on Line 300B was the result of a seam failure. This “defect” is taken directly from Table 2 in the NTSB report, which is an unattributed, unsubstantiated list of “PG&E gas transmission pipeline seam leaks or test failures, 1948-2011” compiled by the NTSB.³²³ CPSD has not demonstrated that the pipe on Line 300B is “similar” to that on Line 132 in any respect other than both are DSAW pipe. Seam type alone is not sufficient to cause an operator to conclude that the pipe is “similar” within the context of a manufacturing threat analysis. To be relevant, the pipe in question must be manufactured to the same material specifications (*e.g.*, pipe diameter, seam type, wall thickness, SMYS, and vintage).³²⁴ Table 2 describes Line 300B as consisting of 34” DSAW, whereas the sections of Line 132 built in 1948 are 30” in diameter.³²⁵ CPSD has failed to prove that this seam leak is relevant to PG&E’s manufacturing threat assessment for Line 132.

(iii) 1964 Leak On A Wedding Band On Line 132

CPSD’s opening brief accurately identifies this as a construction defect.³²⁶ Construction defects are related to the girth weld or girth joint configuration, and are not relevant to the longitudinal seam manufacturing threat analysis.³²⁷

³²¹ *E.g.*, Ex. Joint-39 (PG&E Response to 2011 CPUC GO 112-E Integrity Management Audit) at 1. ASME B31.8S distinguishes a “leak” from a “failure.”

³²² Joint R.T. 1087-89 (PG&E/Keas).

³²³ CPSD OB at 43; Ex. CPSD-9 at 39.

³²⁴ Joint R.T. 1087-89 (PG&E/Keas).

³²⁵ Ex. CPSD-9 at 39.

³²⁶ CPSD OB at 43.

³²⁷ Ex. PG&E-1c at 4-21 to 4-22 (PG&E/Keas).

(iv) 1974 Hydrostatic Test Failure On Line 300B

Table 2 (as excerpted by CPSD) indicates that the hydro test failure occurred on 34-inch pipe. As described above, pipe must be of the same material specifications in order for failures on one pipeline to be relevant to the manufacturing threat analysis on the other. CPSD did not provide any evidence that this pipe is of the same material specification as the Line 132 pipe.

(v) 1988 Pinhole Leak In Line 132

PG&E identified a small leak, commonly referred to as a “pinhole” leak, on Line 132 in 1988. Due to the miniscule size of the pipe defect, metallurgical investigation by microscopic examination could not locate the leak.³²⁸ As PG&E explained in its opening brief (and as multiple PG&E and expert witnesses explained during cross-examination), pinhole leaks are not evidence of manufacturing threats in the context of the integrity management rule.³²⁹ While the microscopic examination of the weld showed imperfections from the manufacturing process, there was no evidence that they had grown in service.

(vi) 1992 Longitudinal Seam Defect In Line 132

This “defect” arises from the misinterpretation of statements made by a PG&E employee during an NTSB interview.³³⁰ CPSD’s “evidence” that this defect exists consists solely of a reference to Table 2 in the NTSB report. CPSD does not rebut PG&E’s testimony that demonstrates that the PG&E employee could not identify the pipeline that contained the defect.³³¹ CPSD has failed to prove the existence of this defect, or its relevance to the manufacturing threat analysis on Line 132.

(vii) 1996 Line 109 Seam Cracking And Seam Weld With Lack Of Penetration

As identified in Table 2 of the NTSB report, this seam cracking was identified on 22-inch diameter pipe.³³² This segment of Line 109 was constructed using the single submerged arc

³²⁸ Ex. PG&E-7 (Tab 4-16).

³²⁹ Joint R.T. 870-71 (PG&E/Zurcher).

³³⁰ Ex. PG&E-7 (Tab 4-22) at 6-30 (NTSB Telephone Interview of Joe Joaquim). The company employee could not recall the pipeline on which the defect he described was located.

³³¹ Ex. PG&E-1c at 4-20 (PG&E/Keas).

³³² Ex. CPSD-9 (NTSB Report) at 39.

welding method, and was installed in 1935.³³³ This segment of Line 109 is not similar pipe, and is not relevant to the manufacturing threat analysis for Line 132.

(viii) 1996 Defect In Forge Seam Weld On DFM-3

This alleged defect occurred on pipe with materially different seam type (forge seam weld vs. DSAW), and is not relevant to the manufacturing threat analysis for Line 132.

(ix) 1999 Leak On Line 402 ERW Seam Weld

This alleged defect occurred on pipe with materially different specifications (seam type and diameter) and is not relevant to the manufacturing threat analysis for Line 132.

(x) Line 132 Miter Joints

Under integrity management regulations, miter joints are considered to be construction threats, not manufacturing threats.³³⁴

(xi) 2009 Leak On Line 132 Girth Weld

Leaks on girth welds are evidence of construction defects.³³⁵ Construction defects are not relevant to the manufacturing seam threat analysis.³³⁶

(xii) 2009 Defective SAW Repair Weld On Line 132

CPSD states that PG&E identified a “defective SAW [submerged arc weld] repair weld” on Line 132 during a 2009 ECDA. While CPSD does not identify any evidence documenting this defect, PG&E believes CPSD is referring to linear indications (small crack-like imperfections) discussed in Exhibit Joint-8. While PG&E agrees that linear indications were found at this location, CPSD has presented no evidence that such indications constituted a threat to seam integrity. To the contrary, evidence in the record indicates that the linear indications were identified on a repair to the long seam made at the pipe mill.³³⁷ Such repairs are expressly

³³³ Ex. CCSF-1 (Exhibit 8 – 1996 Report on Cracking in L109 Seam Welds).

³³⁴ Ex. Joint-28 (ASME B31.8S), § A5 (“Construction is defined in this context as pipe girth weld, fabrication weld, wrinkle bend or buckle, stripped threads, broken pipe, or coupling.”) A miter joint is a girth joint configuration.

³³⁵ Ex. PG&E-1c at 4-21 (PG&E/Keas).

³³⁶ Ex. PG&E-1c at 4-21 to 4-22 (PG&E/Keas).

³³⁷ Ex. Joint-8 at 4. The presence of SAW repair welds is consistent with the Moody inspection report for the DSAW pipe manufactured by Consolidated Western and used in the 1948 construction of Line 132.

authorized in API pipe procurement specifications.³³⁸ Seam repairs made at the factory do not indicate the presence of manufacturing defects that may grow to failure, as the repaired pipe joints are hydro tested in the mill after the repair is made to ensure the integrity of the pipe and eliminate defects that could grow to failure.³³⁹ The record evidence supports this, as the linear indication showed no signs of service-related growth.³⁴⁰ Moreover, the linear indications were present in the weld cap, which is extra metal that is deposited above the level of the pipe wall.³⁴¹ PG&E personnel were able to remove the majority of the indication without removing weld metal below the level of the pipe wall.³⁴²

(xiii) Defects Identified In 2011

CPSD identifies two defects that were discovered in 2011 as part of post-San Bruno activities – one identified during a camera inspection on Line 300A, and one identified during x-ray inspection carried out during PG&E’s MAOP validation.³⁴³ In addition to the fact that these defects were discovered after the incident, and would therefore not be available to PG&E’s Integrity Management personnel prior to 2011, CPSD fails to establish that either of these defects were on pipe similar to that used in Line 132. While CPSD states that these defects were found on DSAW pipe, CPSD does not identify the diameter, wall thickness or other material specifications that are required to make defects on these lines relevant to the integrity assessment on Line 132.

b. PG&E Does Not Have A History Of Long Seam Failure On DSAW Pipe

CPSD and Intervenors argue that, despite regulatory guidance and industry experience to the contrary, PG&E should have considered DSAW pipe to be the seam integrity equivalent to low-frequency ERW pipe manufactured prior to 1970.³⁴⁴ This argument ignores the fact that

³³⁸ *E.g.*, Joint R.T. 1090 (PG&E/Keas).

³³⁹ *E.g.*, Joint R.T. 1090 (PG&E/Keas).

³⁴⁰ Ex. Joint-8 at 4.

³⁴¹ Ex. Joint-8 at 4.

³⁴² Ex. Joint-8 at 4.

³⁴³ CPSD OB at 44.

³⁴⁴ CPSD OB at 45; CCSF OB at 28-30; TURN OB at 27.

DSAW pipe is considered in the industry to be the highest quality welded pipe,³⁴⁵ the classification of DSAW in the regulations as having a joint efficiency factor of 1.0 (equivalent to seamless pipe),³⁴⁶ and the lack of incidents on DSAW pipe in PG&E's system that would cause PG&E to consider DSAW to be subject to a manufacturing threat.

(i) CPSD And Intervenors Must Prove PG&E Had A History Of Long Seam Failures On DSAW Pipe To Show That PG&E Was Required To Consider DSAW As Subject To A Manufacturing Seam Threat

Integrity management regulations state that an operator *must* identify low frequency electric resistance welded pipe (LF-ERW), lap welded pipe, or pipe identified in ASME B31.8S, Section A4.3 or A4.4 (pipe with a joint efficiency less than one) as being subject to a potential manufacturing threat *if* the operator has experienced a seam failure on such pipe or *if* the operating pressure increases over the maximum experienced during the previous five years.³⁴⁷ Additionally, *if* an operator identifies a manufacturing threat on an HCA pipe segment, the operator must analyze the segment to determine the stability of the manufacturing threat.³⁴⁸ Under this second prong (49 C.F.R. § 192.917(e)(3)) of the manufacturing threat analysis, the operator may identify a manufacturing threat on any seam type, but must have a history of seam failure on the particular segment (or similar segments) in its own system prior to classifying the pipe as subject to the threat.³⁴⁹

In plain terms, this means that DSAW is not one of the seam types considered to be subject to seam integrity issues sufficient to merit inclusion in 49 C.F.R. § 192.917(e)(4).³⁵⁰ In order for CPSD to prove that PG&E should have identified DSAW pipe as subject to a

³⁴⁵ Ex. PG&E-1 at 3-5 (PG&E/Caligiuri).

³⁴⁶ 49 C.F.R. § 192.113.

³⁴⁷ 49 C.F.R. § 192.917(e)(4); Ex. Joint-28 (ASME B31.8S), §§ A4.3, A4.4.

³⁴⁸ 49 C.F.R. § 192.917(e)(3).

³⁴⁹ E.g., Ex. Joint-39 (PG&E Response to 2011 CPUC GO 112-E Integrity Management Audit) at 1.

³⁵⁰ Low-frequency ERW pipe is included in 49 C.F.R. § 192.917(e)(4) due to a large number of seam failures experienced in the pipeline industry in the late 1980s. The seam failures were of such a frequency that PHMSA initiated an investigation into that particular type of pipe, and later issued a series of advisory bulletins alerting pipeline operators to the dangers of such pipe. *See, e.g.*, PHMSA Alert Notice ALN-88-01, Recent findings relative to factors contributing to operational failures of pipelines constructed with ERW prior to 1970 (January 28, 1988); PHMSA Alert Notice ALN-89-01, Update: Additional findings relative to factors contributing to operational failures of pipelines constructed by ERW prior to 1970 (March 8, 1989), *available at* <http://www.phmsa.dot.gov/pipeline/regs/advisory-bulletin>. To date, PHMSA has not issued any such warnings related to DSAW pipe. *Id.*

manufacturing threat, it must prove that PG&E had a history of longitudinal seam failures on DSAW pipe in its system. CPSD and Intervenors failed to present evidence of such failures.

(ii) 1948 Construction Records, The 1988 Pinhole Leak, And The *Integrity Characteristics of Vintage Pipelines* Are Not Evidence Of Long Seam Failures On DSAW Pipe In PG&E's System

CPSD misconstrues several disparate data points as the type of seam failure history addressed under Section 192.917(e)(3), namely, longitudinal seam cracks identified during construction in 1948 and the 1988 pinhole leak.³⁵¹ Additionally, CPSD attempts to show that an industry publication showing a small number of long seam issues in DSAW pipeline *experienced by other operators* and manufactured by pipe mills other than PG&E's supplier or in other years than the pipe used in Line 132 required PG&E to treat its DSAW pipe (regardless of material specification) as subject to a manufacturing threat.³⁵² Each argument fails.³⁵³

As described above, longitudinal seam imperfections identified during the 1948 construction do not constitute manufacturing threats, as the pipe was subjected to a 90% SMYS mill hydro test, sufficient to eliminate any defects that could grow to failure during operation.³⁵⁴ CPSD's argument that these imperfections somehow put PG&E on notice that DSAW pipe was subject to the manufacturing seam threat fails, as the imperfections are not evidence of historical seam failure in PG&E's system or of legitimate general concern with DSAW pipe.

CPSD's argument that the pinhole leak identified in 1988 constitutes a history of seam failure is similarly without merit.³⁵⁵ Metallurgical investigation showed that the leak was very small, and that the pipe, with the leak removed, was fully operational and returned to service.³⁵⁶ Mr. Zurcher confirmed PG&E's assessment, stating that even DSAW, considered one of the best performing types of pipe and given a joint efficiency rating of 1.0 in federal regulations and ASME B31.8S, may exhibit manufacturing imperfections resulting in pinhole leaks from time to time. Mr. Zurcher testified that leaks of this type do not signal the presence of unstable

³⁵¹ CPSD OB at 45.

³⁵² CPSD OB at 45. TURN and CCSF raise the same contentions. TURN OB at 27-28; CCSF OB at 27-29.

³⁵³ PG&E OB at 82-85, 88.

³⁵⁴ Ex. PG&E-1 at 6-5 (PG&E/Kiefner); R.T. 691-92, 770, 786-87, 832 (PG&E/Kiefner).

³⁵⁵ Joint R.T. 871 (PG&E/Zurcher).

³⁵⁶ Ex. PG&E-7 (Tab 4-16).

manufacturing defects as they have not been found to lead to pipeline ruptures.³⁵⁷ CPSD has not addressed, let alone rebutted, any of PG&E’s evidence supporting this conclusion.

Lastly, CPSD indicates that PG&E should have considered all DSAW pipe, or at least all DSAW pipe manufactured prior to 1960, as subject to a manufacturing threat.³⁵⁸ CPSD cites the *Integrity Characteristics of Vintage Pipelines* report, which presents summary data on pipe anomalies and incidents across the industry, in support of its argument.³⁵⁹ However, as reflected in the report, DSAW pipe welds are not prone to anomalies such as long seam cracks.³⁶⁰ While there have been isolated anomalies in DSAW pipe, these are rare and occurred mostly in pipe manufactured by Kaiser or U.S. Steel, not Consolidated Western, PG&E’s primary supplier.³⁶¹ The *Integrity Characteristics of Vintage Pipelines* report does not identify seam failures on pipe manufactured by Consolidated Western for the vintages used in the construction of Line 132, nor does it reference any incidents on PG&E’s system.³⁶² The data in this report is immaterial to PG&E’s manufacturing threat analysis on Line 132.

c. Pipe Age Is Irrelevant To Manufacturing Seam Threat Analysis

Intervenors claim all pipe greater than 50 years old, regardless of seam type, is automatically subject to a manufacturing seam threat.³⁶³ This argument ignores the distinction in ASME B31.8S between pipe body and pipe seam manufacturing threats. ASME B31.8S, Sections A4.3-A4.4 make clear that the age of pipe (with the exception of low frequency ERW pipe)³⁶⁴ is irrelevant to the manufacturing seam threat analysis.

CCSF argues:

Federal regulations recognize that certain pre-1970’s manufacturing or construction methods such as low frequency electric resistance welds (“ERWs”) may be particularly susceptible to failure and therefore pose substantial threats to pipeline

³⁵⁷ Joint R.T. 871 (PG&E/Zurcher).

³⁵⁸ CPSD OB at 45.

³⁵⁹ CPSD OB at 45.

³⁶⁰ Ex. Joint-49, Table E-9 at E-11 (*Integrity Characteristics of Vintage Pipelines*).

³⁶¹ Ex. Joint-49, Table E-9 at E-11 (*Integrity Characteristics of Vintage Pipelines*).

³⁶² Ex. Joint-49, Table E-6 at E-7 (*Integrity Characteristics of Vintage Pipelines*).

³⁶³ CCSF OB at 16-17; TURN OB at 24.

³⁶⁴ ASME B31.8S identifies low-frequency ERW pipe (in essence, ERW pipe manufactured prior to 1970) as being subject to a potential manufacturing threat. Ex. Joint-28 (ASME B31.8S), § A4.3.

integrity. These include ERW pipe, *steel pipeline more than 50 years old*, mechanically coupled pipelines, and pipelines joined by acetylene girth welds in areas where the pipeline is exposed to land movement. *Because these pre-1970 fabrication techniques are more susceptible to failure*, the federal regulations state that if a pipeline segment is made with these construction techniques and the operating pressure exceeds the five year MOP. . . *the operator must select an assessment technology or technologies with a proven application capable of assessing seam integrity* and seam corrosion anomalies.³⁶⁵

TURN states:

Part 192.917(e)(4) further requires that *if* a segment has certain characteristics as specified in Section A4.3 and A4.4 of B31.8S *and* any segment in the pipeline system with such pipe has experienced seam failure, then the operator “must select an assessment technology or technologies with a proven application capable of assessing seam integrity and seam corrosion anomalies . . . Of particular relevance to Line 132 is the fact that Appendix A4.3 lists steel pipe greater than 50 years old as one of the conditions.”³⁶⁶

Each argument ignores that ASME B31.8S, Section A4.3 separately addresses seam- and non-seam related threats. The first paragraph of ASME B31.8S, Section A4.3 identifies *non-seam* related manufacturing threats, including the 50-year condition. The second paragraph identifies *seam-related* manufacturing threats, and does not reference pipe age. ASME B31.8S, Section A4.3 states:

For cast iron pipe, *steel pipe greater than 50 years old*, mechanically coupled pipelines, or pipelines joined by means of acetylene girth welds, where low temperatures are experienced or where the pipe is exposed to movement such as land movement or removal of supporting backfill, examination of the terrain is required. If land movement is observed or can reasonably be anticipated, a pipeline movement monitoring program should be established and appropriate intervention activities undertaken.

If the pipe has a joint factor of less than 1.0 (such as lap-welded pipe, hammer-welded pipe, and butt-welded pipe) or if the pipeline

³⁶⁵ CPSD OB at 16-17 (emphasis added).

³⁶⁶ TURN OB at 24 (italics in original).

is comprised of low-frequency ERW pipe or flash welded pipe, a manufacturing threat is considered to exist.³⁶⁷

Thus, ASME B31.8S makes clear there are two types of manufacturing threats. The first paragraph, which includes the 50-year provision, addresses conditions that could render the pipe susceptible to ground movement-related failure, such as the method of manufacture of the girth weld. Nothing in this first paragraph relates to the longitudinal seam. In contrast, the second paragraph identifies the universe of pipe that the drafters of ASME B31.8S considered to be subject to a manufacturing seam threat. That universe does not include pipe age as a relevant consideration (nor does it reference DSAW pipe).³⁶⁸

ASME B31.8S illustrates the disparate treatment afforded to non-seam-related and seam-related manufacturing threats:

For cast iron pipe, the assessment should include evaluation as to whether or not the pipe is subject to land movement or subject to removal of support.

For steel pipe *seam* concerns, when raising the MAOP of a pipeline or when raising the operating pressure above the historical operating pressure (highest pressure recorded in the past 5 years), pressure testing must be performed to address the seam issue.³⁶⁹

As ASME B31.8S makes clear, pipe that is over 50 years old is identified as having a threat related to ground movement.³⁷⁰ The 50-year provision is unrelated to the longitudinal seam, or any requirement that an operator conduct an integrity assessment of the long seam.³⁷¹

d. CPSD Fails To Prove The Presence Of Unstable Manufacturing Threats on ERW Pipe In Line 132

CPSD raises a new allegation in its opening brief concerning PG&E's threat identification for ERW pipe on Line 132.³⁷² CPSD's new allegation states simply that "Line 132

³⁶⁷ Ex. Joint-28 (ASME B31.8S), § A4.3 (emphasis added).

³⁶⁸ Ex. Joint-28 (ASME B31.8S), § A4.3.

³⁶⁹ Ex. Joint-28 (ASME B31.8S), § A4.4.

³⁷⁰ Joint R.T. 1149-50 (PG&E/Keas).

³⁷¹ Joint R.T. 1181-82 (PG&E/Keas).

³⁷² CPSD OB at 46- 47. CPSD's initial report (Ex. CPSD -1 (CPSD/Stepanian)) only mentions ERW three times, none of them in connection with any alleged violation: (1) in the list of acronyms; (2) as an example of an interactive threat (p. 36); and (3) in a quotation from PG&E's RMP-06 (p. 41).

includes several ERW segments.”³⁷³ CPSD alleges that PG&E failed to identify an unstable manufacturing threat on these segments “after exceeding MOP[.]”³⁷⁴ In addition to the constitutional defect discussed above, CPSD’s new allegation fails for lack of evidentiary support, as CPSD has not presented evidence that the segments in question were low-frequency ERW pipe. Even if the unidentified segments consist of low-frequency ERW pipe, CPSD’s new allegation fails for the same reason that its Segment 181 argument³⁷⁵ fails. CPSD has not established that PG&E rendered any potential manufacturing threat unstable.

As described above, only certain types of electric resistance welded pipe are identified in 49 C.F.R. § 192.917(e)(4), namely, low-frequency ERW manufactured prior to 1970.³⁷⁶ CPSD does not state whether the segments in question are low-frequency ERW, nor does the NTSB report (which CPSD cites in support of this allegation).³⁷⁷ The absence of evidence that these segments involved low-frequency ERW pipe defeats CPSD’s allegation at the outset.

Assuming that CPSD alleged sufficient facts to invoke 49 C.F.R. § 192.917(e)(4), CPSD’s argument still fails, as the planned pressure increases in 2003 and 2008 did not render any potential manufacturing threats (including any that might exist on low-frequency ERW pipe) unstable.³⁷⁸ PG&E’s opening brief demonstrated that the 2003 pressure increase occurred prior to publication of the integrity management rules.³⁷⁹ In other words, CPSD’s argument depends on finding a violation of a regulation that did not exist at the time of the conduct in question. Additionally, the preamble to the integrity management regulations made it clear that the provision in 49 C.F.R. § 192.917(e)(4) was intended to address *changed operating conditions, not transient excursions* like that on Line 132 in 2008 (or 2003):

Changes in operating conditions, such as a significant increase in pressure, could cause latent defects to grow. Therefore, if the pipeline operating conditions change such that operating pressure will be above historic operating pressure, if MAOP increases, or if

³⁷³ CPSD OB at 46. CPSD cites to page 36 of the NTSB report, which contains identical language, without any additional information regarding the type of ERW pipe (pre- or post-1970, low-frequency or high-frequency) or the location of the segments.

³⁷⁴ CPSD OB at 46.

³⁷⁵ Ex. CPSD-1 at 42-49 (CPSD/Stepanian).

³⁷⁶ 49 C.F.R. § 192.917(e)(4).

³⁷⁷ CPSD OB at 46 (citing Ex. CPSD-9 (NTSB Report) at 36).

³⁷⁸ PG&E OB at 89-92.

³⁷⁹ PG&E OB at 89-90.

the stresses that could lead to cyclic fatigue increase, the operator must treat the covered segment as a high-risk segment.³⁸⁰

Mr. Zurcher, who helped write the integrity management regulations, explained it clearly:

Q: So if you exceed the MAOP – and my question when I asked you if you exceed the MAOP, that means you would exceed the historic operating level; is that correct?

A: Well, again, I think we continue to have a terminology issue here. The regulations and the standard address raising the operating pressure, not just having a pressure exceedence. It's – the operating pressure is a number. Every company has one. It's a normal operating pressure, that is when that integrity threat may kick in for certain seam types. *But the fact that you had an excursion above the operating pressure or above MAOP does not kick in the need for an assessment for the manufacturing threat.*³⁸¹

In short, a transient pressure excursion that exceeds MAOP by less than one pound lacks the physical capability of rendering stable manufacturing seam threats unstable, and does not trigger 49 C.F.R. § 192.917(e)(4).

e. PG&E's Post -Accident Enhanced Manufacturing Threat Definition Is Not Evidence That PG&E Failed To Identify Manufacturing Threats Prior To San Bruno

CCSF attempts to cast post-incident changes made to PG&E's Integrity Management program as evidence that PG&E's threat identification process was deficient.³⁸² CCSF's argument is both factually incorrect and legally inappropriate, and should be disregarded.

As discussed in Section IV.B of PG&E's opening brief, CCSF's reliance on PG&E's post-accident improvement efforts to support alleged violations is legally inappropriate. California statutory and case law are clear that evidence of subsequent improvements cannot be used to prove that a party was negligent or otherwise culpable.³⁸³

Regardless, the Commission should disregard CCSF's argument because PG&E's post-accident improvement efforts include an enhanced manufacturing threat identification process

³⁸⁰ 68 Fed. Reg. 69,804 (emphasis added).

³⁸¹ Joint R.T. 749-50 (PG&E/Zurcher) (emphasis added).

³⁸² CCSF OB at 30-31.

³⁸³ PG&E OB at 46.

that exceeds what is required by law.³⁸⁴ As explained by PG&E's Supervisor of Risk Management, Kris Keas, PG&E contracted with Kiefner and Associates to develop an engineering review process to enhance PG&E's threat identification process.³⁸⁵ One of the enhancements to PG&E's threat identification process was to identify all pipe that has not been pressure tested to at least 1.25 times pipeline MAOP as subject to a potential manufacturing threat. This is not required by code,³⁸⁶ as the NTSB acknowledged even after the San Bruno accident.³⁸⁷ Moreover, the enhancements to PG&E's threat identification process did not result in the identification of 523 additional pipeline segments with unstable pipeline defects, as CCSF incorrectly asserts.³⁸⁸ Instead, the list of segments that CCSF refers to was a list of segments that PG&E identified for further investigation, including records research conducted during pre-assessment work.³⁸⁹ In fact, PG&E personnel identified additional records demonstrating that a substantial number of these segments had been subjected to a qualifying strength test, reducing the mileage of pipeline from approximately 45 miles to about 17.³⁹⁰

f. Mill Tests Are Acceptable Strength Tests For Manufacturing Seam Threat Stability Analysis

TURN asserts that mill tests of the variety specified in API 5L are not qualified to remove potential manufacturing seam defects, citing the irrelevant interview of a former Consolidated Western employee and the potential for transportation-induced cracking.³⁹¹ TURN's argument lacks support, as it contradicts the testimony of John Kiefner, an unquestioned expert and industry leader in analyzing manufacturing threat stability, who explicitly stated that mill tests are acceptable surrogates for pre-service hydro tests. As explained by Dr. Kiefner:

Another way [to conduct a stability analysis] is to look at the one benchmark that almost every pipeline has, and that is a mill pressure test. And with that benchmark, it could easily be shown

³⁸⁴ Joint R.T. 1207-09 (PG&E/Keas).

³⁸⁵ Joint R.T. 1207 (PG&E/Keas).

³⁸⁶ Joint R.T. 1207-08 (PG&E/Keas).

³⁸⁷ Ex. Joint-44.

³⁸⁸ CCSF OB at 31.

³⁸⁹ Joint R.T. 1208 (PG&E/Keas).

³⁹⁰ Joint R.T. 1208-09 (PG&E/Keas).

³⁹¹ TURN OB at 29-30.

that you're not at risk. In fact, that's basically what our 2007 work was intended to do for PHMSA was to come up with a kind of criterion where you can – a pipeline operator can say, look, we consider our manufacturing defect to be stable in the context of the useful life of our pipeline.³⁹²

TURN's criticisms of Dr. Kiefner's conclusions are without merit. First, TURN's reliance on a former Consolidated Western employee is without support, and was refuted by Dr. Kiefner and PG&E witness Kris Keas. As explained by Dr. Kiefner:

Having knowledge that your pipeline is comprised of a material made to a line pipe specification, an API-5L for example, guarantees that you had a mill hydrostatic test. If you didn't get one, the manufacturer was cheating. And I know of no instances where that's ever been proven.³⁹³

As explained by Ms. Keas, the Consolidated Western mill worker was in all likelihood mistaken in suggesting that pipe manufactured to API-5L specification did not receive a mill test:

I actually worked in a mill. I worked for USS-POSCO over in Pittsburg, California. And I was a quality engineer at the beginning of my career. And I was responsible for producing different pipe – excuse me – steel products. And there's a lot of different customers. And so some customers we make pipe or we make product for one specification. And then another order will come in, and you would use a different specification. So in my mind, the testimony that's given in this document could be the reason why he's saying the one in 50 [pipes were hydrotested] is that they were producing different product for different individuals with different specifications. So I'm not surprised to hear that he said that some items may have been fabricated without a hydro test. I think that it's probably more – it is more likely, however, that when they had a 5L specified order, that they met the requirements of that order and did a hydrotest.³⁹⁴

Moreover, the former Consolidated Western employee on whom TURN relies did not work at the Southern California plant that manufactured 30" DSAW pipe for PG&E in 1948 and 1949, and he retired two years before PG&E's 1953 pipe purchase was fulfilled by Consolidated Western's South San Francisco plant.³⁹⁵ The former employee was not involved in making pipe

³⁹² R.T. 711-12 (PG&E/Kiefner).

³⁹³ R.T. 712 (PG&E/Kiefner).

³⁹⁴ Joint R.T. 1095-96 (PG&E/Keas).

³⁹⁵ Ex. CPSD-305 at 32-33.

for PG&E or familiar with the process by which it was made. TURN's suggestion that his testimony related to PG&E's pipe purchases is incorrect. The Moody's inspection report that describes the actual manufacturing process for PG&E's 1949 Consolidated Western pipe purchase is the best evidence of how the pipe was manufactured.³⁹⁶

TURN's assertion that pipelines are at risk of transportation-induced cracking is similarly unwarranted. As PHMSA stated as recently as 2009:

Typically, gas pipelines are not at significant risk of failure from the pressure-cycle -induced growth of original manufacturing-related or transportation-related defects. PHMSA records do not contain any known incidents involving failure of steel natural gas transmission pipe from the pressure-cycle -induced growth of original manufacturing-related or transportation-related defects.³⁹⁷

PHMSA based this conclusion in part on Dr. Kiefner's research.³⁹⁸ TURN presents no evidence that transportation-related fatigue cracking presents a threat to PG&E's system, or to the industry at large.

3. CPSD Did Not Prove That PG&E Failed To Evaluate Cyclic Fatigue As Required By Law

CPSD argues PG&E violated integrity management regulations (49 C.F.R. § 192.917(e)(2)) because PG&E "dismissed cyclic fatigue as a threat" rather than evaluate the threat posed by cyclic fatigue to its pipelines.³⁹⁹ CCSF makes similar assertions.⁴⁰⁰ As discussed below, these allegations consist of subjective, hindsight-based judgments and find no support in the law or in the facts regarding PG&E's evaluation of cyclic fatigue prior to the San Bruno incident. CPSD did not and cannot meet its burden of establishing that PG&E's evaluation of the threat posed by cyclic fatigue violated the law.

³⁹⁶ Ex. PG&E-5 (Tab 2-3).

³⁹⁷ Ex. PG&E-3 (August 10, 2009 PHMSA Letter to NTSB).

³⁹⁸ Ex. PG&E-3 (August 10, 2009 PHMSA Letter to NTSB) at 8.

³⁹⁹ CPSD OB at 44-45.

⁴⁰⁰ CCSF OB at 33-34.

a. CPSD And CCSF’s Allegations Rely On Hindsight Judgment And Ignore Relevant Pre-Incident Industry Perspective

Both CPSD and CCSF rely on findings that fatigue contributed to in-service growth of the ductile tear in the pup in Segment 180 to argue that PG&E failed to properly evaluate the threat of cyclic fatigue on its pipelines.⁴⁰¹ This is a hindsight judgment, as PG&E discussed in its opening brief.⁴⁰² The record is clear that the pipe for Line 132 and the construction of Segment 180 was procured pursuant to a specification calling for the pipe to be subject to a mill hydro test to 90% of the pipe’s SMYS.⁴⁰³ Such a mill test, while of short duration, is considered sufficient to ensure that any remaining manufacturing defects would be too small to fail at the maximum operating pressure.⁴⁰⁴ Segment 180 (as reflected in PG&E’s procurement records) would not be expected to experience fatigue-induced failure during its useful life.⁴⁰⁵ Knowledge of the presence of the pups in Segment 180 would not have led PG&E to conduct any additional analysis of cyclic fatigue - it would have led PG&E to immediately cut the segment out and replaced it with appropriate pipe.⁴⁰⁶

Moreover, these allegations disregard the universal industry, engineering and regulatory perspective prior to the San Bruno incident that the threat of cyclic fatigue-induced failure in natural gas pipelines was essentially non-existent. The evidence demonstrates beyond question that cyclic fatigue was not considered a threat to natural gas pipelines before September 9, 2010. There had been no recorded failures from cyclic fatigue on natural gas pipelines.⁴⁰⁷ PHMSA’s research and experience indicates natural gas pipelines are not at significant risk of failure from the pressure-cycle-induced growth of original manufacturing-related or transportation-related defects.⁴⁰⁸

⁴⁰¹ CPSD OB at 44-45; CCSF OB at 33.

⁴⁰² PG&E OB at 40-42.

⁴⁰³ Ex. PG&E-1 at 2-2 to 2-3 (PG&E/Harrison); Ex. PG&E-7 (Tab 4-20) (pipe specifications for 1948 construction of Line 132). *See also* PG&E OB, Section V.B.3.a.(iii).

⁴⁰⁴ Ex. PG&E-1 at 6-5 (PG&E/Kiefner).

⁴⁰⁵ R.T. 836 (PG&E/Kiefner).

⁴⁰⁶ Joint R.T. 1051 (PG& E/Keas) (“Standing alone, if we knew that they were there, we would have cut them out. We wouldn’t wait for an integrity management program to do an evaluation for them.”).

⁴⁰⁷ R.T. 716 (PG&E/Kiefner).

⁴⁰⁸ Ex. PG&E-3 at 1.

As the evidence proves, CPSD’s position regarding PG&E’s treatment of the threat from cyclic fatigue is based on CPSD’s post-accident perspective, hindsight information, and its disregard of the pre-accident consensus that cyclic fatigue was not, in fact, a threat.⁴⁰⁹

b. CPSD Fails To Prove That PG&E Did Not Appropriately Evaluate The Threat Of Cyclic Fatigue

CPSD implies that the integrity management regulations required PG&E to conduct a “segment specific” fatigue calculation in order to properly evaluate the threat posed by cyclic fatigue.⁴¹⁰ This position, however, finds no support in the regulations. As discussed in PG&E’s opening brief, the integrity management regulations direct operators to “*evaluate whether* cyclic fatigue or other loading conditions (including ground movement, suspension bridge condition) could lead to a failure of a deformation, including a dent or gouge, or other defect in the covered segment.”⁴¹¹ The regulations are silent as to what manner of evaluation is appropriate. CPSD has introduced no evidence that supports its contention that the code “evaluation” requires a segment-by-segment analysis. CCSF articulates a series of steps it claims operators “must” undertake to perform the evaluation of cyclic fatigue required by the regulations.⁴¹² CCSF supports these assertions only by reference to its own proffered testimony of Mr. Gawronski, who claims no particular expertise related to cyclic fatigue on natural gas pipelines.⁴¹³ By contrast, Dr. Kiefner is the unquestioned industry expert on cyclic fatigue. Dr. Kiefner testified that prior to San Bruno many natural gas operators satisfied the regulation by referencing the prior industry research (and concluding that cyclic fatigue did not pose a significant threat to their pipelines) rather than conducting a detailed segment-by-segment assessment of their pipelines.⁴¹⁴

The evidence establishes that PG&E undertook and documented just such an evaluation. In the early years of its Integrity Management program, PG&E evaluated the threat of cyclic fatigue on its pipelines through a combination of the means described by Dr. Kiefner in his

⁴⁰⁹ It is worth emphasizing again that the pipe that ruptured was severely defective; cyclic fatigue would not have presented any concern for properly made pipe. Ex. PG&E-1 at 3-5 to 3-17 (PG&E/Caligiuri); Ex. PG&E-1 at 6-5 (PG&E/Kiefner).

⁴¹⁰ CPSD OB at 44.

⁴¹¹ 49 C.F.R. § 192.917(e)(2) (emphasis added). See also PG&E OB at 76-78.

⁴¹² CCSF OB at 34.

⁴¹³ Ex. CCSF-1, Exhibit 1 (Gawronski resume).

⁴¹⁴ Ex. PG&E-1 at 6-7 (PG&E/Kiefner).

testimony.⁴¹⁵ PG&E integrity management engineer Kris Keas testified that PG&E conducted initial calculations “to see if they thought that a wors[t] case scenario would be potentially affected by cyclic fatigue.”⁴¹⁶ The company then evaluated this data in the context of industry literature regarding cyclic fatigue on natural gas pipelines.⁴¹⁷ Based upon that evaluation, PG&E determined that cyclic fatigue was an active threat to its pipelines.⁴¹⁸

CCSF asserts that PG&E “lacks a documented record” that it evaluated the threat of cyclic fatigue.⁴¹⁹ However, the record shows that PG&E explicitly informed PHMSA and the CPUC – in writing – how PG&E had evaluated the threat of cyclic fatigue on its pipelines, and PG&E’s conclusion there was no significant threat.⁴²⁰ Audit protocol matrices are PG&E-created documents which, in essence, serve as a roadmap for the auditors to evaluate PG&E’s Integrity Management program.⁴²¹ The evidence establishes that in connection with integrity management audits in 2005 and 2010 PG&E provided PHMSA and the CPUC with the audit protocol matrices, which stated in writing PG&E’s assessment of cyclic fatigue and its conclusion regarding the absence of the threat.⁴²² As documented in its audit protocol matrices, PG&E concluded cyclic fatigue was “not considered a threat due to the level of increases and the frequency of pressure increases in our system.”⁴²³ As discussed in greater detail in PG&E’s opening brief,⁴²⁴ CPUC and PHMSA found PG&E’s threat identification process satisfactory and identified no issues relating to PG&E’s identification and evaluation of cyclic fatigue.⁴²⁵ Having

⁴¹⁵ Joint R.T. 1000-02 (PG&E/Keas).

⁴¹⁶ Joint R.T. 1001 (PG&E/Keas). PG&E’s analysis included a review of the work done by Dr. Kiefner. Again, pipe with a defect as severe as found in the pups after the accident would not be evaluated for expected useful life in a cyclic fatigue analysis – it would be removed and replaced. It is not realistic to contend that PG&E would have or should have analyzed a defect like that contained in the pups and reached a different conclusion regarding the threat posed by cyclic fatigue to its pipelines.

⁴¹⁷ Joint R.T. 1001 (PG&E/Keas).

⁴¹⁸ Joint R.T. 1001 (PG&E/Keas).

⁴¹⁹ CCSF OB at 34.

⁴²⁰ PG&E OB at 78.

⁴²¹ Ex. PG&E-1c at 4-30 n.18 (PG&E/Keas).

⁴²² Ex. PG&E-1c at 4-30 to 4-31 (PG&E/Keas).

⁴²³ Ex. PG&E-7 (Tab 4- 24) at 12 (2005 Audit Protocol Matrix). The full entry states: “Based on preliminary assessment, [cyclic fatigue is] not considered a threat due to the level of increase and frequency of pressure increases in our system. However, also participating with INGAA in review of Kiefner Cyclic Fatigue report to determine if there are situations that would be a concern. Also performing some review of pipelines with the greatest potential for cyclic fatigue to verify our preliminary assessment (*see* RMP-6 section 4.3).”

⁴²⁴ PG&E OB at 72-74.

⁴²⁵ Joint R.T. 1192-96 (PG&E/Keas); Ex. PG&E-7 (Tab 4-25) (2005 Audit Inspection Protocols with Results Forms); Ex. PG&E-7 (Tab 4-13) (2010 Audit Inspection Protocols with Results Forms).

twice audited PG&E's evaluation of cyclic fatigue without issue, CPSD's alleged violation lacks merit. CPSD has failed to prove that PG&E's evaluation of cyclic fatigue prior to the San Bruno incident did not meet regulatory requirements.

c. CCSF's Additional Allegations Regarding Cyclic Fatigue Are Erroneous And Unfounded

CCSF makes a series of incomplete and inaccurate assertions in an attempt to undermine "key assumptions contained in PG&E's testimony" regarding cyclic fatigue. For example, Dr. Kiefner's testimony establishes that pipe subjected to an API -required mill test would not be expected to experience fatigue-induced failure during its useful life.⁴²⁶ In response, CCSF cites an NTSB interview of one former Consolidated Western employee to assert that "the record indicates that not all pipe PG&E purchased from Consolidated Western was subject to a mill test."⁴²⁷ Even if this interview were sufficient to support a conclusion as to Consolidated Western's general practices, it would in no way undermine the fact that, regardless of manufacturer, the API specifications require a mill test of specific magnitude.⁴²⁸ As Dr. Kiefner explained, "having knowledge that your pipeline is comprised of a material made to a line -pipe specification, an API 5L for example, guarantees that you had a . . . standard minimum mill test pressure in order for the manufacturer to validly stamp that pipe."⁴²⁹ Similarly, CCSF cites a March 2012 Kiefner & Associates analysis of PG&E pipelines for the premise that PG&E should have considered cyclic fatigue to be a threat because its system contains some pipe grades subjected to a lower mill test and thus "[i]n some cases, the calculated fatigue life for these types of pipe is on the order of 50 years."⁴³⁰ Indeed, CCSF extracted the preceding sentence directly from the Kiefner & Associates report.⁴³¹ However, *the very next sentence* of the report on which CCSF relies states:

⁴²⁶ Ex. PG&E-1 at 6-1, 6-5 (PG&E/Kiefner).

⁴²⁷ CCSF OB at 36. As explained above, the former employee was not involved in PG&E pipe purchases from Consolidated Western. To the extent he believed otherwise, respectfully, he was mistaken. The Moody inspection report establishes the manufacturing process used to make PG&E's Consolidated Western DSAW pipe. Ex. PG&E - 5 (Tab 2-3).

⁴²⁸ R.T. 711-13 (PG&E/Kiefner).

⁴²⁹ R.T. 711-13 (PG&E/Kiefner).

⁴³⁰ CCSF OB at 36, citing Ex. CCSF-5 at 2.

⁴³¹ Ex. CCSF-5 at 2.

Note that in these cases in Table 1 the pipe was either tested by PG&E to a higher pressure resulting in a long fatigue life (so in essence the fatigue life predicted by the mill test does not apply), or the pipe is seamless so the threat of seam-weld fatigue does not apply.⁴³²

Finally, CCSF argues that Dr. Kiefner's conclusions should be discounted because PG&E cannot confirm all instances in which it exceeded MAOP from 2005 to 2007, and thus "there may have been additional over-pressurizations that could change the analysis."⁴³³ CPSD is wrong. What PG&E told CCSF it had lost was the list of planned pressure increases for those years.⁴³⁴ PG&E has all the pressure data for 2005 to 2007.⁴³⁵ If there were any additional over-pressurizations in that period, CCSF or CPSD would have identified them. Not only do speculative assertions as to what "may have been" fail to satisfy any evidentiary standard, CPSD (and, by proxy, CCSF) has failed to meet its burden of proving that PG&E did not evaluate the threat of cyclic fatigue on its system in a manner consistent with regulatory requirements and non-hindsight expectations.

4. CPSD Has Not Proven A Violation Of Law In PG&E's Selection Of Assessment Tools

CPSD claims PG&E violated the integrity management rules in its selection of ECDA as the assessment tool for Line 132 because ECDA "only assesses the integrity of selected pipe areas" and "provides information only about threats that the operator is specifically looking for, while in-line inspection and hydrostatic testing can identify critical threats that the operator might not have been looking for."⁴³⁶ CCSF asserts that ECDA "does not detect missing or cracked seams" and is not identified in the code as a means of evaluating manufacturing threats.⁴³⁷ TURN makes similar allegations and, along with CCSF, critiques PG&E's general

⁴³² Ex. CCSF-5 at 2.

⁴³³ CCSF OB at 38.

⁴³⁴ Ex. CCSF-7.

⁴³⁵ Joint R.T. 973-74 (PG&E/Keas) (PG&E maintains historic pressure data from 1998 and 2000 to the present day. Data from 1999 was irretrievably lost during an upgrade to the SCADA system in 2004-2005).

⁴³⁶ CPSD OB at 46-47.

⁴³⁷ CCSF OB at 32.

“reliance” on ECDA.⁴³⁸ However, these observations by CPSD, CCSF and TURN – even if true – do not establish a violation of law.

CPSD has not identified any regulatory requirement that operators make use of an assessment tool that provides information unrelated to the specific threats the operator has identified. The integrity management regulations specifically identify external corrosion direct assessment as an acceptable assessment technique to address the threat of external corrosion.⁴³⁹ As described in detail above, the evidence established that PG&E’s Integrity Management program gathered data and conducted its threat identification consistent with ASME B31.8S and the federal integrity management regulations.⁴⁴⁰ Through this process, PG&E identified external corrosion as the primary threat to Line 132 and thus properly used ECDA as an assessment method.

Neither CPSD nor any other party has proven that Line 132 was subject to a potentially unstable manufacturing threat or other threats for which the code requires an assessment tool other than ECDA.⁴⁴¹ Nor has any party proven that other pipelines PG&E assessed with ECDA were subject to threats other than external corrosion. CPSD has introduced no legitimate basis to conclude that PG&E’s selection of assessment technique violated the law.

5. CPSD Has Not Proven That PG&E’s Risk Assessment Model Violated The Law

CPSD argues that PG&E used “dangerously inaccurate” risk algorithms in connection with its integrity management program, in violation of 49 C.F.R. § 192.917(c) and ASME B31.8S.⁴⁴² CPSD supports this allegation in part by reference to other alleged violations such as “failure to consider the identified threats,” failure to incorporate “past events on Line 132” and failure to “account for missing or questionable data”.⁴⁴³ PG&E addresses these allegations in Sections V.B.1. and V.B.2., *supra*, and in its opening brief.⁴⁴⁴ CPSD also reiterates various

⁴³⁸ TURN OB at 19.

⁴³⁹ 49 C.F.R. § 192.923.

⁴⁴⁰ *See supra* at 41-61; *see also* PG&E OB at 81-92.

⁴⁴¹ As previously demonstrated, the assertion that PG&E should have considered DSAW pipe to contain a manufacturing seam threat is meritless. *See* PG&E OB at 87-89; *supra* Section V.B.2.

⁴⁴² CPSD OB at 49.

⁴⁴³ CPSD OB at 48.

⁴⁴⁴ PG&E OB at 57-71.

purported deficiencies in PG&E’s risk assessment model initially raised in the NTSB Report.⁴⁴⁵ CCSF similarly alleges that PG&E’s risk assessments were “skewed” by various purported weaknesses.⁴⁴⁶

As expert John Zurcher testified, however, these alleged deficiencies are more properly viewed as competing perspectives on best practices, rather than failures to conform to regulatory requirements.⁴⁴⁷ For example, CP SD criticizes PG&E’s weighting factors because they reflect industry experience rather than the Company’s “actual operating experience.”⁴⁴⁸ However, ASME B31.8S, section 5.7(i) states that risk assessment weighting factors “can be based on operational experience, the opinions of subject matter experts, or industry experience.”⁴⁴⁹ ASME B31.8S, section 5.4 further states that risk assessment models “should be used in conjunction with knowledgeable, experienced personnel (subject matter experts and people familiar with the facilities)” in order to make appropriate risk determinations.⁴⁵⁰ The evidentiary record establishes that PG&E utilized just such a process by basing its risk model on the experience and expertise of subject matter experts and multiple threat committees from within the Company, in addition to industry data.⁴⁵¹ Neither ASME nor PG&E contend there is only one right way, but the availability of differing approaches does not make PG&E’s choice among them a violation. As Mr. Zurcher testified, it was appropriate for PG&E to leverage the aggregate threat assessment experience of pipeline operators over time and across the industry, that operators commonly use industry experience in conducting risk assessments, and that the industry standards exist in part to facilitate such sharing of knowledge and experience.⁴⁵²

The purported deficiencies in PG&E’s risk assessment model are thus more appropriately viewed in recognition of the fact that pipeline integrity management programs (and risk assessment models) are in a constant state of evolution based on information learned over

⁴⁴⁵ CPSD OB at 49.

⁴⁴⁶ CCSF OB at 26.

⁴⁴⁷ Ex. PG&E-1 at 5-16 (PG&E/Zurcher). As noted, Mr. Zurcher is one of the lead authors of the original ASME B31.8S standard.

⁴⁴⁸ CPSD OB at 48.

⁴⁴⁹ CPSD OB at 48.

⁴⁵⁰ CPSD OB at 48.

⁴⁵¹ Ex. PG&E-1 at 4-32 (PG&E/Keas).

⁴⁵² Ex. PG&E-1 at 5-17 (PG&E/Zurcher).

time.⁴⁵³ Indeed, the PG&E-commissioned audit on which CCSF relies for its allegations supports this very premise. While CCSF cites liberally to “weaknesses” identified in the 2009 audit, it omits both PG&E’s identified strengths and the “summary conclusion” on the first page of the document:

Note that this criticism is not suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators. It is only relatively recently that such methods have been improved upon to the degree that makes older versions obsolete.⁴⁵⁴

CCSF observes that PG&E commissioned this audit in 2009 to identify strengths and weaknesses in its integrity management program, including its risk assessment model.⁴⁵⁵ PG&E has previously expressed its commitment to assuring that its risk assessment model continuously evolves and meets or exceeds regulatory requirements.⁴⁵⁶ Actions taken in furtherance of a commitment to improvement are not evidence that PG&E’s prior risk assessment program was inadequate. A fair and complete reading of the record leads to the conclusion that CPSD failed to prove a violation of law related to PG&E’s risk assessment model.

6. CPSD Has Not Properly Alleged Or Proven A Violation Regarding PG&E’s Planned Pressure Increases

CPSD in its opening brief alleges a stand-alone violation of Section 451 arising from PG&E’s former practice of raising pressure to MAOP on Line 132.⁴⁵⁷ CPSD’s prior allegations regarding PG&E’s planned pressure increases related to PG&E’s threat identification and integrity assessments (as discussed, *supra*), and PG&E addressed the practice in the context of those allegations.⁴⁵⁸ The federal regulations recognize that pressure excursions occasionally occur⁴⁵⁹ and require that an operator *report* such an excursion only if the pressure reaches 110%

⁴⁵³ Ex. PG&E-1 at 4-32 (PG&E/Keas).

⁴⁵⁴ Ex. Joint-48 at 1 (emphasis in original).

⁴⁵⁵ CCSF OB at 26.

⁴⁵⁶ Ex. PG&E-1 at 4-33 (PG&E/Keas).

⁴⁵⁷ CPSD OB at 50. TURN alleges as many as 15 violations related to PG&E’s planned pressure increases. TURN OB at 39-41.

⁴⁵⁸ See, e.g., Ex. CPSD-1 at 163 (CPSD/Stepanian); Ex. PG&E-1 at 4-23 to 4-24 (PG&E/Keas); PG&E OB at 89-90.

⁴⁵⁹ 49 C.F.R. § 192.201(a)(2)(i) (requiring operators to maintain pressure limiting equipment that limits pressure excursions to a maximum of 110% of pipeline MAOP or a pressure that produces a hoop stress of 75 percent of SMYS, whichever is lower).

of pipeline MAOP.⁴⁶⁰ The Commission incorporated these federal regulations into GO 112-E, thus CPSD’s assertion of a violation based on Section 451 for any pressure excursion above MAOP directly conflicts with adopted Commission safety regulations, again underscoring the excessive and unconstitutional breadth CPSD gives to Section 451.

This violation also must be rejected because it is merely a repackaged allegation. CPSD asserts that the practice of raising pressure to MAOP “created an unreasonably unsafe system” in violation of Section 451.⁴⁶¹ But in support, CPSD argues that, because of the pressure excursions, PG&E was required to conduct a seam assessment.⁴⁶² Thus, the Section 451 violation is not based on planned pressure increases to MAOP, but to the purportedly required assessments that form the basis for CPSD’s alleged violations related to threat identification and integrity assessments.⁴⁶³ On this basis as well, the Commission should disregard CPSD’s belated, duplicative alleged violation.

Lastly, CPSD fails to provide any evidence (much less proof) to support a theory that pressure increases to a pipeline’s MAOP violate Section 451. In contrast, PG&E submitted testimony from Mr. Zurcher that from approximately 2002 to 2010, the practice of raising pressure on transmission pipelines to MAOP was common within the gas pipeline industry, and was in fact considered standard practice by many operators.⁴⁶⁴ As Mr. Zurcher elaborated on cross-examination:

[T]o be honest with you there was a time that we actually advised companies that they should run up to their MAOP at every opportunity. So there are a lot of companies that I know that have personally written into their integrity management programs a requirement to run up to MAOP at least once every five years. Again, some companies felt it was a requirement of the regulations.⁴⁶⁵

⁴⁶⁰ 49 C.F.R. § 191.23(a)(5) (requiring operators to report any malfunction or operating error that causes the pressure of a pipeline to rise above its maximum allowable operating pressure plus the build-up allowed for operation of pressure limiting or control devices).

⁴⁶¹ CPSD OB at 50.

⁴⁶² CPSD OB at 50.

⁴⁶³ See CPSD OB at 45-46 (alleging violations of law arising from 2003 and 2008 excursions above MAOP on L132 because “. . . both of these pressure increases legally required PG&E to consider potential defects on Segment 180 to be unstable”).

⁴⁶⁴ Ex. PG&E-1 at 5-13 (PG&E/Zurcher); Joint R.T. 786 (PG&E/Zurcher).

⁴⁶⁵ Joint R.T. 785-86 (PG&E/Zurcher).

Having submitted no evidence to the contrary,⁴⁶⁶ CPSD has not met its burden of proving that the once- standard industry practice of occasionally raising pressure to a pipeline’s MAOP violated Section 451 or any other statute or regulation.

7. CPSD Fails To Properly Allege Or Prove Continuing Violations

CPSD contends that all of the alleged violations regarding PG&E’s Integrity Management program are “continuing” violations.⁴⁶⁷ Prior to CPSD’s submission of Appendix C with its opening brief, CPSD had not alleged continuing violations to which PG&E had the opportunity to respond.

As discussed above in Section III.D, many of CPSD’s alleged continuing violations improperly transform a single act into separate and repeating daily violations contrary to Section 2108, Commission precedent and the California Constitution. CPSD’s alleged continuing violations relating to PG&E’s Integrity Management program also fail because the asserted duration of the alleged violations is arbitrary and lacks evidentiary support.

For ex ample, CPSD contends PG&E failed “to check for and verify accuracy of data.”⁴⁶⁸ CPSD assigns a duration to this violation of August 19, 1970 to September 9, 2010.⁴⁶⁹ August 19, 1970 is the effective date of the first 49 C.F.R. Part 192 regulations. Apart from the ambiguity as to what data and what inaccuracies CPSD may be referencing, CPSD does not state the basis for the August 19, 1970 beginning date, or explain how PG&E’s integrity management practices form the basis for a violation starting three decades before integrity management regulations existed. Absent an identified basis, CPSD’s chosen beginning date for this violation is arbitrary and without evidentiary support. As alleged by CPSD, PG&E and the Commission are left to guess as to the purported triggering event, which in itself renders the alleged violation unproven.

To the extent CPSD may believe this violation derives from the creation of a particular data set (such as, for example, PG&E’s pipeline survey sheets or GIS), CPSD provides no evidentiary basis on which the Commission could find a continuing violation rather than a

⁴⁶⁶ CPSD submits the statement of the Commission’s Executive Director from the NTSB hearing that he was not aware of other operators undertaking this practice. *See* CPSD OB at 50 & n.31. Not being aware of whether others followed the practice is not evidence that the practice violated Section 451.

⁴⁶⁷ CPSD OB, Appendix C at 2-3.

⁴⁶⁸ CPSD OB, Appendix C at 2-3.

⁴⁶⁹ CPSD OB, Appendix C at 2.

singular event, or any evidence that PG&E created an inaccurate data set on August 19, 1970 or any other particular date. Arbitrarily choosing the date a regulation became effective and asserting without factual support that PG&E was in violation of that law the first day it was effective and every day thereafter, does not even approach satisfying CPSD's burden of proof.

The same is true with CPSD's assertion of continuing violations from December 15, 2003 to September 9, 2010, such as allegedly failing to "use and [sic] inspection method capable of finding long seam issues."⁴⁷⁰ CPSD does not state what event initiated the violation on December 15, 2003, leading again to the conclusion that the date was selected arbitrarily based on the implementation of the final integrity management regulations.⁴⁷¹ PG&E can only speculate that this alleged violation relates to CPSD's claim PG&E violated the integrity management rules by using ECDA as the assessment tool for Line 132.⁴⁷² However, even if CPSD's allegations regarding the proper assessment tool were otherwise valid (which, as discussed above, they are not), any resulting violation would both begin and end when PG&E performed ECDA on Line 132. CPSD cannot credibly allege that this violation began prior to the effective date of the integrity management regulations and continued daily until such time as PG&E performed in-line inspection or hydrostatic testing on Line 132.

Putting aside the due process defects CPSD created by alleging them after the close of evidence, CPSD's alleged continuing violations regarding PG&E's integrity management practices have no basis in law or fact.

C. Recordkeeping Violations

Though not completely explicit, CPSD appears to have deferred pursuit of recordkeeping violations against PG&E to the Records OII, I.11-02-016. CPSD states in its opening brief:

These recordkeeping issues are being dealt with much more extensively in CPSD's other San Bruno -related proceeding, I.11-02-016, the PG&E Recordkeeping OII. CPSD more completely explored the issues concerning PG&E's recordkeeping with regards to Line 132 and specifically Segment 180 in that proceeding. Therefore, a discussion here of PG&E's

⁴⁷⁰ CPSD OB, Appendix C at 3.

⁴⁷¹ CPSD is wrong here too. The regulations were not effective until February 14, 2004; they were published on December 15, 2003. 68 Fed. Reg. 69,778; 69 Fed. Reg. 2,307.

⁴⁷² CPSD OB at 46. Again, PG&E cannot be required consistent with due process to speculate as to the violations of law CPSD alleges. *See supra* Section III.C; PG&E's Motion to Strike Appendix C, filed March 18, 2013.

recordkeeping practices would be redundant. Although CPSD documented numerous violations with regards to recordkeeping relating to Segment 180 in this proceeding, CPSD will defer to I.11-02-016 as the proper venue to allege those violations, in order to avoid overlap.⁴⁷³

Based on this representation from CPSD, PG&E will not further address alleged recordkeeping violations in this reply brief.

D. PG&E's SCADA System And The Milpitas Terminal

In what is again essentially a reiteration of its January 12, 2012 report, August 20, 2012 rebuttal testimony and excerpts taken from the NTSB Report, CPSD discusses at length the purportedly unreasonably unsafe conditions at Milpitas Terminal and on PG&E's SCADA system as of September 9, 2010.⁴⁷⁴ Combined, CPSD contends these conditions constitute a violation of Section 451.⁴⁷⁵

After reiterating its prior assertions and allegations, CPSD states with respect to Milpitas Terminal: "The Milpitas Terminal was kept in a dangerously unsafe condition" that "created an unreasonably unsafe system in violation of Section 451."⁴⁷⁶ Similarly, after recounting the various allegations from its prior submissions regarding PG&E's SCADA system, CPSD asserts:

By maintaining a SCADA system that gave too many unnecessary alarm messages to its Operators, and was generally poorly designed, which increased the risk of an important alarm being mishandled, PG&E created an unreasonably unsafe system in violation of Section 451. The electrical, pressure control, and SCADA problems at Milpitas all contributed to the Line 132 rupture.⁴⁷⁷

Absent from CPSD's allegations and its description of purported deficiencies at Milpitas Terminal and with PG&E's SCADA system are any standards or criteria on which CPSD bases its allegation that PG&E has violated the law, e.g., how many is "too many unnecessary alarm

⁴⁷³ CPSD OB at 51.

⁴⁷⁴ CPSD OB at 52-61.

⁴⁷⁵ CPSD also asserts that PG&E violated 49 C.F.R. § 192.13(c) regarding the Milpitas Terminal clearance documentation. PG&E conceded that violation in its opening brief. PG&E OB at 5, 97. CPSD also appears to allege a violation of Section 192.605(c) because PG&E's clearance procedure (WP -4100) did not include a provision requiring potential abnormal conditions and unexpected events to be addressed. CPSD OB at 55-56.

⁴⁷⁶ CPSD OB at 60.

⁴⁷⁷ CPSD OB at 61 (citing Ex. CPSD-1 at 99 (CPSD/Stepanian)).

messages,” or, on what criteria CPSD determined PG&E’s SCADA system fell below what was lawful and “was generally poorly designed.”⁴⁷⁸ Nor did CPSD identify any regulatory provisions or legal mandate that PG&E could have violated. On the contrary, CPSD admitted in its January 12, 2012 report that “there are no specific requirements in the federal or state codes which address” the conditions on which CPSD based this violation.⁴⁷⁹ Lacking any regulation or standard to tell it (or PG&E) where the line is between legal and unlawful, CPSD falls back on the catch-all Section 451 to allege a subjective violation.

Even more, also absent from CPSD’s discussion of this alleged violation is any mention that the Milpitas Terminal pressure control system and the SCADA system worked as designed to control the unexpected pressure increase and keep the pressure on Line 132 below MAOP (400 psig) and far below what was lawful under the federal pipeline regulations (440 psig).⁴⁸⁰ CPSD conceded this in its January 12, 2012 report and in response to a PG&E data request.⁴⁸¹ Also missing is CPSD’s recognition of the indisputable fact that non-defective pipe would not have ruptured from the pressure increase on September 9, 2010; but for the defective pup, the events and pressure increase at Milpitas Terminal would not even have been reportable to the Commission.⁴⁸²

CPSD ignores its admission that no law applies to the acts and conditions it describes, and disregards the undisputed facts to nevertheless pursue an alleged violation of Section 451. The evidentiary record establishes that the SCADA and Milpitas Terminal systems were not “unreasonably unsafe” – on the contrary, they functioned as they should have. CPSD has no basis in fact or law to allege this violation.

CPSD also contends that two of the alleged violations regarding Milpitas Terminal and PG&E’s SCADA system are “continuing” violations.⁴⁸³ As discussed above in Section III.D., many of CPSD’s alleged continuing violations improperly transform a single act into separate

⁴⁷⁸ CPSD OB at 61.

⁴⁷⁹ Ex. CPSD-1 at 99 (CPSD/Stepanian).

⁴⁸⁰ Ex. PG&E-1 at 8-7 to 8-8 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-12 to 9-14 (PG&E/Miesner); Ex. CPSD-1 at 8, 24 (CPSD/Stepanian); Ex. CPSD-9 (NTSB Report) at 124.

⁴⁸¹ Ex. CPSD-1 at 8, 24, 90; Ex. PG&E-5 (Tab 8-2).

⁴⁸² GO 112-E, § 122; Ex. PG&E-1 at 3-5 (PG&E/Caligiuri); Ex. CPSD- 1 at 90 (CPSD/Stepanian); Ex. CPSD- 9 (NTSB Report) at 124.

⁴⁸³ CPSD OB, Revised Appendix C at 6. CPSD asserts that PG&E violated Section 451 from (1) February 2010 to September 9, 2010 by failing to “properly maintain the Milpitas Station” and (2) 2005 to September 9, 2010 by failing “to design a SCADA system without too many unnecessary alarms.” *Id.*

and compounded violations contrary to Section 2108, Commission precedent, and the California Constitution. The asserted duration of the alleged violations with respect to Milpitas Terminal and SCADA is also arbitrary and not supported by evidence.

CPSD contends PG&E failed “to design [its] SCADA system without too many unnecessary alarms.”⁴⁸⁴ CPSD assigns a duration to this violation of 2005 to September 9, 2010.⁴⁸⁵ CPSD does not state the basis for the 2005 beginning date, or any date in 2005 on which the violation allegedly began.⁴⁸⁶ Absent some identified basis, CPSD’s stated initiation date for this violation is arbitrary and lacks evidentiary support, leaving PG&E and the Commission to surmise as to the purported triggering date and event. These flaws are in addition to the absence of regulatory standards or criteria on which CPSD decided, apparently subjectively, what constitutes “unnecessary” or “too many” SCADA alarms.⁴⁸⁷

The same is true with CPSD’s assertion of a continuing violation from February 2010 to September 9, 2010 for allegedly failing to “properly maintain the Milpitas Station.”⁴⁸⁸ CPSD does not state what initiated the violation in February 2010, leading again to the conclusion that the date was selected arbitrarily.⁴⁸⁹ CPSD’s criteria for choosing the beginning date are made even more unclear and arbitrary by CPSD’s description of Milpitas Terminal, which, according to CPSD, has been in poor condition for several decades.⁴⁹⁰ CPSD fails, however, to explain how in February 2010 conditions at Milpitas Terminal went from poor but apparently lawful to “unreasonably unsafe” in violation of Section 451;⁴⁹¹ nor does CPSD identify the evidence demonstrating how and when conditions at Milpitas Terminal crossed whatever legal threshold CPSD has constructed.

The reason CPSD has not made this showing is because it cannot distinguish what is lawful from unlawful under Section 451 other than by subjective declaration. The violations CPSD alleges related to Milpitas Terminal and PG&E’s SCADA system underscore the

⁴⁸⁴ CPSD OB, Revised Appendix C at 6.

⁴⁸⁵ CPSD OB, Revised Appendix C at 6.

⁴⁸⁶ CPSD OB, Revised Appendix C at 6; CPSD OB at 52-61.

⁴⁸⁷ CPSD OB at 60-61.

⁴⁸⁸ CPSD OB, Revised Appendix C at 6.

⁴⁸⁹ CPSD OB, Revised Appendix C at 6.

⁴⁹⁰ CPSD OB at 56-60; *id.* at 60 (“Over decades of updates and revisions to the controls and SCADA at Milpitas Terminal . . .”).

⁴⁹¹ CPSD OB at 60.

improper breadth with which CPSD attempts to use Section 451 as a penal statute. Undisputed facts prove that PG&E's pressure control system worked and maintained pipeline operations within legal limits, yet CPSD still contends that PG&E violated Section 451 in multiple ways. There was nothing inherently unsafe, however, about the pressure increase or the performance of the pressure control system on September 9, 2010. Absent the defective pups installed 54 years earlier, the pressure increase would have been a non-event. If those facts can support multiple Section 451 violations, including daily violations over many years, as CPSD contends, there is no boundary to Section 451.

E. PG&E's Emergency Response

CPSD audited PG&E's emergency response plans in 2009 and 2010 and found them to be compliant with the federal regulations.⁴⁹² CPSD and its consultant in the Records OII conceded that PG&E's emergency response plans complied with the federal regulations. PG&E's expert witness on emergency response procedures, David Bull, corroborated CPSD's conclusions that PG&E's emergency plans complied with regulations.⁴⁹³ Disregarding all of those facts, CPSD in its opening brief alleges 19 violations relating to PG&E's emergency plans and response, many of which CPSD raises for the first time.⁴⁹⁴

Having conceded that PG&E's written emergency response plans fulfill regulatory criteria, CPSD applies flawed legal analysis to prop up its allegations. The bulk of CPSD's arguments focus on the "effectiveness" of PG&E's "Emergency Response Actions" on September 9, 2010.⁴⁹⁵ CPSD overlooks, however, that the regulation on which it primarily relies, 49 C.F.R. § 192.615, does not regulate emergency response actions themselves, but rather prescribes the elements to be included in written emergency plans. Unable to assert a valid

⁴⁹² Ex. PG&E-1 at 10-2 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix A at 4- 6 (PG&E/Almario) (CPSD's 2009 Audit finding PG&E's written abnormal operations procedures, emergency procedures, and public awareness program procedures "Satisfactory"); Ex. PG&E -1, Chapter 10, Appendix B at 4-6 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operations procedures, emergency procedures, and public awareness program procedures "Satisfactory").

⁴⁹³ Ex. PG&E-1 at 11-23 (PG&E/Bull); R.T. 414-15 (PG&E/Bull); Ex. PG&E-39 (PG&E Company Gas Emergency Plan); Ex. PG&E-42 (PG&E Gas T&D Emergency Plan Manual).

⁴⁹⁴ As noted, CPSD's failure to provide adequate notice of the charges against it violates PG&E's right to due process. *See* PG&E's Motion to Strike Appendix C, filed March 18, 2013. Also as noted, the alleged violations may exceed 19, depending on how one interprets CPSD's ambiguous allegations.

⁴⁹⁵ CPSD OB at 64 (discussing "Emergency Response Plans"), 65 (discussing "PG&E Emergency Response Actions"). The same alleged violation is Violation 10 in the Records OII, namely that the emergency response was confused and not effective. CPSD cannot duplicate allegations in each proceeding.

violation under the relevant regulations, CPSD applies subjective standards and evaluates the “effectiveness” of PG&E’s emergency response under undefined criteria. CPSD’s hindsight judgments based on its own subjective standards do not provide a basis to find that PG&E violated the law.

Furthermore, even if CPSD’s legal theories were correct, CPSD has not carried its burden of providing evidence to establish that PG&E’s emergency response plans or response on September 9, 2010 violated the law. In the entire emergency response discussion in its opening brief, CPSD cites only twice to the text of PG&E’s emergency response plans.⁴⁹⁶ Despite having the burden of proof to establish each of the allegations it asserts, CPSD relies almost exclusively on its January 12, 2012 report and the NTSB report, without addressing the substantial evidence PG&E submitted.

CPSD added some 16 alleged violations regarding emergency response with its opening brief, many of which are repetitive or duplicative, in addition to being new. In this reply, PG&E has no choice but to address each one, making the discussion below lengthy and at times repetitive. Two themes, however, are consistent throughout: CPSD has based each violation regarding PG&E’s emergency response on subjective judgments not grounded in any legitimate standard or criteria; and CPSD has failed in every instance to submit sufficient evidence meeting its burden of proof.

1. CPSD Cannot Assert New Violations With Respect To Emergency Response

In Appendix C to its opening brief, CPSD alleges emergency response violations that vary substantially from the violations alleged in its January 12, 2012 report. CPSD’s initial report discussed vaguely PG&E’s emergency plans and response, but did not identify specific aspects of PG&E’s emergency response or plans as violating particular subsections of 49 C.F.R. § 192.615.⁴⁹⁷ In some instances, CPSD introduced topics in its opening brief that were not mentioned at all in its January 12, 2012 report or four-paragraph August 20, 2012 rebuttal

⁴⁹⁶ CPSD OB at 64 (citing Ex. CPSD-297).

⁴⁹⁷ Ex. CPSD-1 at 102-25 (CPSD/Stepanian).

testimony addressing emergency response.⁴⁹⁸ CPSD cannot add to and change the violations it alleges after the close of evidence.

2. CPSD's Utility Safety Reliability Branch Found PG&E In Compliance With 42 C.F.R. §§ 605, 615, And 616

CPSD's Utility Safety Reliability Branch audits PG&E's gas emergency plan through its annual review cycle, and conducts periodic audits of PG&E's divisions and districts.⁴⁹⁹ In 2009 and 2010, CPSD audited PG&E's emergency response plan. In each audit, CPSD did not identify deficiencies with the plan under Sections 192.605, 192.615, or 192.616.⁵⁰⁰

From March 2 to March 5, 2009, CPSD audited PG&E's Operation, Maintenance and Emergency Plans.⁵⁰¹ In the audit, CPSD reviewed PG&E's emergency procedures under each subsection of 192.605, 192.615 and 192.616 and found each of PG&E's corresponding procedures "Satisfactory."⁵⁰² In the 2010 audit of the Peninsula Division, which covers the San Bruno area, CPSD found PG&E's emergency procedures for the Peninsula Division "Satisfactory" for each of the provisions under 192.605, 192.615 and 192.616.⁵⁰³ Below is a copy of the USRB's audit findings showing that PG&E met each of the requirements in 192.605,⁵⁰⁴ 192.615⁵⁰⁵ and 192.616:⁵⁰⁶

⁴⁹⁸ See, e.g., CPSD OB at 64 (alleging PG&E failed to have a mutual assistance agreement with local first responders and alleging that conducted violates 49 C.F.R. § 192.615(a)(8)). CPSD's report and rebuttal testimony make no mention of the requirement to have a "mutual assistance agreement." See Ex. CPSD-1 at 102-25 (CPSD/Stepanian), Ex. CPSD-5 at 54-55 (CPSD/Stepanian).

⁴⁹⁹ Ex. PG&E-1 at 10-2 to 10-3 (PG&E/Almario).

⁵⁰⁰ Ex. PG&E-1, Chapter 10, Appendix A at 4-6 (PG&E/Almario) (CPSD's 2009 Audit finding PG&E's abnormal operations procedures, emergency procedures and public awareness program procedures satisfactory); Ex. PG&E-1, Chapter 10, Appendix B at 4-6 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operations procedures, emergency procedures and public awareness program procedures satisfactory).

⁵⁰¹ Ex. PG&E-1 at 10-2 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix A (PG&E/Almario) (CPSD's 2009 audit findings).

⁵⁰² Ex. PG&E-1, Chapter 10, Appendix A at 4-6 (PG&E/Almario) (CPSD's 2009 Audit finding PG&E's abnormal operations procedures, emergency procedures and public awareness program procedures satisfactory); Ex. PG&E-1 at 10-2 (PG&E/Almario).

⁵⁰³ Ex. PG&E-1, Chapter 10, Appendix B at 4-6 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operations procedures, emergency procedures and public awareness program procedures to be "Satisfactory"); Ex. PG&E-1 at 10-2 to 10-3 (PG&E/Almario).

⁵⁰⁴ Ex. PG&E-1, Chapter 10, Appendix A at 4 (PG&E/Almario) (CPSD's 2009 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory"); see also Ex. PG&E-1, Chapter 10, Appendix B at 4 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory").

STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE

Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked
If an item is marked U, N/A, or N/C, an explanation must be included in this report.

ABNORMAL OPERATING PROCEDURES		S	U	N/A	N/C
.605(c)(1)	Procedures for responding to, investigating, and correcting the cause of:				
	(i) Unintended closure of valves or shut downs	X			
	(ii) Increase or decrease in pressure or flow rate outside of normal operating limits	X			
	(iii) Loss of communications:	X			
	(iv) The operation of any safety device	X			
	(v) Malfunction of a component, deviation from normal operations or personnel error	X			
.605(c)(2)	Checking variations from normal operation after abnormal operations ended at sufficient critical locations	X			
.605(c)(3)	Notifying the responsible operating personnel when notice of an abnormal operation is received	X			
.605(c)(4)	Periodically reviewing the response of operating personnel to determine the effectiveness of the procedures and taking corrective action where deficiencies are found	X			

[Next Page]

⁵⁰⁵ Ex. PG&E-1, Chapter 10, Appendix A at 5 (PG&E/Almario) (CPSD's 2009 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory"); *see also* Ex. PG&E-1, Chapter 10, Appendix B at 5 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory").

⁵⁰⁶ Ex. PG&E-1, Chapter 10, Appendix A at 6 (PG&E/Almario) (CPSD's 2009 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory"); *see also* Ex. PG&E-1, Chapter 10, Appendix B at 6 (PG&E/Almario) (CPSD's 2010 Audit of PG&E's Peninsula Division finding PG&E's abnormal operating procedures under 192.605(b) to be "Satisfactory").

.615	EMERGENCY PROCEDURES	S	U	N/A	N/C
.615(a)(1)	Receiving, identifying, and classifying notices of events which require immediate response by the operator.	X			
.615(a)(2)	Establish and maintain communication with appropriate public officials regarding possible emergency.	X			
.615(a)(3)	Prompt response to each of the following emergencies:				
	(i) Gas detected inside a building.	X			
	(ii) Fire located near a pipeline	X			
	(iii) Explosion near a pipeline	X			
	(iv) Natural disaster	X			
.615(a)(4)	Availability of personnel, equipment, instruments, tools, and material required at the scene of an emergency.	X			
.615(a)(5)	Actions directed towards protecting people first, then property.	X			
.615(a)(6)	Emergency shutdown or pressure reduction to minimize hazards to life or property.	X			
.615(a)(7)	Making safe any actual or potential hazard to life or property.	X			
.615(a)(8)	Notifying appropriate public officials required at the emergency scene and coordinating planned and actual responses with these officials.	X			
.615(a)(9)	Instructions for restoring service outages after the emergency has been rendered safe.	X			
.615(a)(10)	Investigating accidents and failures as soon as possible after the emergency.	X			
.615(b)(1)	Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible for emergency action.	X			
.615(b)(2)	Training appropriate employees as to the requirements of the emergency plan and verifying effectiveness of training.	X			
.615(b)(3)	Reviewing activities following emergencies to determine if the procedures were effective.	X			
.615(c)	Establish and maintain liaison with appropriate public officials, such that both the operator and public officials are aware of each other's resources and capabilities in dealing with gas emergencies.	X			

Comments:

PG&E's Emergency Plan consists of 2 parts: (1) Basic Plan (company-wide) and (2) Appendix which contains the Division-specific portion. Each division or district is responsible for updating their own binders including any changes received on the company-wide plan and the division-specific plan. The Basic Plan/company-wide plan is reviewed by PG&E's SME by 8/31 of each year. Personnel that may be involved in emergency response are required to do an initial and subsequent training and evaluation. Additionally, personnel are required to take a computer-based examination on emergency procedures to stay informed of any recent changes in the

PUBLIC AWARENESS PROGRAM PROCEDURES (Also in accordance with API RP 1162)			S	U	N/A	N/C
.605(a)	.616	Public Awareness Program also in accordance with API RP 1162 (Amdt 192-99 pub. 5/19/03 eff. 06/20/05 and Amdt 192-not numbered pub 12/13/07 eff. 12/13/07).				
	.616(d)	The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:				
		(1) Use of a one-call notification system prior to excavation and other damage prevention activities;	X			
		(2) Possible hazards associated with unintended releases from a gas pipeline facility;	X			
		(3) Physical indications of a possible release;	X			
		(4) Steps to be taken for public safety in the event of a gas pipeline release; and	X			
		(5) Procedures to report such an event (to the operator).	X			
	.616(e)	The operator's program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.	X			
	.616(f)	The operator's program and the media used must be comprehensive enough to reach all areas in which the operator transports gas.	X			
	.616(g)	The program must be conducted in English and any other languages commonly understood by a significant number of the population in the operator's area?	X			
	.616(j)	Operators of a master meter or petroleum gas systems (unless the operator transports gas as a primary activity) must develop/implement a written procedure to provide its customers public awareness messages twice annually that includes: (1) A description of the purpose and reliability of the pipeline; (2) An overview of the hazards of the pipeline and prevention measures used; (3) Information about damage prevention; (4) How to recognize and respond to a leak; and (5) How to get additional information. (See this subpart for requirements for master meter or petroleum gas system operators not located on property controlled by the operator.)			X	

Comments:

PG&E's submitted its PAP into the USDOT Clearinghouse. The USBR received the results of the Clearinghouse's review and has worked with PG&E to resolve the issues noted by the Clearinghouse. Safety, Health, and Claims 103 addresses PG&E's PAP. Master-meter section (616(j)) is not applicable to PG&E since it does not operate master-meter systems.

3. **CPSD Failed To Establish That PG&E’s Emergency Response Plans Violated The Law**

Despite its concession that PG&E’s emergency response plans meet regulatory criteria,⁵⁰⁷ CPSD alleges four new violations, three of which relate to whether PG&E had a written external mutual assistance agreement with public agencies.⁵⁰⁸ None have merit because the cited regulations do not require what CPSD alleges.

a. **An Inconsistency Between The Descriptions Of The Emergency Escalation Procedures In The Company And Peninsula Emergency Plans Does Not Constitute A Violation Of 49 C.F.R. § 192.615(a)(3)**

CPSD alleges “the inconsistencies between corporate and divisional level Emergency Plans violate the legal requirement in 49 C.F.R. Part 192.615(a)(3) for a ‘prompt and effective response’ to an emergency notice.”⁵⁰⁹ CPSD raised neither this topic, nor this violation in its January 12, 2012 report or August 2012 rebuttal testimony.⁵¹⁰ As with all other newly-alleged violations, this allegation should be rejected on that basis alone. In any event, a purported inconsistency in the way a procedure is described does not constitute a violation of the law.

49 C.F.R. § 192.615 is entitled “Emergency Plans.” Section 192.615(a)(3) provides:

- (a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following: . . .
- (3) Prompt and effective response to a notice of each type of emergency, including the following:
 - (i) Gas detected inside or near a building
 - (ii) Fire located near or directly involving a pipeline facility.
 - (iii) Explosion occurring near or directly involving a pipeline facility.
 - (iv) Natural disaster.

⁵⁰⁷ In the Records OII, CPSD asserts in Violation 10 that PG&E’s emergency response plans violated Public Utilities Code Section 451. Having conceded that PG&E’s emergency response plans meet the requirements of the regulations, CPSD did not allege in the Records OII that PG&E violated 49 C.F.R. § 192.615, 192.605 or 192.616.

⁵⁰⁸ CPSD OB at 64-65.

⁵⁰⁹ CPSD OB at 64.

⁵¹⁰ Ex. CPSD-1 at 102-25 (CPSD/Stepanian); Ex. CPSD-5 at 54-55 (CPSD/Stepanian).

CPSD fails to cite the PG&E Emergency Response Plans themselves.⁵¹¹ Rather, CPSD recites from the IRP report, which observed that “the corporate ERP [emergency response plan] denotes three distinct levels of escalation, while the Peninsula refers to levels numbered with Roman Numerals up to Level IV.”⁵¹² CPSD does not provide any evidence that the plans were actually inconsistent in their substance, rather than simply different in format.⁵¹³ CPSD also omits that the IRP report found that “PG&E’s corporate ERP is comprehensive, embodies many current best practices, and is revised and tested on a frequent basis.”⁵¹⁴ More importantly, CPSD provided no evidence that this alleged inconsistency had any substantive or adverse effect on PG&E’s written procedure providing for a prompt and effective emergency response.

b. 49 C.F.R. § 192.615(a)(8) Does Not Require An Operator To Have A Written External Mutual Assistance Agreement

CPSD alleges that PG&E failed to have written external mutual assistance agreements in its Peninsula Division Emergency Plan, and that such omission violates 49 C.F.R. § 192.615(a)(8).⁵¹⁵ This allegation fails from the outset because CPSD did not raise this topic or violation in its January 12, 2012 report or August 20, 2012 rebuttal testimony.⁵¹⁶

Regardless, CPSD misstates the law. 49 C.F.R. § 192.615(a)(8) provides:

- (a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:
 - (8) Notifying appropriate fire, police and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency.

Section 615(a)(8) does not mandate that an operator have written external mutual assistance agreements. As CPSD verified in its 2009 and 2010 audits, PG&E’s plans include procedures that satisfy Section 192.615(a)(8).⁵¹⁷ For example, PG&E’s procedures provide for

⁵¹¹ CPSD OB at 64.

⁵¹² CPSD OB at 64 (citing Ex. CPSD-10 (Report of the Independent Review Panel, San Bruno Explosion, June 24, 2011)); Ex. CPSD-10 at 77.

⁵¹³ Ex. PG&E 39 (Company Plan) at 1-22 to 1-23; Ex. PG&E-42 (Peninsula Division Plan) at 15-16.

⁵¹⁴ Ex. CPSD-10 at 77.

⁵¹⁵ CPSD OB at 64.

⁵¹⁶ Ex. CPSD-1 at 102-25 (CPSD/Stepanian); Ex. CPSD-5 at 54-55 (CPSD/Stepanian).

⁵¹⁷ Ex. PG&E- 1, Chapter 10, Appendix A at 5 (PG&E/Almario) (CPSD’s 2009 Audit of PG&E’s Operations, Maintenance and Emergency Plan finding PG&E satisfied requirements of 49 C.F.R. § 192.615(a)(8)); *see also*

liaison meetings with local government and emergency response agencies, and contain comprehensive contact information for local public agencies.⁵¹⁸ In practice on September 9, 2010, PG&E’s procedures were effective: San Bruno’s Fire Chief Dennis Haag complimented PG&E for its coordination with fire officials on the incident site, testifying at the NTSB hearing that PG&E’s coordination was “great. They had liaisons established and worked it out.”⁵¹⁹

c. 49 C.F.R. § 192.615(c)(4) Does Not Require An Operator To Have A Written External Mutual Assistance Agreement

CPSD also alleges that not having written external mutual assistance agreements violates 49 C.F.R. § 192.615(c)(4).⁵²⁰ Again, CPSD raised neither this topic nor this violation in its January 12, 2012 report or its rebuttal testimony.⁵²¹ As with Section 192.615(a)(8), the claim is meritless.

Section 192.615(c)(4) contains no requirement that an operator have a written external mutual assistance agreement. 49 C.F.R. § 192.615(c)(4) provides:

(c) Each operator shall establish and maintain liaison with appropriate fire, police and other public officials to: . . .

(4) Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.

As CPSD confirmed in its 2009 and 2010 audits, PG&E’s emergency plans contain procedures that satisfy Section 192.615(c).⁵²² As noted, PG&E’s procedures provide for liaison meetings with local government and emergency response agencies, and contain contact information for local public agencies.⁵²³

Ex. PG&E-1, Chapter 10, Appendix B at 5 (PG&E/Almario) (CPSD’s 2010 Audit of PG&E’s Peninsula Division finding PG&E satisfied requirements of 49 C.F.R. § 192.615(a)(8)); *see also* Ex. PG&E-1 at 11-10 to 11-21, 11-24 (PG&E/Bull).

⁵¹⁸ Ex. PG&E-39 at 1-12; Ex. CPSD-297 at F-1.1, F-3.1 to F-3.11.

⁵¹⁹ Ex. PG&E-41 at 469 (NTSB Hearing Transcript, March 2, 2011 – Excerpt, Statement of Fire Chief Haag).

⁵²⁰ CPSD OB at 65.

⁵²¹ Ex. CPSD-1 at 102-25 (CPSD/Stepanian); Ex. CPSD-5 at 54-55 (CPSD/Stepanian).

⁵²² Ex. PG&E-1, Chapter 10, Appendix A at 5 (PG&E/Almario) (CPSD’s 2009 Audit of PG&E’s Operations, Maintenance and Emergency Plan finding PG&E satisfied requirements of 49 C.F.R. § 192.615(c)); Ex. PG&E-1, Chapter 10, Appendix B at 5 (PG&E/Almario) (CPSD’s 2010 Audit of PG&E’s Peninsula Division finding PG&E satisfied requirements of 49 C.F.R. § 192.615(c)); *see also* Ex. PG&E-1 at 11-10 to 11-21, 11-24 (PG&E/Bull).

⁵²³ Ex. PG&E-39 at 1-12; Ex. CPSD-297 at F-1.1, F-3.1 to F-3.11.

d. Public Utilities Code Section 451 Does Not Require An Operator To Have Written External Mutual Assistance Agreement

Duplicating alleged violations, CPSD argues that the lack of written mutual assistance agreements also violates Section 451.⁵²⁴ Section 451 imposes no such requirement. CPSD does not provide evidence or explanation to support its one sentence argument.⁵²⁵ As explained above, 49 C.F.R. § 192.615 does not require written mutual assistance agreements. CPSD verified in its audit that PG&E had in place procedures to notify, coordinate and establish liaison with external public agencies.⁵²⁶

4. CPSD Failed To Prove That PG&E’s “Emergency Response Actions” Violated The Law

a. CPSD’s Undefined, Subjective Evaluation Of PG&E’s Emergency Response Does Not Support A Finding That PG&E Violated The Law

With the benefit of hindsight, CPSD deconstructs PG&E’s emergency response to the San Bruno accident. CPSD bases its hindsight judgments on subjective standards CPSD itself creates and use to evaluate the quality of PG&E’s emergency response. CPSD alleges PG&E violated the law because PG&E failed to “adequately,” “promptly,” and “effectively” respond to the emergency and created an “unreasonably unsafe situation.”⁵²⁷ CPSD applies flawed and arbitrary analysis in an attempt to establish legal violations.

CPSD alleges that a variety of PG&E’s actions responding to the San Bruno accident constituted violations of subparts of 192.615(a). Section 192.615(a), however, relates to the written procedures an operator must have relating to emergency plans: “[e]ach operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency.” Section 192.615(a) then lists eleven items that must be included in the written procedures.⁵²⁸

⁵²⁴ CPSD OB 65.

⁵²⁵ CPSD OB 65.

⁵²⁶ Ex. PG&E-1, Chapter 10, Appendix A at 5 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix B at 5 (PG&E/Almario).

⁵²⁷ CPSD OB at 68, 74-75.

⁵²⁸ 49 C.F.R. § 192.615(a) provides:

Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

The regulations do not establish any requirements or standards regarding an operator's actions implementing the plan, nor does it require that an emergency response meet specific time standards or other quantitative and qualitative criteria.

The subjective standards CPSD creates and applies are unclear and undefined. CPSD alleges that PG&E failed to “adequately,” “promptly,” and “effectively” respond to the emergency and thereby created an “unreasonably unsafe situation.” CPSD does not provide any criteria by which it judges whether PG&E's emergency response was sufficiently adequate, prompt, or effective, or explain what conduct falls below the legal line CPSD draws. CPSD also fails to explain what it means by an “unsafe situation,” and what it means to have an “unreasonably” unsafe situation. Certainly the federal regulations do not provide such criteria or standards. Rather, CPSD relies upon its subjective opinion based on hindsight judgments founded on unknown criteria to make determinations as to whether PG&E's emergency response violated the law.

CPSD alleges that PG&E failed to “promptly” respond to the San Bruno accident, but it acknowledges that “at the time of the incident, California did not have specific requirements for

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- (1) Receiving, identifying, and classifying notices of events which require immediate response by the operator.
 - (2) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.
 - (3) Prompt and effective response to a notice of each type of emergency, including the following:
 - (i) Gas detected inside or near a building.
 - (ii) Fire located near or directly involving a pipeline facility.
 - (iii) Explosion occurring near or directly involving a pipeline facility.
 - (iv) Natural disaster.
 - (4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.
 - (5) Actions directed toward protecting people first and then property.
 - (6) Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.
 - (7) Making safe any actual or potential hazard to life or property.
 - (8) Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency.
 - (9) Safely restoring any service outage.
 - (10) Beginning action under § 192.617, if applicable, as soon after the end of the emergency as possible.
 - (11) Actions required to be taken by a controller during an emergency in accordance with § 192.631.

response time.”⁵²⁹ CPSD also acknowledges that there are no standards in the federal regulations for measuring the promptness of a response time.⁵³⁰ As CPSD recognizes, a number of situation-specific variables can affect the response time for any given emergency, such as “severity of the leak, vintage and material of the pipe, weather and traffic conditions, proximity to nearby personnel and equipment, utility resources, and the time of day.”⁵³¹ Despite lacking any established standards or regulatory mandate that applies to response time, CPSD asserts that PG&E’s emergency response violated the law.

CPSD also provides no evidence – other than post-accident judgments based on changed expectations – that PG&E’s response time to shut off the gas was unreasonable. David Bull, an expert on emergency response, testified that PG&E’s response time to shut off the gas was reasonable.⁵³² Thomas Miesner, an expert on SCADA and gas control, also found that PG&E’s response time was reasonable.⁵³³ John Zurcher, yet another gas transmission expert, confirmed that 95 minutes was a reasonable time within which to isolate the rupture:

But one of the analysis [sic] that I performed was to go back to the DOT incident database. And I thought this was very telling because we found that on average, across the entire United States, of all incidents that had happened over a certain period of time, the average time to shut off a pipeline supply to an incident was about two hours. So in my opinion, the 90 minutes for the PG&E case was actually better than industry average.⁵³⁴

The only response CPSD offers to PG&E’s substantial evidence are subjective judgments that 95 minutes was too long. CPSD’s unsupported contentions have no evidentiary value.⁵³⁵

As PG&E has repeatedly acknowledged, its emergency response on September 9, 2010 could have been better in some ways, and not in others. In both instances, however, PG&E’s actions did not constitute a violation of law.

⁵²⁹ Ex. CPSD-1 at 107 (CPSD/Stepanian).

⁵³⁰ Ex. CPSD-1 at 107 (CPSD/Stepanian).

⁵³¹ Ex. CPSD-1 at 107 (CPSD/Stepanian).

⁵³² R.T. 415-16 (PG&E/Bull); R.T. 269 (PG&E/Almario).

⁵³³ R.T. 861-62 (PG&E/Miesner).

⁵³⁴ R.T. 820-21 (PG&E/Zurcher).

⁵³⁵ CPSD bases its assertion on the NTSB’s opinion that 95 minutes was excessive, which did not account for the industry average evidence provided by Mr. Zurcher.

b. CPSD’s Summary Of PG&E’s “Operational Awareness and Control” On The Day Of The Incident Does Not Provide A Basis For Violations Of 49 C.F.R. § 192.615(a) Or Section 451

49 C.F.R. § 192.615(a). CPSD asserts that Gas Control’s purported “inability to obtain situational awareness” violated 49 C.F.R. § 192.615(a)(1), (a)(3), (a)(4), (a)(6), (a)(7) and (a)(8). As explained above, Section 192.615(a) relates to written procedures; it does not establish standards or baselines for evaluating “situational awareness.”

Even if a violation could be alleged in the manner proposed, CPSD’s conclusory allegations under Section 192.615(a) fail. CPSD alleges that “PG&E’s inability to obtain situational awareness demonstrates that it did not promptly and effectively respond to the emergency” in violation of Section 192.615(a)(3).⁵³⁶ The facts demonstrate that PG&E obtained situational awareness.⁵³⁷ CPSD’s true complaint is that PG&E’s response was too slow. No law, however, prescribes response times.⁵³⁸ And, as demonstrated above and in PG& E’s opening brief, the response time was appropriate, prompt, and effective.⁵³⁹

CPSD also alleges that “PG&E did not adequately receive, identify, and classify notices of the emergency” in violation of Section 192.615(a)(1).⁵⁴⁰ Section 192.615(a)(1) makes no mention of a standard regarding what constitutes “adequately” processing notices. CPSD’s assertion is an arbitrary and subjective judgment not grounded in any law or regulation. In any event, PG&E did receive, identify, and classify notices of emergency, as explained below, and did so adequately.⁵⁴¹

CPSD further alleges PG&E’s purported “lack of situational awareness hampered its ability” to do a number of things, such as provide resources at the scene, shut off the gas, make the situation safe, and notify first responders.⁵⁴² CPSD fails to connect “lack of situational awareness” to these other alleged actions. For example, CPSD offers no evidence that resources

⁵³⁶ CPSD OB at 68.

⁵³⁷ At 6:29 p.m., within two minutes after first learning about the fire in San Bruno, PG&E’s gas control operators connected the reports of the fire with SCADA low pressure alarms on Line 132 to conclude that there had likely been a line break on Line 132. Ex. PG&E-1 at 9-9 (PG&E/Miesner).

⁵³⁸ Ex. CPSD-1 at 107 (CPSD/Stepanian).

⁵³⁹ PG&E OB at 100- 03 (discussing Gas Control’s actions); PG&E OB at 106 -14 (discussing PG&E’s emergency response).

⁵⁴⁰ CPSD OB at 68.

⁵⁴¹ PG&E OB at 100- 03 (discussing Gas Control’s actions); PG&E OB at 106 -14 (discussing PG&E’s emergency response); Ex. PG&E-1 at 10-1 to 10-6 (PG&E/Almario).

⁵⁴² CPSD OB at 68.

were not provided at the scene of the fire. In fact, PG&E personnel were present at the scene 23 minutes after first notification and worked side-by-side with San Bruno fire and police departments.⁵⁴³ Again, CPSD's actual criticism is that PG&E's response was not fast enough in CPSD's subjective view, which does not constitute a violation of the law.

Section 451. CPSD alleges that the actions of PG&E's gas control operators in response to the pressure increase and rupture constituted a violation of Section 451.⁵⁴⁴ As discussed above, CPSD's use of Section 451 to assert broad and arbitrary safety violations is improper. In any event, the evidence shows PG&E's gas control operators responded appropriately in the situation they confronted, and their actions did not violate any law. PG&E discusses in detail the evidence in its opening brief at pages 100 to 103.

Following the rupture, gas control operators recognized there had likely been a line break in San Bruno and reacted. At the time of the rupture, PG&E's gas control operators had for approximately 50 minutes been receiving and attempting to integrate and analyze a mixture of valid and invalid SCADA data and alarms.⁵⁴⁵ The low pressure readings and SCADA alarms related to the Line 132 rupture, which first came in at 6:15 p.m., were single data points among the mixture of valid and invalid information and alarms that had been occurring for nearly an hour.⁵⁴⁶ The evidence showed that, at 6:29 p.m., just two minutes after first becoming aware of the fire in San Bruno, PG&E's gas control operators connected the reports of the fire with the SCADA low pressure alarms on Line 132 to determine that there had likely been a line break on Line 132.⁵⁴⁷

SCADA and operator control expert Tom Miesner testified:

In my opinion, given the mixture of valid and invalid SCADA data and alarms that gas control operators had to integrate and analyze for nearly an hour before and after the rupture, the time in which PG&E's gas control operators determined that the low pressure

⁵⁴³R.T. 285 (PG&E/Almario); Ex. PG&E-40 at 5; Ex. PG&E-41 at 469 (NTSB Hearing Transcript, March 2, 2011 – Excerpt, Statement of Fire Chief Haag). There is also record evidence that PG&E's Gas Maintenance and Construction Superintendent for the Bay Area region arrived even earlier. Ex. CPSD-97 at 15 (estimating arrival at approximately 6:30 or 6:35 p.m.).

⁵⁴⁴ Ex. CPSD-1 at 70, 98-99 (CPSD/Stepanian).

⁵⁴⁵ Ex. PG&E-1 at 8-6 (PG&E/Kazimirsky/Slibsager); Ex. PG&E-1 at 9-8 to 9-9 (PG&E/Miesner).

⁵⁴⁶ Ex. PG&E-1 at 8-5 to 8-6 (PG&E/Kazimirsky/Slibsager); Ex. PG&E-1 at 9-8 to 9-9 (PG&E/Miesner).

⁵⁴⁷ Ex. PG&E-40 at 6; Ex. PG&E-1 at 8-6 to 8-7 (PG&E/Kazimirsky/Slibsager); Ex. PG&E-1 at 9- (PG&E/Miesner); Ex. CPSD-1 at 11 (CPSD/Stepanian).

readings starting at 6:15 p.m. were valid and that there had likely been a line break on Line 132 was reasonable.⁵⁴⁸

Mr. Miesner also testified that the gas control operators responded appropriately after determining that there had been a line break. Mr. Miesner reviewed the gas control recordings and did not find there was “significant confusion,” as CPSD contends. Rather, Mr. Miesner concluded “The gas system operators responded in a focused manner, and were understandably working as quickly as possible to address the unexpected situation. Their actions, and the pressure limiting system at Milpitas Terminal, effectively kept the pressure below MAOP.”⁵⁴⁹

c. CPSD’s Summary Of PG&E’s “Internal Communications” On The Day Of The Incident Does Not Provide A Basis For Asserting Violations Of 49 C.F.R. §§ 192.615(a), 192.605(c)(1), (c)(3), Or Section 451

CPSD alleges there was “confusion” in PG&E’s “internal communications” during the emergency response.⁵⁵⁰ CPSD vaguely asserts that as a result of this confusion, PG&E’s emergency response was not “effective” or done “adequately” in violation of 49 C.F.R. §§ 192.615(a)(1), (3), (4), (6), (7), (8), 192.605(c)(1), (3), and Public Utilities Code section 451.⁵⁵¹ CPSD’s claims fail because the regulations and statute do not cover the conduct alleged. Moreover, even if CPSD asserted viable claims, it still failed to prove its allegations. CPSD retells portions of the various internal communications on the day of the incident, to varying degrees of accuracy, and then summarily lists alleged violations in conclusory fashion. CPSD fails to carry its burden of proof, relying heavily on its own report and the NTSB report, and very little on other evidence. CPSD also fails to link its purported “evidence” to any concrete violation of law.

49 C.F.R. § 192.615(a). CPSD failed to prove that PG&E violated Section 192.615(a). As explained above, Section 192.615(a) addresses written procedures, not standards or criteria by which the actions of an operator during an emergency response can be judged. CPSD

⁵⁴⁸ Ex. PG&E-1 at 9-9 (PG&E/Miesner). Adding redundant SCADA data to the mix, as CPSD suggests, would have only complicated the information with which gas operators had to deal. See Joint R.T. 128-30 (PG&E/Slibsager).

⁵⁴⁹ Ex. PG&E-1 at 9-10 (PG&E/Miesner).

⁵⁵⁰ CPSD OB at 66.

⁵⁵¹ CPSD also alleged in the Records OII that PG&E’s emergency response was confused and ineffective in Violation 10. CPSD characterized this violation as a single violation of Section 451, and not Section 192.615. CPSD did not raise this argument in the Records OII, and in fact conceded that PG&E complied with Section 192.615.

provides no evidence regarding the adequacy of PG&E's written procedures (which as noted were found to be compliant by CPSD and Mr. Bull⁵⁵²); CPSD fails to establish a violation of 192.615(a).

Moreover, CPSD's conclusory allegations under Section 192.615(a) are not supported by the facts. In its hindsight review, CPSD selectively addresses a few conversations and response activities to create an account of PG&E's emergency response that does not fully acknowledge the intensity of the situation.⁵⁵³ CPSD alleges that roles and responsibilities were poorly defined, but does not cite PG&E's written procedures defining those roles and responsibilities.⁵⁵⁴ In fact, the evidence demonstrates that PG&E's emergency manual defines roles and responsibilities in an emergency,⁵⁵⁵ and PG&E's actions demonstrate that the responding personnel knew them.

For instance, Concord Dispatch received notification of an undetermined fire in San Bruno at 6:18 p.m.⁵⁵⁶ Within nine minutes, Concord Dispatch dispatched a GSR to the site of the fire,⁵⁵⁷ contacted the on-call Peninsula Division supervisor,⁵⁵⁸ and notified Gas Control of the fire.⁵⁵⁹ The GSR investigated, reported back, and remained on-site to provide support.⁵⁶⁰ San Bruno's Fire Chief Dennis Haag complimented PG&E for its coordination with fire officials on the incident site.⁵⁶¹ At the same time, the Peninsula Division On-Call supervisor initiated call-outs to mobilize resources to shut off the gas, including the Peninsula Division T&R Supervisor and M&C Mechanic.⁵⁶² It is untrue that the M&C Mechanics that shut off the gas were never

⁵⁵² Ex. PG&E-1 at 11-23, 11-24 (PG&E/Bull).

⁵⁵³ CPSD OB at 68-75.

⁵⁵⁴ CPSD OB at 71.

⁵⁵⁵ Ex. PG&E-39 at Section 3.0 (PG&E Company Emergency Response Plan providing job duties); Ex. PG&E-42 (PG&E Gas T&D Emergency Plan Manual); Ex. PG&E-1 at 11-23 (PG&E/Bull).

⁵⁵⁶ Ex. PG&E-40 at 6.

⁵⁵⁷ Ex. PG&E-40 at 6.

⁵⁵⁸ Ex. PG&E-40 at 7.

⁵⁵⁹ Ex. PG&E-40 at 7.

⁵⁶⁰ Ex. PG&E-40 at 6, 7, 10-14.

⁵⁶¹ Ex. PG&E-41 at 469 (NTSB Hearing Transcript, March 2, 2011 – Excerpt, Statement of Fire Chief Haag). CPSD criticizes the time period that elapsed between the time when the battalion chief told the M&C Superintendent to shut off the gas at 6:30 p.m.-6:35 p.m. and the time the gas was shut off. The M&C Superintendent already had been in contact with the Peninsula On-Call Supervisor, who informed him of the actions in progress to turn off the valves. Ex. CPSD-97 at 15-16. Moreover, as explained herein and in PG&E's opening brief, two of the valves had to be manually closed by M&C Mechanics who had to drive during rush hour traffic to the yard to pick up tools before heading in traffic to the valves. PG&E OB at 108-09; Ex. PG&E-40 at 8-12.

⁵⁶² Ex. PG&E-40 at 9.

notified by PG&E of the fire,⁵⁶³ acted without supervision⁵⁶⁴ or had to wait at the Colma yard for instructions.⁵⁶⁵ Rather, when the Peninsula Division On-Call supervisor called the M&C Mechanic to instruct him to report to the yard, the M&C Mechanic, demonstrating his awareness of his role and responsibility in the situation, stated that he had seen the fire and was on his way.⁵⁶⁶ The supervisor also asked the M&C Mechanic to contact the second M&C Mechanic to report to the yard. It is also not correct that the mechanics “had to wait [at the Colma Yard] until their plan to shut off the valves was approved,” as CPSD alleges.⁵⁶⁷ The M&C Mechanics arrived at the yard, one before the other, gathered their tools and truck, consulted with their supervisor about the plan to shut the valves, and immediately left to shut off the gas.⁵⁶⁸

While more than one person with “supervisor” in their title was involved in the response, that is not remarkable or problematic; on the contrary, the record demonstrates that the responding employees were aware of their responsibilities and who was in charge. CPSD notes that there were many calls, but that fact shows that the employees were communicating and coordinating with each other.⁵⁶⁹ Similarly, that there were “multiple and redundant reports of the same emergency” is not a proper criticism; rather, it underscores the conscientious reaction of off-duty employees trained to ensure that the appropriate PG&E personnel become aware of an event the cause of which was unknown at that time.⁵⁷⁰

Gas Control was not “ineffective,” as alleged by CPSD. Gas Control received, processed and analyzed calls from the field and SCADA data to determine there had been a line rupture, identify the location, coordinate with responders in the field, remotely close the valves at Martin

⁵⁶³ CPSD OB at 72.

⁵⁶⁴ CPSD OB at 73-74.

⁵⁶⁵ CPSD OB at 74.

⁵⁶⁶ Ex. PG&E-40 at 9.

⁵⁶⁷ The first M&C Mechanic reached the yard at 6:50 p.m. He gathered his tools and maps while the second M&C Mechanic was making his way to the yard. R.T. 390 (PG&E/Almario). Two mechanics are needed to shut the valves, which often are large, difficult to turn and isolated underground. R.T. 391-92 (PG&E/Almario). At 7:06 p.m., the two M&C mechanics consulted with the supervisor about the plan to shut off the valves, and left the yard to close valves and isolate the rupture. Ex. PG&E-40 at 11; R.T. 391 (PG&E/Almario).

⁵⁶⁸ Ex. PG&E-40 at 8-10; R.T. 390-92 (PG&E/Almario).

⁵⁶⁹ Concord Dispatch made call-outs to the GSR, on-call supervisor and Gas Control, and maintained communication throughout the response.

⁵⁷⁰ Contrary to CPSD’s suggestions, PG&E’s dispatch was not inefficient. Concord Dispatch first received notice of the fire at 6:18 p.m. Ex. PG&E-40 at 5. It is reasonable that it continued to receive calls and gather information about the fire and its location for five minutes before dispatching a GSR to investigate at 6:23 p.m. Ex. PG&E-40 at 5-6. And, within the next four minutes, Concord Dispatch had notified Gas Control and the supervisor of the crew that would shut off the valves. Ex. PG&E-40 at 6.

Station, and maintain the gas supply to the rest of the Peninsula – the importance of which is consistently lost in the criticisms.⁵⁷¹ CPSD disregards that Gas Control had to process and analyze a mixture of valid and invalid SCADA data along with reports from the field.⁵⁷² At 6:29 p.m., within two minutes after first receiving notice of the fire in San Bruno, gas control operators connected the reports of the fire with the SCADA low pressure alarms on Line 132.⁵⁷³

As the evidence shows, each of CPSD’s allegations under Section 192.615(a) fails. PG&E “promptly and effectively responded” by calling out and dispatching the proper people to investigate the rupture, shut off the gas, provide support at the scene of the fire, and maintain safe service to the region. PG&E “adequately received, identified, and classified notices of the emergency” as demonstrated by how Concord Dispatch and Gas Control processed notices. PG&E provided “the proper personnel, equipment, tools and materials at the scene of an emergency” by dispatching personnel and resources properly, shutting off the gas in a reasonable time and providing support at the scene of the fire. PG&E’s efforts to shut off the gas were not “inadequate to minimize hazards to life or property.” PG&E worked diligently to shut off the gas, and did so in a manner that was reasonable in light of the circumstances, including the locations of the valves, the necessity for personnel to travel and obtain tools, the amount of traffic during rush hour, and the physical act of accessing and turning large valves.⁵⁷⁴ Lastly, PG&E notified and coordinated with the appropriate fire and police officials at the scene of the fire.⁵⁷⁵

Section 451. CPSD also alleges that the actions of PG&E’s gas control operators in response to the pressure increase and rupture constituted a violation of Section 451.⁵⁷⁶ As discussed above, CPSD’s use of Section 451 to assert broad and arbitrary safety violations is improper. CPSD itself admits that “no specific regulations exist pertaining to emergency response time.”⁵⁷⁷ Three gas transmission industry experts, including an expert on emergency

⁵⁷¹ Ex. PG&E- 40 at 5-14; Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Kazimirsky); Ex. PG&E-1 at 9-3 to 9-14 (PG&E/Miesner). Had gas control operators rashly reacted and shut off the gas to the Peninsula, the danger to life and property would have been significant. Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).

⁵⁷² Ex. PG&E-1 at 9-8 to 9-10 (PG&E/Miesner); *see also* PG&E OB at 97-103.

⁵⁷³ Ex. PG&E-1 at 9-9 (PG&E/Miesner).

⁵⁷⁴ PG&E OB at 106-09; R.T. 382-85, 392-93 (PG&E/Almario); Ex. PG&E-40 at 6-10.

⁵⁷⁵ PG&E OB at 109-11; R.T. 285 (PG&E/Almario); Ex. PG&E-40 at 5.

⁵⁷⁶ Ex. CPSD-1 at 70, 98-99 (CPSD/Stepanian).

⁵⁷⁷ Ex. CPSD-1 at 102 (CPSD/Stepanian).

response agreed that PG&E's response time was reasonable.⁵⁷⁸ The evidence shows that PG&E initiated its response promptly, dispatched and mobilized the necessary resources, and made the situation safe by shutting off the valves while maintaining the safe delivery of gas to the rest of the Peninsula. Accomplishing those actions in rush hour in a crowded city takes time, although CPSD and Intervenors appear not to acknowledge that fact.⁵⁷⁹

49 C.F.R. § 192.605(c). CPSD, in a one-sentence allegation, asserts that "PG&E violated 49 C.F.R. 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 operation is received."⁵⁸⁰ CPSD fails to establish a violation of Section 192.605.

49 C.F.R. § 192.605(c)(1) and (3) provide:

(c) For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(1) Responding to, investigating, and correcting the cause of: (i) unintended closure of valves or shutdowns; (ii) increase or decrease in pressure or flow rate outside normal operating limits; (iii) Loss of communications; (iv) Operation of any safety device; and (v) Any other foreseeable malfunction of a component, deviation from normal operation, or personnel error, which may result in a hazard to persons or property . . .

(3) Notifying responsible operator personnel when notice of an abnormal operation is received.

CPSD does not provide analysis or discussion of PG&E's written response plan, nor does it attempt to tie any evidence to its allegations.⁵⁸¹ CPSD simply reiterates events from the timeline and PG&E's response to subjectively assert that the response was inadequate and violated the law. Again, notwithstanding its reliance on a different regulatory provision, CPSD

⁵⁷⁸ R.T. 415-16 (PG&E/Bull); R.T. 269 (PG&E/Almario); R.T. 861-62 (PG&E/Miesner); R.T. 820- (PG&E/Zurcher).

⁵⁷⁹ Automated valves, and the hindsight judgment the parties assert regarding them, are discussed in PG&E's opening brief at 44-45.

⁵⁸⁰ CPSD OB at 75.

⁵⁸¹ CPSD OB at 75.

has failed to prove a violation regarding PG&E’s “internal communications” relating to the emergency response.

d. CPSD’s Characterization Of PG&E’s “External Communications” On The Day Of The Accident Does Not Provide A Basis For Violations Of 49 C.F.R. § 192.615(a) Or 49 C.F.R. § 192.605(c)(1), (3)

CPSD also criticizes PG&E’s “external communications,” alleging that PG&E failed to call 911 and was not on site until 30 minutes after the explosion. CPSD maintains that such acts constitute violations of several subsections of 192.615(a) and 192.605(c).⁵⁸² Neither the law nor the facts support a finding that PG&E’s actions violated the law.

CPSD failed to prove that PG&E violated Section 192.615(a).⁵⁸³ As explained above, Section 192.615(a) relates to written procedures, not an operator’s actions during an emergency response; it does not provide criteria or standards by which an operator’s emergency response can be judged after-the-fact. CPSD provides no evidence regarding how PG&E’s written procedures purportedly violated Section 192.615(a). Rather, CPSD simply alleges that PG&E’s conduct on the day of the incident amounted to a legal violation.

Even if a violation could be alleged based on this provision, PG&E’s conduct did not constitute a violation. PG&E admits that it did not call 911, and has previously addressed the sequence of events resulting in first responders being on scene before PG&E was even notified of the fire.⁵⁸⁴ However, PG&E did notify, establish and maintain communications with fire and police – PG&E personnel were side-by-side with fire and police officials, providing support and coordinating with them on-site.⁵⁸⁵ Sections 192.615 and 192.605 do not require an operator to call 911. Rather, Section 192.615(a)(2) requires written procedures for establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials; Section 192.615(a)(5) requires written procedures for actions directed toward protecting people first and then property; and Section 192.615(a)(8) addresses procedures for notifying appropriate fire, police or other public officials of gas pipeline emergencies and fire.⁵⁸⁶

⁵⁸² CPSD OB at 76.

⁵⁸³ CPSD OB at 76.

⁵⁸⁴ PG&E OB at 109-11; Ex. PG&E-1 at 10-5 to 10-6 (PG&E/Almario); R.T. 28, 370-71, 378 (PG&E/Almario).

⁵⁸⁵ R.T. 285 (PG&E/Almario); Ex. PG&E-40 at 5; R.T. 420-21 (PG&E/Bull).

⁵⁸⁶ 49 C.F.R. § 192.615(a)(2), (5), (8).

As set forth in more detail in PG&E’s opening brief, PG&E’s written procedures satisfy 192.615(a)(2), (5) and (8).⁵⁸⁷ That PG&E did not call 911 did not violate the regulations CPSD relies on.

CPSD also alleges that PG&E violated Section 192.615(a) because 30 minutes elapsed from the time of the rupture until PG&E personnel arrived on the scene.⁵⁸⁸ CPSD does not tie its allegations to a legal requirement because there is no regulation regarding the time within which an operator must reach an emergency site.⁵⁸⁹ As the evidence shows, PG&E’s response time was reasonable in light of the time PG&E became aware of the situation and the distance and traffic personnel confronted. The rupture occurred at 6:11 p. m.; PG&E’s Concord Dispatch first received a call about the fire seven minutes later.⁵⁹⁰ It was rush hour in the South Bay.⁵⁹¹ By 6:41 p.m., a PG&E GSR confirmed to Concord Dispatch that he was on-site.⁵⁹² PG&E personnel were on-site at most within 23 minutes of the first call to PG&E regarding the fire and 18 minutes after dispatching the GSR.⁵⁹³ Objectively and in light of the circumstances, PG&E’s response was reasonable.⁵⁹⁴

CPSD also alleges a violation of 192.605(c)(4) because PG&E allegedly failed to establish and maintain a liaison with fire and police. The facts described above – personnel on-site within 18 minutes of being dispatched and Chief Haag’s statement that PG&E’s liaison efforts were “great” – alone defeat this allegation.⁵⁹⁵ Moreover, Section 192.605(c)(4) provides that an emergency response manual must include procedures to provide “safety when operating design limits have been exceeded: (4) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation.” Even assuming the alleged violation relates to the requirements of this provision, which is not apparent, CPSD presents no evidence that PG&E violated Section 192.605(c)(4). On the contrary, CPSD’s audits found that PG&E’s emergency response procedures were reviewed

⁵⁸⁷ PG&E OB at 109-11; *see also* PG&E OB at 106-09; Ex. PG&E-1 at 11-24 to 11-25 (PG&E/Bull).

⁵⁸⁸ CPSD OB at 76.

⁵⁸⁹ Ex. CPSD-1 at 107 (CPSD/Stepanian) (acknowledging California has no specific requirements for response times to emergencies).

⁵⁹⁰ Ex. PG&E-40 at 5-6.

⁵⁹¹ R.T. 380-81 (PG&E/Almario).

⁵⁹² Ex. PG&E-40 at 10. *See* Ex. CPSD-97 at 15 (PG&E superintendent estimated his arrival at 6:30 p.m.).

⁵⁹³ Ex. PG&E-40 at 5-10.

⁵⁹⁴ R.T. 415-16 (PG&E/Bull).

⁵⁹⁵ Ex. PG&E-40 at 5-10; Ex. PG&E-41 at 469.

annually and complied with all pertinent regulations.⁵⁹⁶ CPSD has not established a violation of Section 192.615(a) or 192.605(c).

5. CPSD Fails To Prove That PG&E's Training And Public Awareness Efforts Violate 49 C.F.R. §§ 192.615, 192.616, And 192.605(c)

CPSD argues that PG&E violated the law for not having specific training for its GSRs to recognize the difference between fires of low pressure natural gas lines, high pressure gas lines, gasoline or jet fuel lines, and because public first responders did not know the location or specifications of PG&E's pipelines. CPSD summarily alleges violations of Sections 192.615(a)(3), 192.615(b)(2), 192.615(b)(3), 192.615(c)(4), and 192.616(d). CPSD fails to tie its allegations to the regulatory provisions or explain how PG&E's conduct violated each one.

CPSD alleges that PG&E's "inadequate" training constitutes a violation of Section 192.615(a)(3) regarding written procedures for a prompt and effective response to an emergency. However, there is no regulatory requirement that operators provide specific training regarding the identification of different types of fire. Following the accident, the NTSB recommended such training, and PG&E is implementing it; but that does not mean the lack of such training before San Bruno violated the law.⁵⁹⁷ In support, CPSD points out that PG&E personnel at the scene were attempting (understandably) to gain information about the source of the fire; that fact does not establish a violation of 192.615(a)(3).⁵⁹⁸

CPSD alleges that PG&E violated 49 C.F.R. § 192.615(b). Section 615(b) provides in relevant part that:

- (b) Each operator shall: . . .
 - (2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.
 - (3) Review employee activities to determine whether the procedures were effectively followed in each emergency.

⁵⁹⁶ Ex. PG&E-1, Chapter 10, Appendix A at 4-6 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix B at 4-6 (PG&E/Almario).

⁵⁹⁷ Ex. PG&E-1 at 10-9 (PG&E/Dickson).

⁵⁹⁸ Though not focused on by the parties, even at 7:02 p.m. public agency first responders in the field were still discussing whether the fire resulted from a plane crash. As is to be expected, even police and fire responders will experience confusion and pass along contradictory information during an emergency event of this size. Ex. PG&E-40 at 11 (San Mateo County Sheriff asks if PG&E was aware of the "plane crash").

CPSD fails to provide evidence that PG&E violated these provisions. CPSD vaguely alleges that PG&E's Director of Incident Command did not have direct in -depth knowledge of the 2008 Rancho Cordova incident.⁵⁹⁹ CPSD makes no connection between this fact and the emergency response in San Bruno, nor the specific issue of identifying the type and source of the fire, which is the purported basis of this alleged violation. CPSD has not established a violation of Section 192.615(b).

CPSD also alleges a violation of 49 C.F.R. § 192.616(d).⁶⁰⁰ Section 192.616(d) provides:

The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:

- (1) Use of a one-call notification system prior to excavation and other damage prevention activities;
- (2) Possible hazards associated with unintended releases from a gas pipeline facility;
- (3) Physical indications that such a release may have occurred;
- (4) Steps that should be taken for public safety in the event of a gas pipeline release; and
- (5) Procedures for reporting such an event.

CPSD does not identify the subpart of the regulation that PG&E purportedly violated, or identify what conduct corresponds to the alleged violations under Section 192.616(d). In its 2009 and 2010 audits of PG&E's emergency response plans, CPSD found that PG&E's written response plans fulfilled each of the requirements of 192.616(d).⁶⁰¹ Thus, PG&E is left to guess as to the alleged shortcoming that CPSD contends constituted a violation of law.

⁵⁹⁹ CPSD OB at 77.

⁶⁰⁰ CPSD OB at 78. As with most of the alleged violations related to emergency response, CPSD alleges the violation of Section 192.616 for the first time after the close of evidence.

⁶⁰¹ Ex. PG&E-1, Chapter 10, Appendix A at 6 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix B at 6 (PG&E/Almario).

6. CPSD Has Not Asserted A Legal Violation Relating To Remote Control Valves, Automatic Shutoff Valves, And Pressure And Flow Transmitters

CPSD and Intervenors criticize PG&E for not having automated valves at the closest possible location to the rupture, but CPSD does not allege a legal violation relating to automated valves, or pressure and flow transmitters.⁶⁰² PG&E agrees with CPSD's premise that if the valves could have been turned sooner, some damage may have been mitigated. Prior to San Bruno, however, no regulation existed requiring transmission pipeline operators to install any certain number of RCVs or ASVs on their system or specifying the circumstances mandating their installation. Expectations have changed following the San Bruno accident, and PG&E has already significantly augmented the number of remote control and automatic shut off valves deployed in its system. The extent to which any operator should more widely deploy ASVs or RCVs remains a subject of legitimate policy discussion in the Commission's parallel pipeline safety proceeding. In any event, PG&E's utilization of automated valves prior to the San Bruno accident did not constitute a legal violation.

7. PG&E Admits It Did Not Timely Conduct Alcohol Testing Or Prepare An Explanatory Report

PG&E acknowledges that it did not timely conduct alcohol testing on the personnel at the Milpitas Terminal or prepare an explanatory report as required under 49 C.F.R. § 199.225(a). PG&E conducted alcohol testing of the personnel doing the work at Milpitas Terminal, but not in the required timeframe. The test results were negative.⁶⁰³

CPSD alleges for the first time in its opening brief that PG&E had an obligation to conduct drug and alcohol testing on the PG&E Gas Control staff, and that not doing so constitutes another new violation.⁶⁰⁴ CPSD did not assert this allegation in any of CPSD's original testimony or violations, in particular its January 12, 2012 report or its August 20, 2012 rebuttal testimony. CPSD does not specify who on the Gas Control staff should have been tested. More importantly, CPSD has the burden of proof and has failed to present evidence that demonstrates why any Gas Control staff was required to be tested under the regulations.

⁶⁰² CPSD OB at 78.

⁶⁰³ Ex. CPSD-1 at 99-100 (CPSD/Stepanian); Ex. PG&E-1 at 8-23 to 8-25 (PG&E/Oceguera).

⁶⁰⁴ CPSD OB at 80.

8. CPSD Fails To Substantiate Its Allegations Regarding Continuing Violations

For the first time in this proceeding, CPSD alleges emergency response violations as continuing violations, as set forth in Appendix C of its opening brief. CPSD alleges that thirteen of the emergency response violations occurred on the day of the incident, September 9, 2010. CPSD alleges, however, that six violations began on August 31, 2009 and continued each day through September 9, 2010. CPSD does not explain or submit evidence to support its allegations that the duration of these violations reach back to August 31, 2009.⁶⁰⁵ As a result, CPSD has failed to carry its burden of proof that the violations began on and continued since August 31, 2009.

CPSD audited PG&E's emergency response plans in 2009 and 2010 and found them to be compliant with the federal regulations.⁶⁰⁶ CPSD's witness in the Records OII conceded that PG&E's emergency response plans complied with the federal regulations. PG&E's expert witness, David Bull, corroborated CPSD's conclusions.⁶⁰⁷ Nonetheless, CPSD now contends that PG&E's emergency plans violated the law since August 31, 2009. Other than the subjective judgments discussed above, CPSD has nothing to support its allegation. On the contrary, the evidence, including CPSD's audit and consultant's testimony, establish that PG&E's emergency plans did not violate the law, on August 31, 2009 or any day thereafter.

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

As PG&E noted in its opening brief,⁶⁰⁸ CPSD had not alleged a violation based specifically on its claims about PG&E's safety culture or financial priorities. Rather, CPSD identified PG&E's safety culture as one of a long list of issues that allegedly "contributed to" the San Bruno accident and that "together constitute an unreasonably unsafe condition" in violation of Section 451.⁶⁰⁹ CPSD did, however, make several specific financial recommendations based on its expert's conclusion that PG&E spent less than the capital expenditures and O&M expenses implicit in GT&S's approved rates and generated more revenues from GT&S than needed to earn

⁶⁰⁵ In the Records OII, CPSD alleges that Violation 10 relating to Emergency Response plans extends to April 2010.

⁶⁰⁶ Ex. PG&E-1 at 10-2 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix A at 5-6 (PG&E/Almario); Ex. PG&E-1, Chapter 10, Appendix B at 5-6 (PG&E/Almario).

⁶⁰⁷ Ex. PG&E-1 at 11-5 to 11-28 (PG&E/Bull).

⁶⁰⁸ PG&E OB at 114.

⁶⁰⁹ Ex. CPSD-1 at 162 (CPSD/Stepanian).

the authorized rate of return.⁶¹⁰ As PG&E discussed in its opening brief, the Commission should reject those recommendations or any other penalty CPSD or another party might seek based on PG&E's spending on GT&S compared to the adopted GT&S rates or the revenues and returns of GT&S viewed as a standalone business. Mr. Harpster's unsupported testimony does not and cannot prove that PG&E spent less than the imputed adopted O&M or capex amounts.⁶¹¹ CPSD also failed to prove that PG&E should be penalized in any way for GT&S having benefited from Commission-approved market incentives to earn on average more than the authorized rate of return, particularly since the utility as a whole earned returns that were consistent with the authorized rates of return.⁶¹²

Nothing in CPSD's brief (or any of the other parties' briefs) changes this analysis.

What CPSD does in its brief is attempt to deflect attention from the obvious flaws in its expert's comparison of PG&E's actual costs to the amounts implicit in the adopted rates by trying to turn CPSD and PG&E's experts' analyses into something they were never intended to be – an assessment of how much PG&E should have spent to operate a safe system. This approach founders on, among other things, the fact that CPSD's own expert, Mr. Harpster, made no attempt to analyze the question that CPSD now criticizes PG&E's expert Matthew O'Loughlin for not having considered. Mr. Harpster expressly sought to compare PG&E's actual expenditures to “the levels included in rates”⁶¹³ and did not consistently compare PG&E's expenditures to PG&E's internal forecasts, budgets, or any other purported measure of what PG&E needed to spend to maintain a safe system. With regard to GT&S's revenues and returns, CPSD's brief offers no reason to penalize PG&E on that ground, and never seriously contests PG&E's evidence showing that (1) PG&E was able to generate market storage revenues in excess of its cost of service as a result of the market structure approved by the Commission and the parties in five separate rate case proceedings; and (2) the fact that the entire utility earned returns that were consistent with the authorized rates of return indicates that any GT&S revenues not spent within GT&S were used for other utility operations. And, although CPSD refers to “dividends,” “bonuses” and “public relations and ballot initiatives,”⁶¹⁴ it offers no proof that

⁶¹⁰ Ex. CPSD-1 at 168 (Recommendation Nos. 31-33) (CPSD/Stepanian).

⁶¹¹ PG&E OB at 116-35.

⁶¹² PG&E OB at 138-44.

⁶¹³ Ex. CPSD-168 at 1-2 (CPSD/Harpster).

⁶¹⁴ *See, e.g.*, CPSD OB, Revised Appendix C at 10.

PG&E used GT&S revenues for any purpose that would justify penalizing PG&E in this proceeding.

For the first time in its opening brief, CPSD now asserts a standalone violation of Section 451 for PG&E’s alleged “failure to place safety over profits,” based on a collection of largely unrelated alleged facts.⁶¹⁵ Putting aside that PG&E was not given proper notice of this claimed violation, which itself is a denial of due process,⁶¹⁶ the violation CPSD now asserts is so vague and imprecise that it cannot reasonably state a potential standalone violation of Section 451 or anything else. CPSD’s brief accuses PG&E of “intentionally subjugating safety to profit”⁶¹⁷ – but, as before, it does not identify specifically what actions by PG&E it contends violated the law or the standard against which PG&E’s safety culture is being judged. CPSD’s purported proof is heavy on unproven conjecture and innuendo, but light on facts – indeed, there are none – proving that PG&E “fail[ed] to place safety over profits.”⁶¹⁸

The heart of CPSD’s (and the other parties’) discussion of PG&E’s safety culture is the December 2011 report of Overland Consulting (Overland Report).⁶¹⁹ Overland reviewed GT&S’s business from a “financial and ratemaking perspective,”⁶²⁰ and its high level conclusions were predicated on its incorrect finding that PG&E spent less than the imputed adopted amounts for capital and O&M expenses. Overland was not qualified to, and did not, conduct an operational safety analysis. In the portions of the report on which CPSD and DRA rely, Overland merely strung together quotations from internal PG&E documents and other facts that collectively cannot substitute for proof that any specific budgeting decision either led to PG&E impairing safety or demonstrated a lack of concern for safety on PG&E’s part. This kind of scattershot approach is not a substitute for in-depth operational analysis and does not constitute proof of any wrongdoing.

Overland’s discussion of Line 132 projects is a perfect illustration of this approach. In the short section of the Overland Report addressing Line 132, which is extensively cited by CPSD, Overland cobbles together excerpts from PG&E’s Project Status Reporting System

⁶¹⁵ CPSD OB, Revised Appendix C at 10.

⁶¹⁶ *See supra* Section III.C.

⁶¹⁷ CPSD OB at 83 (original in heading format).

⁶¹⁸ CPSD OB, Revised Appendix C at 10.

⁶¹⁹ *See Ex. CPSD-168* (CPSD/Harpster).

⁶²⁰ R.T. 56 (CPSD/Harpster).

(PSRS) database regarding projects involving Line 132. Overland applied no engineering expertise to its interpretation of the PSRS reports and made no attempt beyond its mere recitation of words on a page to determine whether financial constraints actually played a significant role in any of these projects. In fact, as discussed below, CPSD failed to prove that budgeting considerations affected the safety of Line 132 in any respect.

PG&E acknowledges that its expense (but not capital) budgets were tight during 2008 to 2010. But the evidence in the record relating to expense budgets in those years paints a picture of an organization that cared about both operating within approved budgets *and* running a safe and compliant system. PG&E did not spend less than it received in adopted rates and, more importantly, it did not act with disregard to safety. CPSD and other parties suggest that PG&E has essentially conceded any point in the Overland Report that it did not expressly address in its testimony.⁶²¹ This argument turns the burden of proof on its head – it was CPSD’s burden to prove that PG&E violated the law. The Overland Report and the rest of CPSD’s evidence do not satisfy that burden.

Rather than adding anything to CPSD’s failed attempt to prove a safety –culture-based violation of Section 451, DRA’s (and to some extent TURN’s) safety culture discussion appears to be designed principally to lay the groundwork for possible arguments relating to the allocation of costs for PG&E’s Pipeline Safety Enhancement Plan (PSEP). DRA repeatedly references the testimony of Thomas Bottorff, PG&E’s Senior Vice President of Regulatory Relations, in R.11 -02-19, which DRA tries to contort into an admission that PG&E should be “held responsible for the billions of dollars in costs to test and/or replace pipelines” contemplated in the two phases of PG&E’s PSEP.⁶²² Mr. Bottorff testified that in the past PG&E sought ratepayer recovery for safety improvements and that the Commission generally granted those requests (except during the energy crisis).⁶²³ This is hardly a concession that PG&E already received ratepayer funds to make the billions of dollars in infrastructure improvements (including replacing pipelines or making them piggable) currently being planned and implemented. To the contrary, as Mr. Bottorff explained, the PSEP is “focused on compliance with a new regulatory standard.”⁶²⁴ The need to comply with a new regulatory standard is bolstered by the fact that Southern California

⁶²¹ See CPSD OB at 83, 91, 112; DRA OB at 60.

⁶²² See DRA OB at 60; *see also id.* at 29-30, 58.

⁶²³ R.11-02-19, R.T. 959-60 (PG&E/Bottorff) (cited in DRA opening brief).

⁶²⁴ R.11-02-19, R.T. 961 (PG&E/Bottorff) (prior pages cited in DRA opening brief).

Gas Company and San Diego Gas and Electric Company (collectively “Sempra”) also filed a Pipeline Safety Enhancement Plan in August 2011 in A.11-11 -002, which requested approval to include in rates about \$1.7 billion during 2012-2015 in order to comply with new regulatory standards.

1. CPSD Failed To Prove That PG&E Spent Less Than The O&M And Capex Amounts Implicit In GT&S Rates

CPSD has not alleged a specific violation based on the level of PG&E’s actual GT&S capital expenditures or O&M expenses either in absolute terms or as compared to the amounts implicit in rates. For the first time in its opening brief, however, CPSD now asserts that PG&E’s purported “failure to place safety over profits” violated Section 451, based in part on PG&E’s allegedly having “spen[t] less than authorized on safety.”⁶²⁵ CPSD also has made specific recommendations based on Mr. Harpster’s finding that PG&E spent less than the imputed adopted O&M and capex amounts.⁶²⁶ As PG&E discussed in its opening brief, CPSD offered no evidence showing that PG&E spent less than “authorized” on safety -related costs⁶²⁷ and failed to prove that PG&E spent less than it received in the GT&S rate cases generally.⁶²⁸

CPSD’s discussion of PG&E’s purported underspending on O&M expenses and capital expenditures from 1997 to 2010 misstates and misconstrues the record on several different levels. First, even if the Commission accepts Mr. Harpster’s analysis and rejects Mr. O’Loughlin’s, the evidence contradicts CPSD’s claim that “PG&E underspent *for safety* by \$156 million during 1997- 2010,” as CPSD asserts in its brief.⁶²⁹ Second, in its rush to find flaws in Mr. O’Loughlin’s analysis, CPSD makes unsupportable claims about how the imputed adopted amounts should be calculated that are directly at odds with its own expert’s testimony. Third, CPSD’s attempt to parse the experts’ methodologies by rate case period does not stand up to scrutiny. A careful analysis of what Mr. Harpster and Mr. O’Loughlin actually did shows that Mr. O’Loughlin’s methods were reasonable and Mr. Harpster’s were not.

⁶²⁵ CPSD OB, Revised Appendix C at 10. CPSD also asserts that another factor contributing to PG&E’s alleged safety culture violation was its “not seeking sufficient O&M funds.” *Id.* CPSD never explains what this brand new allegation means. It certainly never offered any proof concerning whether PG&E wrongfully failed to forecast and seek sufficient funds for O&M costs in the GT&S rate cases.

⁶²⁶ Ex. CPSD-1 at 168 (Recommendation Nos. 31 and 32) (CPSD/Stepanian).

⁶²⁷ PG&E OB at 136.

⁶²⁸ PG&E OB at 116-35.

⁶²⁹ *See* CPSD OB at 91 (emphasis added; original in heading format).

a. CPSD Did Not Prove That PG&E Spent Less Than Authorized On Safety

CPSD’s assertion that “PG&E underspent for safety by \$156 million during 1997 - 2010”⁶³⁰ misstates the record even if Mr. Harpster’s analysis is assumed to be correct (which it is not). As PG&E explained in its opening brief, Mr. Harpster never testified that PG&E spent less than the imputed adopted amounts for safety-related work for either O&M expenses or capital for any year.⁶³¹ Mr. Harpster’s O&M comparison included a number of cost categories that have nothing to do with safety and it therefore cannot prove that PG&E spent less than the imputed adopted amounts specifically “for safety.”⁶³² Mr. Harpster acknowledged that he was unable to conduct an analysis focused solely on safety-related O&M costs.⁶³³ The same was true of Mr. Harpster’s capex comparison for 1997 to 2010.⁶³⁴

CPSD’s claim that PG&E spent less than the imputed adopted safety -related costs is especially hard to understand with respect to capital. CPSD writes that the idea that PG&E overspent on safety “is nothing but a mirage,”⁶³⁵ but its own expert identified as one of his “key findings,” on the very first page of his report, that “ *[d]uring the period 2003 to 2010, actual capital expenditures in safety-related categories were \$35 million higher than the adopted amounts.*”⁶³⁶ In the section of the Overland Report entitled “Pipeline Safety -Related Capex Comparison,” Mr. Harpster further explained that:

Over the period 2003 to 2010, PG&E’s actual spending in MWCs 75 and 98⁶³⁷ was 12.8 percent higher than the amounts adopted in GT&S rate cases. Actual capex exceeded adopted by \$35 million

⁶³⁰ CPSD OB at 91 (original in heading format). As noted above, CPSD also makes this assertion in its description of the alleged safety culture violation. See CPSD OB, Revised Appendix C at 10 (referring to “spending less than authorized on safety”).

⁶³¹ PG&E OB at 136.

⁶³² R.T. 83-84 (CPSD/Harpster).

⁶³³ R.T. 85 (CPSD/Harpster). For example, his O&M comparison included environmental costs (in major work category AK) and a substantial amount of reliability-focused maintenance expenses. R.T. 83-84 (CPSD/Harpster).

⁶³⁴ R.T. 82-83 (CPSD/Harpster); cf. Ex. CPSD-168 at 4-6 to 4-7 (CPSD/Harpster) (quantifying the portions of capital expenditures relating to reliability, capacity and other non-safety-related work).

⁶³⁵ CPSD OB at 92.

⁶³⁶ Ex. CPSD-168 at 1-1 (second bullet) (CPSD/Harpster) (emphasis added).

⁶³⁷The Overland Report explains that “[p]ipeline safety -related capex are charged to MWC 75, Pipeline Reliability, and MWC 98, Integrity Management.” Ex. CPSD-168 at 4-3 (CPSD/Harpster).

during the eight-year period. In 2009, actual was \$20 million higher than adopted.⁶³⁸

Mr. Harpster reiterated on cross-examination that the alleged underspending by PG&E he identified was “not in . . . the two major work categories that seem the most related to safety.”⁶³⁹ It is especially noteworthy that Mr. Harpster found that PG&E spent more than the imputed adopted amounts for the capital major work categories including pipeline safety and integrity management in each year from 2007 to 2010, and cumulatively spent over \$30 million more than the imputed adopted amounts during that period alone.⁶⁴⁰

In short, CPSD offered no evidence that PG&E spent less than the imputed adopted amounts for safety-related work.

- b. CPSD’s Criticisms Of Mr. O’Loughlin’s Analysis Reflect A Misunderstanding Of The Purpose Of Comparing PG&E’s Actual Expenditures To The Imputed Adopted Amounts And The Testimony Of Its Own Expert**
 - (i) CPSD Never Tried To Prove What PG&E Should Have Spent To Maintain A Safe System**

Although its brief is far from a model of clarity, CPSD seems to suggest that Mr. Harpster and Mr. O’Loughlin’s analyses comparing PG&E’s actual expenditures to the imputed adopted O&M and capex amounts were intended to show whether PG&E spent what it needed to spend to maintain a safe system.⁶⁴¹ This misstates the record and misrepresents what the experts actually did. Both parties’ experts offered testimony about whether PG&E spent more or less than the O&M expenses and capital expenditures implicit in PG&E’s gas transmission and storage rates. In other words, their testimony was directed at whether PG&E spent more or less than it received in the rate cases.⁶⁴²

⁶³⁸ Ex. CPSD-168 at 4-3 to 4-4 (CPSD/Harpster) (explanatory footnote added). *See generally* PG&E OB at 136. Mr. Harpster did not calculate whether PG&E spent more than the imputed adopted safety-related capex in 1997 to 2002 and admitted that he had no basis for stating that PG&E underspent on safety-related capex during those years. R.T. 82 (CPSD/Harpster).

⁶³⁹ R.T. 82 (CPSD/Harpster).

⁶⁴⁰ Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster).

⁶⁴¹ *See* CPSD OB at 93-95.

⁶⁴² Overland also offered opinions about the safety implications of its comparison of actual expenditures to the imputed adopted amounts and trends in PG&E’s actual expenditures (which are discussed *infra* in Section V.F.3.a), but it never offered an opinion regarding what specific O&M and capex amounts PG&E *should have spent* in any particular year to operate a safe system.

Overland was retained by CPSD in 2011 to review PG&E’s gas transmission line of business from a “financial and ratemaking perspective.”⁶⁴³ Overland was not asked to conduct an engineering or operations analysis.⁶⁴⁴ Indeed, it would not have been qualified to do so as none of the members of Overland’s team were gas engineers.⁶⁴⁵ Overland’s stated objective was to “[c]ompare actual gas transmission safety -related O&M expenses and capital expenditures to the levels included in rates.”⁶⁴⁶ In its December 30, 2011 report, Overland concluded that “PG&E’s actual transmission O&M expenses were five percent lower than amounts adopted in GT&S rate cases over the period 1997 to 2010” and “PG&E’s actual total GT&S capital expenditures were six percent lower than adopted over the period 1997 to 2010.”⁶⁴⁷ The Overland Report explains in detail how rates were set in the different rate case periods and how Overland calculated the O&M and capex amounts implicit in those rates.⁶⁴⁸

CPSD explicitly relied on Overland’s comparison of PG&E’s actual expenditures to the amounts implicit in rates as the basis for two specific recommendations contained in its January 12, 2012 report:

31) PG&E should use the \$39,257,000 *in previously authorized rate recovery* for pipeline transmission operations and maintenance that it failed to spend since 1997 to fund future pipeline transmission operations and maintenance before it seeks additional ratepayer funds going forward. (source: Overland Report, page 3-3, Table 3-2)

32) Regarding PG&E’s gas transmission and storage operations, PG&E under spent \$95,372,000 for capital expenditures since 1997; PG&E should use these *previously authorized ratepayer funds* to fund future gas transmission and storage capital expenditures before it seeks additional ratepayer funds going forward. (Source: Overland Report, page 4-2, Table 4-1)⁶⁴⁹

PG&E retained Matthew O’Loughlin of The Brattle Group specifically to evaluate and respond to Overland’s comparison of PG&E’s actual expenditures to the “levels included in

⁶⁴³ R.T. 56 (CPSD/Harpster).

⁶⁴⁴ Ex. CPSD-168 at 2-6 (CPSD/Harpster).

⁶⁴⁵ R.T. 237-38 (CPSD/Harpster).

⁶⁴⁶ Ex. CPSD-168 at 1-2 (CPSD/Harpster); R.T. 56 (CPSD/Harpster); *see also* PG&E OB at 116.

⁶⁴⁷ Ex. CPSD-168 at 1-1 (CPSD/Harpster); *see also id.* at 1-2, 1-3.

⁶⁴⁸ Ex. CPSD-168 at 2-7 to 2-13, 3-1 to 3-3, 4-1 to 4-4 (CPSD/Harpster). Mr. Harpster also elaborated on this analysis for more than 80 pages in his rebuttal testimony. *See* Ex. CPSD-170 at 1-85 (CPSD/Harpster).

⁶⁴⁹ Ex. CPSD-1 at 168 (CPSD/Stepanian) (emphasis added).

rates”⁶⁵⁰ and CPSD’s recommendations based on Overland’s analysis. ⁶⁵¹ Contrary to CPSD’s groundless assertion that Mr. O’Loughlin’s analysis of actual and imputed adopted expenditures was dictated by PG&E, ⁶⁵² the focus of his analysis was determined by Mr. Harpster and Overland.⁶⁵³ It was Mr. Harpster who professed to compare PG&E’s actual expenditures to those provided for in rates. Mr. O’Loughlin’s direct testimony contains his own , independent analysis responding to Mr. Harpster’s analysis. ⁶⁵⁴ There, Mr. O’Loughlin shows that Mr. Harpster did not appropriately identify the imputed adopted amounts in rates due to his inconsistent and flawed approach.

CPSD now attempts to turn Mr. Harpster’s comparison analysis into something that it was not in a back-door effort to criticize Mr. O’Loughlin’s testimony. CPSD’s lengthy quotation from D.04-05-055⁶⁵⁵ is irrelevant to the question of whether PG&E spent more than the imputed adopted amounts. PG&E does not dispute that it was obligated to “spend sufficient revenues to meet its safety obligations,” regardless of the outcome in any particular rate case. ⁶⁵⁶ CPSD might have tried to conduct an analysis into the details of PG&E’s GT&S work plans and whether PG&E spent the right amount of money on the right work to maintain a safe system. That would have required sophisticated engineering judgments about what work should have been done based on information known at the time and complicated estimates of the costs of that work over a period dating back to 1997. Lacking engineering expertise, Overland was in no position to attempt such an analysis and it did not do so.

Instead, the analysis that Messrs. Harpster and O’Loughlin did undertake was to compare the imputed adopted amounts to PG&E’s actual expenditures. Mr. O’Loughlin explained the relationship between their analyses and the question of how much PG&E needed to spend to operate a safe system:

I think those two things are unrelated. In other words, what PG&E actually spends or decides it needs to spend is what it needs to spend. What’s in the settlement revenue requirements as being the

⁶⁵⁰ Ex. CPSD-168 at 1-2 (CPSD/Harpster).

⁶⁵¹ Ex. PG&E-10, MPO-1 at 1-2 (PG&E/O’Loughlin).

⁶⁵² CPSD OB at 94.

⁶⁵³ Ex. PG&E-10, MPO-1 at 1-2 (PG&E/O’Loughlin).

⁶⁵⁴ Ex. PG&E- 10 (PG&E/O’Loughlin). See R.T. 543- 44 (PG&E/O’Loughlin) (discussing how Mr. O’Loughlin developed his own methodology for comparing PG&E’s actual costs to the imputed adopted amounts).

⁶⁵⁵ See CPSD OB at 93-94.

⁶⁵⁶ See CPSD OB at 93. See also *infra* n.660.

amount provided for in the settlement revenue requirement is what it is. And I'm not trying to say that gee, if 50 million was provided for in the settlement revenue requirement, that's all PG&E needed to spend or should have spent. It might have made sense to spend more. It might have made sense to spend less. I think those are two independent questions or two independent items.⁶⁵⁷

Again, CPSD could have attempted to determine what PG&E should have spent from an operational perspective, but that it is not what Mr. Harpster did when he said that PG&E spent \$40 million less than the imputed adopted O&M amounts and \$117 million less than the imputed adopted capex amounts,⁶⁵⁸ and such an analysis was not the basis for CPSD's Recommendation Nos. 31 and 32. And it was those conclusions and recommendations that Mr. O'Loughlin's testimony addressed.

(ii) CPSD's Position That It Is "Improper" To Use The Settlement Revenue Requirements As The Basis For The Imputed Adopted O&M And Capex Amounts Has No Support In The Record

CPSD's discussion of Mr. O'Loughlin and Mr. Harpster's methods for estimating the imputed adopted amounts is not only filled with significant misstatements and omissions (discussed in the next section), but also is grounded in the flawed notion that the "use of settlement revenue requirements as the basis for the imputed adopted amounts for GT&S's capex and O&M is improper."⁶⁵⁹ CPSD refers no less than eight times to "Commission precedent" that supposedly supports this surprising contention, but *it never once cites any such authority*.⁶⁶⁰ CPSD is effectively saying that the settlements themselves are irrelevant for determining the imputed adopted amounts – a position that flows from its misguided attempt to turn the imputed

⁶⁵⁷ R.T. 616 (PG&E/O'Loughlin).

⁶⁵⁸ These amounts reflect the adjustments Mr. Harpster made in his rebuttal testimony. See Ex. CPSD-170 at 7- 8 (CPSD/Harpster). CPSD's recommendations are based on Overland's December 2011 report. See PG&E OB at 119 & n.647.

⁶⁵⁹ CPSD OB at 94.

⁶⁶⁰ See CPSD OB at 93, 94, 95, 101. D.04- 05-055 does not support CPSD's position that basing the imputed adopted amounts on the settlement revenue requirements is "improper." To the contrary, in that decision, the Commission explained that because the settlement did not set forth detailed adopted amounts by account or category of work, "in PG&E's next GRC, parties will not be able to ascertain the specific amounts adopted for certain accounts, or compare recorded amounts to the corresponding 'adopted' forecast with the same degree of precision that we typically expect." *Application of Pac. Gas & Elec. Co.*, D.04-05-055, 2004 Cal. PUC LEXIS 254, at *115. In other words, the Commission did not equate PG&E's litigation forecast with the adopted amounts, as CPSD's opening brief would suggest, and it did not establish the precedent that one cannot use the adopted settlement revenue requirement as the starting point for determining the imputed adopted amounts.

adopted to actual comparison into something it never was intended to be. ⁶⁶¹ It is impossible to reconcile CPSD’s view with the purpose of the exercise that both Mr. Harpster and Mr. O’Loughlin undertook – *i.e.*, to compare PG&E’s actual expenditures to the “levels included in rates”⁶⁶² – or to square it with Mr. Harpster’s own testimony.

The relationship between revenue requirements and rates – and the O&M and capex amounts used to build the revenue requirements – is straight out of “Ratemaking 101.” As DRA wrote in its brief, PG&E’s rates “are calculated based upon an identified revenue requirement.”⁶⁶³ Mr. Harpster testified that there is a direct, mathematical relationship between the adopted O&M and capex amounts, the adopted revenue requirements and the adopted rates.⁶⁶⁴ His testimony also refutes the notion that it is “improper” to base the imputed adopted amounts on the settlement revenue requirements set forth in the settlement agreements:

Q: [The settlement agreements] are the key documents, aren’t they?

A: I would say they’re probably the most important document, yes.

Q: *And the imputed adopted amounts should be closely tied to the provisions of the settlement, should they not?*

A: *Yes, to the extent that you can.*⁶⁶⁵

CPSD argues, nonetheless, that the imputed adopted amounts should be based on PG&E’s “internal budget documents” and other “forecasts” rather than on the settlement revenue requirements.⁶⁶⁶ There is no need, however, to use such forecasts to determine the imputed adopted amounts. If the parties used a particular forecast to calculate the settlement revenue requirements and rates, then the settlement data should be used (and it will reflect the forecast). If a particular forecast was not used by the parties to determine the settlement revenue requirements and rates, then that forecast does not reflect the level of O&M and capex in rates. As PG&E discussed in its opening brief, Mr. Harpster used as the basis for his imputed adopted amounts forecasts that were created two or more years after rates were set by the Commission

⁶⁶¹ See *supra* Section V.F.1.b.(i).

⁶⁶² Ex. CPSD-168 at 1-2 (CPSD/Harpster).

⁶⁶³ DRA OB at 30.

⁶⁶⁴ R.T. 73-75 (CPSD/Harpster) (discussing this in context of fully litigated cases and settlements).

⁶⁶⁵ R.T. 64 (CPSD/Harpster) (emphasis added).

⁶⁶⁶ CPSD OB at 94.

and that bore no relationship to the settlement revenue requirements or rates.⁶⁶⁷ And he conceded that his imputed adopted amounts based on those forecasts do not correspond to the amounts implicit in rates in those years.⁶⁶⁸

CPSD does not explain why it believes it is “improper” to develop imputed adopted amounts that correspond directly to the settlement revenue requirements and rates. Mr. Harpster tried to justify using forecasts that indisputably were not considered by the parties or the Commission in setting rates on the ground that they better reflected PG&E’s planned expenditures in those years.⁶⁶⁹ To be sure, a 2010 forecast created in 2010, for example, almost by definition better reflects what PG&E will spend in 2010 than one created in 2007. But that does not mean that the later-created forecast is the right one to use to determine the O&M and capex amounts *implicit in 2010 rates that were set in 2007*. As Mr. O’Loughlin explained, his approach most closely replicated what the Commission does in a fully litigated rate case proceeding:

[T]he parties reached a settlement which typically specified settlement revenue requirements and often underlying those settlement revenue requirements gave you information about the O&M that was implicit in the settlement revenue requirements or gave you information that would allow you to derive the capex that was implicit in those settlement revenue requirements. And then the Commission reviewed both the settlements and underlying support materials for the adjustments and reasonableness of what was in those settlements and was fully cognizant [of] the revenue requirements that were agreed to in the settlements, and then the Commission approved the settlements. So to me, that’s about as close as you’re going to get to the equivalent of an adopted revenue requirement that the Commission would produce in [an] adjudicated proceeding.⁶⁷⁰

Even if CPSD were correct that Mr. O’Loughlin should have compared PG&E’s budgets or other forecasts to its actual expenditures, Mr. Harpster did not conduct such an analysis. CPSD never explains *which* “existing internal budget documents” or “PG&E forecasts” it believes should be used as proxy for the imputed adopted amounts being compared to PG&E’s

⁶⁶⁷ See PG&E OB at 121; R.T. 141-42, 144, 174 (CPSD/Harpster).

⁶⁶⁸ See PG&E OB at 121; R.T. 71, 138, 145-46, 172 (CPSD/Harpster).

⁶⁶⁹ Ex. CPSD-170 at 45, 58, 72 (CPSD/Harpster).

⁶⁷⁰ R.T. 558-59 (PG&E/O’Loughlin). See also PG&E OB at 123-24; R.T. 561-62 (PG&E/O’Loughlin); Ex. PG&E-10, MPO-1 at 16-17 (PG&E/O’Loughlin).

actual expenditures.⁶⁷¹ For example, should Mr. O’Loughlin have used the budget prepared at the beginning of each budget year? Mr. Harpster did not do that in any year. Should Mr. O’Loughlin have used PG&E’s litigation position forecast in its rate case application regardless of the outcome in the rate case? If so, Mr. Harpster did not consistently do that. Indeed, Mr. Harpster did not consistently use any particular type of PG&E forecast as the basis for his imputed adopted amounts and he never used PG&E’s internal annual budget. As the following discussion shows, the types of documents Mr. Harpster used as sources for his imputed adopted amounts changed from rate case to rate case and even within individual rate case periods:

- Gas Accord I (1997-2002): Mr. Harpster did not base any of his imputed adopted amounts on internal PG&E budgets or forecasts. For expense, his imputed adopted amounts were based on the amounts adopted in the 1996 GRC and then escalated by factors that were unconnected to internal PG&E budgets or forecasts prepared during years in question.⁶⁷² For capital, he used a model-based approach that had no connection to PG&E’s internal forecasts during 1997 to 2002.⁶⁷³
- Gas Accord I Extension/Gas Accord II (2003): Mr. Harpster based his imputed adopted amounts on a forecast PG&E created for the next rate case period after the rates already had been set by the Commission for 2003.⁶⁷⁴
- 2004 Rate Case: Mr. Harpster did not base his imputed adopted amounts on PG&E’s litigation forecast or any internal budget. Instead, he based them on the O&M and capex amounts adopted by the Commission, which the Commission used to develop the adopted revenue requirement and rates.⁶⁷⁵ The adopted O&M and capex amounts were lower than PG&E’s litigation forecast amounts.⁶⁷⁶
- Gas Accord III: Mr. Harpster did not base his imputed adopted amounts for 2005 on PG&E’s litigation forecast, but rather on the lower O&M and capex amounts included in the settlement revenue requirement.⁶⁷⁷ He also did not base his imputed adopted amounts for 2006 on PG&E’s litigation forecast, an internal budget document or any other detailed forecast, but rather increased the 2005 imputed adopted amounts by the escalation factor applied to the overall revenue requirement in the settlement agreement.⁶⁷⁸ Mr. Harpster did the same for his 2007 imputed

⁶⁷¹ See CPSD OB at 94.

⁶⁷² Ex. CPSD-168 at 2-8 to 2-9 (CPSD/Harpster).

⁶⁷³ Ex. CPSD-168 at 2-8 to 2-9 (CPSD/Harpster).

⁶⁷⁴ Ex. CPSD-168 at 2-8 to 2-9 (CPSD/Harpster).

⁶⁷⁵ Ex. CPSD-168 at 2-8 (CPSD/Harpster); R.T. 116-18 (CPSD/Harpster).

⁶⁷⁶ Ex. CPSD-168 at 2-8 (CPSD/Harpster); R.T. 116-18 (CPSD/Harpster).

⁶⁷⁷ Ex. CPSD-168 at 2-8 (CPSD/Harpster); R.T. 124-26 (CPSD/Harpster).

⁶⁷⁸ Ex. CPSD-168 at 2-8 (CPSD/Harpster); R.T. 133-34 (CPSD/Harpster).

- adopted O&M amount.⁶⁷⁹ For his 2007 imputed adopted capex amount he used PG&E’s forecast submitted for the next rate case proceeding.⁶⁸⁰
- Gas Accord IV: For O&M in 2008-2010, Mr. Harpster based his imputed adopted amounts on PG&E’s litigation forecast prepared in 2007, which corresponded to higher revenue requirements than the settlement revenue requirements.⁶⁸¹ He did the same for capex in 2008 and 2009,⁶⁸² but he used yet another forecast for 2010 capex – this one created in 2010 for the next rate case proceeding.⁶⁸³

As this discussion shows, Mr. Harpster himself did not adhere to the principles that CPSD now contends Mr. O’Loughlin should have followed.

The bottom line is that if CPSD is correct that the imputed adopted amounts should not be based on the O&M and capex amounts implicit in the settlement revenue requirements and rates, then this entire exercise is deeply flawed and contrary to its own articulated purpose. If, on the other hand, Mr. O’Loughlin is correct that the imputed adopted amounts should reflect as much as possible the relationship between (1) the adopted O&M and capex amounts, (2) the adopted revenue requirement and (3) the adopted rates, as in a fully litigated proceeding, Mr. O’Loughlin chose the best method for estimating the imputed adopted O&M and capex amounts. It is his very consistency in basing his imputed adopted amounts on the settlement revenue requirements and rates that CPSD tries to turn into a vice. Conversely, Mr. Harpster’s inconsistent approach – which included frequent methodological changes and picking and choosing of forecasts depending on which would cast PG&E’s spending in the most negative light – renders his conclusions unreliable.

c. Mr. O’Loughlin’s Comparison Of PG&E’s Actual Costs To The Amounts Implicit In Rates Is Reasonable And Reliable Whereas Mr. Harpster’s Is Not

The section of CPSD’s brief comparing Mr. O’Loughlin’s imputed adopted analysis to Mr. Harpster’s is riddled with errors and reflects a misunderstanding of what the experts actually did. First, CPSD overstates the point when it says that there is “no disagreement between the

⁶⁷⁹ Ex. CPSD-168 at 2-8, 2-10 (CPSD/Harpster); R.T. 134 (CPSD/Harpster).

⁶⁸⁰ Ex. CPSD-168 at 2-8 (CPSD/Harpster); R.T. 135 (CPSD/Harpster).

⁶⁸¹ Ex. CPSD-168 at 2-8, 2-10 (CPSD/Harpster); R.T. 168-69 (CPSD/Harpster); *see also* PG&E OB at 130-32; Ex. PG&E-27 at 26 (Finding of Fact No. 11); Ex. PG&E-11, MPO-19 at 3.

⁶⁸² Ex. CPSD-168 at 2-8, 2-10 (CPSD/Harpster); *see also* PG&E OB at 130-32.

⁶⁸³ Ex. CPSD-168 at 2-8, 2-11 to 2-12 (CPSD/Harpster); *see also* PG&E OB at 132-33.

experts” with respect to PG&E’s actual costs except post -San Bruno O&M expenses.⁶⁸⁴ While this is true for capital expenditures, there are important differences between Mr. O’Loughlin and Mr. Harpster regarding actual O&M costs. The source of this disagreement is not the calculation of what PG&E spent but rather whether certain costs that PG&E incurred should be included when comparing PG&E’s actual costs to the imputed adopted amounts. Some of the key differences relating to actual O&M costs are:

- Mr. Harpster excluded from his O&M comparison all costs relating to customer accounts and services even though those were legitimate costs of the GT&S business.⁶⁸⁵ By excluding these costs, Mr. Harpster overstates the amount of alleged underspending compared to the imputed adopted O&M amounts by \$23.3 million – over half of the total O&M underspending he found.⁶⁸⁶
- The next most significant difference between the experts with regard to actual O&M costs relates to whether \$21.8 million in O&M expenses incurred after the San Bruno accident in 2010 should be counted for comparison purposes.⁶⁸⁷ CPSD is relying on Mr. Harpster’s testimony to support its recommendation that PG&E should be required to spend the specific amount of alleged O&M underspending Mr. Harpster found before seeking further rate recovery.⁶⁸⁸ Since PG&E already has spent the \$21.8 million in post-San Bruno costs, those costs should be included in the actual expenditures being compared to the imputed adopted amounts.⁶⁸⁹ While PG&E would agree that other high level conclusions about its spending on GT&S should not turn on whether the post-San Bruno O&M costs are included,⁶⁹⁰ the fact that PG&E’s spending in this one category of O&M expenses during the last four months of 2010 represents more than half of the total underspending Mr. Harpster found over a 14 year period underscores that he found comparatively little underspending overall (even if his analysis were correct).⁶⁹¹
- Mr. O’Loughlin excluded \$10 million of compressor fuel costs from the actual costs he used in his comparison because PG&E recovered those costs through a separate in-kind shrinkage allowance.⁶⁹² Mr. Harpster criticized Mr. O’Loughlin for his treatment of this issue,⁶⁹³ but Mr. O’Loughlin’s conservative approach, *which*

⁶⁸⁴ See CPSD OB at 92.

⁶⁸⁵ Ex. PG&E-10, MPO-1 at 36-38 (PG&E/O’Loughlin).

⁶⁸⁶ Ex. PG&E-10, MPO- 1 at 37 (PG&E/O’Loughlin). Although customer account costs are not safety -related, as neither Mr. O’Loughlin nor Mr. Harpster conducted an O&M comparison focusing only on safety -related work (*see supra* Section V.F.1.a), it is arbitrary to exclude customer account-related costs while including other categories of costs that do not affect safety.

⁶⁸⁷ Ex. PG&E-10, MPO-1 at 40-41 (PG&E/O’Loughlin).

⁶⁸⁸ See Ex. CPSD-1 at 168 (Recommendation No. 31) (CPSD/Stepanian).

⁶⁸⁹ See Ex. PG&E-10, MPO-1 at 40 (PG&E/O’Loughlin); R.T. 563-64 (PG&E/O’Loughlin).

⁶⁹⁰ Ex. PG&E-10, MPO-1 at 40 (PG&E/O’Loughlin).

⁶⁹¹ See R.T. 565 (PG&E/O’Loughlin).

⁶⁹² Ex. PG&E-10, MPO-1 at 39-40 (PG&E/O’Loughlin).

⁶⁹³ See Ex. CPSD-170 at 104-05 (CPSD/Harpster).

reduced the amount of overspending he found , reflects the integrity of his overall analysis.

Second, CPSD’s comparison of the experts’ methodologies by rate case period ⁶⁹⁴ mischaracterizes Mr. O’Loughlin’s testimony and fails to acknowledge the flaws in Mr. Harpster’s approach:

Gas Accord I (1997-2002): CPSD asserts there is “no significant difference” between the experts’ approach during this period (other than the treatment of Line 401 costs, discussed below).⁶⁹⁵ This is wrong. In deriving his imputed adopted O&M amounts for the Gas Accord I period, Mr. Harpster deviated from the actual settlement documents and applied his own arbitrary view of what he deems “sound cost of service principles” when he improperly escalated 1997 imputed adopted O&M costs by 2.5%. ⁶⁹⁶ This caused him to overstate the imputed adopted O&M amounts for 1997 to 2002.⁶⁹⁷

CPSD’s discussion of the Line 401 issue ⁶⁹⁸ is much ado about very little. Mr. O’Loughlin included only a portion of the Line 401 O&M costs in his imputed adopted O&M amounts during the Gas Accord I period to be consistent with the terms of the settlement, which did not provide for full recovery of the Line 401 revenue requirement in non-core on-system backbone rates.⁶⁹⁹ Even assuming that Mr. O’Loughlin’s treatment of Line 401 costs during this period were incorrect, Mr. Harpster testified that Mr. O’Loughlin’s treatment of Line 401 O&M costs had “a relatively small impact on the O&M comparison.” ⁷⁰⁰ With respect to the capex

⁶⁹⁴ CPSD OB at 95-101.

⁶⁹⁵ CPSD OB at 95.

⁶⁹⁶ PG&E OB at 124-25; Ex. CPSD-168 at 2-9 (CPSD/Harpster); Ex. CPSD-170 at 29 (CPSD/Harpster); R.T. 90- 91 (CPSD/Harpster).

⁶⁹⁷ See PG&E OB at 124-25, 135 n.749; Ex. PG&E-10, MPO- 1 at 26 (PG&E/O’Loughlin); Ex. CPSD-170 at 31 (CPSD/Harpster). Furthermore, Mr. O’Loughlin’s imputed adopted capex amounts during this period were \$34 million *higher* than Mr. Harpster’s (see Ex. CPSD- 170 at 32 (CPSD/Harpster)), reflecting that Mr. O’Loughlin stayed as close as possible to the settlement revenue requirements and rates even when that resulted in higher imputed adopted amounts. See Ex. PG&E-10, MPO-1 at 49-50 (PG&E/O’Loughlin) (explaining that Overland used “assumptions and methodologies that are inconsistent with the settlement”); Ex. PG&E -10, MPO-4 at 1- 2 (PG&E/O’Loughlin) (explaining how Mr. O’Loughlin determined the imputed adopted capex amounts consistent with the revenue requirements and rate bases adopted in the Gas Accord I settlement).

⁶⁹⁸ See CPSD OB at 101-03.

⁶⁹⁹ Ex. PG&E-10, MPO-1 at 35- 36 (PG&E/O’Loughlin); Ex. PG&E -13 at 38; Ex. PG&E-10, MPO-3 at 4- 6 (PG&E/O’Loughlin); R.T. 577-78 (PG&E/O’Loughlin).

⁷⁰⁰ Ex. CPSD- 170 at 17 (CPSD/Harpster). If Mr. O’Loughlin had included all Line 401 O&M costs in his imputed adopted amounts during Gas Accord I, his imputed adopted O&M amounts would have been \$8.3 million higher (and therefore the amount of overspending he found would have been approximately \$35 million). See Ex. PGE-10, MPO-1 at 19, 36 (PG&E/O’Loughlin); Ex. CPSD-170 at 17 (CPSD/Harpster).

comparison, Mr. O’Loughlin’s partial roll -in Line 401 costs during Gas Accord I had no effect.

Mr. Harpster explained in his prepared rebuttal testimony:

Q: Does the Line 401 phase- in issue raised by Mr. O’Loughlin have any impact on the comparison of adopted and actual capital expenditures?

A: No. The issue does not have any impact on adopted or actual capital expenditures.⁷⁰¹

Gas Accord I Extension/Gas Accord II (2003): CPSD’s principal criticism of Mr. O’Loughlin is that he “assumed that 2003 was simply an extension of the Gas Accord I.”⁷⁰² Yet that is exactly what it was. The heading above the substantive provisions of the 2003 settlement agreement reads: “One -Year Extension of Gas Accord Rates and Terms and Conditions of Service.”⁷⁰³ The first provision there under provides:

The existing market structure, rates, tariffs, terms and conditions of service for the PG&E gas transmission and storage system, as adopted in the Gas Accord [i.e., Gas Accord I] . . . will be extended for the Gas Accord II period.⁷⁰⁴

The Commission’s decision approving the 2003 settlement reiterated that the settlement “would extend, for a one-year term . . . the existing, Commission-approved market structure, rates, tariffs, and terms and conditions of service, for PG&E’s gas transmission and storage system.”⁷⁰⁵ The Commission explained that “[e]xtension of the Gas Accord for an additional year will confer commercial certainty over how PG&E’s gas and transmission market structure will work in the coming year, and what rates customers can expect.”⁷⁰⁶ Mr. O’Loughlin’s imputed adopted

⁷⁰¹ Ex. CPSD- 170 at 16 (CPSD/Harpster). This is because both Mr. O’Loughlin and Mr. Harpster assumed there would be no capital expenditures associated with Line 401 during the Gas Accord I period – an assumption Mr. Harpster stated was reasonable because the pipeline was relatively new at the time. See Ex. CPSD-168 at 2-9 n.32 (CPSD/Harpster) (“Assuming zero capex for Line 401 was reasonable because Line 401 was new.”); Ex. PGE -10, MPO-4 at 5 (PG&E/O’Loughlin). Furthermore, there is no basis for CPSD’s suggestion that the effect of the Line 401 roll-in issue on Mr. O’Loughlin’s calculated revenue requirement for the Gas Accord I period somehow calls into question his entire imputed adopted analysis. See CPSD OB at 103. As discussed *infra* in note 741, this issue is a red herring because there are many other factors that explain how PG&E could have spent more than the imputed adopted amounts while at the same time GT&S generated more revenues than needed to earn the authorized rate of return.

⁷⁰² CPSD OB at 96.

⁷⁰³ Ex. PG&E-16 at 5.

⁷⁰⁴ Ex. PG&E-16 at 5.

⁷⁰⁵ Ex. PG&E-17 at 1; *see also id.* at 20 (Finding of Fact No. 4).

⁷⁰⁶ Ex. PG&E-17 at 21 (Finding of Fact No. 14).

amounts for 2003 give effect to these terms of the settlement agreement.⁷⁰⁷ In contrast, Mr. Harpster’s decision to use a forecast created for the next rate case period – after the Commission set the rates for 2003 – is in consistent with the terms of the settlement and the Commission’s decision approving it.⁷⁰⁸

2004 Rate Case: CPSD is correct that Messrs. O’Loughlin and Harpster did not need to impute the adopted amounts for 2004 because there was a full Commission decision on the merits for that year. CPSD is wrong, however, that the fact that PG&E spent less than the 2004 adopted amounts somehow reflects on the quality of Mr. O’Loughlin’s overall analysis. Most of the underspending in that year was due to the delay of two large, non-safety-related capital projects.⁷⁰⁹ Moreover, by basing his imputed adopted amounts for the other years on the settlement revenue requirements and rates, Mr. O’Loughlin’s method most closely replicated what the Commission did in its 2004 rate case decision where it used the adopted O&M and capex amounts (which reflected adjustments the Commission made to PG&E’s litigation forecast) to calculate the revenue requirement and rates.⁷¹⁰

Gas Accord III (2005-2007): CPSD is correct that the Gas Accord III settlement included fairly detailed cost of service information supporting the settlement revenue requirement for 2005, but provided less information regarding the underlying O&M and capex amounts supporting the settlement revenue requirements for 2006 and 2007. But the settlement materials are not “silent” regarding how the imputed adopted amounts should be calculated for 2006 and 2007 as CPSD claims.⁷¹¹ The settlement materials include revenue requirements for those years and, in the “comparison matrix” provided to the Commission with the proposed settlement, indicate that the O&M and capex amounts were to escalate at the same rates as the revenue requirements.⁷¹² Mr. O’Loughlin closely followed these provisions in calculating his imputed adopted amounts for 2006 and 2007.⁷¹³ In contrast, Mr. Harpster based his imputed adopted capex amount for 2007 on a forecast prepared years after the Gas Accord III

⁷⁰⁷ See Ex. PG&E-10, MPO-1 at 27-30, 50-51 (PG&E/O’Loughlin).

⁷⁰⁸ See PG&E OB at 125-26; R.T. 110 (CPSD/Harpster); Ex. PG&E-10, MPO-1 at 31 (Figure 7) (PG&E/O’Loughlin).

⁷⁰⁹ R.T. 552 (PG&E/O’Loughlin).

⁷¹⁰ See R.T. 116-20 (CPSD/Harpster); Ex. PG&E-19 at 205-08, 216-22.

⁷¹¹ See CPSD OB at 97.

⁷¹² See Ex. PG&E-21 at 7; Ex. PG&E-20 at 5, 7.

⁷¹³ Ex. PG&E-10, MPO-3 at 11 (PG&E/O’Loughlin); Ex. PG&E-10, MPO-4 at 9-13 (PG&E/O’Loughlin).

settlement.⁷¹⁴ Even he conceded that this amount was much higher than the amount actually used in rates in 2007.⁷¹⁵

Gas Accord IV (2008-2010): As PG&E explained in its opening brief,⁷¹⁶ the Gas Accord IV period presents the starkest differences between Mr. Harpster and Mr. O’Loughlin’s methods because Mr. O’Loughlin’s imputed adopted amounts were directly tied to the settlement revenue requirements and rates whereas Mr. Harpster’s were not.⁷¹⁷ Mr. O’Loughlin certainly did not admit, as CPSD asserts, that there was “no basis in the Gas Accord IV Settlement” for his imputed adopted amounts.⁷¹⁸ Mr. O’Loughlin carefully estimated the imputed adopted amounts that most closely correspond to the total revenue requirements and revenue requirement escalation factors set forth in the Gas Accord IV settlement.⁷¹⁹ To assist the Commission in assessing the reasonableness of the Gas Accord IV settlement (including the settlement revenue requirements and revenue requirement escalation factors), PG&E provided a “litigation forecast,” which represented the cost of service forecast that it would have filed if the case had been litigated, *i.e.*, prior to any negotiated concessions.⁷²⁰ Mr. Harpster’s imputed adopted amounts are unreasonable on their face because he uses the O&M and capex amounts in PG&E’s “litigation forecast” even though those amounts did not reflect any of the concessions PG&E made during the settlement process. Because Mr. Harpster’s imputed adopted amounts are based on the litigation forecast and not the settlement revenue requirements, they correspond to rates that the Commission found,⁷²¹ and TURN emphasized,⁷²² were ***much higher*** than the actual rates adopted in the settlement and the Commission’s decision approving the settlement.⁷²³ The Overland Report itself shows that the settlement revenue requirement was \$11 million less than

⁷¹⁴ PG&E OB at 127-29; Ex. PG&E-10, MPO-1 at 52-53 & fig. 14 (PG&E/O’Loughlin).

⁷¹⁵ R.T. 71, 138-39, 141, 144-45 (CPSD/Harpster); *see also* PG&E OB at 128.

⁷¹⁶ PG&E OB at 134.

⁷¹⁷ Ex. PG&E-10, MPO-1 at 56- 57 (PG&E/O’Loughlin); Ex. PG&E -10, MPO-3 at 12 (PG&E/O’Loughlin); Ex. PG&E-10, MPO-4 at 13 (PG&E/O’Loughlin); Ex. CPSD-168 at 2-8 (Table 2-3) (CPSD/Harpster); Ex. PG&E-27 at 26 (Finding of Fact No. 11). *See generally* PG&E OB at 129-34.

⁷¹⁸ *See* CPSD OB at 98.

⁷¹⁹ Ex. PG&E-10, MPO-3 at 12 (PG&E/O’Loughlin); Ex. PG&E-10, MPO-4 at 13 (PG&E/O’Loughlin); Ex. PG&E-26 at 6.

⁷²⁰ Ex. PG&E-25 at 3.

⁷²¹ Ex. PG&E- 27 at 26 (Finding of Fact No. 11) (“As compared to PG&E’s litigation position, the Settlement Agreement’s revenue requirements and rates are much lower for all three years.”).

⁷²² Ex. PG&E-11, MPO-19 at 2 (fact that settlement rates were lower than the rates that PG&E would have requested absent a settlement was one of TURN’s “substantial contributions”).

⁷²³ *See also* R.T. 168-69 (CPSD/Harpster); PG&E OB at 130-31.

the litigation forecast revenue requirement in 2008, \$25 million less in 2009, and \$39 million less in 2010.⁷²⁴ Mr. Harpster admitted that if PG&E's litigation forecast had been used to calculate rates, the rates would have been much higher.⁷²⁵ Further deviating from the settlement, Mr. Harpster took yet another approach to determine his imputed adopted capex amount for 2010. He did not use the litigation forecast amount but instead a much higher forecast for 2010 from the Gas Accord V proceeding.⁷²⁶ Mr. Harpster acknowledged that he used a contemporaneous forecast for 2010 capex – which was prepared years after rates were set for 2010 – only because the 2010 capex amount in the Gas Accord IV litigation forecast was, in his opinion, too low.⁷²⁷ He further admitted that his 2010 imputed adopted capex amount was not in rates in 2010.⁷²⁸

CPSD nonetheless contends that Mr. O'Loughlin's imputed adopted amounts for 2008 - 2010 are unreasonable because PG&E actually spent much more. This argument does not apply to O&M expenses, as Mr. O'Loughlin found only slight overspending compared to his imputed adopted amounts in 2008 and 2009.⁷²⁹ With respect to capital, Mr. O'Loughlin did find significant overspending compared to the imputed adopted amounts in 2008 to 2010. But that fact alone cannot call into question Mr. O'Loughlin's analysis, since his imputed adopted amounts are directly connected to the settlement revenue requirements. If actual spending is the test for whether the imputed adopted amounts are accurate, the entire exercise is circular. This is an example of CPSD wanting it both ways: it challenges Mr. O'Loughlin's imputed adopted numbers because they are different from PG&E's actual expenditures only when PG&E spent more than his imputed adopted amounts (as in 2008-2010), not when PG&E spent less (as with capex in 1998-2000).⁷³⁰ Furthermore, the fact that PG&E's internal documents do not discuss the capex overspending in 2008 to 2010 likely reflects that PG&E's budgeting process was focused on spending compared to plan, and not necessarily on how actual expenditures compared

⁷²⁴ Ex. CPSD-168 at 2-10 (Table 2-4) (CPSD/Harpster); R.T. 160-61 (CPSD/Harpster).

⁷²⁵ R.T. 168-69 (CPSD/Harpster).

⁷²⁶ Ex. CPSD-168 at 2-8 (Table 2-3) (CPSD/Harpster); R.T. 174 (CPSD/Harpster).

⁷²⁷ R.T. 171 (CPSD/Harpster); PG&E OB at 132.

⁷²⁸ R.T. 172 (CPSD/Harpster).

⁷²⁹ See Ex. PG&E-10, MPO-1 at 19 (Figure 4) (PG&E/O'Loughlin).

⁷³⁰ See Ex. PG&E-10, MPO-1 at 43 (Figure 10) (PG&E/O'Loughlin); see also PG&E OB at 133-34 (discussing how using more than one forecast for the same rate case period tends to bias the result, particularly when done to increase the imputed adopted amount in a particular year).

to the O&M or capex amounts implicit in the adopted rates.⁷³¹ Lastly, CPSD’s argument that evidence purportedly showing that PG&E “was cutting GT&S budgets” during 2008 to 2010⁷³² somehow undercuts the validity of Mr. O’Loughlin’s imputed adopted capex amounts has no support in the record. CPSD offered no evidence that GT&S capital budgets were constrained during 2008 to 2010⁷³³ and Mr. Harpster himself found that PG&E spent over \$26.5 million more than the imputed adopted amounts for safety-related capex during that period.⁷³⁴

2. CPSD Did Not Prove That PG&E Should Be Penalized Based On the Returns Of Its GT&S Business

PG&E does not dispute that GT&S viewed as a standalone business generated more revenues than its actual cost of service or that it earned, on average, more than the authorized rate of return.⁷³⁵ CPSD contends that GT&S’s so-called “surplus” revenues “should be considered during the fines and remedies phase.”⁷³⁶ TURN suggests that the “surplus” revenues are somehow relevant to the allocation of costs in the PSEP proceeding.⁷³⁷ But CPSD does not allege any violation based on GT&S’s revenues and returns and no party provides a basis for penalizing PG&E based on the past performance of GT&S.

Both experts agree that most of the so-called “surplus” GT&S revenues were generated by PG&E’s market storage business (parking and lending in particular).⁷³⁸ PG&E was entirely at risk for the costs of its market storage business, and the Commission approved a pricing structure for market storage that permitted PG&E to earn more than its cost of service if external market

⁷³¹ See Ex. CPSD-278 (OCHP-18). Regulatory funding levels were available as a data point in the budgeting and planning process, but budgets were ultimately set according to PG&E’s operating priorities rather than by the revenue source. Ex. PG&E-10, MPO-1 at 79 (PG&E/O’Loughlin); see also Ex. CPSD-304 at 14-1 (in setting budgets “management looks across the entire utility to allocate funds to those areas that require additional resources”).

⁷³² See CPSD OB at 101.

⁷³³ See *infra* Section V.F.3.c.

⁷³⁴ Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster).

⁷³⁵ See PG&E OB at 138.

⁷³⁶ See CPSD OB at 103 n.113. See also Ex. CPSD-1 at 168 (Recommendation No. 33) (CPSD/Stepanian) (recommending that PG&E be required to “use the \$429,841,000 in revenue collected since 1999 that is above and beyond what it required to earn its authorized return on equity, to fund future gas transmission and storage operations before it seeks additional ratepayer funds going forward”).

⁷³⁷ See TURN OB at 1-2, 31-33.

⁷³⁸ See PG&E OB at 139-40; Ex. PG&E-10, MPO-1 at 64 (Figure 17), 68-70 (PG&E/O’Loughlin); Ex. CPSD-170 at 134, 136-37 (CPSD/Harpster); R.T. 219 (CPSD/Harpster).

conditions allowed.⁷³⁹ CPSD mistakenly suggests that the “surplus” revenues must be at least partly the result of PG&E spending less than the imputed adopted O&M and capex amounts.⁷⁴⁰ CPSD appears to assume that GT&S’s returns can be explained only by either GT&S having higher revenues than needed to cover its authorized cost of service or PG&E having spent less than the imputed adopted O&M and capex amounts. In fact, as Mr. Harpster acknowledged, many other factors having nothing to do with spending on safety-related work could have affected GT&S’s returns.⁷⁴¹ CPSD did not establish any inconsistency between Mr. O’Loughlin’s finding both overspending and returns above the authorized rates.

CPSD and other parties also contend that PG&E “diverted” GT&S revenues to what they deem to be inappropriate uses, but they offer no proof.⁷⁴² As an initial matter, there is nothing improper with PG&E using a portion of GT&S revenues to fund other aspects of PG&E’s business. As DRA explains, “[i]temized cost-recovery requests used in general rate cases (whether adjudicated or settled) have no bearing on how PG&E spends the money it collects; how PG&E spends its money is up to PG&E.”⁷⁴³ And while both experts agree that it is not possible to trace how particular revenues are used (as money is fungible),⁷⁴⁴ the fact that the utility as a whole earned rates of return that were consistent with the authorized rates of return indicates that any GT&S revenues not spent within GT&S were used for other utility operations.⁷⁴⁵

CPSD relies on an excerpt from PG&E’s testimony in the 2011 General Rate Case to support its contention that “PG&E diverted revenues from safety budgets to cover a reserve for PG&E’s electric business and to fulfill shareholders’ earning expectations.”⁷⁴⁶ CPSD argues that

⁷³⁹ See PG&E OB at 138-39; Ex. PG&E-10, MPO-1 at 11, 62, 71-75 (PG&E/O’Loughlin).

⁷⁴⁰ See CPSD OB at 103.

⁷⁴¹ R.T. 218 (CPSD/Harpster). As PG&E explained in its opening brief, a difference between (1) what was assumed for the adopted revenue requirement and (2) the actual result for any component of the revenue requirement could result in higher than authorized returns. See PG&E OB at 142 n.792. Mr. Harpster identified federal bonus tax depreciation as one of the factors “driving the high GT&S ROE.” Ex. CPSD -168 at 5-3 (CPSD/Harpster). But he never quantified the effect of bonus tax depreciation on GT&S’s returns. R.T. 217 (CPSD/Harpster). He also did not quantify the effect of any of the other factors that he conceded could have affected GT&S’s returns because, he asserted, “it would be difficult to quantify and identify, break down that \$435 million difference precisely by causal factor.” R.T. 218 (CPSD/Harpster).

⁷⁴² See CPSD OB at 104; San Bruno OB at 34-37; TURN OB at 33.

⁷⁴³ DRA OB at 30.

⁷⁴⁴ R.T. 210-11 (CPSD/Harpster); R.T. 649-50 (PG&E/O’Loughlin).

⁷⁴⁵ Ex. PG&E-10, MPO-1 at 83 (PG&E/O’Loughlin).

⁷⁴⁶ CPSD OB at 104 (original in heading format).

the high level description in the GRC testimony of PG&E's budgeting and planning priorities proves that PG&E prioritized financial performance over safety, because, according to CPSD, the document lists "only one bullet which addresses safety."⁷⁴⁷ But counting bullet points and jumping to sweeping conclusions from a few words in a single document are not a substitute for actual, substantial evidence, which CPSD lacks.⁷⁴⁸ Furthermore, CPSD's description of PG&E's reserve fund is misleading. PG&E's GRC testimony never states that PG&E "had taken funds"⁷⁴⁹ from GT&S's budget for a reserve fund for the rest of the utility⁷⁵⁰ and, even if it had, it was prudent for PG&E to have funds available to address unplanned contingencies in whatever line of business they occurred. CPSD's further assertion that "[n]owhere does PG&E ever indicate that, prior to the San Bruno explosion, funds were transferred to GT&S to help improve the safety of PG&E gas transmission system"⁷⁵¹ is also incorrect. Although the GRC testimony that CPSD cites does not provide information about the use of the contingency or reserve fund since it was established in 2007, PG&E provided CPSD's consultant Overland precisely that information in discovery prior to the hearings in this proceeding. As PG&E said in that data request response, GT&S requested and received \$4.9 million in expense contingency funding in 2007 to pay for additional integrity management inspections, emergency repairs, and other related work.⁷⁵² GT&S also received additional expense and capital funding from the reserve fund in 2010.⁷⁵³

TURN asserts that there is "ample evidence that much of this overearning did not support the provision of utility service to customers."⁷⁵⁴ This purported "ample evidence" consists of (1)

⁷⁴⁷ See CPSD OB at 105.

⁷⁴⁸ In fact, a close reading of Table 14-1 does not reflect an undue focus on financial goals. As described there, PG&E's goal of staying "on budget, on plan and on purpose" focuses just as much if not more on "operational benefits for our customers" and "investing in infrastructure" than it does on shareholder benefits. Moreover, "improving safety and human performance" is listed among the highest priorities. See Ex. CPSD-304 at 14-5.

⁷⁴⁹ See CPSD OB at 106.

⁷⁵⁰ See Ex. CPSD-304 at 14- 2 ("The Company sets aside an un -allocated reserve of funds for unforeseen events during the year requiring a timely and flexible response outside the standard planning and budgeting process.").

⁷⁵¹ CPSD OB at 106.

⁷⁵² See PG&E's response to OC_008 -209. Prior to CPSD's opening brief, PG&E had no notice that CPSD was making any allegations regarding PG&E's contingency or reserve fund.

⁷⁵³ See PG&E's response to OC_008-209.

⁷⁵⁴ TURN OB at 33. TURN also purports to reserve the right to comment in its reply brief on evidence regarding how GT&S was able to earn more, on average, than the authorized rate of return. TURN OB at 32. TURN should not be allowed to wait until its reply to raise new issues so that PG&E will have no opportunity to respond. Furthermore, TURN mischaracterizes Mr. Harpster's finding that GT&S generated \$435 million more in revenues from 1999 to 2010 than needed to earn the authorized rate of return. See Ex. CPSD-170 at 10 (Table 3-6)

a reference to TURN’s own prior criticisms of PG&E’s alleged “lavish” spending on “projects of dubious value to ratepayers”;⁷⁵⁵ and (2) the fact that PG&E earned 168 basis points more than the authorized return on equity on a cumulative basis from 2004 to 2010.⁷⁵⁶ The former lacks support in the record and is unconnected to any evidence about the use of GT&S revenues. The latter is a very thin reed on which to try to hang a penalty or adverse finding. The cumulative 168 basis point difference TURN identifies between PG&E’s reported and authorized returns over the seven year period from 2004 to 2010 amounts to 24 basis points per year or a 0.24% difference in annual returns (*i.e.*, the average reported rate of return was 0.24% higher than the average authorized rate of return). Focusing on the combined gas business only (gas transmission and gas distribution), from 2004 to 2010 PG&E cumulatively earned only 24 basis points more than the authorized return on rate base, or 0.03% on an annual basis.⁷⁵⁷ This difference is so tiny that it would have been difficult for PG&E to have come any closer to earning exactly the authorized return on rate base. What is more, in 2008 to 2010 – the years during which the parties contend that PG&E unnecessarily constrained GT&S’s expense budgets – the combined gas business cumulatively earned 104 basis points *less* than the authorized return on rate base (or 0.35% less on an annual basis).⁷⁵⁸ All of this evidence strongly indicates that any GT&S revenues not spent within GT&S during those years were used to fund gas distribution – hardly an improper use of funds.

For its part, CPSD tries to flip the burden of proof with its argument that Mr. O’Loughlin admitted that it was not possible to trace the precise use of the GT&S revenues that were not spent within GT&S.⁷⁵⁹ Neither CPSD nor any other party has offered evidence that GT&S revenues were used for a purpose that would reflect negatively on PG&E’s safety culture or support a penalty against PG&E. CPSD seems to think that all it has to do is refer to the fact that PG&E paid dividends, officer bonuses, engaged in public relations, or spent money on ballot

(CPSD/Harpster); Ex. CPSD-168 at 5-2 (Table 5-2) (CPSD/Harpster) (showing earlier calculation of \$430 million). TURN mistakenly describes this amount as “shareholder profits.” *See* TURN OB at 32. In the first place, the \$435 million represents revenues not profits. Second, GT&S does not have “shareholders” or any actual “profits.” GT&S is not an independent company, and any analysis of its revenues and returns needs to take into account the returns of the utility as a whole. *See* PG&E OB at 143-44; Ex. PG&E-10, MPO-1 at 79, 82 (PG&E/O’Loughlin).

⁷⁵⁵ TURN OB at 33.

⁷⁵⁶ TURN OB at 33.

⁷⁵⁷ *See* Ex. PG&E-10, MPO-1 at 81 (Figure 24) (PG&E/O’Loughlin).

⁷⁵⁸ *See* Ex. PG&E-10, MPO-1 at 81 (Figure 24) (PG&E/O’Loughlin).

⁷⁵⁹ *See* CPSD OB at 105.

initiatives to prove that PG&E used GT&S revenues for improper purposes.⁷⁶⁰ There is no proof either that GT&S funds were used for those purposes or, even if there were, that such uses were somehow improper and warrant penalizing PG&E.⁷⁶¹

3. CPSD Did Not Prove That PG&E Placed Profits Over Safety

As discussed above, CPSD now alleges a separate violation of Section 451 for PG&E's purported "failure to place safety over profits" based on a hodge-podge of accusations including that PG&E "reduc[ed] safety-related budgets," "prematurely end[ed] its transmission pipeline replacement program," "us[ed] less effective and cheaper IM tools," and "reduc[ed] safety-related personnel."⁷⁶² While CPSD quotes generously from the Overland Report and internal PG&E documents to try to paint a picture of a company with a flawed safety culture, it never explains with any specificity which decisions or conduct by PG&E violated the law or offers any proof that PG&E "fail[ed] to place safety over profits."

a. The Overland Report Cannot Prove That PG&E Operated An Unsafe System

CPSD's purported showing that PG&E operated an unsafe system in violation of Section 451 relies heavily on the Overland Report. DRA's discussion of PG&E's safety culture and financial priorities also draws extensively on the Overland Report. The Overland Report cannot satisfy CPSD's burden of proof. As discussed above, Overland and its lead consultant Gary Harpster reviewed PG&E's gas transmission business from a "financial and ratemaking perspective."⁷⁶³ They were never asked to conduct an operational safety analysis and they would not have been qualified to do one if they had been.⁷⁶⁴ Mr. Harpster is an accountant who

⁷⁶⁰ See CPSD OB at 83; Ex. CPSD-1 at 140-44 (CPSD/Stepanian) (discussing alleged "possible redirections of operational revenues"); see also San Bruno OB at 34-37 (discussing executive compensation).

⁷⁶¹ For example, CPSD's own expert agrees that it is important for PG&E to pay a dividend to ensure efficient access to the equity markets to fund capital improvements. See R.T. 1379 (CPSD/Malko) (discussing importance of PG&E paying a healthy dividend to attract investors and describing dividend payout ratio as "important given that we are talking primarily about income stocks").

⁷⁶² CPSD OB, Revised Appendix C at 10.

⁷⁶³ R.T. 56 (CPSD/Harpster).

⁷⁶⁴ See Ex. CPSD-168 at 2-6 (CPSD/Harpster) ("This audit assesses gas safety issues from a financial perspective and is intended to complement, rather than duplicate, the engineering and operations analysis conducted by the CPSD Staff, the IRP and the NTSB."); R.T. 237-38 (CPSD/Harpster).

specializes in “regulatory accounting and ratemaking,”⁷⁶⁵ and his supporting team did not include any engineers.⁷⁶⁶

Consistent with Mr. Harpster’s expertise in regulatory accounting rather than gas engineering, the Overland Report does not analyze any single budgeting decision in depth to determine whether safety was impaired. Instead, the Overland Report’s high -level conclusions, such as that PG&E’s alleged “consistent underspending on transmission O&M has negative implications for gas pipeline safety,”⁷⁶⁷ are either predicated on Mr. Harpster’s flawed conclusion that PG&E spent less than the imputed adopted amounts or are nothing more than conjecture. At most, Mr. Harpster’s conclusions are based on his *reading* of PG&E documents, which was not informed by engineering expertise or in-depth analysis to determine whether any decisions relating to specific projects or work actually impaired safety. In Mr. Harpster’s own words, “Overland’s approach was to *survey the available documentation* and focus on the most readily apparent *indications* of resource adequacy.”⁷⁶⁸

Mr. Harpster jumps to conclusions without either the expertise or analysis to support them. Not surprisingly, consistent with his own description of Overland’s methodology, Mr. Harpster’s conclusions are often framed in terms of what his reading of particular documents “indicates,” “suggests” or “implies.”⁷⁶⁹ Stringing together quotations from documents in which employees identify potential risks does not prove that any particular actions taken by PG&E actually jeopardized safety. This is especially true here because, as discussed below, employees

⁷⁶⁵ Ex. CPSD-170, Attachment A at 1 (CPSD/Harpster).

⁷⁶⁶ R. T. 237-38 (CPSD/Harpster).

⁷⁶⁷ See Ex. CPSD-168 at 1-1 (CPSD/Harpster).

⁷⁶⁸ Ex. CPSD-168 at 2-14 (CPSD/Harpster) (emphasis added).

⁷⁶⁹ For example, Mr. Harpster concludes that one short statement in a single document about PG&E’s response to the TIMP audit “is an indication” of a backlog of integrity management work that, in turn, “implies” staffing shortages. See Ex. CPSD-168 at 9-14 to 9-15 (CPSD/Harpster) (citing Ex. CPSD-197 at OC-92 Attachment 4). As DRA describes, “the Overland Audit *surmises* that Integrity Management resources were constrained.” DRA OB at 56 (emphasis added). As another example, Mr. Harpster concluded that the “*low rate of increase in BX costs implies resource constraints in pipeline maintenance.*” Ex. CPSD -168 at 3-8 (CPSD/Harpster) (bold emphasis added). This conclusion is based solely on the percentage by which PG&E’s costs in Major Work Category BX grew over a 14 year period, not any analysis of the amount of work completed or whether PG&E was able to contain costs through efficiencies. See also, e.g. , *id.* at 6- 6 (“*gas distribution headcount reductions and safety-related deficiencies have negative implications for local transmission pipeline safety*”) (bold emphasis added); *id.* at 6- 16 (“*the evidence suggests risk management continued to be a separate program in name only*”) (bold emphasis added); *id.* at 6- 19 (“*The large number of leaks discovered in the 2009 and 2010 special leak surveys indicates that leak survey resources were inadequate in prior years*”) (bold emphasis added); *id.* at 7- 5 (“*The significant management problems in PG&E’s gas distribution divisions implicate local transmission safety and indicate safety-related resource constraints.*”) (bold emphasis added).

were encouraged to identify risks and concerns as a matter of course in reports addressing budgeting and planning issues. That Overland’s approach proves to be superficial and broad brush is not surprising given Mr. Harpster’s lack of engineering and operational expertise but it is insufficient to satisfy CPSD’s burden of proof here.

b. CPSD Did Not Prove That GT&S Staffing Levels Contributed To An Unsafe Gas Transmission System

In its post-hearing brief, CPSD alleges for the first time that PG&E’s reduction of its “safety-related workforce” contributed to creating an unreasonably unsafe system in violation of Section 451.⁷⁷⁰ CPSD’s showing, which is based entirely on Mr. Harpster’s review of headcount data in the Overland Report, falls far short of proving that PG&E’s staffing levels created an unsafe gas transmission system.

First, it is impossible to draw any meaningful conclusions from employee headcount numbers without knowing more about the underlying work and who is performing what type of work. Thus, for example, the mere fact that GT&S union headcount declined by 64 people from 1996 to 2010,⁷⁷¹ without more analysis, does not reflect on the safety of the gas transmission system one way or the other. Mr. Harpster himself found that the headcount reductions between 1996 and 2000 “made PG&E’s workforce more cost effective.”⁷⁷² Furthermore, PG&E’s non-union GT&S headcount, including engineers, increased by 25 during the same period.⁷⁷³ The fact that overall gas distribution headcount declined is equally inconclusive, particularly as this reflected at least in part a decline in new home construction and an increase in developers using their own crews to install gas facilities in new subdivisions.⁷⁷⁴ More important, Overland’s analysis ignores the use of outside contractors,⁷⁷⁵ who play an important role in integrity management assessments and other transmission pipeline projects.⁷⁷⁶ According to a 2009

⁷⁷⁰ See CPSD OB at 83.

⁷⁷¹ Ex. CPSD-168 at 6-1 (Table 6-1) (CPSD/Harpster).

⁷⁷² Ex. CPSD-168 at 7-1 (CPSD/Harpster) (citing a third party consultant’s review of PG&E staffing).

⁷⁷³ Ex. CPSD-168 at 6-3 (Table 6-2) (CPSD/Harpster).

⁷⁷⁴ See Ex. CPSD-168 at 6-6 (CPSD/Harpster).

⁷⁷⁵ See Ex. CPSD-168 at 6-1 to 6-6 (CPSD/Harpster) (failing to include any non-employee staffing).

⁷⁷⁶ See, e.g., Ex. CPSD-226 at OC-259 Attachment 4, p. 9 (identifying contractor availability as concern in scheduling integrity management assessments).

PG&E document, 62% of gas transmission capital projects were done by contractors.⁷⁷⁷ Without considering contractor staffing, Overland presents an incomplete picture at best.

Second, to the extent the numbers cited in the Overland Report are to be relied on at all, they show that PG&E increased headcount in important safety-related areas. Overland found that the non-union headcount in the GT&S risk management and integrity management organizations increased from 9 in 1996 to 32 in 2010.⁷⁷⁸ PG&E's overall integrity management headcount (union and non-union) almost tripled from 2004 to 2010.⁷⁷⁹ Other non-union engineering staffing, including pipeline engineers, increased from 64 in 1996 to 89 in 2010.⁷⁸⁰ Gas systems operations non-union staffing remained relatively stable from 1998 to 2010.⁷⁸¹ Conversely, the non-union headcount in the marketing organization – which has nothing to do with safety – decreased from 61 in 1996 to 47 in 2010.⁷⁸²

c. CPSD Did Not Prove That PG&E Underfunded GT&S Safety-Related Capital Expenditures Or That The Implementation Of The Risk Management Program Contributed To An Unsafe System

GT&S's capital budgets include, among other things, pipeline replacement, the capital portion of the integrity management program (e.g., upgrades to make lines piggable), and other safety-related work, as well as a significant amount of non-safety work (e.g., pipeline construction to increase capacity and work requested by others). CPSD has not proven that PG&E's capital safety budgets were constrained at any point from 1997 to 2010 (the time period analyzed by Mr. Harpster). Mr. Harpster explicitly stated in the Overland Report that he did not find "significant budget constraints prior to 2007."⁷⁸³ Furthermore, as already discussed, he also found that PG&E spent more than the imputed adopted amounts for safety-related capital expenditures from 2003 to 2010 and he offered no opinion about whether PG&E underspent

⁷⁷⁷ Ex. CPSD-224 at OC-257 Attachment 2, p. 37 (showing 62% of gas transmission capital work and 18% of gas transmission expense work done by contractors).

⁷⁷⁸ Ex. CPSD-168 at 6- 3 (CPSD/Harpster). According to Overland, this increase "implies some degree of willingness to increase staffing as work load increases." *Id.*

⁷⁷⁹ Ex. CPSD-168 at 6-4 (Table 6-3) (CPSD/Harpster).

⁷⁸⁰ Ex. CPSD-168 at 6-3 (CPSD/Harpster).

⁷⁸¹ Ex. CPSD-168 at 6-3 (CPSD/Harpster).

⁷⁸² Ex. CPSD-168 at 6-3 (CPSD/Harpster).

⁷⁸³ Ex. CPSD-168 at 1-4 (CPSD/Harpster).

prior to 2003 on safety-related capex compared to the imputed adopted amounts.⁷⁸⁴ Mr. O’Loughlin, whose imputed adopted analysis is much more reliable in any event, found that PG&E spent \$63 million more than the imputed adopted safety-related capex amounts from 2004 to 2010.⁷⁸⁵

CPSD’s and especially DRA’s briefs extensively cite and quote the portions of the Overland Report addressing purported budgetary constraints in the 2008 through 2010 budget years. Although it is not clear from their briefs, the evidence on which they rely relates almost entirely to GT&S’s O&M expense budgets, not capital.⁷⁸⁶ Thus, Mr. Harpster found evidence of “significant pressure to reduce expenses” in 2008 through 2010, but did not make a similar finding regarding capital.⁷⁸⁷ To the contrary, he found that PG&E spent more than the imputed adopted safety-related capex in each year from 2007 through 2010.⁷⁸⁸ Indeed, according to Mr. Harpster, PG&E spent 23% more than the imputed adopted safety-related capex in 2008 through 2010⁷⁸⁹ – the same years that are the focus of the evidence cited by CPSD and DRA. The Overland Report identifies only one instance in which GT&S was asked to reduce its capital budget during those years. With regard to that situation, which involved the transfer of part of GT&S’s capital budget to fund gas and electric distribution operations, Mr. Harpster concluded that the “capital budget cuts did not adversely impact pipeline safety compared to the initial budget.”⁷⁹⁰

Notwithstanding this evidence that GT&S’s capital budgets were not constrained during the period analyzed by Mr. Harpster – which is the only period addressed by any substantial evidence in the record⁷⁹¹ – CPSD now asserts, for the first time, that PG&E somehow contributed to a violation of Section 451 by “prematurely ending its transmission pipeline

⁷⁸⁴ See *supra* Section V.F.1.a.

⁷⁸⁵ Ex. PG&E-10, MPO-1 at 46-47 (PG&E/O’Loughlin).

⁷⁸⁶ See Ex. CPSD-168, Chapters 7-9 (CPSD/Harpster).

⁷⁸⁷ Ex. CPSD-168 at 1-4 (CPSD/Harpster).

⁷⁸⁸ Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster).

⁷⁸⁹ Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster).

⁷⁹⁰ Ex. CPSD-168 at 1-5 (CPSD/Harpster); *see also id.* at 8-9 to 8-10.

⁷⁹¹ It is also the only time period during which CPSD alleges a safety culture violation. See CPSD OB, Revised Appendix C at 10. San Bruno’s brief, however, quotes a draft presentation to management (which apparently never was finalized or presented) that references “[c]apital budget reductions” in the early 1980s. See San Bruno OB at 34 (citing Ex. CPSD-166, Exhibit 3 at 2); *see also* Ex. CPSD-165 at 99- 100 (“I do not recall that we ever had this presentation take place.”). As CPSD does not even allege a safety culture violation prior to 1998, and there is no evidence in the record providing context for PG&E’s budgeting and spending prior to the late 1990s, the Commission should disregard random references to older documents.

replacement plan” in 2000. ⁷⁹² The record, however, does not support a violation based on PG&E’s decision to implement its transmission risk management program (RMP).⁷⁹³

Contrary to CPSD and DRA’s contention that PG&E moved transmission pipe out of the GPRP and into its new RMP solely as a cost reduction initiative,⁷⁹⁴ PG&E developed the RMP to improve and expand the operational processes related to managing gas transmission system risks.⁷⁹⁵ PG&E’s risk management model provided a more comprehensive way of evaluating risks and consequences and afforded more mitigation and prevention strategies for the entire gas transmission system than the GPRP, which was focused solely on replacing specific types of pre-1947 pipe.⁷⁹⁶ PG&E’s development of the RMP anticipated the regulatory and industry movement toward a risk management approach, which ultimately led to PHMSA’s adoption of the integrity management rules in Subpart O.⁷⁹⁷

In 2000, with the concurrence of CPSD’s Utilities Safety Branch (USB), PG&E removed approximately 212 miles of transmission pipeline from the GPRP and placed them under the RMP.⁷⁹⁸ On April 20, 2000, in response to PG&E’s announced plan to remove transmission pipe from the GPRP, the Chief of the USB wrote to PG&E:

⁷⁹² CPSD OB, Revised Appendix C at 10. CPSD and others also claim that if transmission pipe had remained within the GPRP, PG&E would have replaced all of Line 132. PG&E discusses those allegations *infra* in Section V.F.4.a.

⁷⁹³ CPSD also suggests that PG&E replaced less transmission pipe under the GPRP (prior to the transition to the RMP) than intended under the program. CPSD OB at 81; *see also* CPSD OB at Appendix B, p 8 (proposed conclusion of law no. 55). CPSD offers no evidence to support this contention, but cites D.92- 12-057 and D.07-03-044 as support. *See* CPSD OB at 81. D.92- 12-057 does not specifically discuss PG&E’s spending or progress on the transmission component of the GPRP (*see Application of Pac. Gas & Elec. Co.*, D.92-12-057, 1992 Cal. PUC LEXIS 971, at *59-64, *79-80) and D.07- 03-044 was issued years after transmission pipe was removed from the GPRP. Moreover, in D.00- 02-046, the Commission recognized that, at the approximate midpoint of the original planned length of time to complete the GPRP, PG&E had replaced 57% of the transmission pipe in the program. *Application of Pac. Gas & Elec. Co.*, D.00-02-046, 2000 Cal. PUC LEXIS 239, at *349-350.

⁷⁹⁴ *See* CPSD OB at 84, 86-87; DRA OB at 32-33.

⁷⁹⁵ Ex. PG&E-1c at 4-2 to 4-3 (PG&E/Keas).

⁷⁹⁶ Ex. CPSD-186 at OC-68 Attachment 12, p. 60 (comparing GPRP to RMP); PG&E Gas Transmission Facilities Risk Management Annual Report – 2000 at 2, *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/62C87F54-8558-4C5D-92FB-124C15325FB2/0/2000PGEGRiskManagementAnnualReport.pdf> (discussing benefits of transition from GPRP to RMP); *infra* Section V.F.4.a (discussing the type of pipe intended to be replaced under the GPRP). Prior to CPSD’s opening brief, PG&E had no notice that CPSD was alleging a violation of Section 451 predicated in part on PG&E allegedly “ending the transmission replacement part of its GPRP prematurely,” *see* CPSD OB at Appendix B, p. 8 (proposed conclusion of law no. 55) & Revised Appendix C, p. 10, and thus could not know that the GPRP and RMP reports cited in this and the following footnotes were relevant. *See also supra* Section III.C.

⁷⁹⁷ Ex. PG&E-1c at 4-2 to 4-3 (PG&E/Keas).

⁷⁹⁸ PG&E, Gas Pipeline Replacement Program, 2000 Annual Progress Report, pp. 2, 28, Appendix II (April 20, 2000 letter from Mahendra Jhala, Chief, USB to Shan Battacharya, Vice President, PG&E), *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/5301B509-4ED8-41A2-A8C4-8C005E588D74/0/GPRP2000AnnualReport.pdf>.

The RM program appears to be a good program and it is obvious PG&E has invested time to develop it. In addition to other gas regulatory matters, we hope to acknowledge the RM program at the national level when USB management attends the National Association of Pipeline Safety Representative national convention at the end of this month.⁷⁹⁹

At the same time, PG&E discussed planned spending on the RMP with the USB. According to a PG&E memorandum documenting a conversation with the Chief of the USB, which PG&E provided to the Commission with its 2000 Annual Progress Report for the GPRP:

I reiterated that in going forward, our Pipeline Reliability and Safety spending was comparable to what we had previously projected [in the 1996 GRC]. I didn't provide specific numbers, but told him that it wasn't a scenario where we had projected 20 million and were only spending 1 million. He said his primary concern was to ensure that the program wouldn't significantly cut spending below appropriate levels, relative to what was used to build the Gas Accord. . . . [¶] Mahendra and I both agreed that based on our knowledge of this issue, our planned risk reduction activities and associated spending levels should be comparable to previous projections. . . .⁸⁰⁰

CPSD offers no evidence that the transition to a risk management program violated the law. It also has not proven that PG&E spent less on pipeline risk management after the transfer of transmission pipe from the GPRP to the RMP. According to reports prepared at the time, PG&E spent more on gas transmission risk management projects in 2000, 2001 and 2002 (after the transition to the RMP), for example, than it did to replace transmission pipes within the GPRP in 1998 and 1999.⁸⁰¹ Finally, there is no support in the record for CPSD and DRA's

⁷⁹⁹ PG&E, Gas Pipeline Replacement Program, 2000 Annual Progress Report, p. 28, Appendix II (April 20, 2000 letter from Mahendra Jhala, Chief, USB to Shan Battacharya, Vice President, PG&E), *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/5301B509-4ED8-41A2-A8C4-8C005E588D74/0/GPRP2000AnnualReport.pdf>.

⁸⁰⁰ PG&E, Gas Pipeline Replacement Program, 2000 Annual Progress Report, Appendix II, p. 30 (June 8, 2000 memorandum from Alan Eastman documenting conversation with Mahendra Jhala, USB), *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/5301B509-4ED8-41A2-A8C4-8C005E588D74/0/GPRP2000AnnualReport.pdf>.

⁸⁰¹ PG&E spent \$6.8 million to replace transmission pipe under the GPRP in 1998 and \$4.8 million in 1999. PG&E, Gas Pipeline Replacement Program, 1999 Annual Progress Report at 12, 15, *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/DF0C1643-CB00-49BC-BAFB-7C18BFB4C583/0/1999AnnualProgressReport.pdf>. PG&E spent \$13 million on pipeline risk reduction projects under the RMP in 2000 (including \$7.6 million in pipeline replacement costs), \$15.7 million in 2001 (including \$3.7 million in pipeline replacement costs) and \$20.7 million in 2002 (including regulator stations). *See* PG&E Gas Transmission Facilities Risk Management Annual Report – 2000, p. 4, *available at*

suggestion⁸⁰² that the fact that PG&E stopped preparing (voluntary) annual RMP reports for the Commission meant PG&E also had stopped managing pipeline risk altogether.⁸⁰³

d. CPSD Did Not Prove That PG&E’s Funding Of Gas Transmission O&M Expenses Showed That It Placed Profits Over Safety

PG&E does not dispute that there were pressures on O&M expense budgets from 2008 to 2010 and that some work was deferred at least in part due to budgetary considerations during those years.⁸⁰⁴ But PG&E does dispute – and CPSD has not proven – that its efforts to contain expense costs in 2008 to 2010 were made “regardless of the impact on system safety”⁸⁰⁵ or that PG&E’s budgeting decisions “made catastrophic failure inevitable.”⁸⁰⁶ CPSD’s purported proof – like the Overland Report on which it is based – consists mostly of quotations from emails or other internal documents in which PG&E employees identified potential risks associated with contemplated funding levels rather than an assessment of the actual safety ramifications of any particular decision to defer or change planned work.

CPSD and DRA’s approach of cataloguing excerpts from the Overland Report (itself presenting snippets from various PG&E documents) is apparently intended to show PG&E’s disregard for safety concerns. A more thorough assessment of the underlying evidence on which the Overland Report relies, however, reveals the opposite. The emails, program reviews and other information in the record show that:

- A compilation of project forecasts proposed by project advocates would form the basis for a preliminary plan for the next budget year submitted for review and discussion to an internal GT&S committee each year in the spring (*i.e.*, approximately

<http://www.cpuc.ca.gov/NR/rdonlyres/62C87F54-8558-4C5D-92FB-124C15325FB2/0/2000PGEGTSRiskManagementAnnualReport.pdf>; PG&E Gas Transmission Facilities Risk Management Annual Report – 2001, Appendix A, p. 1, *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/DD94E697-9F7D-483F-A9CA-D63F833DAADC/0/2001PGERMPDocumentpdfAdobeAcrobatProfessional.pdf>; PG&E Gas Transmission Facilities Risk Management Annual Report – 2002, *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/8F152748-63BF-4F28-AC30-4256507C7465/0/2002PGEGTSRiskManagementAnnualReport.pdf>.

⁸⁰² See CPSD OB at 85 (“After 2004, PG&E’s PRMP existed in name only.”); DRA OB at 32 (“the Overland Audit concludes there are no risk metrics in PG&E’s RMP”).

⁸⁰³ See, e.g., Ex. CPSD-225 at OC-258 Attachment 1 (describing process for determining relative risk priorities).

⁸⁰⁴ Overland did not find budget constraints prior to the 2008 budget year. See Ex. CPSD-168 at 1- 1 (CPSD/Harpster); see also *id.* at 1- 4 (“The planning documentation reviewed by Overland does not contain many references to significant budget constraints prior to 2007.”).

⁸⁰⁵ See DRA OB at 37.

⁸⁰⁶ See CPSD OB at 106.

eight months before the beginning of the budget year in question). This preliminary plan typically would include every project that might be completed in the upcoming year, without necessarily taking into account the broader GT&S plan for the upcoming year and factors such as the availability of contractor resources.⁸⁰⁷ The preliminary plan would be reviewed and revised during the year based on input from individuals across the GT&S organization before being submitted to Finance as a formal request for funding, typically in the fall.⁸⁰⁸ By involving many people in the planning process, GT&S tried to ensure that the most important work would be identified and included in the proposed work plan for the next year.

- GT&S managers and engineers communicated openly about the potential implications of budget and planning decisions to help others make informed decisions about which work to include in the proposed budget and which work ultimately to fund and complete within the approved budget.⁸⁰⁹
- Work was prioritized both within GT&S and across the utility so that the most important safety-related work would be completed.⁸¹⁰ Finance requested information about the risk of not funding particular categories of work as a regular part of the budget and planning process.⁸¹¹

⁸⁰⁷ See Ex. CPSD-229 at OC-262, p. 2 (explaining planning process); Ex. CPSD-231 (OC-267). References in documents to budget “requests” do not always refer to the formal request submitted to Finance but rather sometimes reflect the list of projects compiled early in the planning process. For example, references to the expense budget “request” for the integrity management program in 2009 (see Ex. CPSD-168 at 8-3 (CPSD/Harpster); CPSD OB at 89) appear to be based on an early compilation in 2008 of potential integrity management work for 2009. See Ex. CPSD-229 at OC-262 at 2; see also Ex. CPSD-168 at 8-3 (CPSD/Harpster) (discussing same). Similarly, the referenced request of \$25.2 million for maintenance projects in 2008 (see CPSD OB at 89, DRA OB at 45) appears to have been based on an early compilation of potential maintenance projects. See Ex. CPSD-231 (OC-267).

⁸⁰⁸ See Ex. CPSD-229 at OC-262, p. 2; Ex. CPSD-182 at OC-63 Attachment 1, pp. 10-11.

⁸⁰⁹ For example, the template for the “program reviews” (which provided an overview of the budgetary and operational issues facing the gas transmission expense and capital “programs”) explicitly included a section for “top risks/challenges.” See Ex. CPSD-186 at OC-68 Attachment 3, p. 2; see also Ex. CPSD-186 at OC-68 Attachment 2, p. 18. The risk identification sections of the program reviews are quoted extensively in the Overland Report (and by CPSD and DRA), but there is no record evidence that PG&E did not appropriately address the identified risks in its final budgeting decisions.

⁸¹⁰ See, e.g., Ex. CPSD-185 at OC-67 Attachment 7, p. 28 (showing definitions for Mandatory, Priority 1, 2, and 3 work used by the utility); Ex. CPSD-182 at OC-63 Attachment 1, p. 13 (showing priority definitions used within GT&S); Ex. CPSD-261 at OC-347, Attachment 1 (2010 GT&S budget request to Finance showing priority ranking and description of “risk of not funding” categories of non-mandatory work).

⁸¹¹ See, e.g., Ex. CPSD-261 at OC-347 Attachment 1 (2010 GT&S budget request to Finance with description of “risk of not funding” categories of non-mandatory work). For example, when Finance asked the various lines of business to identify potential reductions in expense costs during the last months of 2009, it provided a template that required the lines of business to identify the “risks of not funding.” Ex. CPSD-224 at OC-257 Attachments 5 & 5a. DRA quotes from GT&S’s description of potential risks if the identified possible reductions were to be implemented in late 2009, but acknowledges that there is no proof that “the reductions were implemented.” DRA OB at 50. Furthermore, DRA mistakenly states that Finance requested that the lines of business identify possible expense reductions in both August and November 2009. See DRA OB at 48, 50. The underlying evidence cited by DRA confirms that there was only one such request, in August 2009. See Ex. CPSD-168 at 8-5, 8-8 (CPSD/Harpster); see also Ex. CPSD-224 at OC-257 Attachment 5.

- Critical safety work was considered “mandatory” in the budgeting and planning process.⁸¹²
- Decisions to defer or change specific projects or categories of work were made with the input and involvement of the engineers and managers closest to the work.⁸¹³ If adjustments to plans were needed to stay within approved funding levels, the individuals charged with managing the GT&S budget would ask those responsible for the work itself to identify projects that could be deferred so that “compliance and safety are not compromised.”⁸¹⁴

In short, the conclusion from a thorough reading of the record is not of an organization that did not care at all about safety, as CPSD and Intervenors would have the Commission believe, but rather that the GT&S managers and engineers worked very hard to ensure that budgetary considerations did not negatively impact safety, compliance or reliability.

Furthermore, consistent with the lack of an in-depth operational focus to its analysis, the Overland Report does not identify any specific budget decisions that either demonstrably harmed safety or that prove that the company emphasized meeting financial goals over operating a safe system. PG&E was responsible not only for maintaining a safe system but also for carefully managing its financial resources and “obtaining efficiencies wherever possible.”⁸¹⁵ To prove a violation, it cannot be enough for CPSD to point to evidence that GT&S expense budgets were set at less than requested by someone at some point during the pre-budget-year planning process. That likely would be the case for most utilities in most years. Moreover, as discussed above, PG&E had a process for prioritizing work to ensure that the most important safety work was completed. There is no proof that PG&E’s budgeting and planning process did not identify and prioritize the most important safety and compliance work.

CPSD’s and DRA’s briefs focus in particular on funding for integrity management and maintenance work. Integrity management funding is discussed separately in the next section. CPSD’s proof regarding the effect on safety of any decision not to fund all maintenance work identified in the planning process consists of generalized potential risks rather than any proof connected to specific deferred or cancelled work. Moreover, many of the expressed concerns cited by CPSD and DRA relate to reliability, not safety. For example, one program review

⁸¹² Ex. CPSD-304 at 14-7; Ex. CPSD-185 at OC-67 Attachment 7, p. 28.

⁸¹³ See, e.g., *infra* Section V.F.3.e (discussing decisions regarding integrity management assessment deferrals or methodology changes).

⁸¹⁴ Ex. CPSD-168 at 8-6 (CPSD/Harpster) (quoting OC-262 Attachment 4).

⁸¹⁵ See D.12-12-030, slip op. at 43.

quoted in the Overland Report identifies the “greatest risk to the gas transmission expense program [as] decreased funding of high priority *reliability* projects, leading to more frequent breakdowns of equipment and higher emergency repair costs.”⁸¹⁶ PG&E’s point here is not to argue that reliability is not important. PG&E has learned many lessons after the San Bruno accident and has made many improvements across the gas organization. But CPSD cannot prove that PG&E failed to operate a safe system by pointing to statements in documents that do not relate to any specific project or funding decision, but rather were intended to catalog in general (albeit sometimes stark) terms, hypothetical, potential risks that did not occur and that may have had little bearing on safety. CPSD did not attempt to prove that any failure to fund maintenance work led to actual reliability problems on PG&E’s gas transmission system.

CPSD has not cited a single example where PG&E did not fund specific maintenance projects notwithstanding a communicated safety imperative to do so. The fact that PG&E’s employees were encouraged to, and did, identify and discuss potential risks in documents such as program reviews and budget requests to Finance, as well as in less formal business communications such as emails, reflects positively on PG&E’s safety culture. Such statements cannot prove a violation, and allowing CPSD to use them to bootstrap its allegation that PG&E violated Section 451 by failing to “place safety over profits” would discourage the type of open and frank discussion of risks that should be encouraged.

e. CPSD Did Not Prove A Violation Based On Spending On Integrity Management.

CPSD’s allegations regarding spending on the integrity management program concern the extent to which PG&E used direct assessment rather than in-line inspection (ILI)⁸¹⁷ and PG&E having deferred or changed certain planned assessments in the 2008 to 2010 time period. With regard to PG&E’s reliance on direct assessment, PG&E already has shown that CPSD failed to prove PG&E’s Integrity Management program’s choice of assessment tools violated the law.⁸¹⁸ That analysis does not change merely because CPSD or the other parties try to put a safety culture gloss on the same issues. CPSD cannot dispute that the integrity management regulations

⁸¹⁶ Ex. CPSD-168 at 7-11 (CPSD/Harpster) (quoting Ex. CPSD-186 at OC-68 Attachment 3, p. 2) (emphasis added); *cf.* R.T. 84 (significant portion of GT&S O&M costs relate to reliability rather than safety) (CPSD/Harpster).

⁸¹⁷ *See* CPSD OB, Revised Appendix C at 10 (alleged violation predicated in part on PG&E “using less effective and cheaper IM tools”).

⁸¹⁸ *See* PG&E OB at 57-93; *supra* Section V.B.4.

authorize the use of direct assessment for corrosion.⁸¹⁹ Direct assessment is considered on a par with ILI for identifying and assessing corrosion risk,⁸²⁰ and corrosion is the principal risk in PG&E's gas transmission system.⁸²¹

CPSD's discussion of this issue also disregards the practical implications of using ILI rather than direct assessment. PG&E pipelines are diverse in terms of their sizes, age and characteristics.⁸²² Federal pipeline safety laws did not require newly installed gas transmission lines to be piggable until 1994.⁸²³ Making a section of pipe piggable to run an ILI tool requires a physical upgrade. At a minimum it requires installing pig launching and receiving stations, and could include removing sharp bends in the pipeline, replacing non-piggable valves and making the pipe uniform in diameter.⁸²⁴ Preparing a pipeline to be pigged can take up to three years, and the costs to upgrade the pipeline make up the majority of the costs for conducting ILI.⁸²⁵ As of 2010, approximately 17% of PG&E's gas transmission system could accommodate ILI tools.⁸²⁶ Given this reality, PG&E's decision to use direct assessment when appropriate and permissible under the law does not show that PG&E prioritized profits over safety or violated Section 451.⁸²⁷

PG&E has acknowledged that it deferred or changed the method of certain planned assessments in 2008 to 2010 based at least in part on budgeting considerations. But CPSD's and DRA's briefs misstate the record concerning those actions. All decisions about which planned assessments could be changed or deferred were grounded in engineering judgments. With regard to deferrals, the engineers responsible for the Integrity Management program selected which

⁸¹⁹ 49 C.F.R. § 192.921.

⁸²⁰ See Ex. Joint-28 (ASME B31.8S-2004), Appendix A, § A1.4 at 39-40.

⁸²¹ Joint R.T. 1115 (PG&E/Keas) (PG&E baseline assessment plan reflects that 100% of HCA segments are identified as having external corrosion threat); Ex. Joint-46 (PG&E Baseline Assessment Plan).

⁸²² Ex. PG&E-1c at 4-8 n.7 (PG&E/Keas).

⁸²³ 49 C.F.R. § 192.150.

⁸²⁴ Ex. PG&E-6 (Tab 4-10) at GTR0007130-32, GTR0007154-55 (PG&E RMP 11 at 13-15, 37-38).

⁸²⁵ Ex. CPSD-233 at OC-274 (showing ILI cost breakdown by phase). As an illustration, in 2008, PG&E estimated that it spent \$17.3 million on "phase 1" of its ILI projects, which included pre-assessment, engineering of upgrades and construction of upgrades. *Id.* By contrast, "phase 2" and "phase 3" work performed in 2008, namely cleaning and inspecting the pipeline and direct examination, repair and post assessment work was estimated at \$3.8 million. *Id.*

⁸²⁶ Ex. CPSD-10 at 52.

⁸²⁷ See 68 Fed. Reg. 4,280 (Jan. 28, 2003) (discussing proposed rules regarding transmission pipeline integrity management and noting that the rule proposes to allow direct assessment "as a primary assessment method on a covered pipeline where in-line inspection and pressure testing are not possible *or economically feasible* or where the pipeline operates at a low stress") (emphasis added). Furthermore, in its 2010 audit of PG&E's Integrity Management program, CPSD identified "no issues" with respect to PG&E's selection of assessment methodology for baseline assessments or reassessments. Ex. PG&E-7 (Tab 4-13) at 18 (B.01.a), 102 (F.02.b).

assessments reasonably could be delayed without jeopardizing compliance or safety.⁸²⁸ As the documents reflect, GT&S viewed the timing of the integrity management assessments principally as a compliance issue – i.e., the main concern was whether GT&S would be able to complete the required assessments by the end of 2012 as required under 49 C.F.R. § 192.921(d).⁸²⁹ And while PG&E assessed fewer miles in 2009 and 2010 than its internal targets in those years, it nonetheless maintained the integrity program on course to complete the required baseline assessments by the end of 2012.⁸³⁰ CPSD has not offered evidence showing that any specific integrity management assessment deferral was not allowed by the integrity management regulations or otherwise raised a safety concern.

The record also does not support CPSD and DRA’s contention that PG&E changed certain in tegrity management assessments from ILI to ECDA “against the advice of its own engineers.”⁸³¹ CPSD and DRA rely on statements in documents that reflect the apparent view of at least some PG&E engineers that ILI is *generally* preferable to ECDA.⁸³² These documents do not refer to any specific pipelines or planned assessments. The selection of an appropriate assessment method depends on the specific characteristics of the pipeline segment and the ability of the available technology to assess the identified threats.⁸³³ Decisions regarding which planned integrity management assessments reasonably could be changed from ILI to ECDA were made by the engineers most knowledgeable about the integrity management program and the characteristics of the specific pipelines.⁸³⁴ Budgeting managers did not select planned ILI assessments and change them to ECDA. Nor did PG&E stop using ILI altogether beginning in 2008, as some of the comments in the briefs seem to suggest. Rather, PG&E changed a discrete

⁸²⁸ See Ex. CPSD-226 at OC-259 Attachment 4, p. 9 (identifying engineering team involved); Ex. CPSD-227 at OC-260 Attachment 1 (summarizing the assessment schedule and method changes “decided” by the integrity management team “based on a review of the best assessment method for the affected lines”).

⁸²⁹ See Ex. CPSD-226 at OC-259 Attachment 4, p. 9 (identif ied “key challenges/risks” all relate to scheduling, not safety).

⁸³⁰ See Ex. CPSD-211 (OC-216).

⁸³¹ See CPSD OB at 26; DRA OB at 39.

⁸³² See Ex. CPSD-186 at OC-68 Attachment 3, p. 2; Ex. CPSD-230 at OC-264 Supp. Attachment 6, p. 9.

⁸³³ See 49 C.F.R. § 192.921(a); Ex. Joint-28 (ASME B31.8S-2004), Appendix A; Ex. CPSD-10 at 12 (noting that ILI technology has changed over the last decade).

⁸³⁴ See Ex. CPSD-227 at OC-260 Attachment 1 (summarizing assessment schedule and method changes “decided” by the integrity ma nagement team “based on a review of the best assessment method for the affected lines”); Ex. CPSD-226 at OC-259 Attachment 4, p. 8 (identifying engineering team involved).

number of assessments from ILI to ECDA,⁸³⁵ but continued to use ILI as an assessment tool in 2008 through 2010.⁸³⁶ Finally, and most relevant to any safety-related allegation, CPSD offers no engineering analysis showing that ECDA was not an appropriate assessment method for the specific assessments that PG&E changed from ILI to ECDA in 2008 through 2010.

4. CPSD Did Not Prove That Budgetary Considerations Detrimentially Affected The Safety Of Line 132

CPSD does not allege a specific violation relating to PG&E's spending with respect to Line 132. CPSD does hypothesize, however, contrary to all the evidence, that "[i]f PG&E had appropriately prioritized and spent the funds the Commission had authorized for safety, either through its GPRP or its integrity management program, it is likely that PG&E would have replaced Segment 180 before the San Bruno explosion."⁸³⁷ CPSD also discusses several capital projects involving Line 132. CPSD appears to contend that these projects were either delayed due to budgetary pressures or that they demonstrate that PG&E had notice of problems on Line 132 that it failed to address before the San Bruno accident – both of which allegedly reflect negatively on PG&E's safety culture. Even with the benefit of hindsight, however, CPSD fails to prove that not replacing Segment 180 prior to the accident or PG&E's budgeting decisions involving Line 132 reflected a deficient safety culture.

a. PG&E Would Not Have Replaced All Of Line 132 Or Segment 180 Under The GPRP

CPSD and other parties contend that if PG&E had not implemented the RMP it would have replaced Line 132 including Segment 180 under the GPRP.⁸³⁸ In the first place, even if it were correct that Line 132 would have been replaced under the GPRP, the implementation of the RMP was consistent with the industry practice of focusing on broader risk factors and

⁸³⁵ See Ex. CPSD-168 at 6-12 (CPSD/Harpster); Ex. CPSD-248 (OC-325).

⁸³⁶ During 2008 to 2010, ILI was used for approximately 30% of the total miles assessed by PG&E. Ex. CPSD-168 at 6-8 (Table 6-7) (CPSD/Harpster); Ex. CPSD-258 (OC-343). PG&E spent only about 13% less on ILI work in 2008-2010 than in 2005-2007, even though 2007 involved higher spending because it marked the deadline for completing 50% of the baseline assessments under 49 C.F.R. § 192.921(d). See Ex. CPSD-233 (OC-274). As of the beginning of 2010, PG&E was planning six pigging runs per year in 2011 and 2012. Ex. CPSD-226 at OC-259 Attachment 4, p. 9.

⁸³⁷ CPSD OB at 112.

⁸³⁸ See CPSD OB at 111-12; San Bruno OB at 31-32; DRA OB at 33.

remediation measures and was supported by the Commission.⁸³⁹ If the implementation of the RMP was not itself a violation – which it was not – then the fact that PG&E might have taken a different action under one program than under another, in and of itself, cannot prove a violation either. PG&E’s safety culture cannot be judged through the lens of what we know today, but rather must be evaluated based on what PG&E knew or should have known when it was deciding how to allocate its financial resources. In any event, the record shows that Segment 180 never would have been replaced under the GPRP.

The GPRP began in 1985. As it related to gas transmission lines, the GPRP was not intended to replace all pipelines, or even to replace all pipelines installed prior to a certain point in time. Rather, the GPRP was a targeted effort to replace pre-1947 transmission pipe that was welded using the oxyacetylene (oxy-butt) technique or constructed using bell-bell chill ring (BBCR) or bell and spigot (BSLP) girth joint configurations.⁸⁴⁰ All the transmission pipe planned to be replaced under the GPRP as proposed in 1984 fell into one of these three categories (oxy-butt, BBCR or BSLP).⁸⁴¹ These types of outdated girth welds and joint configurations are particularly susceptible to ground movement-related failure.⁸⁴² The girth welds on Segment 180 did not fall within the scope of the GPRP program, as they were constructed in 1956,⁸⁴³ after the outdated girth welding techniques were replaced with more modern methods. Therefore, PG&E never contemplated replacing Segment 180 under the GPRP.⁸⁴⁴

CPSD and the other parties rely principally on a 1984 presentation describing the planned GPRP to support their claim that Segment 180 would have been replaced under the GPRP.⁸⁴⁵ The presentation mentions Line 132 ***but does not say that the entire line would be replaced***

⁸³⁹ See *supra* Section V.F.3.c.

⁸⁴⁰ Ex. CPSD-166, Exhibit 2, p. 4, 5.

⁸⁴¹ Ex. CPSD-166, Exhibit 2, p. 4, 6 (showing all planned 539 miles by weld category).

⁸⁴² Ex. Joint-28 (ASME B31.8S -2004), Appendix A, § A4.3 at p. 47. The pre-1947 girth weld techniques are viewed by PG&E as being subject to a construction threat. See, e.g., Ex. PG&E-6 (Tab 4-5) (RMP-05).

⁸⁴³ Ex. PG&E-1 at 2-1, 2-3 (PG&E/Harrison).

⁸⁴⁴ See Ex. CPSD-166, Exhibit 2, p. 4.

⁸⁴⁵ See CPSD OB at 112; San Bruno OB at 31-32. CPSD incorrectly refers to this as a 1983 presentation and cites Mr. Tateosian’s testimony discussing this document as Ex. CPSD-162 rather than Ex. CPSD-165. DRA cites (DRA OB at 33 n.112) a 1978 document discussing a program apparently then under consideration that also would have been limited to pipe installed using oxyacetylene girth welds or arc-welded joints made using “bell and bell” pipe and a “chill” ring, i.e., not Segment 180. See Ex. CPSD-167, Exhibit 178, p. 1 & Table 7 at 2.

*under the program*⁸⁴⁶ as CPSD and San Bruno imply.⁸⁴⁷ To the contrary, the presentation explicitly shows that only approximately half of Line 132's original pipe remained in the ground in 1984.⁸⁴⁸ Furthermore, the presentation defines the recommended scope of the GPRP for transmission lines as replacing “*539 miles of pre-1947 pipe containing oxyacetylene, bell-bell and chill ring or bell and spigot girth welds*”⁸⁴⁹. As presented, the GPRP did not include modern transmission pipe with shielded-metal arc girth welds,⁸⁵⁰ like Segment 180. Thus, the GPRP contemplated replacing only the pre-1947 portion of Line 132 that contained suspect girth welds – not all of Line 132 and not Segment 180.

This is consistent with Mr. Tateosian's deposition testimony on which the parties also rely.⁸⁵¹ San Bruno cites an excerpt of Mr. Tateosian's testimony regarding his concerns about the “potential for catastrophic failures,”⁸⁵² but omits the very next answer, which clarifies that his concerns related to pipeline that was installed with oxyacetylene welding (oxy-butt), *i.e.*, not Segment 180:

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.

Q. And please tell me what those concerns were.

A. Well, the concerns were, as I've described in this document, that the welding on these pipelines that were installed with the *oxyacetylene welding* wasn't anywhere as good as what we would use at the time I was talking about. And that we had some failures, so –

Q. And you were – go ahead.

A. So my thought was that we ought to start looking at replacing this over some kind of a program.⁸⁵³

⁸⁴⁶ Ex. CPSD-166, Exhibit 2, p. 6.

⁸⁴⁷ See CPSD OB at 24, 80-81, 111-12; San Bruno OB at 31-32.

⁸⁴⁸ Ex. CPSD-166, Exhibit 2, p. 6.

⁸⁴⁹ Ex. CPSD-166, Exhibit 2, p. 4 (emphasis added).

⁸⁵⁰ Ex. CPSD-166, Exhibit 2, p. 4.

⁸⁵¹ See CPSD OB at 24, 81, 111-12; San Bruno OB at 31-32.

⁸⁵² San Bruno OB at 31 (citing Ex. CPSD-165 at 92:17-21).

⁸⁵³ Ex. CPSD-165 at 92-93 (emphasis added).

Notwithstanding this evidence, San Bruno further suggests that if PG&E had continued to replace transmission pipeline under the GPRP as proposed in 1984, Segment 180 would have been designated “Priority 1” and perhaps replaced “by 1988.”⁸⁵⁴ But the evidence on which San Bruno relies shows that the priority designations applied only to pipe that met the criteria for replacement under the GPRP in the first place, which, as discussed, did not include Segment 180.⁸⁵⁵ Mr. Tateosian underscored this point in his deposition:

Q. And as part of the priority system for the replacement of transmission gas lines, you placed as a Priority 1, any segment of pipeline that’s within 30 feet of a dwelling; is that correct?

A. That’s what that sentence says, but *this is also in context of the piping that’s going to be replaced, which was the oxyacetylene welded pipe, the cast iron, and the old distribution lines.*⁸⁵⁶

The bottom line, as Mr. Tateosian testified, is that “[t]he piping that was covered by this replacement program at the time was cast iron piping, the oxyacetylene welded piping and the older distribution piping, *it did not involve the piping that failed at San Bruno.*”⁸⁵⁷

b. CPSD Has Not Proven That Budgetary Considerations Harmed The Maintenance Or Integrity Management Of Line 132

It is difficult to glean from CPSD’s safety –culture-related discussion of Line 132⁸⁵⁸ exactly what it claims PG&E did that purportedly proves that PG&E placed profits over safety or operated an unsafe system. CPSD insinuates that budgetary considerations affected “the safety and integrity of Segment 180 or Line 132”⁸⁵⁹ but it fails to provide evidence to back up its allegation. The record is clear that any expense budget pressures in 2008 through 2010 did not affect either the selection of assessment method or the timing of planned integrity management

⁸⁵⁴ San Bruno OB at 32.

⁸⁵⁵ See Ex. CPSD-166, Exhibit 2 at 6 (showing breakdown by priority of oxy-butt, BBCR and BSLP); see also Ex. CPSD-166, Exhibit 6, p. PLNTFS_EVID_003331 (showing that all priorities of transmission pipe under the proposed GPRP totaled 524 miles, or slightly less than the 539 miles referenced in Ex. CPSD-166, Exhibit 2, p. 6). Furthermore, San Bruno’s argument that if PG&E had not removed transmission pipe from the GPRP it would have replaced Segment 180 by 1988 is illogical given that transmission pipe remained in the GPRP until 2000. See *supra* Section V.F.3.c.

⁸⁵⁶ Ex. CPSD-165 at 159 (intervening objection omitted; emphasis added).

⁸⁵⁷ Tateosian Depo., Vol. II at 463 (emphasis added).

⁸⁵⁸ See CPSD OB at 107-12.

⁸⁵⁹ CPSD OB at 110.

assessments for Line 132.⁸⁶⁰ CPSD effectively concedes the point,⁸⁶¹ but criticizes Mr. Martinelli for not having addressed “whether PG&E’s planned use of ECDA for Line 132 in the first place was appropriate or improperly driven by budget constraints and whether Line 132 should have been planned to have been tested, replaced or repaired sooner.”⁸⁶² Although PG&E does not have the burden of proof, it has established that ECDA was an appropriate method of assessment generally and for the threats identified on Line 132 (principally external corrosion), and discusses that in detail in its section on integrity management.⁸⁶³ Conversely, CPSD provided no engineering analysis or other evidence to prove that PG&E’s original selection of ECDA for Line 132 in the 2004 Baseline Assessment Plan was driven by budget constraints rather than engineering judgment.⁸⁶⁴

The bulk of CPSD’s safety culture discussion of Line 132 mirrors the short section of the Overland Report that summarizes a seemingly random selection of capital projects involving Line 132.⁸⁶⁵ This section of the Overland Report merely lists the projects and quotes selected passages from PG&E’s PSRS database concerning those projects. Overland applied no engineering expertise to its interpretation of the PSRS reports and made no attempt to determine whether financial constraints played a significant role in any of these projects. CPSD cites this list of projects in support of its assertion that “PG&E was well aware of maintenance and integrity management issues on Line 132,”⁸⁶⁶ but it makes no effort to explain how any of these projects reflect budget constraints or a deficient safety culture.

Replacement project: In its summary of Line 132 capital projects, Overland identifies a project to replace a section of Line 132 from mile point 42.13 to mile point 43.55, several miles

⁸⁶⁰ See Ex. PG&E-1 at 12-3 (PG&E/Martinelli); Ex. CPSD-168 at 6-12, 7-10, 8-4, 9-10 to 9-11 (CPSD/Harpster) (discussing and identifying integrity management deferrals and method changes, but not identifying any involving Line 132); Ex. CPSD-241 at OC-304 Attachment 1 (identifying all assessment method changes for any reason, none of which involved Line 132).

⁸⁶¹ See CPSD OB at 109 (arguing that Mr. Martinelli’s testimony “misses the point” but not trying to show that it is wrong).

⁸⁶² CPSD OB at 109.

⁸⁶³ See *supra* Section V.B.4; PG&E OB at 57-92; Ex. PG&E-1c at 4-35 to 4-36 (PG&E/Keas); Ex. PG&E-1 at 5- 13 (PG&E/Zurcher); see also *supra* Section V.F.3.e.

⁸⁶⁴ Under the federal regulations, it would not have been improper to consider cost in selecting ECDA for Line 132. See *supra* n.827.

⁸⁶⁵ Ex. CPSD-168 at 4-5 to 4-6 (CPSD/Harpster).

⁸⁶⁶ CPSD OB at 107.

north of the rupture site (mile point 39.28).⁸⁶⁷ This project was originally forecast to be completed in 2009 and was included in PG&E’s capital workpapers in the Gas Accord IV proceeding.⁸⁶⁸ PG&E later deferred the project and included it in its capital forecast for the Gas Accord V proceeding, where it showed that most of the costs would be incurred in 2013.⁸⁶⁹ CPSD does not contend that PG&E should be penalized for including this project in two separate rate case forecasts. There is no dispute that PG&E was entitled to reprioritize work after the beginning of a rate case period. Furthermore, CPSD’s own expert found that PG&E spent more than the imputed adopted amounts on pipeline safety capital projects in 2008-2010, which would have included the forecast amounts for this particular project.⁸⁷⁰ But, without any contrary evidence, CPSD and other parties challenge the validity of Mr. Martinelli’s testimony⁸⁷¹ that the project was delayed based on engineering, not budgetary considerations.⁸⁷²

In fact, as the record shows, engineering and risk management considerations, and not budgetary ones, were the reasons for the reprioritization of the project.⁸⁷³ Specifically, based on data from field investigations and ECDA conducted on Line 132, PG&E revised the priority of this project relative to other risk management projects and changed the schedule as originally planned.⁸⁷⁴ Mr. Harpster’s testimony effectively supports this conclusion. He acknowledged the non-budgetary reason for the delay in the project, i.e., that the project “was removed from the

⁸⁶⁷ Ex. CPSD-168 at 4-5 (CPSD/Harpster); Ex. CPSD-240 at OC-303 Attachment 10.

⁸⁶⁸ See Ex. TURN-2.

⁸⁶⁹ See Ex. TURN-3.

⁸⁷⁰ See Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster).

⁸⁷¹ Ex. PG&E-1 at 12-3 to 12-4 (PG&E/Martinelli).

⁸⁷² See CPSD OB at 108-09; TURN OB at 36- 37. CPSD’s contention that the Commission should disregard Mr. Martinelli’s testimony because CPSD “can only guess what specific information [he] reviewed and believes supports his conclusions” should be rejected. See CPSD OB at 109. First, Mr. Martinelli stated in his written testimony that he relied on a deposition and related exhibits for his opinions regarding this project. Ex. PG&E-1 at 12-2 (PG&E/Martinelli). Moreover, CPSD could have inquired into the basis for Mr. Martinelli’s testimony but *it elected to waive cross-examination of him*. See R.T. 480. In any event, PG&E’s showing that this project was not affected by budget constraints does not depend solely on Mr. Martinelli’s testimony. As discussed further in text, the documentary evidence in the record also establishes that budgets did not cause this project to be deferred. See Ex. CPSD-240 at OC- 303 Attachment 10, p. 4 (entry for 2/12/2008 noting that “this pipe segment has been determined not to be in the top 100 risk line segments”).

⁸⁷³ Ex. PG&E-1 at 12-3 to 12-4 (PG&E/Martinelli); Ex. TURN-4 (PG&E Response to TURN_002-35 Data Request).

⁸⁷⁴ See Ex. TURN-4; Ex. CPSD-240 at OC-303 Attachment 10, p. 4.

risk management top 1 00 list,”⁸⁷⁵ and did not identify any constraints on capital budgets during this time period that would have caused the project to be delayed for financial reasons.⁸⁷⁶

Upgrade project: CPSD notes that “[i]n 2008 and 2010, PG&E also considered upgrading Line 132 for ILI from MP 0.00 to MP 32.93, but the project was delayed due to lack of resources to perform engineering work and PG&E’s changing criteria for choosing ILI/ECDA.”⁸⁷⁷ CPSD further contends that the fact that the project would not have reached as far as Segment 180 ⁸⁷⁸ “does not mean that PG&E’s budget cuts did not affect the safety and integrity of Segment 180 or Line 132.” ⁸⁷⁹ The problem with CPSD’s argument is that it offers no evidence that the project was delayed for budgetary reasons (much less that it affected Segment 180). A “lack of resources to perform engineering” is not the same thing as a lack of money in the current capital budget, and there is no indication in the PSRS report on which CPSD and Overland rely that budget constraints caused the project to be delayed. ⁸⁸⁰ As already discussed, during that time period, there is no evidence of constraints on capital budgets. ⁸⁸¹ Furthermore, CPSD fails to mention that, even before the project was delayed in September 2010 due to “lack of resources,” PG &E had not planned to start the capital upgrade work to make part of Line 132 piggable before 2011, and the inspection would not have taken place until 2013.⁸⁸²

Pressure verification project: Based on a PSRS report for a Line 132 project stating there are sections of Line 132 that have “suspected manufacturing threats,” ⁸⁸³ CPSD alleges that “[i]n 2008 PG&E suspected that sections of Line 132 had ‘manufacturing threats’ at maximum operating pressure.” ⁸⁸⁴ CPSD mischaracterizes the PSRS on which it relies. The project described was the 2008 planned pressure increases to maintain the ability to operate Line 132 at

⁸⁷⁵ Ex. CPSD-168 at 4-5 (CPSD/Harpster).

⁸⁷⁶ See *supra* Section V.F.3.c.

⁸⁷⁷ CPSD OB at 108.

⁸⁷⁸ The San Bruno accident occurred at mile point 39.28. Ex. CPSD-1 at 7 (CPSD/Stepanian).

⁸⁷⁹ CPSD OB at 110.

⁸⁸⁰ See Ex. CPSD-240 at OC-303 Attachment 26. To the contrary, an earlier entry in the PSRS database in the same year explicitly refers to a “lack of ILI Engineer to work on this project at this time.” *Id.* at 3 (2/1/10 entry).

⁸⁸¹ See *supra* Section V.F.3.c.

⁸⁸² Ex. CPSD-240 at OC- 303 Attachment 26, p. 3 (PSRS database entry for 5/3/09 reads: “Due to large scope of work, plan [to] spread[] capital upgrade over two years, starting in 2011 and completing in 2012. Inspection will occur in 2013.”)

⁸⁸³ Ex. CPSD-240 at OC-303 Attachment 37.

⁸⁸⁴ CPSD OB at 107.

its MAOP.⁸⁸⁵ The PSRS report says nothing about the line having “‘manufacturing threats’ at maximum operating pressure.”⁸⁸⁶ Furthermore, CPSD fails to explain the budgetary or safety culture-related significance of this project. CPSD already has asserted violations relating to identification of manufacturing threats on Line 132 and planned pressure increases.⁸⁸⁷ CPSD may not seek additional penalties on this basis simply by discussing it under a different heading in its brief. As PG&E explained in detail in its response to CPSD’s allegations, PG&E reviewed data relating to manufacturing threats on Line 132 and appropriately concluded that Segment 180 was not subject to a manufacturing threat that would require a long seam assessment.⁸⁸⁸ PG&E’s planned pressure increases were consistent with industry practice.⁸⁸⁹ CPSD’s citing a document for the proposition that PG&E suspected an unspecified “manufacturing threat” does not demonstrate that PG&E had a deficient safety culture or that financial considerations caused it to operate an unsafe gas transmission system.

Leak repair project: Lastly, CPSD observes that on February 2, 2010, “PG&E repaired a circumferential weld leak on Line 132 caused by a ‘workmanship problem’ with the original construction.”⁸⁹⁰ CPSD also states that “[t]he NTSB also has confirmed several other girth weld defects in very close proximity to Segment 180 at MP 39.28.”⁸⁹¹ In discussing this project, Overland acknowledges that the San Bruno rupture “occurred on a longitudinal weld, not a girth weld.”⁸⁹² Neither CPSD nor the NTSB has established that the referenced girth welds on Line 132 were substandard.⁸⁹³ Moreover, even if they were, the presence of substandard girth welds constitutes a construction threat, not a manufacturing threat related to the long seam of the pipe that would have triggered an obligation to assess the affected segments of Line 132 with a

⁸⁸⁵ Ex. CPSD-240 at OC-303 Attachment 37.

⁸⁸⁶ Ex. CPSD-240 at OC-303 Attachment 37.

⁸⁸⁷ Ex. CPSD-1 at 42-49 (CPSD/Stepanian); CPSD OB at 43-44.

⁸⁸⁸ Ex. PG&E-1c at 4-13 to 4-23 (PG&E/Keas); PG&E OB at 81-93.

⁸⁸⁹ Joint R.T. 783 (PG&E/Zurcher); Ex. PG&E-1 at 5-14 (PG&E/Zurcher); Ex. PG&E-1c at 4-25 (PG&E/Keas). Some operators believed such pressure increases were required by the regulations at the time. Joint R.T. 783 (PG&E/Zurcher); Ex. PG&E-1 at 5-14 (PG&E/Zurcher).

⁸⁹⁰ CPSD OB at 108 (citing Ex. CPSD-168 at 4-6 (CPSD/Harpster), Ex. CPSD-240 at OC-303 Attachment 42 (CPSD mistakenly cites Attachment 4 rather than 42)).

⁸⁹¹ CPSD OB at 108 (citing Ex. CPSD-168 at 4-6 (CPSD/Harpster), Ex. CPSD-9 (NTSB Report) at 43).

⁸⁹² Ex. CPSD-168 at 4-6 & n.16 (CPSD/Harpster).

⁸⁹³ As discussed *supra* in Section V.A.3, there is no evidence that any girth weld imperfections were outside of what is considered acceptable under the applicable welding standards.

method capable of detecting seam defects, such as hydro testing.⁸⁹⁴ CPSD makes no attempt to connect the repair of a circumferential (girth) weld to any budgetary constraints affecting PG&E's efforts to ensure the safety of Line 132.

5. CPSD Has Not Proven That PG&E's Safety Culture Was A Continuing Violation Of Section 451

CPSD alleges that PG&E's "failure to place safety over profits" constituted a continuing violation of Section 451 from January 1, 1998 through September 9, 2010.⁸⁹⁵ Putting aside that, as discussed above, CPSD has not proven any sort of violation based on PG&E's safety culture, CPSD offers no explanation for its contention that this alleged continuing violation began on that date. Mr. Harpster compared PG&E's actual expenditures to the imputed adopted amounts beginning in 1997, not 1998.⁸⁹⁶ Moreover, even if Mr. Harpster's analysis were correct (which it is not), he found that PG&E spent more than the imputed adopted O&M amount in 1998.⁸⁹⁷ He also found that PG&E spent \$80 million more than the imputed adopted capex amounts in 2001 and 2002⁸⁹⁸ and \$35 million more than the imputed adopted safety-related capex from 2003 through 2010,⁸⁹⁹ so it is hard to see how that could constitute a continuing violation. With regard to CPSD's allegation that PG&E prioritized profits over safety by "reducing safety -related budgets," CPSD offered little or no evidence regarding budgets for any year before 2008, and its own expert found that the record "does not contain many references to significant budget constraints prior to 2007."⁹⁰⁰ As these examples illustrate, CPSD's arbitrary and inexplicable selection of January 1, 1998 as the beginning of PG&E's alleged continuing safety culture violation is on par with CPSD's overall approach with respect to this alleged violation. CPSD never explains against what standard PG&E's conduct should be judged or which specific acts prove that PG&E "fail[ed] to place safety over profits."

⁸⁹⁴ Ex. Joint-28 (ASME B31.8S-2004), Appendix A § 4.3.

⁸⁹⁵ CPSD OB, Revised Appendix C at 10.

⁸⁹⁶ Ex. CPSD-170 at 7-8 (CPSD/Harpster).

⁸⁹⁷ Ex. CPSD-170 at 7 (Table 3-2) (CPSD/Harpster). And Mr. Harpster offered no evidence that PG&E spent less than the imputed adopted amounts for safety-related O&M costs in any year. R.T. 83-85 (CPSD/Harpster).

⁸⁹⁸ Ex. CPSD-170 at 8 (Table 3-3) (CPSD/Harpster).

⁸⁹⁹ Ex. CPSD-168 at 1-1 (CPSD/Harpster).

⁹⁰⁰ Ex. CPSD-168 at 1-4 (CPSD/Harpster).

VI. INTERVENORS LACK AUTHORITY TO ALLEGE VIOLATIONS⁹⁰¹

Based on the same evidentiary record addressed by CPSD, Intervenor collectively assert approximately 32 violations,⁹⁰² many of which Intervenor allege as “continuing” violations.⁹⁰³ As discussed below, all Intervenor lack the authority to independently assert violations in this enforcement proceeding. Additionally, the assertion of new violations after the close of evidence – whether by Intervenor or CPSD – violates PG&E’s due process right to notice of the charges and the opportunity to defend against them.⁹⁰⁴ Cal. Const. art. I, § 7(a).

A. Only CPSD Can Allege Violations

PG&E has welcomed the participation of Intervenor and has not questioned their right to participate in enforcement proceedings. *See* Pub. Util. Code § 1801.3(a) (expressing legislative intent that intervenor compensation be available for all formal proceedings of the Commission). But their participation is limited in certain respects. One important limitation is that only the Commission’s enforcement staff has authority to allege violations in a Commission -initiated enforcement proceeding.

Prior to the post-hearing discussion among the parties of a common briefing outline, none of the Intervenor stated that they alleged any violation independent of and in addition to those alleged by CPSD. Nor had any Intervenor set forth any such violation that it alleged. PG&E

⁹⁰¹ For clarity, PG&E addresses the Intervenor’s improper assertion of alleged violations against PG&E in one combined discussion. This “Section VI” corresponds to and includes from the Common Outline the separate sections entitled “Other Allegations Raised By Testimony Of TURN,” “Other Allegations Raised By Testimony Of CCSF,” and “Other Allegations Raised By Testimony Of San Bruno.”

⁹⁰² *See* TURN OB at 38-41; CCSF OB, Appendix B; San Bruno OB at 50-52. Due to vague language and duplication, the number of violations Intervenor allege is difficult to determine precisely. PG&E construed certain allegations as constituting one violation, though some are stated so broadly they could be counted differently. TURN appears to allege two violations, although one allegation could be interpreted as alleging fifteen violations: “[t]he extent of PG&E’s deliberate pressure spiking (occurring fifteen times over a period of seven years) warrants a finding that PG&E violated PU Code 451.” TURN OB at 39. CCSF alleges nine violations, and the City of San Bruno twenty-one. CCSF OB, Appendix B; San Bruno OB at 50-52 (San Bruno asserts twenty numbered violations; however, number eleven references two code sections that PG&E allegedly violated.) Most, if not all, of the City of San Bruno’s alleged violations are duplications of CPSD’s newly -alleged emergency response and “safety culture” violations.

⁹⁰³ CCSF explicitly alleges that all nine of its violations are continuing violations. The City of San Bruno asserts that the “safety culture” violation has been on -going “for decades.” TURN’s alleged violations also appear to be characterized as continuing violations, though TURN does not say so expressly. CCSF OB, Appendix B; San Bruno OB at 39, 52; TURN OB at 39-41.

⁹⁰⁴ On February 4, 2013, the ALJs issued a ruling permitting the Intervenor to separately make allegations in their opening briefs. The ruling indicated that PG&E’s concerns that such action was unlawful could be addressed in reply briefing. *See* Administrative Law Judges’ Ruling Adopting Revised Schedule and Common Briefing Outlines (Feb. 4, 2013).

considered their testimony in the context of the violations CPSD was alleging, and determined how, if at all, it would respond.

At the January 29, 2013 status conference, TURN stated, “we don’t agree there is only one prosecutor here.”⁹⁰⁵ TURN is mistaken. In enforcement cases, the Commission’s staff acts as prosecutor. *See Investigation of Prime Time Shuttle International, Inc.*, D.96-08-034, 1996 Cal. PUC LEXIS 854, at *108 (likening enforcement staff to a “prosecutor” and stressing the “separation of prosecutorial and quasi-judicial functions within the agency”). The staff-as-prosecutor framework is consistent with several defining features of enforcement proceedings. Foremost, the Commission’s staff at all times bears the burden to prove alleged violations. *See, e.g., Union Pacific Railroad Co.*, D.93105, 1981 Cal. PUC LEXIS 1290, at *10 (“The staff had the burden of proof in this investigation.”); *see also* D.05-07-010, 2005 Cal. PUC LEXIS 294, at *22 (concluding that it would “violate[] California constitutional law” to place the burden of proof on respondents in an enforcement proceeding “where substantial property rights are at issue”). The Commission staff – here CPSD – possesses “the general investigatory authority of the Commission”, not the Intervenors.⁹⁰⁶

Addressing the enforcement and investigatory power of the Commission’s staff, the Commission in the OII cited both the Public Utilities Code and Government Code sections 11180–11191 that vest formal investigatory powers in the heads of state departments and authorize them to “make investigations and prosecute actions.”⁹⁰⁷ These provisions do not authorize the Commission to delegate its investigatory or enforcement authority to a private party, nor did the Commission attempt to do so in this proceeding. The Commission invited “interested parties to actively participate,” and expected that the “the record in this proceeding and the Commission’s ultimate disposition will benefit from the expertise, participation, and evidence of other parties.”⁹⁰⁸ The Commission did not and could not delegate its investigatory and enforcement authority to the Intervenors.

The Commission has stressed the importance of ensuring the prosecutorial independence of its enforcement staff. The U.S. Supreme Court agrees. In concluding that “an agency’s

⁹⁰⁵ Joint R.T. 1272.

⁹⁰⁶ I.12-01-007 at 9.

⁹⁰⁷ Gov’t Code § 11180; Pub. Util. Code § 7; *see also Application of Union Pac. R.R. Co.*, D.09-05-020, 2009 Cal. PUC LEXIS 250 at *13-14 (explaining that the Commission may delegate its investigatory authority to its staff pursuant to Pub. Util. Code § 7).

⁹⁰⁸ I.12-01-007 at 9-10.

decision not to exercise its enforcement authority, or to exercise it in a particular way, is committed to its absolute discretion,” the Supreme Court in *Heckler v. Chaney*, 470 U.S. 821 (1985) explained:

[T]he agency must not only assess whether a violation has occurred, but whether agency resources are best spent on this violation or another, whether the agency is likely to succeed if it acts, whether the particular enforcement action requested best fits the agency’s overall policies, and, indeed, whether the agency has enough resources to undertake the action at all. An agency generally cannot act against each technical violation of the statute it is charged with enforcing.⁹⁰⁹

CPSD’s prosecutorial independence and discretion would be usurped if Intervenors were permitted to prosecute and assert their own violations.⁹¹⁰

The analogy between agency enforcement proceedings and criminal prosecutions, endorsed by both the Commission and the U.S. Supreme Court, underscores the impermissibility of Intervenors alleging violations. Only a duly empowered prosecutor may file criminal charges. *See, e.g., People v. Cortes*, 71 Cal. App. 4th 62, 79 (1999) (discretion to prosecute includes the authority to decide “the type and number of crimes to charge” and is not ordinarily subject to judicial review). Similarly, the Commission’s staff has the exclusive authority to exercise the Commission’s prosecutorial function in enforcement proceedings, which includes deciding what violations to pursue. No private party, Intervenors included, may interfere with that authority by purporting to make competing charging decisions.

In line with these principles, the Commission has previously concluded that intervenors may not usurp certain core prosecutorial functions of its enforcement staff. Intervenors may not, for example, negotiate a settlement of violations; that prerogative belongs solely to the Commission’s staff. *See, e.g., Application of Pac. Gas & Elec. Co.*, D.97-08-055, 1997 Cal.

⁹⁰⁹ *Heckler*, 470 U.S. at 831-32.

⁹¹⁰ In 2008, FERC revised its regulations to clarify that intervention is not permitted as a matter of right in FERC proceedings arising from Section 1b investigations. *See Ex Parte Contacts and Separation of Functions*, 125 FERC ¶ 61,063 at P 9 (2008). In reaching that determination, FERC wrote:

We consider our views in line with judicial precedent on the subject of an agency’s considerable discretion in making enforcement decisions. This discretion extends, among other things, to the decision whether to initiate an enforcement proceeding, as well as the conduct of the proceeding and any settlement efforts. Inclusion of third parties as a matter of right would necessarily cede a portion of the Commission’s discretion to those parties.

PUC LEXIS 763, at *73 (“[t]he sanctity of the Commission’s rules is not a matter that private parties or the ORA [Office of Ratepayer Advocates] can settle”). The authority to settle is an essential incident of the enforcement authority and, as such, belongs to the Commission’s staff. So too is the authority to allege violations.

Permitting Intervenor to allege violations would also be incompatible with the carefully calibrated procedures that apply in enforcement proceedings. Because the Commission can impose substantial fines, enforcement proceedings represent one of the most serious exercises of its regulatory authority. Appropriately, special procedural protections apply. One such safeguard is that only the Commission may initiate enforcement proceedings.⁹¹¹ This restrictive procedure is in contrast with the procedure for bringing complaints, which may be filed by “any corporation or person.”⁹¹² Enforcement proceedings must always be classified as “adjudicatory,”⁹¹³ and respondents are therefore entitled to the procedural rights that apply in such proceedings.⁹¹⁴ A scheme in which Intervenor could independently assert violations exposes the respondent (in this case PG&E) to procedural uncertainty and potential abuse of prosecutorial discretion.

B. Intervenor’s Post-Hearing Assertion Of Violations Violates Due Process

As demonstrated above, Intervenor cannot lawfully assert violations against PG&E. Even if they could, alleging violations after the close of evidence violates due process.

Due process guarantees notice and a hearing before the state may deprive a person of his property.⁹¹⁵ Each of these basic rights is essential; without fair notice, for instance, the right to a hearing would be worthless and hollow. *See Fuentes*, 407 U.S. at 80 (“Parties whose rights are to be affected are entitled to be heard; and in order that they may enjoy that right they must first be notified.” (citation and internal quotation marks omitted)). The right to notice is broader than the mere right to be informed of pending proceedings.

⁹¹¹ See Comm’n Rules of Practice & Proc., Rule 5.1; see also *Order Instituting Rulemaking*, D.06-03-013, 2006 Cal. PUC LEXIS 86, at *193–94 (the Commission must vote to issue an OII and initiate a formal investigation).

⁹¹² Comm’n Rules of Practice & Proc., Rule 4.1(a)(1).

⁹¹³ See Comm’n Rules of Practice & Proc., Rule 1.3(a).

⁹¹⁴ See, e.g., Comm’n Rules of Practice & Proc., Rule 10.1 (discovery), Rule 8.3(b) (prohibition against ex parte communications); D.96-08-034, 1996 Cal. PUC LEXIS 854, at *108 (“separation of prosecutorial and quasi-judicial functions”).

⁹¹⁵ See, e.g., *Fuentes v. Shevin*, 407 U.S. 67, 80 (1972).

The respondent is entitled to “notice of the charges” against it.⁹¹⁶ Notice of the charges and a reasonable opportunity to respond are among the “basic” requirements of due process.⁹¹⁷ These “basic ingredient[s]” of fair procedure are essential safeguards of the “fundamental principle of justice” that no party may be “prejudiced in [its] rights without an opportunity to make [its] defense.” *Pinsker v. Pac. Coast Soc’y of Orthodontists*, 12 Cal. 3d 541, 555 (1974); *see also Salkin*, 176 Cal. App. 3d at 1122 (“The individual must have the opportunity to present a defense.” (citing *Pinsker*, 12 Cal. 3d at 555)); *People v. Jones*, 51 Cal. 3d 294, 317 (1990) (without notice of the charges, the respondent would be denied “a reasonable opportunity to prepare and present [its] defense and not be taken by surprise by evidence offered” during the hearing). Notice of the charges is thus essential to the “fundamental” due process guarantee “to be heard ‘at a meaningful time and in a meaningful manner.’”⁹¹⁸

California courts have condemned the late assertion of new charges in administrative enforcement proceedings. In *Rosenblit*, for example, the court of appeal decried disciplinary proceedings in which the accused “was kept in the dark about the specific charges made against him” as being “a charade” and “offen[sive]” to “even an elementary sense of fairness.”⁹¹⁹ In *Smith v. State Bd. of Pharmacy*, 37 Cal. App. 4th 229 (1995), the court denounced the board’s mid-hearing change of legal theories as violative of “the basic . . . elements” of due process because the respondent was “misled by the [initial] accusation” as to what charges he would have to defend against.⁹²⁰ “[F]undamental fairness,” the court concluded, “requires **notice of the statutory theory in the accusation** . . .”⁹²¹ And in *Cannon v. Commission on Judicial Qualifications*, 14 Cal. 3d 678 (1975), the California Supreme Court held that a charge not “contained in the formal notice” of proceedings had to “be stricken as irrelevant.”⁹²² In so holding, the Court relied on *In re Ruffalo*, which found a due process violation where a county bar association added a new charge midway through a disbarment proceeding.⁹²³ The *Ruffalo*

⁹¹⁶ *Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 546 (1985); *accord Goss v. Lopez*, 419 U.S. 565, 581 (1975); *In re Ruffalo*, 390 U.S. at 550; *Rosenblit*, 231 Cal. App. 3d at 1445-48 (reversing hospital’s removal of a physician where he “was kept in the dark about the specific charges made against him”).

⁹¹⁷ *Salkin*, 176 Cal. App. 3d at 1121 (quoting *Hackethal v. Cal. Med. Ass’n*, 138 Cal. App. 3d 435, 442 (1982)).

⁹¹⁸ *Mathews v. Eldridge*, 424 U.S. 319, 333 (1976) (quoting *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965)).

⁹¹⁹ *Rosenblit*, 231 Cal. App. 3d at 1447-48.

⁹²⁰ *Smith*, 37 Cal. App. 4th at 242.

⁹²¹ *Smith*, 37 Cal. App. 4th at 243 (emphasis added).

⁹²² *Cannon*, 14 Cal. 3d at 695-96.

⁹²³ *In re Ruffalo*, 390 U.S. at 552.

Court found that procedure unconstitutional due to the “absence of *fair notice as to . . . the precise nature of the charges*,” and emphasized that this deficiency “serious[ly] prejudice[d]” the respondent’s right to mount a defense, saying: “How the charge would have been met had it been originally included in those leveled against [the respondent] no one knows.”⁹²⁴ *See also Rosenblit*, 231 Cal. App. 3d at 1446 (“It is impossible to speculate how [the respondent] might have defended had he been informed of the specific problems with each patient.”). In each of these cases the reviewing court granted relief.

As of January 29, 2013, after the close of evidence, even CPSD, with which the Intervenor are allied, did not know whether the Intervenor would allege new violations or what they would be:

I don’t know that we know exactly how [Intervenor] are going to frame their allegations. It may be that all the allegations are already within the scope of the same, you know, state and federal laws that we’re alleging. So there may not be any new allegations of law. These are supplementary factual allegations.⁹²⁵

PG&E as the respondent cannot be required to anticipate based on Intervenor’s testimony the violations against which it must defend in CPSD’s enforcement proceeding. *See, e.g., Rosenblit*, 231 Cal. App. 3d at 1446 (finding a due process violation where respondent had to undertake “a painstaking effort . . . to uncover the basis and scope of the allegations”). Even assuming Intervenor had lawful authority to charge violations, which they do not, the post-hearing assertion of violations against PG&E does not comport with due process requirements. *See In re Ruffalo*, 390 U.S. at 551 (“The charge must be known before the proceedings commence.”); *Smith*, 37 Cal. App. 4th at 243 (holding that an agency violated due process by raising a new legal theory midway through the hearing because due process “requires *notice of the statutory theory in the accusation*” (emphasis added)).

⁹²⁴ *In re Ruffalo*, 390 U.S. at 551-52 & n.4 (emphasis added).

⁹²⁵ Joint R.T. 1277.

VII. CONCLUSION

PG&E accepts responsibility for the San Bruno pipeline accident and has made numerous changes to its management, organization and procedures to ensure that such an accident never happens again.

The task now facing the ALJ and the Commission is separating PG&E's acknowledgement of responsibility and liability to the injured from the narrower question of PG&E's compliance with laws and regulations. The Commission is bound to follow the law and make a decision based on the evidentiary record before it and an objective determination of whether CPSD has met its burden of proving violations. As detailed in PG&E's opening brief and this reply, CPSD, aided by Intervenors, has failed to prove the vast majority of the violations it has alleged.

Respectfully submitted,

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REPLY BRIEF APPENDIX A

(I.12-01-007)

ADDITIONAL PROPOSED FINDINGS OF FACT⁹²⁶

Regulatory Background

1. In 1952, the American Society of Mechanical Engineers (ASME) published its first integrated pipeline safety standard, called the American Standard Code for Pressure Piping, Section 8, Gas Transmission and Distribution Piping Systems (ASA § B31.1.8, also referred to as ASME standards).
2. The ASME standards were substantially revised in 1955 and have been revised thereafter over time.
3. The Commission first adopted gas pipeline safety rules in December 1960, when it issued General Order (GO) 112, effective July 1961. *See* D.61269.
4. GO 112 adopted, with modifications, what was then a voluntary industry standard (ASA B31.1.8 – 1958), and mandated that California gas utilities adhere to it.
5. GO 112 exempted existing facilities from those provisions applicable to design, initial construction, initial inspection, and initial testing of new pipelines, thus grandfathering in Line 132, Segment 180 based on prior operating pressure history and did not require that existing pipelines be pressure tested to establish MAOP. D.61269 § 104.3.
6. The Natural Gas Pipeline Safety Act, enacted in 1968, was the first comprehensive federal pipeline safety law. Pub. L. 90-481, 82 Stat. 720 (1968).
7. In November 1968, the Secretary of Transportation adopted existing state regulations, including the Commission's, as interim standards, recognizing that a majority of the states utilized the standards contained in the 1968 edition of ASME B31.8. 33 Fed. Reg. 16,500, 16,500-01 (November 13, 1968).
8. In August 1970, the Office of Pipeline Safety, within the Department of Transportation, promulgated final rules at 49 C.F.R. Parts 191 and 192 establishing minimum federal safety standards, including reporting requirements (Part 191) and design, construction, operation, and maintenance requirements for natural gas pipeline facilities (Part 192). *See* 35 Fed. Reg. 13,247 (Aug. 19, 1970).

⁹²⁶ PG&E provides additional Proposed Findings of Fact in response to the numerous additional contentions and arguments CPSD and Intervenors asserted in their opening briefs.

9. 49 C.F.R. Part 192 exempted existing facilities from “those provisions applicable to design, initial construction, initial inspection, and initial testing of new pipelines.” 35 Fed. Reg. 13,247, 13,248.
10. 49 C.F.R. § 192.619(c) “grandfathered” existing pipelines, such as Line 132, Segment 180, based upon prior operating pressure history, and did not require existing pipelines to be pressure tested to establish the appropriate MAOP. 35 Fed. Reg. 13,247, 13,273; Ex. CPSD-9 (NTSB Report) at 34-35.
11. In promulgating Part 192, the Office of Pipeline Safety recognized that “many operators [were] not familiar with the recommended standards of the B31.8 Code.” 35 Fed. Reg. 13,247, 13,250.
12. Effective April 30, 1971, the Commission adopted GO 112-C, incorporating the 1970 federal pipeline regulations, 49 C.F.R. Part 192, in their entirety, and deleting references to ASME B31.8. D.78513 (adopting GO 112-C).
13. In 1994, Congress merged the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act under the Pipeline Safety Act. Pub. L. No. 103-272, 108 Stat. 1303-29 (1994).
14. In 1995, the Commission adopted GO 112-E, which automatically incorporated all revisions to the federal regulations by reference.
15. GO 112-E remains the primary GO governing gas transmission pipeline safety in California.
16. In 2002, Congress enacted the Pipeline Safety Improvement Act, which established integrity management requirements for gas transmission pipelines in high consequence areas. Pub. L. No. 107-355, 116 Stat. 2985 (2002).
17. In 2004, Congress also created the Pipeline and Hazardous Materials Safety Administration over the Office of Pipeline Safety to focus on safety as its highest priority. Pub. L. No. 108-426, 118 Stat. 2423 (2004).
18. Effective February 14, 2004, the Pipeline and Hazardous Materials Safety Administration promulgated the first integrity management regulations at 49 C.F.R. Part 192, Subpart O. Ex. CPSD-9 (NTSB Report) at 69.

Legal Issues Of General Applicability

Clear And Convincing Evidentiary Standard

19. These enforcement proceedings, made up of this OII proceeding and the related Records OII and Class Location OII, are the most significant enforcement proceedings the Commission has ever undertaken.

20. The Commission indicated that if violations were found in this OII it was prepared to impose on PG&E “daily fines for the full duration of any such violations, even if this encompasses a lengthy period of time.” I.12-02-007 at 9.
21. CPSD has alleged continuing violations spanning as many as 55 years (and 80 years in the Records OII). Should the Commission find even one such violation, PG&E would be subject to a minimum penalty of about \$10 million and a maximum of roughly \$140 million. See Pub. Util. Code § 2107; *Marin Telemangement Corp. v. Pacific Bell*, D. 95-01-044, 1995 Cal. PUC LEXIS 43, at *33-34 & n.34.
22. In imposing civil fines and penalties for asserted violations spanning more than 50 years, the Commission is entrusted with the ability to impose fines that, as a practical matter, are almost without limit.
23. The Commission has emphasized that its “remedial powers are not limited to its authority to impose civil penalties” and that it may order, in addition to fines and penalties, that PG&E “change or improve its maintenance, operations, or construction standards for gas pipelines” including an order “to implement the recommendations made in CPSD’s Report.” I.12-01-007 at 10.
24. The Commission has indicated that it may make rate adjustments based on findings of past violations. *Order Instituting Rulemaking*, D.12-12-030 at 4.

CPSD’s Evidentiary Showing

25. CPSD relies primarily on citation to its January 12, 2012 report (Ex. CPSD-1 (CPSD/Stepanian)), its August 20, 2012 rebuttal testimony (Ex. CPSD-5 (CPSD/Stepanian)), and statements from the NTSB Report (Ex. CPSD-9) that CPSD incorporated into the January 12, 2012 report and the August 20, 2012 rebuttal testimony. CPSD OB at 4-27, 33-80, Appendix A.
26. CPSD’s opening brief mirrors the text of the January 12, 2012 report and the August 20, 2012 rebuttal testimony, with minor modifications and incorporation of statements from the NTSB report. Compare Ex. CPSD-1 (CPSD/Stepanian) and Ex. CPSD-5 (CPSD/Stepanian) with CPSD OB at 4-27, 33-80.
27. Absent from CPSD’s opening brief are references or citations to PG&E’s written testimony or the testimony and documentary evidence PG&E submitted during the evidentiary hearings. CPSD OB at 4-27, 33-80, Appendix A.
28. Much of the evidence CPSD relies upon consists of unsupported conclusory allegations that were incorporated into testimony without any additional evidentiary support.
29. CPSD’s nearly exclusive reliance on its own prior report and rebuttal testimony renders its evidentiary showing insufficient to meet its burden of proof.

PG&E Bears No Burden Of Proof

30. Failure to directly controvert proffered testimony does not transform its subjective character into conclusive truth. There are many reasons for which the Commission may properly choose to reject testimony.
31. PG&E is not required to affirmatively disprove any evidence offered against it without reference to whether the proffered evidence meets the required standard of proof.
32. For example, without explicitly referring to Mr. Gawronski's testimony claiming a 1988 pinhole leak on line 132 was a "failure" under TIMP regulations, Ex. CCSF-1 at 5, PG&E presented evidence demonstrating that a pinhole leak is not considered a "failure" for integrity management purposes. Pinhole leaks are common in the industry and have been occurring without incident on pipeline systems since the industry began tracking them forty years ago. Joint R.T. 871 (PG&E/Zurcher); PG&E OB at 82-84 (and citations contained therein); ASME B.318S at 34, 35.
33. PG&E's submission of evidence and argument refuting the allegations against it does not constitute the assertion of an "affirmative defense" for which PG&E bears a burden of proof.

PG&E Is Not Required to Prove Its Conduct Was "Prudent" Or "Reasonable"

34. TURN and CCSF contend that, even if CPSD fails to prove any violations of law against PG&E, the Commission should make "prudence" or "reasonableness" determinations in this proceeding and that PG&E bears the burden of proof on such determinations. TURN OB at 6-8; CCSF OB at 5-6.
35. The purpose of this enforcement proceeding is to "focus on PG&E's past actions and omissions, to determine whether PG&E has violated laws requiring safe utility gas systems practices." I.12-01-007 at 10. That purpose does not include "reasonableness" or "prudence" determinations.
36. PG&E defended itself against alleged legal violations, not alleged lack of "prudence" or "reasonableness," and the testimony and evidence PG&E proffered has been for that purpose. *See, e.g.*, Ex. PG&E-1 (PG&E/Various).
37. PG&E did not receive notice before presenting its defense that it could be required to prove that its actions were "prudent" and "reasonable" in addition to not violating the law.

Section 451 Is Not A Valid Source Of Pipeline Safety Requirements

38. CPSD relies on Public Utilities Code Section 451 to allege numerous safety violations. Ex. CPSD-1 at 3-4, 162 (CPSD/Stepanian); Ex. CPSD-5 at 1- 3

(CPSD/Stepanian); CPSD OB, Appendix C; CPSD OB, Revised Appendix C (filed April 18, 2013).

39. Section 451 is a ratemaking provision of the Public Utilities Code.
40. CPSD did not produce evidence about whether PG&E furnished a level of service commensurate with the rates it received during the time period under investigation.
41. CPSD did not offer testimony that PG&E's past rates reflected the Commission's past adoption of a "good engineering practices," "best engineering practices available," or "good utility safety practices" standard.
42. CPSD did not offer testimony that PG&E's past rates reflected the Commission's past adoption of an "unreasonably dangerous" or "unreasonably unsafe" standard.
43. Apart from references to the ASME B31.8 voluntary standard for the period from 1956 to 1961, CPSD has not identified any industry practice, standard, or common understanding with which PG&E failed to comply in order to support its alleged Section 451 violations.
44. In adopting GO 112 in 1960, the Commission twice described the existing ASA B31.8 standard as a "voluntary" industry standard. *See* D.61269 at 4, 6.
45. Utilities opposed the original enactment of GO 112 on the ground that general adherence to the voluntary ASA B31.8 standard forestalled the need for regulation. D.. 61269 at 6.
46. When the Commission adopted the ASA B31.8-1955 standard in GO 112, it modified it to make certain its provisions were "mandatory rather than left optional." D.61269 at 11.
47. When the Commission adopted GO 112, it did so without reference to Section 451.
48. To construe Section 451 as having mandated adherence to the ASA B31.8 voluntary industry standard in the era prior to GO 112 renders the Commission's GO 112 rulemaking superfluous in contravention of established rules of construction and interpretation.
49. The Commission has never applied Section 451 to punish a utility for actions that do not violate applicable pipeline safety regulations. *See, e.g.,* Ex. CPSD-1 at 24 (CPSD/Stepanian) (conceding Line 132 pressure was below legal limits on September 9, 2010); Joint R.T. 828 (PG&E/Zurcher) (indicating awareness of no regulatory authority ever imposing fines for missing or inactive records).

50. CPSD’s prior audits and inspections of PG&E’s gas operations have not included a review for compliance with Section 451. *See, e.g.*, Ex. PG&E-7 (Tabs 4-13, 4-14, 4-25); Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario).
51. CPSD has audited PG&E’s facilities and records for decades without previously raising the violations it has asserted in this enforcement proceeding. *See, e.g.*, Ex. PG&E-7 (Tabs 4-13, 4-14, 4-25); Ex. PG&E -1, Chapter 10, Appendices A & B (PG&E/Almario).
52. PG&E understood that in the past CPSD approved of many aspects of its risk management and integrity management programs. *See, e.g.*, Ex. PG&E-7 (Tabs 4-13, 4-14, 4-25); Ex. PG&E-1c at 4-1, 4-6, 4-11 to 4-12 (PG&E/Keas).
53. CPSD has referred within this and related proceedings to the different expectations required under Section 451, including “good engineering practices,” “best engineering practices available,” “good utility safety practices,” and an “unreasonably dangerous” or “unreasonably unsafe” standard.
54. The Commission has never given prior notice to California gas utilities that it views Section 451 as incorporating a “good engineering practices,” “best engineering practices available,” or “good utilities practices” requirement. *See* Ex. CPSD-5 at 1-3 (CPSD/Stepanian) (filed August 20, 2012).
55. In its opening brief, CPSD repeatedly refers to “unreasonably dangerous” and “unreasonably unsafe” standards, which may be additional standards that CPSD seeks to impose through Section 451. CPSD OB at 31, 32, 34, 38, 39, 47, 50, 55, 60, 61, 64, 65, 68, 75, 83.
56. CPSD has not identified any instance in which the Commission put utilities on notice during the period of allegedly violative conduct that the Commission views Section 451 as imposing an “unreasonably dangerous” or “unreasonably unsafe” standard.

CPSD Improperly Alleged New Violations in Appendix C And Revised Appendix C

57. When it filed its opening brief on March 11, 2013, CPSD included Appendix C, listing 55 distinct violations alleged against PG&E.
58. In its January 12, 2012 initial report, CPSD specified “PG&E’S VIOLATIONS OF APPLICABLE LAWS AND REGULATIONS,” charging 18 violations.
59. CPSD had not previously alleged most of the 55 violations set forth in Appendix C, including all but one of 37 alleged continuing violations that CPSD claims go back as far as 54 years.
60. On March 18, 2013 PG&E moved to strike Appendix C and to have the proceeding decided on CPSD’s original charges on the grounds that basic due process principles guarantee PG&E adequate prior notice of all the charges

against it, and CPSD's assertion of new violations after the close of evidence fell far short of meeting that mandate. *See* PG&E's Motion to Strike Appendix C, filed March 18, 2013.

61. On April 2, 2013, the ALJ granted in part and denied in part PG&E's motion to strike. The ALJ struck Appendix C, but permitted CPSD to resubmit it after adding a column with "specific reference to where the OII or one or more of its referenced documents provides PG&E with notice of the factual basis for the allegation. *See* Administrative Law Judge's Ruling On Pacific Gas and Electric Company's Motion to Strike Appendix C to the Opening Brief of the Consumer Protection and Safety Division, April 2, 2013
62. The April 2nd Ruling's rationale for allowing CPSD to resubmit Appendix C was the following: "I do not find that the Commission intended Section X of the CPSD Report to be the exclusive charging document in this investigation. On the contrary, if a statement of alleged facts constituting a violation is set forth in the OII or in its referenced documents, then PG&E had adequate notice prior to evidentiary hearings of the factual allegations that it needed to defend against." *See* Administrative Law Judge's Ruling On Pacific Gas and Electric Company's Motion to Strike Appendix C to the Opening Brief of the Consumer Protection and Safety Division, April 2, 2013
63. On April 8, 2013, CPSD filed a revised Appendix C that only addressed alleged violations related to emergency response.
64. The ALJ issued another order on April 12, 2013, directing CPSD to submit a second revised Appendix C, addressing all 55 alleged violations with "reference[s] to where the OII or one or more of its referenced documents provides PG&E with notice of the factual basis for the allegation." *See* Administrative Law Judge's Ruling Addressing Motion of the Consumer Protection and Safety Division for Clarification and Setting Date for Reply Briefs, April 12, 2013 (the "April 12th Ruling").
65. On April 18, 2013, CPSD submitted its further revised Appendix C ("Revised Appendix C").
66. The references CPSD added in Revised Appendix C describe PG&E's purported conduct and CPSD's contention that the conduct was deficient in some manner.
67. CPSD's prior discussion of PG&E's conduct, even where CPSD asserted a purported deficiency, does not provide notice to PG&E that, based on that conduct, CPSD is alleging or intends to allege a violation of law for which PG&E can be subject to fines, penalties and remedial directives.
68. Even assuming prior notice of the factual basis for a later-alleged legal violation could satisfy constitutional requirements, many of the "references" in Revised Appendix C fail to demonstrate even that level of notice.

CPSD Does Not Allege Proper “Continuing” Offenses

69. CPSD asserted numerous “continuing violations” against PG&E for the first time in Appendix C, submitted March 11, 2013 with CPSD’s opening brief.
70. A continued result of a violation does not make that violation continuing for purposes of Section 2108. For example, if PG&E failed to visually inspect the pups during installation (and assuming that constitutes a violation of Section 451), that event occurred once in 1956, and not again every day thereafter through September 9, 2010.
71. Once Segment 180 was installed it was unlikely that an occasion for internal visual inspection would arise because the pipe was in the ground and PG&E was not required or called upon in the normal course of business to conduct an internal visual inspection.
72. With respect to CPSD’s alleged “continuing violations,” PG&E did not have notice and an opportunity to cure the violations CPSD asserts during the period of the allegedly violative conduct.

Laches

73. CPSD has existed as a unit of the Commission in one form or another since the 1950s.
74. CPSD has been charged with oversight and regulation of utilities and as part of its duties has overseen and regulated PG&E’s gas operations for decades. Among the many activities involved in that oversight and regulation, have been numerous audits and inspections.
75. Throughout a time period going up to January 2012, CPSD has made findings and asserted violations against PG&E when CPSD identified deficiencies.
76. For the first time, in January 2012, CPSD asserted that deficiencies existed in PG&E’s Integrity Management Program and emergency plans that CPSD claims constitute legal violations though they were never raised in any audit or inspection. In Appendix C, CPSD claimed many more alleged violations, including “continuing violations” going back as far as 1970.
77. CPSD audited PG&E’s Integrity Management program in 2005 and May 2010, and did not assert the numerous alleged violations CPSD’s opening brief contends permeated that program since at least 2003. Ex. PG&E-7 (Tab 4-1 3 and Tab 4-25).
78. CPSD’s delay of between eight and forty -two years in asserting previously unidentified integrity management violations brought in this proceeding is unreasonable.

79. CPSD audited PG&E Operations, Management and Emergency Plan in August 2010, and did not assert the violations now alleged against PG&E involving its emergency plans. CPSD OB, Appendix C at 4-6; Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario).
80. CPSD's belated assertion of the alleged emergency plan violations that its opening brief claims began in August 2009 is unreasonable.
81. CPSD's unreasonable delay in asserting its violations related to PG&E's Integrity Management Program and emergency plans subjects PG&E to substantially larger penalties and invasive remedial relief than would have been available had CPSD asserted these allegations in a timely manner.
82. CPSD's unreasonable delay in asserting its violations related to PG&E's Integrity Management Program and emergency plans adversely impacting PG&E's ability to defend against those alleged violations.

Other Issues Of General Applicability

Automated Valves And Hindsight

83. Prior to September 9, 2010, the use of closely-spaced automated valves on gas transmission pipelines was not the industry norm. Ex. PG&E-1 at 5-17 (PG&E/Zurcher); R.T. 340 (PG&E/Almario).
84. Neither Federal pipeline regulations nor GO 112-E mandate that automated valves be installed in any minimum numbers or at any particular distance along transmission pipelines. *See* 49 C.F.R. § 192.935(c).
85. Automated valves do not prevent ruptures. Ex. CPSD-1 at 105 (CPSD/Stepanian).
86. Automated valves would not prevent the "vast majority of injuries, fatalities and property damage associated with a catastrophic pipeline" event. Ex. CPSD -1 at 105 (CPSD/Stepanian); Joint R.T. 820-21 (PG&E/Zurcher).
87. There remain various views regarding the installation of automated valves and their overall effectiveness of restricting damage in the event of a rupture on a transmission pipeline. Ex. CPSD-1 at 105 (CPSD/Stepanian) R.T. 340 (PG&E/Almario).
88. In 1999, the Department of Transportation "acknowledged that there had been insufficient studies on the reduction of property damage with the use of RCVs [remote control valves] or ASVs [automated safety valves]," collectively known as "automated valves." Ex. CPSD-1 at 105 (CPSD/Stepanian).
89. The San Bruno accident on September 9, 2010, changed the way industry, regulators, lawmakers, and the public view pipeline safety and the actions that

should be taken to best ensure it. Increased use of automated valves is among those changes. See, e.g., Pub. Util. Code § 957 (mandating automated valves in certain situations).

90. Since the San Bruno accident, PG&E has committed to install more automated valves throughout the gas transmission system. Ex. PG&E-1 at 8 -17 to 8-19 (PG&E/Slibsager/Kazimirsky); R.T. 341-42 (PG&E/Almario); Joint R.T. 195 (PG&E/Slibsager/Kazimirsky).

PG&E's Post Accident Improvement Efforts

91. PG&E's actions to enhance the safety of its gas operations following the San Bruno accident are a combination of, among other things, remedial actions to improve identified shortcomings, new initiatives to respond to changed expectations and safety standards, good -faith response to directives by the Commission, recommendations by the NTSB and the IRP, and internally-identified programs focused on top to bottom improvement in PG&E's gas operations.
92. PG&E's efforts since the San Bruno accident to enhance the safety of its gas operations do not demonstrate that PG&E violated the law prior to the accident.
93. PG&E's improvement actions will meet and in some instances exceed new regulatory and industry standards. Ex. PG&E-1 at 8- 1 (PG&E/Slibsager/Kazimirsky); R.T. 1003 (PG&E/Yura); R.T. 1004 (PG&E/Yura); Ex. PG&E-1 at 13-9 (PG&E/Yura).
94. PG&E is seeking to become certified under the Publicly Available Specification 55 (PAS-55). R.T. 1015-17 (PG&E/Yura).
95. The evidence demonstrates that the industry as a whole is confronting many of the same issues that PG&E is addressing following the San Bruno accident. Ex. PG&E-1 at 5-4 to 5-8 (PG&E/Zurcher); Joint R.T. 21-22, 662-63, 706-08, 710-13 (PG&E/Zurcher); Joint R.T. 487 (PG&E/Harrison).

Credibility And Competency Of Witnesses

96. The reports utilized by CPSD and the Intervenors (NTSB, IRP) contain multiple levels of hearsay. It would be inequitable to reject PG&E witness testimony on the basis of hearsay, while allowing CPSD and the Intervenors to rely on hearsay in their case in chief.
97. The practice in Commission proceedings is to present witnesses who start with a broad foundational knowledge on a subject, who then gather, learn and come prepared to testify about the additional issues or topics involved in their aspect of the proceeding.

98. Presenting as a witness the “most knowledgeable” person on each topic and issue involved in this proceeding would involve many witnesses, substantially extending the duration and increasing the complexity of the evidentiary hearing and record.
99. Consultants are hired based on the depth and quality of their knowledge, their experience, and the integrity that their opinions carry.
100. All consultants are paid for their work; a financial interest does not indicate a lack of credibility.
101. PG&E’s consultant witnesses possess extensive knowledge, experience, and integrity, and are credible.

PG&E’s Safety Culture And Financial Priorities

102. CPSD’s expert Mr. Harpster (Overland Consulting) did not present an analysis of how PG&E’s actual expenditures compared to what PG&E should have spent to run a safe and reliable gas transmission system. Ex. CPSD-168 at 1-2 (CPSD/Harpster); R.T. 56 (CPSD/Harpster).
103. Mr. Harpster did not consistently present an analysis of PG&E’s actual expenditures compared to PG&E’s budgets or internal forecasts. Ex. CPSD-168 at 2-8 to 2-10 (CPSD/Harpster); R.T. 116-18, 124-26, 133-35 (CPSD/Harpster).
104. CPSD did not introduce evidence relating to the sufficiency of PG&E’s requests for GT&S O&M funding in the GT&S rate cases.
105. Mr. O’Loughlin correctly reflected the imputed adopted O&M costs associated with Line 401 during the Gas Accord I period. Ex. PG&E-10, MPO -1 at 35-36 (PG&E/O’Loughlin); Ex. PG&E -13 at 38; Ex. PG&E-10, MPO -3 at 4-6 (PG&E/O’Loughlin); R.T. 577 -78 (PG&E/O’Loughlin). In any event, Mr. O’Loughlin’s treatment of those costs had only a minor effect on his comparison of PG&E’s actual O&M costs to the imputed adopted amounts and did not affect his capex comparison at all. Ex. CPSD-170 at 16-17 (CPSD/Harpster).
106. CPSD did not connect the information about declines in GT&S union and gas distribution headcounts to information about the amount of work completed or any other factors potentially relating to safety. Ex. CPSD-168 at 6-1, 6-5, 6-6, 7-1 (CPSD/Harpster).
107. Contractors played an important role in performing GT&S work, particularly capital projects. Ex. CPSD-224 at OC-257 Attachment 2, p. 37; Ex. CPSD-226 at OC-259 Attachment 4, p. 9.
108. Overland’s analysis of GT&S staffing is incomplete because it did not include information about contractor staffing. Ex. CPSD-168 at 6-1 to 6-6 (CPSD/Harpster).

109. GT&S headcount increased in important safety-related areas, including integrity management. Ex. CPSD-168 at 6-3 to 6-4 (CPSD/Harpster).
110. The evidence did not show that GT&S capital budgets were constrained at any point in time. Ex. CPSD-168 at 1-4, 4-3 (CPSD/Harpster).
111. The reduction in GT&S's capital budget during 2009 did not detrimentally affect safety. Ex. CPSD-168 at 1-5, 8-9 to 8-10 (CPSD/Harpster).
112. CPSD did not introduce evidence regarding PG&E's spending on the transmission portion of the Gas Pipeline Replacement Program (GPRP) or its progress on replacing the transmission pipe in the GPRP prior to the transfer of the transmission pipe in the GPRP to the Risk Management Program (RMP) in 2000.
113. PG&E did not move transmission pipe out of the GPRP and into its new RMP in 2000 solely as a cost a reduction initiative. To the contrary, the RMP provided a more comprehensive way of evaluating and mitigating risk on the gas transmission system. Ex. PG&E-1c at 4-2 to 4-3 (PG&E/Keas); Ex. CPSD-186 at OC-68 Attachment 12, p. 60; PG&E Gas Transmission Facilities Risk Management Annual Report – 2000 at 2, *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/62C87F54-8558-4C5D-92FB-124C15325FB2/0/2000PGEGTSRiskManagementAnnualReport.pdf>.
114. PG&E's development of the RMP anticipated the regulatory and industry progression toward a risk management approach. Ex. PG&E-1c at 4-2 to 4-3 (PG&E/Keas).
115. PG&E informed CPSD's Utilities Safety Branch (USB) of its plan to remove transmission pipe from the GPRP. The USB concurred in this approach and commented favorably on the RMP. PG&E, Gas Pipeline Replacement Program, 2000 Annual Progress Report, pp. 2, 28, Appendix II (April 20, 2000 letter from Mahendra Jhala, Chief, USB to Shan Battacharya, Vice President, PG&E), *available at* <http://www.cpuc.ca.gov/NR/rdonlyres/5301B509-4ED8-41A2-A8C4-8C005E588D74/0/GPRP2000AnnualReport.pdf>.
116. CPSD did not offer evidence showing that PG&E spent less on transmission pipe risk mitigation after 2000, when it transferred transmission pipe out of the GPRP and into the RMP, than it spent to replace transmission pipeline in prior years under the GPRP.
117. PG&E continued to manage transmission system risk after the transition to the RMP. *See, e.g.*, Ex. CPSD-225 at OC-258 Attachment 1.
118. The record did not show expense budget constraints prior to the 2008 budget year. Ex. CPSD-168 at 1-4 (CPSD/Harpster).
119. The preliminary GT&S work plan for the upcoming year typically would include every project that might be completed in the upcoming year, without necessarily

taking into account the broader GT&S plan for the upcoming year or factors such as the availability of contractor resources. Ex. CPSD-229 at OC-262, p. 2.

120. The preliminary plan would be reviewed and revised during the year based on input from individuals across the GT&S organization before being submitted to Finance as a formal request for funding, typically in the fall. Ex. CPSD-229 at OC-262, p. 2; Ex. CPSD-182 at OC-63 Attachment 1, pp. 10-11.
121. GT&S managers and engineers communicated openly about the potential implications of budget and planning decisions to help others make informed decisions about which work to include in the proposed budget and which work ultimately to fund and complete within the approved budget. *See, e.g.*, Ex. CPSD-186 at OC-68 Attachment 3, p. 2; Ex. CPSD-186 at OC-68 Attachment 2, p. 18.
122. Work was prioritized both within GT&S and across the utility so that the most important safety-related work would be completed. *See, e.g.*, Ex. CPSD-185 at OC-67 Attachment 7, p. 28; Ex. CPSD-182 at OC-63 Attachment 1, p. 13; Ex. CPSD-261 at OC-347 Attachment 1.
123. Finance regularly requested information about the risk of not funding particular categories of work as a part of the budget and planning process. *See, e.g.*, Ex. CPSD-261 at OC-347 Attachment 1; Ex. CPSD-224 at OC-257 Attachments 5 & 5a.
124. Critical safety work was considered “mandatory” in the budgeting and planning process. Ex. CPSD-304 at 14-7; Ex. CPSD-185 at OC-67 Attachment 7, p. 28.
125. Decisions to defer or change specific projects were made with the input and involvement of the engineers and managers closest to the work. See Ex. CPSD-227 at OC-260 Attachment 1; Ex. CPSD-226 at OC-259 Attachment 4, pp. 8-9. If adjustments to plans were needed to stay within approved funding levels, the individuals charged with managing the GT&S budget would ask those responsible for the work itself to identify projects that could be deferred without compromising compliance or safety. Ex. CPSD-168 at 8-6 (CPSD/Harpster) (quoting OC-262 Attachment 4).
126. Making a section of pipe piggable to run an ILI tool requires a physical upgrade. At a minimum it requires installing pig launching and receiving stations, and could include removing sharp bends in the pipeline, replacing non-piggable valves and making the pipe uniform in diameter. Ex. PG&E-6 (Tab 4-10) at GTR0007130-32, GTR0007154-55 (PG&E RMP 11 at 13-15 and 37-38). Preparing a pipeline to be pigged can take up to three years, and the costs to upgrade the pipeline make up the majority of the costs for conducting ILI. Ex. CPSD-233 at OC-274.
127. Decisions about which planned integrity management assessments could be deferred were grounded in engineering judgments. The engineers responsible for

the integrity management program selected the assessments that could be delayed without jeopardizing compliance or safety. Ex. CPSD-226 at OC-259 Attachment 4, p. 9; Ex. CPSD-227 at OC-260 Attachment 1.

128. Decisions about which planned integrity management assessments could be changed were grounded in engineering judgments. The engineers responsible for the integrity management program and most knowledgeable about the characteristics of the specific pipelines identified which planned integrity management assessments reasonably could be changed from ILI to ECDA without compromising safety or compliance. Ex. CPSD-227 at OC-260 Attachment 1; Ex. CPSD-226 at OC-259 Attachment 4, p. 8.
129. PG&E continued to use ILI for a significant number of assessments after 2007. Ex. CPSD-168 at 6-8 (Table 6-7) (CPSD/Harpster); Ex. CPSD-258 (OC-343); Ex. CPSD-233 (OC-274).
130. There is no evidence that any integrity management assessment change or deferral violated the integrity management regulations or otherwise raised a safety concern.
131. The GPRP as implemented in 1985 was not intended to replace all pipelines, or even to replace all pipelines installed prior to a certain point in time. Rather, with regard to transmission pipe, the GPRP was a targeted effort to replace pre-1947 transmission pipe that was welded using the oxyacetylene (oxy-butt) technique or constructed using bell-bell chill ring (BBCR) or bell and spigot (BLSP) girth joint configurations. Ex. CPSD-166 at Exhibit 2, pp. 4-6; Ex. CPSD-165 at 92-93, 159. These types of outdated girth welds and joint configurations are particularly susceptible to ground movement-related failure. Ex. Joint-28 (ASME B31.8S-2004) at p. 47, Appendix A, Section A4.3.
132. PG&E never planned to replace all of Line 132 under the GPRP. Ex. CPSD-1 66 at Exhibit 2, p. 4, 6.
133. Segment 180 was never within the scope of the GPRP. The girth welds on Segment 180 did not fall within the scope of the GPRP program, as they were constructed in 1956, after the outdated girth welding techniques were replaced with more modern methods. Ex. CPSD-166 at Exhibit 2, pp. 4, 5; PG&E-1 at 2-1, 2-3 (PG&E/Harrison); Tateosian Depo. Vol. II at 463.
134. CPSD did not offer evidence showing that the selection of ECDA for Line 132 was driven by budgetary constraints and not based on engineering judgment.
135. PG&E deferred the project to replace Line 132 from mile point 42.13 to mile point 43.55 based on engineering judgments, not budgetary constraints. PG&E- 1 at 12-3 to 12-4 (PG&E/Martinelli); Ex. CPSD-240 at OC-303 Attachment 10, p. 4; Ex. TURN-4.

136. The deferral of a project to upgrade a portion of Line 132 to make it piggyback had no effect on Segment 180 and the deferral was not caused by budgeting constraints. The project was not originally scheduled to be completed before 2010 and was never intended to include Segment 180. Ex. CPSD-240 at OC-303 Attachment 26.
137. The PSRS report relating to a planned pressure increase on Line 132 in 2008 does not reflect that PG&E placed profits over safety or that it operated an unsafe transmission system. Ex. CPSD-240 at OC-303 Attachment 37; Ex. PG&E-1c at 4-13 to 4-23 (PG&E/Keas); Joint R.T. 783 (PG&E/Zurcher); Ex. PG&E-1 at 5-14 (PG&E/Zurcher); Ex. PG&E-1c at 4-25 (PG&E/Keas).
138. The PSRS report relating to a leak repair project on Line 132 in 2010 does not reflect that PG&E placed profits over safety or that it operated an unsafe transmission system. Ex. CPSD-240 at OC-303 Attachment 42; Ex. Joint-28 (ASME B31.8S-2004), Appendix A, Section A4.3.

Intervenors Lack Authority To Allege Violations

139. Intervenors collectively assert approximately 32 violations. See TURN OB at 38-41; CCSF OB, Appendix B; San Bruno OB at 50-52.
140. Many of the violations Intervenors allege are “continuing” violations. See TURN OB at 38-41; CCSF OB, Appendix B; San Bruno OB at 50-52.
141. CCSF alleges that all nine of its violations are continuing violations. CCSF OB, Appendix B. The City of San Bruno asserts that the alleged “safety culture” violation has been on-going “for decades.” San Bruno OB at 50-52. TURN’s alleged violations also appear to be characterized as continuing violations, though TURN does not say so expressly. TURN OB at 38-41.
142. The Commission invited the participation of third parties, but did not delegate its investigative and enforcement authority to intervenors. I.12-01-007 at 9-10.
143. The Commission has stressed the importance of ensuring the prosecutorial independence of its enforcement staff. CPSD’s prosecutorial independence and discretion would be impacted if Intervenors were permitted to prosecute and assert their own violations.
144. As of January 29, 2013, after the close of evidence, CPSD did not know whether the Intervenors would allege new violations or what they would be. Joint R.T. 1277.

REPLY BRIEF APPENDIX B

(I.12-01-007)

ADDITIONAL PROPOSED CONCLUSIONS OF LAW⁹²⁷

Legal Issues Of General Applicability

Clear And Convincing Evidentiary Standard

1. The unprecedented scope and significance of these enforcement proceedings justify the use of the clear and convincing evidence standard as to each allegation alleged by CPSD.
2. The clear and convincing evidence standard necessitates that CPSD establish each asserted violation by evidence so clear as to leave no substantial doubt and sufficiently strong to command the unhesitating assent of every reasonable mind. *In re Angelia P.*, 28 Cal. 3d 908, 919 (1981).

Burden Of Proof

3. PG&E is not required to prove its conduct was “prudent” or “reasonable” in this enforcement proceeding.
4. The inquiry in this enforcement proceeding did not include whether PG&E’s actions were reasonable or prudent in the context of rate setting or rate recovery.
5. Requiring PG&E to affirmatively prove that its conduct was prudent or reasonable would violate the California Constitution.
6. Accepting purportedly “uncontroverted” evidence as necessarily correct would improperly shift the burden of proof to PG&E.
7. Failure to directly controvert proffered testimony does not transform its subjective nature into conclusive truth.
8. There are many reasons by which the Commission may properly choose to reject testimony. PG&E is not required to affirmatively disprove any evidence offered against it without reference to whether the proffered evidence meets the required standard of proof.
9. The only affirmative defense PG&E has asserted is laches.
10. An affirmative defense is a legal theory upon which a defendant can exonerate itself even where the allegations against it are conclusively proven as true.

⁹²⁷ PG&E provides additional Proposed Conclusions of Law in response to the numerous additional contentions and arguments CPSD and Intervenors asserted in their opening briefs.

11. PG&E's submission of testimony and evidence refuting CPSD's and Intervenors' evidence and allegations does not constitute an affirmative defense for which PG&E bears the burden of proof.
12. CPSD bears the burden of proving with competent evidence every violation it alleges against PG&E.
13. A conclusory allegation asserted without evidentiary support is not sufficient to satisfy CPSD's burden of proof.
14. CPSD's primary reliance on its conclusory allegations in its January 12, 2012 report and rebuttal testimony renders its evidentiary showing insufficient to meet the required burden of proof.
15. Requiring PG&E to affirmatively disprove conclusory allegations without evidentiary support would improperly shift the burden of proof on to PG&E.

Section 451 Is Not A Valid Source Of Pipeline Safety Requirements

16. Interpreting Section 451 as imposing a general safety obligation on utilities would be contrary to the statutory text and structure.
17. To interpret Section 451 as imposing a "best engineering practices available" standard, a "good engineering practices" standard or a "good utilities safety practices" standard would render superfluous provisions of the Public Utilities Code and Commission regulations that require safety measures.
18. To interpret Section 451 as incorporating either an "unreasonably dangerous" or "unreasonably unsafe" standard would render superfluous provisions of the Public Utilities Code and Commission regulations that require safety measures.
19. *Carey v. Pac. Gas & Elec. Co.* , 85 CPUC 2d 682, 689 (1999), determined that Section 451's reasonable service clause is not void for vagueness because reasonableness can be ascertained by reference to an existing "definition, standard or common understanding among utilities."
20. The reasoning of *Carey v. Pac. Gas & Elec. Co.* , 85 CPUC 2d 682, 689 (1999) is inconsistent with CPSD's use of Section 451 that creates a heretofore unforeseen and broad standard that "[a]ny unsafe condition or violation of a utility safety practice may be a violation of Section 451."
21. *PacBell Wireless, LLC (Cingular) v. Pub. Util. Comm'n*, 140 Cal. App. 4th 718 (2006) is not controlling because the utility in *Cingular* had notice that its conduct "in this instance" was unlawful through prior Commission decisions and marketplace reactions to those practices.
22. *PacBell Wireless, LL C (Cingular) v. Pub. Util. Comm'n* , 140 Cal. App. 4th 718 (2006) is not controlling because it concluded that the use of Section 451 was not

void for vagueness “in application” to the *Cingular* case; the decision does not stand for the broad proposition that every use of Section 451 to allege safety violations is permissible.

23. CPSD’s inconsistent articulation of the standard that it seeks to enforce under Section 451 underscores the impropriety of CPSD’s reliance on Section 451 in this proceeding.
24. PG&E cannot be held to have had notice of what Section 451 requires, or what it prohibits, when the standard it purportedly imposes is infinitely broad and CPSD’s attempts to define that standard have repeatedly changed.
25. Sanctioning CPSD’s use of Section 451 in the manner it has used it here would violate the California Constitution.
26. The Due Process Clause of the California Constitution precludes the Commission from applying CPSD’s proposed “good utility practices,” “best engineering practices” or “good engineering practices” standard pursuant to Section 451 in this proceeding because PG&E did not have notice of that standard prior to the enforcement action.
27. The Due Process Clause of the California Constitution precludes the Commission from applying CPSD’s proposed “unreasonably dangerous” or “unreasonably unsafe” standard pursuant to Section 451 in this proceeding because PG&E did not have notice of that standard prior to the enforcement action.
28. Due process requires that laws that regulate persons or entities give fair notice of conduct that is forbidden or required.
29. Nothing in the Commission’s 1960 decision adopting GO 112 gave notice of CPSD’s proposed “good utility practices,” “best engineering practices” or “good engineering practices” standard or gave notice that Section 451 serves as an open-ended source of pipeline safety rules.
30. Nothing in the Commission’s 1960 decision adopting GO 112 gave notice of CPSD’s proposed “unreasonably dangerous” or “unreasonably unsafe” standard or gave notice that Section 451 serves as an open-ended source of pipeline safety rules.
31. The Commission’s statement in adopting GO 112, that GO 112 did not “remove or minimize the primary obligation and responsibility” of the utilities to provide safe service and facilities, is too vague and isolated to provide adequate notice based on Section 451 of what conduct was prescribed or required.
32. Section 451 does not by its terms give notice of a safety standard.

33. Fair notice concerns are especially weighty in this proceeding given the Commission’s indication that it may impose significant penalties and other remedial relief.
34. Section 451 did not incorporate the ASME B31.8 standard prior to 1961.
35. As the Commission recognized in its decision adopting GO 112, ASA B31.8 (1958) was a voluntary industry standard prior to GO 112.
36. In issuing GO 112, the Commission adopted mandatory gas pipeline safety regulations for the first time in California.
37. Section 451 cannot have mandated adherence to ASA B31.8 prior to 1961 because, if it did, GO 112 would have been a needless exercise in Commission rulemaking.

CPSD Improperly Alleged New Violations In Appendix C

38. Among the “basic” requirements of due process are notice of **the charges** and a reasonable opportunity to respond.
39. These “basic ingredient[s]” of fair procedure are essential safeguards of the “fundamental principle of justice” that no party may be “prejudiced in [its] rights without an opportunity to make [its] defense.” *Pinsker v. Pac. Coast Soc’y of Orthodontists*, 12 Cal. 3d 541, 555 (1974).
40. California courts have condemned the late assertion of new charges in administrative enforcement proceedings. *See, e.g., Rosenblit v. Superior Court* , 231 Cal. App. 3d 1434 (1991).
41. Due process requires that an accused receive notice of the charge, *i.e.*, what the charge is and that it is being asserted, not merely notice of facts that may or may not later be the basis for charging a violation of law.
42. The references in CPSD’s Revised Appendix C to documents that provided PG&E prior notice “of the factual basis” for legal violations CPSD did not allege until after the close of evidence do not demonstrate constitutionally-sufficient notice **of the alleged violations.**
43. As a matter of law, the references in Revised Appendix C do not demonstrate that PG&E received adequate prior notice of the new violations CPSD alleges.
44. The due process defect in Revised Appendix C is more pronounced with respect to CPSD’s alleged “continuing violations,” which increased from 1 in the January 12, 2012 report to 37 in Revised Appendix C, increasing by several orders of magnitude the potential fines and penalties to which PG&E is exposed.

45. Absent a prior, specific allegation of a violation of law, including whether the alleged violation is purportedly a continuing one, CPSD has not satisfied its constitutional obligation to put PG&E on notice of the legal charges against it in a time and manner that permits PG&E to defend itself against those legal charges.
46. The appropriate result, and the one consistent with due process, is to strike or ignore Appendix C in its entirety and permit CPSD to pursue only the alleged violations stated in Section X of CPSD's January 12, 2012 report, which were the only alleged violations for which PG&E had constitutionally-adequate notice.

CPSD Does Not Allege Proper "Continuing" Offenses

47. Public Utilities Code Section 2108 applies to violative conduct that continues over time, not to specific instances of violations.
48. Section 2108 applies to the violation itself, not the effect of the violation. A violation does not become "continuing" because the effect continues.
49. CPSD's assertion of continuing violations transgresses the rule of narrow construction that applies to statutes that permit the aggregation of daily penalties.
50. Section 2108 applies only to violations that are curable.
51. The Commission requires notice and an opportunity to cure a violation as prerequisites to imposing fines for continuing violations.
52. CPSD's "continuing violation" theory would impermissibly expose PG&E to excessive and unreasonable penalties in violation of the California Constitution.
53. CPSD's alleged "continuing violations" are improper because PG&E did not have prior notice of CPSD's view of what qualifies as a continuing violation under Section 2108.

Laches

54. Laches bars CPSD's alleged continuing violations related to PG&E's Integrity Management Program and emergency plans.
55. A respondent in an enforcement proceeding may demonstrate laches by showing that the agency unreasonably delayed and the respondent suffered prejudice.
56. Laches is presumed where an agency's delay would violate an analogous statute of limitations, and the burden shifts to the agency to show that its delay was excusable and that the respondent did not suffer prejudice.
57. The analogous statute of limitations in this proceeding is the one-year limitations period set forth in Code of Civil Procedure Section 340(b).

58. CPSD unreasonably delayed in alleging violations of pervasive and continuing deficiencies in PG&E's Integrity Management Program and emergency plans dating back as far as 1970.
59. CPSD's delay of between eight and forty-two years in asserting previously unidentified integrity management violations brought in this proceeding is unreasonable.
60. CPSD's delay in asserting alleged emergency plan violations dating back to August 2009 is unreasonable.
61. CPSD's unreasonable delay in asserting its violations related to PG&E's Integrity Management Program and emergency plans subjects PG&E to substantially larger penalties and invasive remedial relief than would have been available had CPSD asserted these allegations in a timely manner.
62. CPSD's unreasonable delay in asserting its violations related to PG&E's Integrity Management Program and emergency plans adversely impacting PG&E's ability to defend against those alleged violations.
63. CPSD's unreasonable delay in alleging these violations prejudiced PG&E.
64. CPSD cannot rebut the evidentiary presumption of laches.

Other Issues Of General Applicability

Hindsight

65. CPSD has not shown that PG&E knew of the existence of the six pup sections in Segment 180 prior to September 9, 2010.
66. Because PG&E was not aware of the pups in Segment 180 and had records that contained pipe attribute information for Segment 180, it was not required to apply a conservative value pursuant to 49 C.F.R. § 192.107 when determining the appropriate SMYS value for that segment.
67. Prior and current regulations do not indicate that DSAW pipe is subject to a long seam manufacturing threat.
68. The severe defects in the pups in Segment 180 cannot be properly considered "manufacturing defects" that alter whether DSAW pipe is or was considered subject to a long seam manufacturing threat.
69. Prior to September 9, 2010, neither federal pipeline regulations nor GO 112-E mandated that automated valves be installed in a minimum number or at particular intervals along natural gas transmission pipelines.

70. Allowing the use of PG&E's post-accident improvements to prove culpable conduct in this enforcement proceeding would violate public policy because, among other things, it would discourage actions that could improve safety and prevent future accidents in contravention of the public's interest.

The Credibility And Competency Of PG&E Witnesses

71. Objections to the testimony of PG&E's witnesses based on hearsay or personal knowledge are not well-founded and do not support excluding that testimony.
72. CPSD and the Intervenors rely on reports that contain hearsay; the parties use such reports to assert the truth of the matter.
73. The IRP report contains hearsay and is utilized by CPSD and the Intervenors in an attempt to prove the truth of the matter asserted.
74. The NTSB report contains hearsay and is utilized by CPSD and the Intervenors in an attempt to prove the truth of the matter asserted.
75. Rejecting the testimony of PG&E's witnesses because of a hearsay objection is contrary to common practice under the Commission's Rules of Practice and Procedure.
76. It is common practice in Commission proceedings to present witnesses who have some knowledge based on personal experience but have obtained knowledge of a wider range of issues by talking to others and/or reviewing relevant materials.
77. The determination as to the credibility of a witness is reserved for the trier of fact.

PG&E's Safety Culture And Financial Priorities

78. CPSD did not prove that PG&E violated Section 451 by failing to prioritize safety over profits.
79. It is not improper to base the imputed adopted O&M and capex amounts on the settlement revenue requirements. To the contrary, where the adopted amounts are not expressly set forth in the settlement agreement and related materials, the imputed adopted amounts should correspond as closely as possible to the settlement revenue requirements and rates. This is consistent with the imputed adopted amounts being the amounts that are implicit in the settlement rates.
80. PG&E should be given credit for the \$21.8 million that it spent following the San Bruno accident for purposes of any remedy based on alleged underspending compared to the imputed adopted O&M amounts.
81. CPSD did not prove that PG&E failed to seek sufficient O&M funds for GT&S or that its alleged failure to do so contributed to an unsafe gas transmission system.

82. CPSD did not prove that PG&E spent less than the authorized amounts for safety-related capital expenditures or O&M expenses or that its alleged failure to do so contributed to an unsafe gas transmission system.
83. CPSD did not prove that PG&E reduced GT&S staffing for safety-related work or that its staffing levels contributed to an unsafe gas transmission system.
84. CPSD did not prove that PG&E's transition of transmission pipe from the GPRP to the RMP contributed to an unsafe gas transmission system or otherwise reflected negatively on PG&E's safety culture.
85. CPSD did not prove that PG&E allegedly spending less than authorized for the GPRP contributed to an unsafe gas transmission system.
86. CPSD did not prove that PG&E's spending on the integrity management program or its use of direct assessment rather than ILI contributed to an unsafe gas transmission system or otherwise reflected negatively on PG&E's safety culture.
87. Any judgment regarding PG&E's use of direct assessment rather than ILI needs to take into account the fact that most of PG&E's system is not piggable and the time, effort and cost involved in upgrading a pipeline to make it piggable.
88. CPSD did not prove that capital projects relating to Line 132 contributed to an unsafe gas transmission system or otherwise reflected negatively on PG&E's safety culture.
89. CPSD did not prove that PG&E's payment of bonuses or dividends, stock repurchases, or spending on public relations contributed to an unsafe gas transmission system or otherwise reflected negatively on PG&E's safety culture.
90. CPSD did not prove that GT&S capital expenditures were constrained at any point in time or that PG&E's level of GT&S capital expenditures impaired safety or otherwise reflected negatively on PG&E's safety culture.
91. CPSD did not prove that GT&S O&M expense budget levels impaired safety or otherwise reflected negatively on PG&E's safety culture.
92. CPSD did not prove that any specific budgeting or planning decision by PG&E impaired safety or otherwise reflected negatively on PG&E's safety culture.
93. CPSD did not prove that any decision to defer or change a planned integrity management assessment violated any law, impaired safety, or otherwise reflected negatively on PG&E's safety culture.
94. CPSD did not prove that PG&E's budgeting and planning process failed to appropriately prioritize safety.

95. CPSD did not prove that all of Line 132 or Segment 180 would have been replaced if PG&E had continued the transmission portion of the GPRP after 2000.
96. CPSD did not prove that PG&E's proposed project to replace Line 132 from mile point 42.13 to mile point 43.55 was delayed due to budgetary constraints or that anything related to this project reflected negatively on PG&E's safety culture.
97. CPSD did not prove that PG&E's planned project to upgrade a portion of Line 132 to make it piggable had any effect on Segment 180, that it was delayed due to budgetary constraints, or that anything related to this project reflected negatively on PG&E's safety culture.
98. CPSD did not prove that anything relating to a planned pressure increase on Line 132 in 2008 indicated that PG&E operated an unsafe transmission system or otherwise reflected negatively on PG&E's safety culture.
99. CPSD did not prove that anything relating to a leak repair project on Line 132 in 2010 indicated that PG&E operated an unsafe transmission system or otherwise reflected negatively on PG&E's safety culture.

Intervenors Lack Authority to Allege Violations

100. Only the Commission's enforcement staff has authority to allege violations in a Commission-initiated enforcement proceeding.
101. The Commission's staff at all times bears the burden to prove alleged violations. The Commission staff possesses the general investigatory authority of the Commission, not the Intervenors. The Commission did not and could not delegate its investigatory and enforcement authority to the Intervenors.
102. Permitting intervenors to independently assert violations exposes the operator to procedural uncertainty and potential abuse of prosecutorial discretion.
103. PG&E, as the respondent, cannot be required to anticipate based on Intervenors' testimony the violations against which it must defend in CPSD's enforcement proceeding.
104. Intervenors' assertion of violations after the close of evidence violates due process.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation
PG&E’S RESPONSES TO CPSD’S AND INTERVENORS’
PROPOSED FINDINGS OF FACT

Preliminary Statement: Some Proposed Findings of Fact include broad and generalized statements; others are generally but not completely accurate. In responding to CPSD’s and Intervenors’ Proposed Findings of Fact, PG&E does not exhaustively refute every assertion of fact embedded within or implication created by broad and generalized assertions; nor does PG&E exhaustively refute immaterial inaccuracies contained within proposed findings. In stating that a fact is “generally accurate,” PG&E does not concede the complete accuracy or correctness of any broad or generalized assertion, any implication from asserted facts, or any immaterial inaccuracies contained in the parties’ Proposed Findings of Fact, whether or not PG&E specifically addresses them below. PG&E provides these responses to Proposed Findings of Fact only for purposes of this proceeding, I.12-01-007.

CPSD Proposed Findings of Fact

CPSD Proposed Finding of Fact	PG&E’s Response
1. On September 9, 2010, at approximately 6:11 p.m., a 30-inch diameter natural gas transmission pipeline owned and operated by PG&E ruptured in San Bruno, California. (CPSD-1, p.7.) Gas escaping from the ruptured pipeline ignited, resulting in the loss of eight lives, injuries to 58 people, destruction of 38 homes, moderate to severe damage to 17 homes, and minor damage to 53 homes. (CPSD-1, p.7.)	Generally accurate.
2. Energy released by the explosion created a crater about 72 feet long by 26 feet wide. A 28-foot long section of pipe weighing approximately 3,000 pounds was ejected from the crater and landed approximately 100 feet from the crater in the middle of Glenview Drive. (CPSD-1, p.8.)	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<u>PG&E's SCADA system</u>	
<p>3. PG&E's gas SCADA system provides remote control of 6,438 miles of transmission pipeline. Parts of PG&E's 42,141 miles of gas distribution pipeline are also monitored by SCADA. (CPSD-1, p.71.)</p>	<p>Generally accurate as clarified by the following: Consistent with industry practices and technical feasibility, PG&E's SCADA system contains several thousand monitoring and control points throughout its gas transmission system but it does not "remote[ly] control 6,438 miles of transmission pipeline" as implied in this proposed finding. Ex. PG&E-1 at 9-5 to 9-7 (PG&E/Miesner).</p>
<p>4. Supervisory Control and Data Acquisition (SCADA) is the use of computers and communications networks to gather field data from numerous remote locations, perform numerical analysis, and generate trends and summary reports. These reports are displayed in a structured format to enhance Gas Control Operators ability to monitor, forecast and send commands to field equipment. Some pipelines span long distances and are usually operated from a central location using a SCADA system. SCADA is employed for many different processes, such as management of electric power lines, operation of oil refineries, and operation of automobile assembly plants. SCADA systems make it possible to control a process that is distributed over a large area with a small group of people located in a single room. (CPSD-1, p.70.)</p>	<p>Generally accurate as a generic description of SCADA systems. Ex. PG&E-1 at 9-3 to 9-5 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>5. About 9,000 sensors and devices are installed along the length of the pipelines to enable the display of flow rates, equipment status, valve position status, pressure set points, and pressure control among other data. The current generation of SCADA used by PG&E is based on Citect software from Schneider Electric. (CPSD-1, p.71.)</p>	<p>Generally accurate, with clarification. Including calculated points, there are approximately 14,000 monitoring and data points in PG&E's SCADA system. Ex. PG&E-1 at 8-3 (PG&E/Slibsager/Kazimirsky).</p>
<p>6. PG&E's pipelines are controlled and managed from the Primary Gas Control Center (Gas Control) located in San Francisco. An alternate control center is located in Brentwood. Several compressor stations and local control stations, such as the Milpitas Terminal are situated along the pipelines, each with a separate local control system. (CPSD-1, p.72.)</p>	<p>Generally accurate with clarification. The Brentwood alternate gas control facility is a complete duplicate of San Francisco gas control and serves as a back-up control facility in the event the San Francisco facility is incapacitated. PG&E operates the gas system from the Brentwood facility once each quarter. Joint R.T. 163-64 (PG&E/Slibsager).</p>
<p>7. The SCADA system is separate from PG&E's Geographical Information System (GIS). The GIS data is displayed on separate computer screens at each of the operator consoles at both the primary and alternate gas control centers. (CPSD-1, p.72.)</p>	<p>Generally accurate. Each gas control operator console, in both San Francisco and the Brentwood alternate facility, has multiple computer screens that provide access to, among other things, SCADA, GIS, PG&E intranet, and the Internet. Ex. PG&E-1 at 9-5 to 9-7 (PG&E/Miesner).</p>
<p>8. The SCADA system is programmed to register alarms when the pressure exceeds the MAOP or if the value is less than a preset low level. It does not provide automatic control or intelligent alarming functions such as high rate of change alarms. The operational decisions are made by PG&E Gas Operators in charge of the five consoles at the Gas Control Center. (CPSD-1, p.73.)</p>	<p>Disputed. SCADA alarms are set at various points, some of which are fixed and others that gas operators control; they are not limited to MAOP and one preset low level. PG&E's SCADA and gas control system includes automated functionality and intelligent alarm capability; CPSD does not explain what it understands these terms to mean. As of September 9, 2010, there were five gas control consoles; there are now six. Ex. PG&E-1 at 9-3 to 9-6 (PG&E/Miesner); Ex. PG&E-1 at 8-2 to 8-4 (PG&E/Slibsager/Kazimirsky).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>9. Monitor valves act as limiting devices to protect against accidental overpressure for the outgoing gas pipelines. Regulator valve set points for outgoing lines can either be manually set at the Milpitas Terminal or remotely set through SCADA by PG&E Gas Control. (CPSD-1, p.74.)</p>	<p>Generally accurate with the addition that monitor valves operate pneumatically, not electrically, to provide additional redundancy in the pressure limiting system. Ex. PG&E-1 at 9-5 to 9-7, 9-12 to 9-14 (PG&E/Miesner).</p>
<u>Milpitas Terminal</u>	
<p>10. The Milpitas Terminal has four incoming natural gas transmission lines and five outgoing natural gas transmission lines and is equipped with pressure regulation and overpressure protective devices to control incoming and outgoing pressure. The pressure regulating valves are electrically actuated with the SCADA system controls while the monitor valves are pneumatically controlled valves. (CPSD-1, p.73.)</p>	<p>Generally accurate. The pressure limiting system at Milpitas Terminal functioned as designed on September 9, 2010 to keep pressure below MAOP and regulatory limits. Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-7 to 9-14 (PG&E/Miesner).</p>
<p>11. Each of the incoming pipelines to the Milpitas Terminal has a regulating valve and a monitor valve to limit the pressure within the terminal. Pressure is further reduced with a second regulating valve and a monitor valve for overpressure protection before it is sent through the outgoing lines. The monitor valves are normally left fully open. When the downstream pressure starts to increase and exceed a pressure set point, the monitor valve moves to control the downstream pressure. (CPSD-1, p.75.)</p>	<p>Generally accurate with clarification. The incoming and outgoing pipelines at Milpitas Terminal contain multiple regulating and monitor valves.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>12. PG&E's gas control system consists of Programmable Logic Controllers (PLCs), pressure controllers and related instrumentation which communicate with the SCADA computers in San Francisco. Redundant PLCs are provided with a fail-over switch so, if one fails, the other will pick up. The PLCs communicate with the 26 pressure controllers over a local Ethernet network. The PLCs execute a large program that calculates the flows and processes the inputs from many valve position sensors. The PLCs manage communication with the 26 pressure controllers and generate controller error alarms should a controller fail or lose communication. The PLCs also communicate commands issued by the Gas Operators located at Gas Control Center in San Francisco to control valves and to change pressure set points. Communication between the PLC software and the equipment is transmitted over individual wires connected to the PLC Input/Output (I/O) devices (also referred to as Genius Blocks). (CPSD-1, p.78.)</p>	<p>Generally accurate, with the clarification that the proposed finding relates to Milpitas Terminal, not PG&E's entire "gas control system," and does not describe the complete local control system at Milpitas Terminal.</p>
<p>13. At the Milpitas Terminal, all of the pressure instruments have a full scale range of 0 to 800 psig. The pipeline at the Milpitas Terminal is rated up to 720 psig, therefore no pressure greater than 800 psig should ever occur. (CPSD-1, p.79.)</p>	<p>Generally accurate with respect to the relevant "pressure instruments."</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>14. PG&E installed an Uninterruptible Power Supply (UPS) at Milpitas Terminal to power the SCADA and control equipment during a power outage and before the emergency generators start delivering backup power. (CPSD-1, p.80.)</p>	<p>Generally accurate with the addition that the UPS system provided power to additional equipment not mentioned in the proposed finding.</p>
<p>15. In 2010, PG&E decided to replace the entire UPS system with a new one. The UPS at the Milpitas Terminal had been in service since the 1980s, with a three-phase system that was no longer needed and for which parts were no longer available. (CPSD-1, p.81.)</p>	<p>Misleading as stated. The UPS system at Milpitas Terminal was installed in 1989, and was continually maintained; it had not been “in service since the 1980s.” Ex. PG&E-1 at 8-10 to 8-11 (PG&E/Slibsager/Kazimirsky).</p>
<p>16. In February 2010, PG&E asked a Contract Engineer to offer a proposal to investigate and provide recommendations for UPS/battery problems at the Milpitas Terminal. In mid-March 2010, a Contract Work Authorization was approved for the Contract Engineer to perform the proposed work on the UPS at Milpitas Terminal. (CPSD-1, p.81.)</p>	<p>Misleading with respect to “problems at the Milpitas Terminal” but otherwise generally accurate. The decision to replace the UPS and preparation of the Contract Work Authorization occurred prior to any UPS “failure” at Milpitas Terminal.</p>
<p>17. On March 31, 2010, the UPS at the Milpitas Terminal failed, exposing the gas control system to a short interruption of power and potential loss of pressure control. (CPSD-1, p.81.)</p>	<p>Disputed. On March 31, 2010, the UPS at Milpitas Terminal did not fail in operation; during scheduled system testing, the UPS did not function as required for reliable operation. The gas control system never lost pressure control, nor was it exposed to a “potential loss of pressure control.” The redundant monitor valves at Milpitas Terminal are pneumatically controlled and are not impacted by a power failure, thus UPS functionality does not (and did not) impact the redundant pressure control system. Ex. PG&E-1 at 8-5 to 8-8 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-12 to 9-14 (PG&E/Miesner); Ex. PG&E-5 (Tab 8-2).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>18. On April 1-2, 2010, PG&E installed three temporary mini-UPS units at Milpitas Terminal to provide temporary backup power. (CPSD-1, p.81.)</p>	<p>Generally accurate; PG&E installed the mini-UPS units as a precautionary measure while the new UPS was engineered and manufactured (it is not an "off-the-shelf" device). Joint R.T. 91 (PG&E/Kazimirsky).</p>
<p>19. A clearance application to install the permanent UPS at the Milpitas Terminal was submitted on August 19, 2010 as Clearance Number MIL-10-09 and approved by PG&E Gas Control on August 27, 2010. (CPSD-1, p.83.)</p>	<p>Generally accurate.</p>
<p>20. System clearance is required for work that affects gas flow, gas quality, or the ability to monitor the flow of gas. All system clearances require authorization from PG&E's Gas System Operations (GSO). PG&E Work Procedure (WP) 4100-10 issued August 2009 describes the two types of clearances required, depending on the work to be performed: (1) System Clearance and (2) Non-system Clearance. (CPSD-1, p.82.)</p>	<p>Generally accurate with the clarification that the clearance Work Procedure 4100-10 is a PG&E internal procedure, not a regulatory requirement. Ex. PG&E-1 at 8-8 to 8-10, 8-21 to 8-22 (PG&E/Slibsager/Kazimirsky).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>21. PG&E's WP 4100-10 requires a designated Clearance Supervisor for all clearances at all times. Clearance application MIL-10-09 marked the Clearance Supervisor as "TBD". Under the Description box is "GC M&C remove old UPS system and install new UPS at Milpitas Terminal", with the Special Instructions box marked "Yes". On the list of Special Instructions, it states: (1) "Technician to contact SF Gas Control prior to work and at the completion of work - Technicians will be on site with GC M&C during work"; and (2) the names and contact numbers of the technicians working on the project. The checkbox on the form which asks if normal function of the facility will be maintained was checked "No". The clearance application requires an explanation whenever this box is checked "No". However, there was no explanation provided on the clearance application as to how the work will affect normal function of the Milpitas Terminal. (CPSD-1, p.83.)</p>	<p>Disputed; misleading without clarification. On September 9, 2010, the crew at Milpitas Terminal was working under a designated Clearance Supervisor. The Clearance Supervisor at Milpitas Terminal verbally communicated with Gas Control before taking each step in the work that would impact Gas Control's ability to receive SCADA data. The planned UPS work did not involve any action that could impact gas pressure or flow; the issues power supplies PS-A and PS-B experienced (that did impact pressure and flow) were not related to the UPS. Ex. PG&E-1 at 8-8 to 8-10 (PG&E/Slibsager/Kazimirsky); Joint R.T. 150-51 (PG&E/Kazimirsky).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>22. Under the Sequence of Operations, the clearance application states "Report On Daily and Report Off". It did not list any specific operations or key communication steps to be reported to Gas Control. PG&E's Work Procedure requires the Clearance Supervisor to report key communication steps identified in the Sequence of Operations to Gas Control, including operation of any piece of equipment that affects the flow and/or pressure of gas or ability of Gas Control personnel to monitor the flow and/or pressure of gas on SCADA. (CPSD-1, p.83.) One of the steps taken during the UPS work at the Milpitas Terminal was switching the controllers to manual, which locks the valve to its current setting and disables Gas Control's ability to change the valve settings remotely. (Ibid.) This should have been clearly stated on the clearance application as a key communication step within its Sequence of Operations. (Ibid.) Further, PG&E WP 4100-10 requires the Clearance Supervisor to fill in any steps in a system clearance with the time, date, and initials of the person completing the step and file the clearance as completed. (Ibid.) No record was provided by PG&E showing the specific steps taken and the time, date, and initials of the person completing each step in the system clearance. (Ibid.)</p>	<p>Disputed; misleading without clarification. The crew at Milpitas Terminal orally communicated with Gas Control before taking each step in the work that would impact Gas Control's ability to receive SCADA data. Switching controllers from automatic to manual and back was a precautionary measure. The planned UPS work did not involve any action that could impact gas pressure or flow; the issues power supplies PS-A and PS-B experienced (that did impact pressure and flow) were not related to the UPS. PG&E also disputes CPSD's characterizations "key communication steps[.]" and "this should have been clearly stated on the clearance application as a key communication step[.]" CPSD's characterizations are subjective judgments. Ex. PG&E-1 at 8-8 to 8-10 (PG&E/Slibsager/Kazimirsky); Joint R.T. 147-51, 155-56 (PG&E/Slibsager/Kazimirsky).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>23. At 2:46 p.m. on September 9, 2010, the work to replace the temporary UPS was begun at PG&E's Milpitas Terminal. (CPSD-1, p.7.)</p>	<p>Generally accurate with the addition that the crew held pre-construction meetings earlier on September 9, 2010 and in August 2010. Ex. PG&E-1 at 8-5, 8-8 (PG&E/Slibsager/Kazimirsky). There had also been work authorizations and preliminary work and engineering activities in the preceding months, as noted in proposed findings 16, 17 and 18.</p>
<p>24. Between 2:00 p.m. and 4:40 p.m., the team installed mini-UPS units 5, 6, 7 and 8. The three Ethernet Switches that connect the pressure controllers to the PLCs were also placed on mini-UPS at this time. (CPSD-1, p.86.)</p>	<p>Generally accurate.</p>
<p>25. At 4:46 p.m., the PG&E Gas Technician at the Milpitas Terminal called Gas Operator 2 to let him know SCADA communication with the Milpitas Terminal would be interrupted for a few minutes while they installed Mini-UPS unit 7, the last one of the day. (CPSD-1, p.86.)</p>	<p>Generally accurate with the addition that the Clearance Supervisor communicated with Gas Control on multiple occasions throughout the work. Ex. PG&E-1 at 8-8 to 8-10 (PG&E/Slibsager/Kazimirsky).</p>
<p>26. The workers then discovered that an unidentified active circuit breaker remained in the Uninterruptible Distribution Panel (UDP). The Contract Engineer switched it off and the mimic panel went dead. After some research, he was able to identify power supply PS-C as the one which was connected to the unidentified breaker, and powered the indicators on the mimic panel. The Contract Engineer then installed mini-UPS unit 9 to power PS-C and the mimic panel. (CPSD-1, p.86.)</p>	<p>Disputed; misleading without clarification. Prior to switching off the referenced circuit breaker, the crew had completed installing temporary UPS devices on the critical control equipment. The "mimic panel" at Milpitas Terminal is a large visual display of the terminal that has been functionally replaced by the SCADA and computerized local control systems. The power interruption to the mimic panel had no operational impact, nor could it have. Ex. PG&E-1 at 8-5 to 8-10 (PG&E/Slibsager/Kazimirsky).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>27. At that time, the system appeared to be operating normally. Alarm records show no activity from 5:09 p.m. to 5:21 p.m. The crew working in Milpitas was getting ready to wrap up, believing they had successfully completed the planned activities for the day. (CPSD-1, p.86.)</p>	<p>Generally accurate, with the clarification that the crew <i>had</i> “successfully completed the planned activities for the day.” Ex. PG&E-1 at 8-9 & n.8 (PG&E/Slibsager/Kazimirsky).</p>
<p>28. At 5:22 p.m., the SCADA center alarm console displayed over 60 alarms within a few seconds, including controller error alarms and high differential pressure and backflow alarms from the Milpitas Terminal. These alarms were followed by pressure alarms on several lines leaving the Milpitas Terminal, including Line 132. (CPSD-1, p.11.)</p>	<p>Generally accurate with the addition that the error alarms were related to the power fluctuations in power supplies PS-A and PS-B. Ex. PG&E-1 at 8-5 to 8-6 (PG&E/Slibsager/Kazimirsky).</p>
<p>29. At 5:23 p.m., records of SCADA alarms and pressure readings indicate valves opening and pressure increasing. The pressure readings measured at flow meters M31, M32 and M38 on Lines 132, 101 and 109, respectively, increased from 370 psig to 380 psig in about 90 seconds. (CPSD-1, p.87.)</p>	<p>Generally accurate with the clarification that the proposed finding is based on CPSD’s post-event analysis. Gas control operators had to respond immediately without the benefit of hindsight. They nonetheless quickly recognized the pressure increase and that the pressure limiting system was functioning properly to stop the pressure increase. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-11 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>30. The alarms were likely caused by an intermittent short circuit on a piece of wire in the pressure feedback circuit in the Control System equipment enclosure which contains hundreds of wires. The short circuit started a cascade of failures in the gas pressure sensors and pressure controls which lasted for over three hours. The Contract Engineer and Construction Lead began disconnecting and reconnecting circuits to find where the shorted wires loaded on the 24 volt current loops. At about 8:40 p.m., they eliminated the short and all the instruments and controls then resumed normal operation. The shorted connection was at a terminal block near the PS-A and PS-B where wires were possibly jostled during connection of the mini-UPS. (CPSD-1, p.87.)</p>	<p>Disputed. The cause of the power fluctuations to power supplies PS-A and PS-B is not known with certainty. Describing the circumstances as a “cascade of failures in the gas pressure sensors and pressure controls which lasted for over three hours” is not accurate. The pressure limiting system functioned within minutes to catch and limit the pressure increase. SCADA data continued to be intermittently invalid for a few hours during the troubleshooting the crew performed on the electrical system at Milpitas Terminal. Ex. PGE-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Joint R.T. 98-100 (PG&E/Kazimirsky); Ex. PG&E-1 at 9-12 to 9-14 (PG&E/Miesner).</p>
<p>31. Because of the malfunctions, PG&E's Gas Operators in San Francisco lost the ability to monitor and control the valves at the Milpitas Terminal with the SCADA system displaying inaccurate information. (CPSD-1, p.95.)</p>	<p>Disputed. Gas control operators did not lose the ability to monitor or control all valves at Milpitas Terminal. The power fluctuations in power supplies PS-A and PS-B caused some valves to open, and some SCADA data to be a mixture of valid and invalid information. The pressure limiting system functioned within minutes to catch and limit the pressure increase at Milpitas Terminal, which gas control operators recognized. Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-7 to 9-14 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>32. Loss of information and control over the pipelines caused various regulating valves to fully open. This caused gas pressure in lines leaving the Milpitas Terminal, including Lines 101, 109 and 132, to increase. According to telemetry data obtained during the investigation, the pressure on Line 132 leaving the Milpitas Terminal reached a high of 396 psig as measured manually. (CPSD-1, p.8.)</p>	<p>Disputed. Control over the pipelines was not lost. The power fluctuations in power supplies PS-A and PS-B caused some regulating valves to open, and some SCADA data to be a mixture of valid and invalid information. The monitor valve system caught and maintained pressure as designed, below MAOP and well below regulatory limits. The referenced 396 psig reading was based on a manual pressure gauge, not "telemetry data." Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-12 to 9-14 (PG&E/Miesner).</p>
<p>33. The Gas Technician at Milpitas began to manually apply valve pressure gauges to verify and report pressure readings and positions of regulating and monitoring valves to Gas Operators at the Gas Control Center. The Gas Technician was instructed to manually close certain valves and lower monitor valve set points. About 40 minutes after pressures began rising in the gas discharge header at the Milpitas Terminal, Line 132 ruptured. (CPSD-1, p.95.)</p>	<p>Disputed. Approximately 50 minutes after the power issues occurred at Milpitas Terminal, Line 132 ruptured. Ex. PG&E-40 at 2-5. It is not clear what significance CPSD is giving to the assertion "pressures began rising in the gas discharge header at Milpitas Terminal..." The rupture location was approximately 39 miles from the "discharge header" at Milpitas Terminal; the pressure on Line 132 at Milpitas Terminal never exceeded 396 psig, and did not exceed 386 psig at the rupture location. Ex. PG&E-1 at 8-5 to 8-8 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-12 to 9-14 (PG&E/Miesner).</p>
<p>34. At 6:11 p.m., SCADA data indicated that a rupture had occurred when pressures on Line 132 upstream of the Martin station rapidly decreased from a high of 386 psig. (CPSD-1, p.11.)</p>	<p>Disputed. At 6:11 p.m., Line 132 ruptured. The first low-low SCADA alarm came in at 6:15 p.m. That alarm was one data point among many that gas control operators were analyzing. It is not accurate to suggest that SCADA immediately showed a rupture at 6:11 p.m. or that gas control operators should have concluded at 6:11 p.m. that a ruptured had occurred. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-12 (PG&E/Miesner); Ex. PG&E-40 at 2-6.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>35. It was after 10:30 p.m. when the Senior Gas Engineer was able to restore operation to the three PLCs which had malfunctioned. Those units suffered a rare type of malfunction and the manufacturer had to be contacted to advise how to correct it. PG&E did not determine if this malfunction was indicative of failing or defective units and they are still in service. (CPSD-1, p.87.)</p>	<p>Disputed. Three PLCs did not malfunction at Milpitas Terminal; three <i>valve controllers</i> did not reboot after having power interrupted during post-event troubleshooting. The issue with these three valve controllers was not related to the cause of the pressure increase. Before putting the controllers back into service, PG&E thoroughly tested them and confirmed they were functioning properly. Ex. PG&E-1 at 8-5 to 8-6, 8-14 to 8-15 (PG&E/Slibsager/Kazimirsky); Joint R.T. 93-97 (PG&E/Kazimirsky).</p>
<p>36. The highest pressure recorded at an upstream location closest to Segment 180 just prior to the failure was determined to be 386 psig. Based on a review of historical pressure data, this was the highest pressure Segment 180 had experienced within the seven years preceding the rupture. (CPSD-1, p.8.)</p>	<p>Disputed. PG&E agrees that the high pressure at the rupture location on September 9, 2010 was approximately 386 psig. CPSD does not provide evidentiary support for its assertion regarding historical pressure data for “the seven years preceding the rupture,” other than referring to a prior iteration of the same assertion (that also cites no evidence in support). The MAOP of Line 132 was 400 psig, validly established under 49 C.F.R. § 192.619(c). Ex. CPSD-1 at 24 (CPSD/Stepanian).</p>
<u>Response to the Explosion</u>	
<p>37. 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.)</p>	<p>Misleading without the additional context that gas control operators had been receiving and analyzing SCADA alarms and uncertain SCADA data for approximately 50 minutes at this time. The SCADA points referenced in the proposed finding did not exist in isolation. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-10 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>38. 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.)</p>	<p>Partially disputed. The San Bruno Fire Department first unit arrived at the scene a few minutes later at 6:17 p.m. Ex. PG&E-40 at 6.</p>
<p>39. No outgoing calls were made by PG&E to fire or police officials upon discovery of the incident. (CPSD-1, p.118.)</p>	<p>Misleading without the following additions: Although PG&E does not have a record of making a call to 911, PG&E field personnel were working on site with the public agency first responders within 30 minutes of the rupture. Ex. CPSD-97 at 9, 11; Ex. PG&E-40 at 10; Ex. CPSD-1 at 110 (CPSD/Stepanian); PG&E OB at 110. As emergency response expert David Bull testified, the notification and coordination requirement was fulfilled at the time PG&E personnel arrived at the scene, confirmed that there was a gas emergency and coordinated with public responders in taking additional emergency actions. PG&E OB at 110; R.T. 420-21 (PG&E/Bull).</p>
<p>40. 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.)</p>	<p>Generally accurate with additions. This was the first notice PG&E had of the event, and the cause of the fire was at that time unknown to all. Ex. PG&E-1 at 8-5 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-40. That an off-duty PG&E employee called to report the existence of a fire of unknown cause demonstrates initiative and proper training.</p>
<p>41. 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.)</p>	<p>Generally accurate with additions. This call by another off-duty PG&E employee further demonstrates the concern and training of PG&E personnel. Ex. PG&E-40.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>42. 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.)</p>	<p>Generally accurate with additions. This call by another off-duty PG&E employee further demonstrates the concern and training of PG&E personnel. Ex. PG&E-40.</p>
<p>43. 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.)</p>	<p>Generally accurate with the addition that GSRs are the designated first responders under PG&E procedure and policy. R.T. 380 (PG&E/Almario).</p>
<p>44. 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.)</p>	<p>Generally accurate.</p>
<p>45. 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.)</p>	<p>Misleading without additional context that the referenced "alarm" being analyzed by gas control operators did not exist in isolation. By this time, gas control operators had been receiving and analyzing multiple SCADA alarms and data for over an hour. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-10 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>46. 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.)</p>	<p>Generally accurate.</p>
<p>47. 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.)</p>	<p>Mischaracterized as stated. That multiple PG&E personnel self-dispatched to the scene of an unknown major fire demonstrates initiative and concern. R.T. 384-85 (PG&E/Almario).</p>
<p>48. 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.)</p>	<p>Generally accurate.</p>
<p>49. 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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>50. 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.)</p>	<p>Generally accurate with the addition that these actions again demonstrate the initiative and training of PG&E personnel. R.T. 384-85 (PG&E/Almario).</p>
<p>51. 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.)</p>	<p>Generally accurate.</p>
<p>52. 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.)</p>	<p>Generally accurate with the addition that the Deputy Incident Commander and the M&C Mechanics were already responding to the event. Ex. CPSD-97 at 9, 11; Ex. PG&E-40.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>53. 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.)</p>	<p>Disputed with regard to the first sentence. PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m. and served as PG&E's Deputy Incident Commander, recognized that the incident likely involved a PG&E gas transmission line. Ex. CPSD-97 at 11, 15-16. The responding M&C mechanic also immediately recognized the possibility that the fire was fed by natural gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p> <p>Misleading without the following addition with regard to the second sentence: there is no legal requirement to have such training for first responders. PG&E OB at 112. Further, as stated above, the responding M&C mechanic immediately recognized the possibility that the fire was fed by gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p>
<p>54. 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.)</p>	<p>Misleading without the following addition: PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m. and served as PG&E's Deputy Incident Commander, recognized that the incident likely involved a PG&E gas transmission line. Ex. CPSD-97 at 9-11, 15-16. The responding M&C mechanic also immediately recognized the possibility that the fire was fed by natural gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>55. 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.)</p>	<p>Misleading without the following addition: At 6:39 p.m., Gas Control operator stated that there were conflicting reports, some said it involved a gas station, some said a jet engine sound, which would indicate that it was natural gas. Ex. CPSD-56 at 161.</p>
<p>56. 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.)</p>	<p>Generally accurate, but the mechanic’s arrival at the Colma Yard and the gas control operator’s statement have no relation or relevance to each other.</p>
<p>57. 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.)</p>	<p>Misleading without the following clarifications. Multiple “crews” responded, including personnel directed to Martin Station, where the high pressure section of Line 132 terminates. PG&E Dispatch told the Troublemens that “we are being told” that a plane has crashed into a gas station. Ex. PG&E-40 at 10. Troublemens are electrical personnel, not gas responders.</p>
<p>58. 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.)</p>	<p>Generally accurate, except for any adverse implication intended by the reference to “watching the news.”</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>59. 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.)</p>	<p>Generally accurate.</p>
<p>60. 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.)</p>	<p>The first valve location is V-38.49. Ex. PG&E-40 at 11-12.</p>
<p>61. 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.)</p>	<p>Misleading without the following clarification: "Feeding" the pipelines was necessary to avoid an uncontrolled shutdown of gas service to the Peninsula itself, which could create significant new and additional dangers. Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).</p>
<p>62. 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.)</p>	<p>Generally accurate with the clarification that Troublemens are electric operations personnel, not gas.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>63. 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.)</p>	<p>Generally accurate.</p>
<p>64. 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.)</p>	<p>Misleading without the following clarification. Troublemens address electrical issues; the "Troublemens Supervisor's plan" is not directly related to the response by the M&C mechanics to close gas transmission valves. Troublemens responded to address electric facilities that may have been involved at the site.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>65. 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.)</p>	<p>Misleading without clarification. Martin Station is approximately 8 miles from the accident site. Due to that distance, and because gas was coming primarily from the upstream side of the rupture, closing the remote valves at Martin Station could not immediately cut off the gas flow to the rupture. It could, however, have created dangerous collateral consequences if done rashly. Ex. PG&E-1 at 8-6 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).</p>
<p>66. 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.)</p>	<p>Partially disputed. It is speculative as to what would have been considered to be "appropriately spaced" pressure and flow transmitters, or RCVs or ACVs. Only with hindsight can it be identified where transmitters could have been "appropriately" located to aid in reducing the time for isolating the rupture. Prior to September 9, 2010, there were no regulations dictating where such equipment be installed throughout PG&E's extensive gas transmission system. 49 C.F.R. § 192.935(c); Ex. PG&E-1 at 5-17 (PG&E/Zurcher); R.T. 340 (PG&E/Almario); Joint R.T. 820-21 (PG&E/Zurcher).</p>
<p>67. 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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>68. 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 300 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.)</p>	<p>Generally accurate.</p>
<p>69. 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.)</p>	<p>Generally accurate.</p>
<p>70. PG&E did not perform any drug or alcohol testing of its SCADA staff. (CPSD-9, p.105.)</p>	<p>Misleading without the following addition: No evidence in the record establishes that PG&E was required to test the SCADA staff, or even required to consider testing the SCADA staff.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<u>History of Segment 180</u>	
71. The section of pipeline involved in the incident was Segment 180, at Mile Post (MP) 39.28 of PG&E's Line 132, located at the intersection of Earl Avenue and Glenview Drive in San Bruno, California. (CPSD-1, p.7.)	Generally accurate.
72. The City of San Bruno is in a Class 3 location, and Segment 180 was intended to meet the design and construction requirements in effect at that time for a Class 3 location. Class 3 refers to any location unit that has 46 or more buildings intended for human occupancy. (CPSD-5, p.6; CPSD-9, p.133.)	Partially disputed. The class location of "[t]he City of San Bruno" is not the relevant inquiry in this investigation. In 1956, Segment 180 was in a Class 2 location. With the development of the Crestmoor neighborhood, the area of Segment 180 became a Class 3 location. Ex. PG&E-1 at 2-10 (PG&E/Harrison); PGE OB at 56.
73. PG&E provided a pressure log from the Milpitas Terminal dated October 16, 1968, showing a recorded pressure of 400 psig for Line 132. This pressure log was used by PG&E as the basis for establishing a Maximum Allowable Operating Pressure (MAOP) of 400 psig for Line 132. (CPSD-1, p.23.)	Generally accurate. PG&E OB at 51-56; PG&E RB at 46-47.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>74. Segment 180 was installed in 1956 as part of a relocation project of approximately 1,851 feet of Line 132 that originally had been constructed in 1948. The relocation of Segment 180 started north of Claremont Drive and extended south of San Bruno Avenue and moved the pipeline from the east side to the west side of Glenview Drive. (CPSD-1, p.15.) This relocation was necessary because of grading associated with land development in the vicinity of the existing pipeline. The construction was performed by PG&E personnel. (CPSD-1, p.15.)</p>	<p>Partially disputed. The construction of Segment 180 was performed by PG&E. However, PG&E did not manufacture the pipe for Segment 180, and does not know who manufactured the pups found in Segment 180. PG&E OB at 8, 14.</p>
<p>75. Segment 180 originally was documented in PG&E records as being 30-inch diameter seamless steel pipe with a 0.375 inch wall thickness and having a Specified Minimum Yield Strength (SMYS) of 52,000 psi, installed in 1956. PG&E obtained this material specification information for Segment 180 from accounting records rather than engineering records. (CPSD-1, p.16.)</p>	<p>Partially disputed. Mr. Harrison testified that PG&E had material specifications for Segment 180 in the job files. Joint R.T. 322, 329 (PG&E/Harrison); Ex. Joint-10 at HRG 0063 (Line Segment 180 Job File); Ex. Joint-12.</p>
<p>76. PG&E's identification of the entire length of Segment 180 as a seamless pipe was incorrect. (CPSD-1, p.7, p.47.) There was no American Petroleum Institute (API)-qualified domestic manufacturer of 30-inch diameter seamless steel pipe when the line was constructed. (CPSD-1, p.32; CPSD-9, p.61.) Segment 180 was in fact a 30-inch diameter Double Submerged Arc Welded (DSAW) pipe. (CPSD-1, p.7.)</p>	<p>Generally accurate with the following qualification. PG&E was unaware of the existence of the pups and that Segment 180 differed from PG&E's specifications for the job. PG&E became aware of this information only after the accident and with the release of the NTSB Report. PG&E OB at 8, 14, 40-42, 48. Also, seamless and DSAW pipe are not treated differently for MAOP or integrity management purposes. Ex. PG&E-1c at 4-12-31, 36, 65 (PG&E/Keas).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>77. PG&E believes the pipe was most likely produced by Consolidated Western in 1948, 1949 or 1953. (CPSD-5, p.21; CPSD-9, p.28.) According to PG&E, between 1947 and 1957, it purchased a total of 320,065 feet of 30-inch pipe from three suppliers. The pipe used for the 1956 project was assembled from multiple material procurement orders. (CPSD-5, p. 21.)</p>	<p>Generally accurate with respect to Segment 180 as a whole; PG&E does not know from where the pups in Segment 180 originated. PG&E OB at 8, 14.</p>
<p>78. The rupture of Segment 180 began on a fracture that originated in the partially welded longitudinal seam of one of six short pipe sections, which are known in the industry as “pups.” (CPSD-9, p.x of the Exec. Summary.)</p>	<p>The cause of the Segment 180 rupture was a defective piece of pipe installed in 1956 with a missing interior weld. A single event, most likely a post-construction hydro test, caused a ductile fracture from which a fatigue crack developed and grew over time until it ruptured on September 9, 2010. Ex. PG&E-1, Chapter 3 (PG&E/Caligiuri).</p>
<p>79. PG&E records for Segment 180 did not disclose the existence of the pups. The manufacturer of the pups is unknown. (CPSD-1, p.16.)</p>	<p>Generally accurate with the following qualification. Had PG&E known of the existence of the pups, it would not have installed them, thus no records of their installation would be expected to exist. Joint R.T. 830 (PG&E/Zurcher); Joint R.T. 1019 (PG&E/Keas); PG&E OB at 8, 14; <i>see also</i> PG&E RB at 47.</p>
<p>80. An NTSB metallurgical examination determined that the yield strength values of all six pups were lower than 52,000 psi, which is the designated yield strength for Segment 180. (CPSD-1, p.20; CPSD-9, p.28.)</p>	<p>Generally accurate with a clarification. PG&E's design for Segment 180 specified pipe with a 52,000 yield strength; no particular yield strength was required by law. Ex. PG&E-1 at 2-5 to 2-6 (PG&E/Harrison); PG&E OB at 48-49; PG&E RB at 39-40.</p>
<p>81. Pup 1, the failed pup on which the fracture initiated, was found to have yield strength of only 36,600 psi, and Pup 2 had the lowest yield strength of 32,000 psi. (CPSD-1, p.20.)</p>	<p>Generally accurate with the following additions. The yield strength of the pups of Segment 180 did not have any role in the accident. No particular specified minimum yield strength is required under the regulations, subject to the appropriate design criteria for the applicable class location. PG&E OB at 48-49; PG&E RB at 39-40.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>82. Longitudinally, Pups 1, 2 and 3 were partially welded on the seam from the outside and the weld did not penetrate through the inside of the pipe. No inside weld, required for a DSAW welded pipe, was found on the inside of the pipe. According to the NTSB metallurgical examination, the fusion welding process left an unwelded region along the entire length of each seam, resulting in a reduced wall thickness. (CPSD-1, p.20; CPSD-16, p.63.)</p>	<p>Generally accurate with a clarification. The NTSB metallurgical examination found “the longitudinal seam welds on pups 1-3 were fabricated using a fusion welding process that deposited weld metal along the outer portion of the seam, but left an unwelded region along the inner portion of the seam.” Ex. CPSD-9 at 41.</p>
<p>83. A visual examination of the pipe would have detected the anomalous and defective welds. The unwelded seam defects and manual arc welds ran the entire length of each pup and were detectable by the unaided eye and/or by touch. (CPSD-9, p.96.)</p>	<p>Disputed. While PG&E acknowledges the NTSB’s findings, a visual inspection would not necessarily have resulted in the detection of the pups or the welds. If the pups were delivered double-wrapped for external corrosion protection, consistent with PG&E design specifications, PG&E would not have readily known about the pups or the condition of the welds; neither would have been visible. Ex. PG&E-1 at 2-6 to 2-7 (PG&E/Harrison); Joint R.T. 379-88, 411-12 (PG&E/Harrison).</p>
<p>84. The girth welds and longitudinal seams associated with the pups had welding deficiencies related to incomplete fusion, burn through, slag inclusion, crack, undercut, excess reinforcement, porosity defects and lack of penetration. (CPSD-1, p.20; CPSD- 16, p.6.)</p>	<p>Misleading without the following clarification: There is no record evidence that any of the girth weld imperfections fell below the applicable acceptance criteria applicable in 1956; all welds have imperfections but only those falling below established acceptance criteria are rejected as unfit. PG&E RB at 42-43.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>85. The initial crack-like defect extended longitudinally along the entire length inside of the weld (the root) on Pup 1, resulting in a net intact seam thickness of 0.162 inches. With a nominal 0.375 inch wall thickness, the intact wall thickness was approximately 43% at the weld. There was also an angular misalignment on the inside of Pup 1. Given this initial defect, an additional 2.4 inch defect grew to failure. The initial crack-like defect first grew by ductile fracture (Stage 1). Then the crack grew by fatigue (Stage 2). The final stage was the rupture of the pipe, identified as a quasicleavage fracture (Stage 3). (CPSD-1, p.50; CPSD-9, p.41.)</p>	<p>Partially disputed. PG&E acknowledges the NTSB's finding that the seam weld thickness of pup 1 was 0.162 inches. The seam weld thickness of pup 1 was the result of the missing interior longitudinal seam weld. Ex. CPSD-9 at 41-43.</p> <p>As Mr. Harrison testified, it is incorrect to compare a measurement of the wall thickness of a pipe body with a measurement of weld seam thickness. Joint R.T. 399-400 (PG&E/Harrison). The NTSB concluded that the wall thickness of the pups was consistent with the 0.375" specification. Ex. CPSD-9 at 41.</p> <p>Dr. Caligiuri testified that the initial cause of the ductile tear in pup 1 was likely a post-installation hydro test. Ex. PG&E-1 at 3-16 to 3-17 (PG&E/Caligiuri).</p>
<p>86. All of the pups used for Segment 180 were less than 5 feet in length. (CPSD-1, p.22.)</p>	<p>Generally accurate with clarification. In itself, using short pieces of pipe does not create a safety concern, nor does it violate any applicable law or regulation. R.T. 1059-61 (PG&E/Caligiuri); Joint R.T. 410-11 (PG&E/Harrison); PG&E OB at 50-51.</p>
<p>87. PG&E was unable to produce records demonstrating that a strength test was performed on Segment 180 at the conclusion of its construction or at any time during its operation. (CPSD-1, p.22.)</p>	<p>Generally accurate but misleading without the following additions: Although PG&E does not have documentation of a post-construction pressure test, a PG&E employee at the time recalls seeing a hydro test on Segment 180, the bill of materials for the Segment 180 job shows materials procured for the job that would only be useful in performing a hydro test, and Dr. Caligiuri testified based on his metallurgical examination of the failed pup that the most likely cause of the ductile tear was a hydro test. PG&E OB at 53-55; PG&E RB at 41-42.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>88. The NTSB report found that the calculated burst pressure estimates were 594 and 515 psig for Pup 1; 668 and 574 psig for Pup 2; and 558 and 430 psig for Pup 3, respectively. The analysis was done assuming no crack growth in the weld defect in Pup 1 and no angular misalignment of the Pup 1 longitudinal seam. Based on the pipeline characteristics associated with the pups and the Class 3 location, if a strength test had been performed to 1.4 times MAOP (400 x 1.4 = 560 psig), it is highly probable that the pups in Segment 180 would have failed. (CPSD-1, pp.60-61; CPSD-9, p.49.)</p>	<p>Disputed. Dr. Caligiuri testified that even if a pressure test had been performed to 1.4 times MAOP, the pups in Segment 180 may not have ruptured. R.T. 1070-71 (PG&E/Caligiuri). Although the pipe materials were designed to meet Class 3 requirements, the pipe was not necessarily tested to a pressure of 560 psig because the location was Class 2 in 1956. R.T. 1068-69 (PG&E/Caligiuri); Ex. PG&E-1 at 2-7 to 2-9 (PG&E/Harrison).</p>
<u>Integrity Management</u>	
<p>89. In 2004, PHMSA established the Gas Transmission Integrity Management Rule (49 CFR Part 192, Subpart O), commonly referred to as the "Gas IM Rule." The Gas IM Rule specifies how pipeline operators must identify, prioritize, assess, evaluate, repair and validate the integrity of gas transmission pipelines that could, in the event of a leak or failure, affect high-consequence areas within the United States. (CPSD-1, p.133.)</p>	<p>Generally accurate. The integrity management regulations (49 C.F.R. part 192 subpart O) were effective February 14, 2004. 68 Fed. Reg. 69,778; 69 Fed. Reg. 2,307.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>90. The integrity management (IM) requirements (49 CFR Part 192) for all pipelines in high consequence areas (HCAs) were effective with the signing into law of the 2002 Pipeline Safety and Improvement Act on December 17, 2002. This law required PHMSA to promulgate regulations concerning transmission pipelines in areas that could affect human safety no later than one year after enactment. PHMSA noticed the new regulations on December 15, 2003, and these regulations required that by December 17, 2004, operators were to have IM plans developed and to have identified all HCAs. (CPSD-1, p.25.)</p>	<p>Disputed as to effective date. The Pipeline Safety and Improvement Act, signed in 2002, required PHMSA to promulgate regulations concerning transmission pipeline integrity within one year. PHMSA noticed the integrity management regulations (49 C.F.R. part 192, subpart O) on December 15, 2003, effective February 14, 2004. 68 Fed. Reg. 69,778; 69 Fed. Reg. 2,307. The integrity management regulations required operators to identify all high consequence areas by December 17, 2004, and implement an integrity management plan framework by that date. 49 C.F.R. §§ 192.907, 192.911.</p>
<p>91. The IM regulations include requirements for threat analysis, risk ranking, assessment methods and re-assessment timetables. (CPSD-1, p.25.)</p>	<p>Generally accurate.</p>
<p>92. PG&E did not always use conservative default values for pipeline segments in Line 132, when the actual value was missing or unknown. (CPSD-1, p.26; CPSD-9, p.108.)</p>	<p>Disputed. CPSD failed to prove that PG&E's use of conservative, assumed values other than 24,000 psig violated regulations or departed from industry practice, with respect to Line 132 or any other pipeline. Ex. PG&E-1c at 4-8 to 4-12 (PG&E/Keas); PG&E RB at 52-54.</p>
<p>93. PG&E did not always check the material specifications of pipeline segments in Line 132 for accuracy. (CPSD-1, p.26.)</p>	<p>Disputed. CPSD failed to prove that PG&E's data quality control measures were inadequate as a matter of law, with respect to Line 132 or any other pipeline. Ex. PG&E-1c at 4-12 (PG&E/Keas). CPSD did not raise this alleged deficiency in the 2005 or 2010 integrity management audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>94. PG&E did not always gather all relevant leak data on Line 132 and integrate it into its Geographic Information System (GIS). (CPSD-1, p.26.)</p>	<p>Disputed. PG&E gathered leak records as part of the pre-assessment phase of integrity management assessments, with respect to Line 132 and other pipelines. Additionally, leak records are not required data elements to be gathered and reviewed for manufacturing threat identification. Ex. PG&E-1c at 4-14 (PG&E/Keas). CPSD did not raise this alleged deficiency in the 2005 or 2010 integrity management audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25).</p>
<p>95. The investigation discovered a number of examples where data from PG&E's GIS were in error, but not discovered by PG&E, including (CPSD-1, p.32; CPSD-9, p.61):</p> <ul style="list-style-type: none"> a. the pipe wall thickness was an assumed value for 21.5 miles (41.75 percent) of Line 132; b. the manufacturer of the pipe was unknown ("NA") for 40.6 miles (78.81 percent) of Line 132; c. the pipeline depth of ground cover was also unknown for 42.7 miles (82.79 percent) of Line 132; d. three values were used for the SMYS of grade B pipe: 35,000 psi, 40,000 psi, and 45,000 psi; e. two segments with unknown SMYS were assigned values of 33,000 psi and 52,000 psi, not 24,000 psi; f. six consecutive segments, totaling 3,649 feet, specified an erroneous minimum depth of cover of 40 feet; g. several segments, including Segment 180, specified 30-inch-diameter seamless pipe, although there was no API-qualified domestic manufacturer of such pipe when the line was constructed; and h. the GIS did not reflect the presence of the six pups in Segment 180. 	<p>Partially disputed. PG&E acknowledges that GIS identified Segment 180 as constructed from 30-inch seamless pipe, which was in error. However, PG&E's use of conservative, assumed values where data was unavailable is authorized by integrity management regulations and common in the natural gas pipeline industry. Ex. PG&E-1c at 4-8 to 4-10 (PG&E/Keas). Moreover, there is more than one possible SMYS value for grade B pipe, as operators could specify intermediate grades above this value. Joint R.T. 53 (PG&E/Zurcher). Operators are only required to use 24,000 psig SMYS as an assumed value if the yield strength of pipe in the segment is truly unknown. Joint R.T. 28-29 (PG&E/Zurcher). CPSD's assertion that PG&E should have reflected the presence of six short pup sections in an 1,800 foot segment is incorrect, and would impose an entirely new recordkeeping standard, as even today pipeline operators do not document pipeline installations on the joint-by-joint level. Joint R.T. 487 (PG&E/Harrison). As the undisputed evidence shows, had PG&E been aware of the presence of the six pups, it would not have documented them, it would have not installed or removed them. Joint R.T. 830 (PG&E/Zurcher); Joint R.T. 1019 (PG&E/Keas).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>96. PG&E did not consider known longitudinal seam cracks dating to the 1948 construction and at least one other leak, which occurred in 1988, on a long seam of the 1948 portion of pipe. Closed leak information, such as the October 27, 1988, leak, which had been repaired, was not transferred to the GIS. (CPSD-1, p.26; CPSD-9, p.109.)</p>	<p>Disputed. Longitudinal seam cracks identified in pipe installed in Line 132 in 1948 are not evidence of manufacturing threats, as the cracks were repaired at the mill before the pipe was subjected to a 90% SMYS mill hydro test. A test of this magnitude renders any remaining defect too small to fail during the life of the pipeline. Ex. PG&E-7 (Tabs 4-17, 4-18, 4-20); Ex. PG&E-1 at 6-5 (PG&E/Kiefner); R.T. 691-92, 770, 786-87, 832 (PG&E/Kiefner). The pinhole leak that occurred in 1988 did not signal the presence of an unstable manufacturing defect, as leaks of this type do not lead to pipeline ruptures. Joint R.T. 871 (PG&E/Zurcher). Moreover, leak records are not required data elements to be gathered and reviewed for manufacturing threat identification. Ex. PG&E-1c at 4-14 (PG&E/Keas).</p>
<p>97. PG&E did not incorporate and analyze all of the known history of seam leaks or test failures. A number of defects were not incorporated into PG&E's analysis of the condition of the pipe for its 2004 Baseline Assessment Plan (BAP) (CPSD-1, pp.33- 35; CPSD-9, p.39):</p> <ul style="list-style-type: none"> a. 1948, Line 132: Multiple longitudinal seam cracks found during radiography of girth welds during construction. b. 1958, Line 300B: Seam leak in DSAW pipe. c. 1964, Line 132: A leak was found on a "wedding band" weld; the leak was the result of construction defect. The defect was found on segment 200. d. 1974, Line 300B: Hydrostatic test failure of seam weld with lack of penetration (similar to accident pipe). e. 1988, Line 132: Longitudinal seam defect in DSAW pipe. f. 1992, Line 132: Longitudinal seam defect in DSAW weld when a tie-in girth weld was radiographed. 	<p>Disputed. None of the "seam leaks or test failures" identified by CPSD indicate the presence of potential manufacturing threats on Line 132 because: (1) they occurred on pipe of dissimilar material specifications; (2) they were not seam failures within the definition of the integrity management rules; (3) they were construction defects, not manufacturing defects; and/or (4) they occurred after San Bruno. See PG&E RB at 60-65.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>g. 1996, Line 109: Cracking of the seam weld in DSAW pipe.</p> <p>h. 1996, Line 109: Seam weld with lack of penetration (similar to accident pipe) found during camera inspection.</p> <p>i. 1996, DFM-3: Defect in forge-welded seam weld.</p> <p>j. 1999, Line 402: Leak in ERW seam weld.</p> <p>k. 2002, Line 132: During a 2002 ECDA assessment, miter joints with construction defects were found on Segment 143.4.</p> <p>l. 2009, Line 132: A leak was found on Segment 189 that was caused by a field girth weld defect. Segment 189 was originally fabricated by Consolidated Western using DSAW and installed in 1948.</p> <p>m. 2009, Line 132: During the ECDA process, a defective SAW repair weld was found on Segment 186. As indicated in PG&E's pipeline survey sheet, the segment was originally fabricated by Consolidated Western using DSAW and installed in 1948.</p> <p>n. 2011, Line 300A: Longitudinal seam crack in 2-foot pup of DSAW pipe (found during camera inspection).</p> <p>o. 2011, Line 153: Longitudinal seam defect in DSAW pipe during radiographic inspection for validation of seam type.</p>	

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>98. PG&E's 2004 Baseline Assessment Plan (BAP) did not identify a construction threat based on "wedding band" joints in its threat algorithms. (CPSD-1, p.34.) PG&E's Likelihood of Failure (LOF) algorithm did not include threats from internal corrosion, stress corrosion cracking, equipment failure, incorrect operations (including human error), and cyclic fatigue. (CPSD-1, p.38.)</p>	<p>Partially disputed. The LOF algorithm is used in risk assessment to prioritize pipelines for assessment. It is not used for threat identification, as CPSD uses it. Ex. PG&E-1c at 4-33 (PG&E/Keas).</p>
<p>99. PG&E dismissed cyclic fatigue as a threat based on a report prepared for PHMSA on the stability of manufacturing and construction defects. PG&E did not incorporate cyclic fatigue or other loading conditions into the segment specific threat assessments and risk ranking algorithm. (CPSD-1, p.38, p.50.)</p>	<p>Disputed. CPSD's 2010 audit found PG&E's consideration of cyclic fatigue to be satisfactory. Ex. PG&E-7 (Tab 4-13) at 35-37. Prior to San Bruno, the consensus industry and regulatory view was that cyclic fatigue did not pose an appreciable risk to natural gas pipelines. Ex. PG&E-1 at 6-4 to 6-5 (PG&E/Kiefner); Ex. PG&E-3 (August 10, 2009 PHMSA Letter to NTSB re Safety Recommendation P-04-01).</p>
<p>100. PG&E increased the pressure on many lines, including Line 132, to a little over the line MAOP (referred to as "pressure spiking") so that it could eliminate the need to consider manufacturing and construction threats as unstable as a result of increasing the pressure above the 5 year maximum operating pressure (MOP). (CPSD-1, p.40.)</p>	<p>Disputed. PG&E has previously increased the pressure on various lines, including Line 132, to approximately MAOP. However, "pressure spiking" is not an accurate or appropriate description of the process, nor is CPSD's characterization of its purpose. Ex. PG&E-1 at 5-13 to 5-14 (PG&E/Zurcher).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>101. Identifying manufacturing and construction threats as unstable would mean that an assessment method capable of assessing seam, girth weld, and other manufacturing and construction anomalies would need to be used (hydro-testing or In-Line-Inspection). (CPSD-1, p.40.)</p>	<p>Partially disputed. The integrity management regulations require an operator to conduct an integrity assessment of the longitudinal seam of segments that are identified as having an unstable manufacturing seam threat. 49 C.F.R. §§ 192.917(e)(3)-(e)(4). Integrity management regulations do not require similar treatment for non-seam related manufacturing defects or construction defects. These threats are remediated through monitoring for ground movement. Ex. Joint-28 (ASME B31.8S) §§ A4.3-4.4, A5.3-5.4.</p>
<p>102. PG&E's risk-ranking algorithm in Risk Management Protocol (RMP)-06 does not consider DSAW pipeline as having manufacturing defects, including seam and pipe body defects. (CPSD-1, p.41.)</p>	<p>Misleading without the following additions: The "risk ranking algorithm" in RMP-01 is used to determine relative risk, and is not used in threat identification. The integrity management regulations do not identify DSAW pipe as being subject to a potential manufacturing threat, and neither does PG&E's integrity management program. Ex. PG&E-1c at 4-15 to 4-16 (PG&E/Keas). Prior to San Bruno, there was no reason for PG&E or any operator to conclude that DSAW pipe was potentially subject to a manufacturing threat. Joint R.T. 967 (PG&E/Keas); Ex. PG&E-1 at 3-5 (PG&E/Caligiuri); Ex. PG&E-1 at 5-9 (PG&E/Zurcher); Ex. PG&E-1 at 6-5 to 6-6 (PG&E/Kiefner); R.T. 691-92 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>103. A report entitled "Integrity Characteristics of Vintage Pipelines", referenced by PG&E in its first revision of RMP-06, identifies DSAW as having manufacturing defects, including seam and pipe body defects. Table E-6 in the "Vintage Characteristics of Pipelines" report identifies Consolidated Western as a manufacturer of DSAW pipe that has had incidents for both pipe body (1950 and 1954-56) and seam welds during certain years (1947, 1950, 1954-56). (CPSD-1, p.41.)</p>	<p>Misleading without the following additions: The referenced report indicates that weld-seam anomalies in DSAW pipe are "rare" and does not indicate the presence of incidents in the pipe used in Line 132, including Segment 180. Ex. Joint-49 at E-6 to E-7. CPSD's characterization of DSAW pipe as commonly experiencing seam defects is not supported by their reference to this document.</p>
<p>104. PG&E's implementation of the ECDA process along Line 132 shows that some HCAs were identified and designated as such by PG&E before December 2003. (CPSD-1, p.43.)</p>	<p>Disputed. The integrity management regulations, including the definition of a high consequence area, were not effective until February 14, 2004, 68 Fed. Reg. 69,778; 69 Fed. Reg. 2,307, and thus PG&E could not identify HCAs in 2003.</p>
<p>105. PG&E operated Line 132 to approximately 400 psig in order to establish a maximum baseline value on two occasions. PG&E operated the line at 402.37 psig on December 11, 2003; PG&E also operated Line 132 at 400.73 psig on December 8, 2008. (CPSD-1, p.44.)</p>	<p>It is accurate that PG&E operated Line 132 to the pressures stated, as recorded at Milpitas Terminal. PG&E does not know what is meant by and does not agree with the characterization of "to establish a maximum baseline value."</p>
<p>106. In the 2004 BAP, PG&E identified Segment 180 as not having any DSAW manufacturing threat. (CPSD-1, p.46.)</p>	<p>Generally accurate, but misleading without the following addition: Consistent with PG&E's experience and the federal integrity management regulations, PG&E's 2004 BAP did not identify Segment 180 as having any DSAW manufacturing threat. Prior to San Bruno, there was no reason for PG&E or any operator to conclude that DSAW pipe was potentially subject to a manufacturing threat. Joint R.T. 967 (PG&E/Keas); Ex. PG&E-1 at 3-5 (PG&E/Caligiuri); Ex. PG&E-1 at 5-9 (PG&E/Zurcher); Ex. PG&E-1 at 6-5 to 6-6 (PG&E/Kiefner); R.T. 691-92 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<u>Safety Culture</u>	
<p>107. Over the period 1997 to 2010, PG&E spent approximately \$40 million less than the Commission authorized, for pipeline transmission operations and maintenance (O&M). (CPSD-1, p.131.) Over the 13 years prior to the San Bruno explosion, PG&E had focused on decreasing O&M expenses. (CPSD-1, p.132; CPSD-168 (Harpster), p. 1-2.)</p>	<p>Disputed. PG&E spent more than the imputed adopted O&M expenses from 1997 to 2010. Ex. PG&E-10, MPO-1 at 2 (PG&E/O'Loughlin). PG&E's O&M expenses grew steadily from 1997 to 2010. Ex. PG&E-10, MPO-1 at 19 (Figure 4) (PG&E/O'Loughlin).</p>
<p>108. PG&E's GT&S capital expenditures were approximately \$116 million lower than the Commission authorized amounts between 1997 and 2000. (CPSD-170 (Harpster), p.8.)</p>	<p>Disputed. PG&E spent more than the imputed adopted capital expenditures from 1997 to 2010. Ex. PG&E-10, MPO-1 at 4 (PG&E/O'Loughlin). As CPSD's own consultant, Overland, found, PG&E's safety-related capital expenditures for 2003 to 2010 exceeded the imputed adopted amounts by \$35 million. Ex. CPSD-168 at 4-3 (CPSD/Harpster).</p>
<p>109. 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.)</p>	<p>Disputed. In the only fully adjudicated GT&S rate case, which set rates for 2004, the Commission reduced PG&E's forecast O&M expenses and capital expenditures for integrity management work. Ex. PG&E-19 at 206-07, 218.</p>
<p>110. 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).</p>	<p>Generally accurate with the following addition: GT&S was able to generate revenues in excess of its actual revenue requirement because of the Gas Accord rate structure approved by the Commission for its market based storage services (particularly parking and lending). PG&E OB at 138-41; Ex. PG&E-10, MPO-1 at 68-75 (PG&E/O'Loughlin); Ex. CPSD-170 at 134-37 (CPSD/Harpster); R.T. 219 (CPSD/Harpster).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
111. In 2009 and 2010, only 13% of the total miles assessed by PG&E had been inspected using ILI tools. (CPSD-168 (Harpster), p. 6-8.) At the same time, 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.)	The first sentence is generally accurate. With regard to the second sentence, PG&E cannot verify information regarding Southern California Gas Company and the proposed finding of fact is ambiguous as to "at the same time." The underlying evidence does not indicate when the inspections occurred. <i>See Ex. CPSD-104.</i>
112. PG&E changed assessment methods for some projects from in-line inspections to ECDA to reduce costs. (CPSD-1, p.134.)	Misleading without the following addition: The assessment method changes were made based on engineering, safety and compliance considerations. <i>See, e.g., Ex. CPSD-227 at OC-260 Attachment 1; Ex. CPSD-226 at OC-259, Attachment 4 at 8.</i>
113. PG&E deferred some integrity management expense projects to future years. (CPSD-1, p.134.)	Misleading without the following addition: The integrity management assessment deferrals were made based on engineering, safety and compliance considerations. <i>See Ex. CPSD-226 at OC-259, Attachment 4 at 9; Ex. CPSD-227 at OC-260, Attachment 1.</i>
114. 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.)	Disputed. CPSD's own witness found that PG&E did not change the definition. <i>Ex. CPSD-168 at 9-12 (CPSD/Harpster).</i>
115. 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.)	Generally accurate. However, this proposed finding of fact has no apparent relationship to this proceeding and should not be adopted for that reason.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>116. 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.)</p>	<p>Disputed. With regard to the first sentence, the Business Transformation initiative was presented to the Board by another PG&E executive, not the CEO. Furthermore, the description of the initiative as a "campaign to reduce operating costs" is incomplete and misleading. With regard to the second sentence, the 2006 annual report states that the Business Transformation initiatives were implemented "in an effort to provide better, faster and more cost-effective service to [PG&E's] customers." PG&E's 2006 Annual Report is available at http://investor.pgecorp.com/phoenix.zhtml?c=110138&p=irol-sec&secCat01.1_rs=11&secCat01.1_rc=10&control_searchbox=&control_selectgroup=1. The proposed finding of fact is misleading and incomplete for the additional reason that the sentence immediately following the quoted sentence in the proposed finding reads: "Conversely, if these cost savings are not realized, earnings available for shareholders would be reduced." Ex. CPSD-1 at 136 (CPSD/Stepanian). Moreover, Business Transmission is not relevant to the issues in this proceeding and therefore this is not an appropriate proposed finding of fact.</p>
<p>117. 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.)</p>	<p>Generally accurate. However, this proposed finding has no apparent relationship to gas transmission or the issues in this proceeding and should not be adopted for that reason.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
<p>118. 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.)</p>	<p>Generally accurate with the following additions: (1) PG&E's expert calculated a slightly different actual return amount (Ex. PG&E-10, MPO-1 at 67 (Figure 19) (PG&E/O'Loughlin)); (2) GT&S is not a standalone company with its own GAAP financial statements and profits; and (3) PG&E as a whole earned returns during that period that were consistent with the authorized rates of return (Ex. PG&E-10, MPO-1 at 80 (Figure 23) (PG&E/O'Laughlin)).</p>
<p>119. 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.)</p>	<p>Generally accurate with the qualification that this appears to refer to Pacific Gas and Electric Company.</p>
<p>120. 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.)</p>	<p>Generally accurate.</p>
<p>121. 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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Finding of Fact	PG&E's Response
122. 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.)	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Findings of Fact

DRA Proposed Finding of Fact	PG&E's Response
<u>PG&E Committed Unreasonable Errors and Omissions</u>	
<p>1. PG&E has committed unreasonable errors and omissions in operating and maintaining its gas transmission system for which the remediation will cost far more than \$50 million.</p>	<p>Disputed. This statement is more properly characterized as a conclusion of law. Moreover, determinations regarding “unreasonable errors and omissions” are not properly made and have not been at issue in this enforcement proceeding. Nor is DRA’s (apparent) reliance on Public Utilities Code Section 463 appropriate in an enforcement proceeding, in addition to being an incorrect interpretation and application of that statute.</p>
<p>2. Based on the evidence presented in the NTSB Report and the evidence produced in this proceeding, the Commission concurs with the NTSB’s finding that the San Bruno explosion was the result of “organizational failure,” and thus there were many contributing causes of the explosion.</p>	<p>Disputed. This proposed factual finding is too broad and generalized to permit a specific or comprehensive response. The record evidence shows that the cause of the San Bruno accident was a defective piece of pipe installed in 1956 with a missing interior weld. A single event, most likely a post-construction hydro test, caused a ductile from which a fatigue crack developed and grew over time until it ruptured on September 9, 2010. The reference to “many contributing causes” is too broad and ambiguous to be meaningful. To the extent “contributing causes” equates to alleged violations of law, voluminous record evidence shows that those allegations have not been proven. Ex. PG&E-1, Chapter 3 (PG&E/Caligiuri); <i>see generally</i>, PG&E OB, Section V., and PG&E RB, Section V., and the record evidence detailed therein.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>3. The San Bruno explosion was caused by a gas pipe that was defective when PG&E installed it in 1956, and the defects would have been visible when it was installed.</p>	<p>Disputed in part. The record evidence shows that the defects in the pups installed in Segment 180 may not have been visible when installed. The pups may have been delivered to the job site wrapped in protective coating and/or welded in the middle of a longer piece of pipe. This proposed factual finding is speculative. Ex. PG&E-1 at 2-3 to 2-4 (PG&E/Harrison); Joint R.T. 379-88, 411-12 (PG&E/Harrison).</p>
<p>4. PG&E's inadequate quality assurance and quality control which allowed installation of the defective line in 1956, and its inadequate pipeline integrity management program, which failed to detect and repair or remove the defective pipe section in later years, were contributing factors in the explosion.</p>	<p>Disputed. This proposed factual finding is too broad and generalized to permit a specific or comprehensive response. PG&E installed a defective piece of pipe in 1956. The record evidence shows, however, that the defects may have been concealed when installed, and that once installed PG&E (or any operator) would not reasonably be expected to discover the defect through integrity management, maintenance or other operational actions, whether or not mandated by law. <i>See, e.g.</i>, Ex. PG&E-1 at 2-3 to 2-4 (PG&E/Harrison); Joint R.T. 379-88, 411-12 (PG&E/Harrison); Joint R.T. 1210 (PG&E/Keas); Ex. PG&E-1, Chapter 4 (PG&E/Keas); Ex. PG&E-1, Chapter 5 (PG&E/Zurcher).</p>
<p>5. The San Bruno explosion was a consequence of multiple weaknesses in PG&E's management and oversight of the safety of its gas transmission system which resulted in PG&E's inaccurate records and a lack of a strong quality assurance program.</p>	<p>Disputed. This proposed finding is too broad and generalized to permit a specific or comprehensive response. However, the record evidence establishes that the many allegations regarding PG&E's "safety culture," including PG&E's "management and oversight of the safety of its gas transmission system," have not been proven. Ex. PG&E-10 (PG&E/O'Loughlin); Ex. PG&E-11 (PG&E/O'Loughlin); <i>see</i> PG&E OB, Section V.F.; PG&E RB, Section V.F.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>6. Every report on the San Bruno explosion concludes that PG&E's integrity management program was deficient.</p>	<p>Disputed. "Every report" is overly-broad and does not assert a meaningful factual finding, nor is "deficient" adequately specific. PG&E does not dispute that the NTSB Report (Ex. CPSD-9) and CPSD's January 12, 2012 report (Ex. CPSD-1) asserted that aspects of PG&E's integrity management program were "deficient." The record evidence establishes, however, that PG&E's integrity management program was in compliance with applicable law, and that it is incorrect to assert the program was "deficient" because PG&E did not discover the defective pipe in Segment 180. Ex. PG&E-1, Chapter 4 (PG&E/Keas); Joint R.T. 1210 (PG&E/Keas); Ex. PG&E-1, Chapter 5 (PG&E/Zurcher); PG&E OB, Section V.B.; PG&E RB, Section V.B.</p>
<p>7. The NTSB correctly found that PG&E's pipeline integrity management program, which should have ensured the safety of the system, was deficient and ineffective because it relied on pipeline information that was inaccurate and incomplete, was missing mission critical information, and was not designed to consider the most relevant information – such as pipeline design, materials, and repair history – when determining how to prioritize repairs and replacements.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in both its 2005 and 2010 audit of PG&E's integrity management program. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering also was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher); Ex. PG&E-1, Chapter 4 (PG&E/Keas); Ex. PG&E-1, Chapter 5 (PG&E/Zurcher).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>8. The NTSB correctly concluded that PG&E's integrity management program led to internal assessments that were superficial and resulted in no improvements.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue, also as confirmed in the 2005 and 2010 CPSD audits. Ex. PG&E-7 (Tab 4-13) at 35-37; Ex. PG&E-7 (Tab 4-25).</p>
<p>9. The IRP correctly concluded that PG&E's integrity management program is not identifying all threats, as required by regulation; is not identifying the segments of highest risk and remediating significant anomalies; and hence is not taking programmatic actions to prevent or mitigate threats.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue, also as confirmed in the 2005 and 2010 CPSD audits. Ex. PG&E-7 (Tab 4-13) at 35-37; Ex. PG&E-7 (Tab 4-25).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>10. A form of PG&E's integrity management program has been in place for nearly 30 years.</p>	<p>Disputed. PG&E has undertaken several systematic efforts to address pipeline safety considerations in the last thirty years, such as replacement of transmission lines with inferior girth welds in the Gas Pipeline Replacement Program, and implementation of the Risk Management Program in the late 1990s. However, PG&E's Integrity Management Program has different objectives, uses different data sources, and addresses different regulatory requirements than GPRP and RMP. <i>See</i> PG&E RB at 142-44. PG&E's integrity management program was launched in response to PHMSA's adoption of the Subpart O regulations effective February 14, 2004.</p>
<p>11. PG&E's integrity management program lacked reliable data from the beginning.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2010 audit. Ex. PG&E-7 (Tab 4-13). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's creation of its GIS, which serves as a source of data during PG&E's initial data gathering step, was consistent with industry practice. Joint R.T. 663 (PG&E/Zurcher). Prior CPSD audits did not find issues relating to PG&E's integrity management program data gathering and data quality. Ex. PG&E-7 (Tab 4-13 (2010 audit) and Tab 4-25 (2005 audit)).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>12. The evidence shows that well before the San Bruno explosion, PG&E was put on notice of its significant record keeping deficiencies, and their impacts on its integrity management risk assessments.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2010 audit. Ex. PG&E-7 (Tab 4-13). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's creation of its GIS, which serves as a source of data during PG&E's initial data gathering step, was consistent with industry practice. Joint R.T. 663 (PG&E/Zurcher). Prior CPSD audits did not find issues relating to PG&E's integrity management program data gathering and data quality. Ex. PG&E-7 (Tab 4-13 (2010 audit) and Tab 4-25 (2005 audit)).</p>
<p>13. PG&E's expert testimony that its integrity management program met regulatory requirements and industry standards is not credible and should be disregarded.</p>	<p>Disputed. John Zurcher is a 30-year veteran of the pipeline industry and an ASME B31.8S committee member responsible for drafting and revising industry standards relating to integrity management. Ex. PG&E-1 at 5-1 to 5-3 (PG&E/Zurcher). Mr. Zurcher's conclusions are the same as those reached by CPSD in its 2005 and 2010 audits of PG&E's integrity management program. Ex. PG&E-7 (Tab 4-13, Tab 4-25).</p>
<p>14. The evidence shows that PG&E was not complying with integrity management regulatory requirements or industry standards.</p>	<p>Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2010 audit. Ex. PG&E-7 (Tab 4-13). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue. Ex. PG&E-7 (Tab 4-13) (2010 audit results) at 35-37; Ex. PG&E-7 (Tab 4-25) (2005 audit results).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>15. PG&E's expert witnesses intentionally ignored well-documented evidence that PG&E's integrity management records have significant errors and omissions.</p>	<p>Disputed. There is no record evidence to support this proposed finding, and DRA cites none. PG&E cannot determine what DRA is referring to. PG&E's expert witnesses incorporated all information necessary to formulate their respective opinions and testimony provided in this proceeding. Ex. PG&E-1 at 5-3 to 5-4 (PG&E/Zurcher); Ex. PG&E-1 at 6-2 (PG&E/Kiefner).</p>
<p>16. PG&E's expert witness incorrectly asserted that accurate data is not important for integrity management purposes and is not necessary to operate a functional integrity management program.</p>	<p>Disputed. This mischaracterizes Mr. Zurcher's testimony. Operators did not interpret the integrity management rules to mandate that they recreate pipeline data from original construction records, and it was common industry practice to accept the accuracy of preexisting pipeline data collections, such as pipeline survey sheets. Ex. PG&E-1 at 5-7 (PG&E/Zurcher). Inaccurate data would be identified through integrity management processes, such as assessments, and corrected. Joint R.T. 663 (PG&E/Zurcher).</p>
<p>17. PG&E's expert witnesses emphasized that integrity management was an iterative process requiring new and updated information to be added when pipeline assessments were performed and data became otherwise available.</p>	<p>Generally accurate.</p>
<p>18. The evidence shows that PG&E took no meaningful actions to systematically update its integrity management data, or correct the errors over time. It did not systematically update the integrity management data base when pipeline assessments were performed.</p>	<p>Disputed. PG&E's two-step data gathering process involved obtaining additional information from locally-stored and archived pipeline records and interviews with field personnel to gather relevant pipeline data. This second step was done to validate the assessment method and inform future assessment steps through increased knowledge of the covered segment. Ex. PG&E-1c at 4-8 (PG&E/Keas). The integrity management group implemented the audit change log as a means to identify and track changes to GIG information that affected HCAs.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>19. One of PG&E's integrity management witnesses joined PG&E after the San Bruno explosion and could not testify as an eye witness to PG&E's actual data collection and integration practices before San Bruno; nor could she testify regarding the actual functionality of PG&E's integrity management program at that time.</p>	<p>Disputed. PG&E's witness, the Supervisor of Risk Management, developed an understanding of how PG&E's integrity management program gathered data and conducted threat assessments as of, and prior to, San Bruno to develop a working understanding of how the program worked and to continue the program. Joint R.T. 1155 (PG&E/Keas). The testimony she sponsored was initially prepared by the then-manager of integrity management, who had personal knowledge of the matters set forth in the testimony. Joint R.T. 906-08 (PG&E/Keas)</p>
<p><u>PG&E Received Sufficient Money In Rates To Operate and Maintain A Safe System</u></p>	
<p>20. All of PG&E's integrity management work covering nearly three decades has been funded by ratepayers through rates.</p>	<p>Disputed. PG&E spent more than the imputed adopted safety-related capital amounts, including integrity management work, from 2003 to 2010. Ex. CPSD-168 at 4-3 (CPSD/Harpster); Ex. PG&E-10, MPO-1 at 46-47 (PG&E/O'Loughlin). PG&E also spent more than the imputed adopted O&M amounts from 1997 to 2010. Ex. PG&E-10, MPO-1 at 24 (PG&E/O'Loughlin). It is unclear what DRA means by integrity management work, as the integrity management regulations did not come into effect until 2004. Furthermore, there is no evidence in the record regarding rate case results going back three decades.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>21. All the experts, including PG&E's, agree that PG&E's GT&S operations have been extremely profitable for over a decade.</p>	<p>As worded, this proposed finding of fact is inaccurate and misleading. As a result of the at-risk market activities that were part of the rate structure adopted by the Commission in the Gas Accords, PG&E earned more than the authorized rate of return for GT&S, if viewed as a standalone entity. See PG&E OB at 138-41; Ex. PG&E-10, MPO-1 at 11, 62, 64 (Figure 17), 68-75 (PG&E/O'Loughlin); Ex. CPSD-170 at 134-37 (CPSD/Harpster); R.T. 219 (CPSD/Harpster). But, GT&S is not an independent entity with publicly filed GAAP financial statements showing profits or losses and the returns of PG&E as a whole were consistent with the authorized rates of return. Ex. PG&E-10, MPO-1 at 80 (Figure 23) (PG&E/O'Loughlin).</p>
<p>22. PG&E does not dispute that its GT&S operations made substantial profits over and above its authorized rate of return.</p>	<p>As worded, this proposed finding of fact is inaccurate and misleading. As a result of the at-risk market activities that were part of the rate structure adopted by the Commission in the Gas Accords, PG&E earned more than the authorized rate of return for GT&S, if viewed as a standalone entity. See PG&E OB at 138-41; Ex. PG&E-10, MPO-1 at 11, 62, 64 (Figure 17), 68-75 (PG&E/O'Loughlin); Ex. CPSD-170 at 134-37 (CPSD/Harpster); R.T. 219 (CPSD/Harpster). But, GT&S is not an independent entity with publicly filed GAAP financial statements showing profits or losses and the returns of PG&E as a whole were consistent with the authorized rates of return. Ex. PG&E-10, MPO-1 at 80 (Figure 23) (PG&E/O'Loughlin).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<p>23. PG&E's ratepayers paid for maintenance and operation of a safe gas transmission system for decades, but PG&E did not invest that money into gas transmission safety.</p>	<p>Disputed. PG&E spent more than the imputed adopted amounts for both capital and O&M expenses from 1997 to 2010. Ex. PG&E-10, MPO-1 at 2-5 (PG&E/O'Loughlin). CPSD's own witness found that PG&E spent more on safety-related capital expenditures than the imputed adopted amounts from 2003 to 2010. Ex. CPSD-168 at 4-3 to 4-4 (CPSD/Harpster). There is no substantial evidence in the record regarding PG&E's spending compared to the imputed adopted amounts prior to 1997. Furthermore, this proposed finding of fact is vague and lacking in context.</p>
<p>24. Notwithstanding the significant profits earned by PG&E's GT&S operations, PG&E systematically underfunded GT&S integrity management and maintenance operations for the years 2008 through 2010, engaging in a "run to failure" strategy whereby it deferred needed maintenance projects and changed the assessment method for several pipelines from ILI to the less informative and less appropriate ECDA approach, to increase profits even further.</p>	<p>Disputed. With regard to "significant profits," see PG&E's response to DRA's Proposed Finding of Fact No. 22. PG&E spent more than the imputed adopted amounts for both expense and capital during 2008-2010. Ex. PG&E-10, MPO-1 at 19 (Figure 4), 43 (Figure 10) (PG&E/O'Loughlin). CPSD's own witness found that PG&E spent \$26.5 million more than the imputed adopted safety-related capex, including integrity management, in 2008 through 2010. Ex. CPSD-168 at 4-3 (Table 4-2) (CPSD/Harpster). Furthermore, this entire proposed finding of fact is argumentative and unclear, especially as to the undefined phrase "run to failure" and everything that follows it. Decisions to defer or change specific projects or categories of work were made with the input and involvement of the engineers and managers closest to the work. For example, any changes to planned integrity management assessments were based on engineering judgment. Ex. CPSD-226 at OC-259, Attachment 4 at 8, 9; Ex. CPSD-227 at OC-260, Attachment 1.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
<u>Findings of Fact Supporting Adoption of an Independent Third Party Monitor</u>	
25. PG&E's inattention to safety is pervasive and goes back over 50 years.	Disputed. This proposed factual finding is too broad and generalized to permit a specific or comprehensive response. The record evidence refutes the assertion that "PG&E's inattention to safety is pervasive and goes back over 50 years." The CPUC has repeatedly audited PG&E's gas operations without ever having asserted that PG&E's "inattention to safety is pervasive and goes back 50 years." <i>See generally</i> , PG&E OB and PG&E RB (and record evidence detailed therein).
26. The evidence shows that PG&E has never had a gas safety culture, or systematic and effective quality assurance or risk assessment mechanisms in place to ensure the safe operation of a high pressure gas transmission pipeline system.	Disputed. This proposed factual finding is too broad and generalized to permit a specific or comprehensive response. The record evidence refutes the assertion that "PG&E has never had a gas safety culture, or systematic and effective quality assurance or risk assessment mechanisms in place to ensure the safe operation of a high pressure gas transmission pipeline system." The CPUC has repeatedly audited PG&E's gas operations without ever having asserted that "PG&E has never had a gas safety culture, or systematic and effective quality assurance or risk assessment mechanisms in place . . ." <i>See generally</i> , PG&E OB and PG&E RB (and record evidence detailed therein).
27. The Commission's failure to detect the inadequacies of PG&E's pipeline integrity management program contributed to the San Bruno Explosion.	Disputed. This proposed factual finding is too broad and generalized to permit a specific or comprehensive response. The record evidence refutes the assertion that "PG&E's pipeline integrity management program" was "inadequat[e]". Ex. PG&E-1, Chapter 4 (PG&E/Keas); Ex. PG&E-1, Chapter 5 (PG&E/Zurcher); Ex. PG&E-1, Chapter 6 (PG&E/Kiefner); <i>see generally</i> , PG&E OB and PG&E RB (and record evidence detailed therein).

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Finding of Fact	PG&E's Response
28. Independent third party monitors are routinely used on large scale public works projects where independent monitors are on site, inspecting all aspects of the work being performed on a daily basis as an additional check to ensure the public is getting what it is paying for.	Not a relevant or material statement of fact, unsupported, and therefore disputed.
29. It is not uncommon for independent monitors to be employed in response to destructive oil and gas pipeline incidents.	Not a relevant or material statement of fact, unsupported, and therefore disputed.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Findings of Fact

San Bruno Proposed Finding of Fact	PG&E's Response
I. Probable Cause	
1. The deficiencies identified during the NTSB and CPSD investigations are indicative of an organizational accident. (CPSD-9, p.125.)	Disputed. The terms “deficiencies” and “organizational accident” are too vague to be meaningful in a factual finding, and this proposed finding is too generalized to permit a specific or comprehensive response. The record evidence shows that the cause of the San Bruno accident was a defective piece of pipe installed in 1956 with a missing interior weld. A single event, most likely a post-construction hydro test, caused a ductile from which a fatigue crack developed and grew over time until it ruptured on September 9, 2010. Ex. PG&E-1, Chapter 3 (PG&E/Caligiuri); <i>see generally</i> PG&E OB and PG&E RB and the record evidence detailed therein.
2. The multiple and recurring deficiencies in PG&E operational practices indicate a systemic problem. (CPSD-9, page 125.)	Disputed. The terms “deficiencies” and “systemic problem” are too vague to be meaningful in a factual finding, and this proposed finding is too generalized to permit a specific or comprehensive response. The record evidence also rebuts the assertion of a “systemic problem.” <i>See generally</i> PG&E OB and PG&E RB and the record evidence detailed therein.
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.)	Disputed. PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audit. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue. Ex. PG&E-7 (Tab 4-13) at 35-37.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Disputed. This proposed finding is too broad and generalized to permit a specific and comprehensive response. PG&E does not dispute it installed a defective pipe in 1956. Voluminous record evidence refutes the generalizations and characterizations in this asserted finding. <i>See generally</i> PG&E OB and PG&E RB and the record evidence detailed therein.</p>
<p>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.)</p>	<p>Disputed in part. The presence of automated valves at the valve locations closest to the rupture would have enabled PG&E to shut off the gas sooner, potentially reducing damage. The evidence establishes, however, that not having automated valves at those locations was not a violation of law or contrary to industry standards at the time. Ex. PG&E-1 at 5-17 (PG&E/Zurcher); Ex. PG&E-1 at 9-6 (PG&E/Miesner); R.T. 340 (PG&E/Almario); Ex. CPSD-1 at 105 (CPSD/Stepanian); Joint R.T. 820-21 (PG&E/Zurcher).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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).</p>	<p>Disputed. The presence of automated valves at the valve locations closest to the rupture would have enabled PG&E to shut off the gas sooner, potentially reducing damage. The evidence establishes, however, that not having automated valves at those locations was not a violation of law or contrary to industry standards at the time. The record evidence also demonstrates that PG&E's response time to isolate the rupture and stop the flow of gas was reasonable under the circumstances, and did not violate any law. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-12 (PG&E/Miesner); Ex. PG&E-1, Chapter 10 (PG&E/Almario); Ex. PG&E-1, Chapter 11 (PG&E/Bull); Ex. CPSD-1 at 105 (CPSD/Stepanian); Joint R.T. 820-21 (PG&E/Zurcher); R.T. 269 (PG&E/Almario); R.T. 415-16 (PG&E/Bull); R.T. 861-62 (PG&E/Miesner).</p>
<p>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.)</p>	<p>Disputed as hindsight judgment. Since 1961 and 1970, both state and federal law, respectively, exempted existing facilities from pressure testing requirements. <i>See</i> CPUC GO 112; 49 C.F.R. § 192.619(c). Line 132 was operating based on a validly established MAOP, and under MAOP and regulatory limits, when it ruptured on September 9, 2010. Ex. CPSD-1 at 24 (CPSD/Stepanian).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Disputed. The pipeline rupture was the result of defective pipe that did not meet material specifications, not the result of deficiencies in PG&E's integrity management program. Integrity management regulations treat DSAW and seamless pipe as equivalent in terms of manufacturing threat analysis. The record evidence also establishes that PG&E's integrity management program was in compliance with applicable law, and that it is incorrect to assert the program was "deficient" because PG&E did not discover the defective pipe in Segment 180. Ex. PG&E-1, Chapter 4 (PG&E/Keas); Ex. PG&E-1, Chapter 5 (PG&E/Zurcher); Joint R.T. 1210 (PG&E/Keas); PG&E OB, Section V.B.; PG&E RB, Section V.B..</p>
<p>II. Emergency Response to the Explosion</p>	
<p>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.)</p>	<p>Generally accurate but misleading without the additional context that gas control operators had been receiving and analyzing SCADA alarms and uncertain SCADA data for approximately 50 minutes at this time. The SCADA points referenced in the proposed finding did not exist in isolation. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-10 (PG&E/Miesner).</p>
<p>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.)</p>	<p>Partially disputed. The San Bruno Fire Department first unit arrived at the scene a few minutes later at 6:17 p.m. Ex. PG&E-40 at 6.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>11. No outgoing calls were made by PG&E to fire or police officials upon discovery of the incident. (CPSD-1, p.118.)</p>	<p>Misleading without the following additions: Although PG&E does not have a record of making a call to 911, PG&E field personnel were working on site with the public agency first responders within 30 minutes of the rupture. Ex. CPSD-97 at 9, 11; Ex. PG&E-40 at 10; Ex. CPSD-1 at 110 (CPSD/Stepanian); PG&E OB at 110. As emergency response expert David Bull testified, the notification and coordination requirement was fulfilled at the time PG&E personnel arrived at the scene, confirmed that there was a gas emergency and coordinated with public responders in taking additional emergency actions. PG&E OB at 110; R.T. 420-21 (PG&E/Bull).</p>
<p>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.)</p>	<p>Generally accurate with additions. This was the first notice PG&E had of the event, and the cause of the fire was at that time unknown to all. Ex. PG&E-1 at 8-5 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-40. That an off-duty PG&E employee called to report the existence of a fire of unknown cause demonstrates initiative and proper training.</p>
<p>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.)</p>	<p>Generally accurate with additions. This call by another off-duty PG&E employee further demonstrates the concern and training of PG&E personnel. Ex. PG&E-40.</p>
<p>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.)</p>	<p>Generally accurate with additions. This call by another off-duty PG&E employee further demonstrates the concern and training of PG&E personnel. Ex. PG&E-40.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate with the addition that GSRs are the designated first responders under PG&E procedure and policy. R.T. 380 (PG&E/Almario).</p>
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Misleading without additional context that the referenced "alarm" being analyzed by gas control operators did not exist in isolation. Ex. PG&E-1 at 8-5 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-8 to 9-10 (PG&E/Miesner).</p>
<p>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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Mischaracterized as stated. That multiple PG&E personnel self-dispatched to the scene of an unknown major fire demonstrates initiative, concern, and training. R.T. 384-85 (PG&E/Almario).</p>
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Generally accurate with the addition that these actions again demonstrate the initiative and training of PG&E personnel. R.T. 384-85 (PG&E/Almario).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Generally accurate with the addition that the Deputy Incident Commander and M&C Mechanics were already responding to the event. Ex. CPSD-97 at 9, 11; Ex. PG&E-40.</p>
<p>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.)</p>	<p>Disputed with regard to the first sentence. PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m. and served as PG&E's Deputy Incident Commander, recognized that the incident likely involved a PG&E gas transmission line. Ex. CPSD-97 at 11, 15-16. The responding M&C mechanic also immediately recognized the possibility that the fire was fed by natural gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p> <p>Misleading without the following addition with regard to the second sentence: there is no legal requirement to have such training for first responders. PG&E OB at 112. Further, as stated above, the responding M&C mechanic immediately recognized the possibility that the fire was fed by gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Misleading without the following addition: PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m. and served as PG&E's Deputy Incident Commander, recognized that the incident likely involved a PG&E gas transmission line. Ex. CPSD-97 at 9-11, 15-16. The responding M&C mechanic also immediately recognized the possibility that the fire was fed by natural gas. PG&E OB at 112; Ex. PG&E-40 at 8; Ex. PG&E-1 at 10-4 (PG&E/Almario).</p>
<p>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.)</p>	<p>Misleading without the following addition: At 6:39 p.m., a Gas Control operator stated that there were conflicting reports, some said it involved a gas station, some said a jet engine sound, which would indicate that it was natural gas. Ex. CPSD-56 at 161.</p>
<p>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.)</p>	<p>Generally accurate, but the mechanic's arrival at the Colma Yard and the gas control operator's statement have no relation or relevance to each other.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Misleading without the following clarifications. Multiple "crews" responded, including personnel directed to Martin Station, where the high pressure section of Line 132 terminates. PG&E Dispatch told the Troublemens that "we are being told" that a plane has crashed into a gas station. Ex. PG&E-40 at 10. Troublemens are electrical personnel, not gas responders.</p>
<p>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.)</p>	<p>Generally accurate, except for any adverse implication intended by the reference to "watching the news."</p>
<p>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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>The first valve location is V-38.49. Ex. PG&E-40 at 11-12.</p>
<p>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.)</p>	<p>Misleading without the following clarification: "Feeding" the pipelines was necessary to avoid an uncontrolled shutdown of gas service to the Peninsula itself, which could create significant new and additional dangers. Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).</p>
<p>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.)</p>	<p>Generally accurate with the clarification that Troublemens are electric operations personnel, not gas.</p>
<p>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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Misleading without the following clarification. Troublemens address electrical issues; the "Troublemens Supervisor's plan" is not directly related to the response by the M&C mechanics to close gas transmission valves. Troublemens responded to address electric facilities that may have been involved at the site.</p>
<p>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.)</p>	<p>Misleading without clarification. Martin Station is approximately 8 miles from the accident site. Closing the remote valves at Martin Station could not immediately cut off the gas flow to the rupture, but could have created collateral consequences if done rashly. Ex. PG&E-1 at 8-6 to 8-7 (PG&E/Slibsager/Kazimirsky); Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Partially disputed. It is speculative as to what would have been considered to be “appropriately spaced” pressure and flow transmitters, or RCVs or ACVs. Only with hindsight can it be identified where transmitters could have been “appropriately” located to aid in reducing the time for isolating the rupture. Prior to September 9, 2010, there were no regulations dictating where such equipment be installed throughout PG&E’s extensive gas transmission system. 49 C.F.R. § 192.935(c); Ex. PG&E-1 at 5-17 (PG&E/Zurcher); R.T. 340 (PG&E/Almario); Joint R.T. 820-21 (PG&E/Zurcher).</p>
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate.</p>
<p>III. Safety Culture</p>	
<p>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.)</p>	<p>Disputed. PG&E spent more than the imputed adopted O&M expenses from 1997 to 2010. Ex. PG&E-10, MPO-10 at 2 (PG&E/O'Loughlin). In the only fully adjudicated GT&S rate case, which set rates for 2004, the Commission reduced PG&E's forecast O&M expenses and capital expenditures for integrity management work. Ex. PG&E-19 at 206-07, 218. PG&E's O&M expenses grew steadily from 1997 to 2010. Ex. PG&E-10, MPO-1 at 19 (Figure 4) (PG&E/O'Loughlin).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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).</p>	<p>Generally accurate with the following addition: GT&S was able to generate revenues in excess of its actual revenue requirement because of the Gas Accord rate structure approved by the Commission for its market based storage services (particularly parking and lending). PG&E OB at 138-41; Ex. PG&E-10, MPO-1 at 68-75; Ex. CPSD-170 at 134-37 (CPSD/Harpster); R.T. 219 (CPSD/Harpster).</p>
<p>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.)</p>	<p>Disputed. PG&E spent more than the imputed adopted O&M expenses from 1997 to 2010. Ex. PG&E-10, MPO-1 at 2 (PG&E/O'Loughlin). PG&E also spent more than the imputed adopted capital expenditures from 1997 to 2010. Ex. PG&E-10, MPO-1 at 4 (PG&E/O'Loughlin). As CPSD's own consultant, Overland, found, PG&E's safety-related capital expenditures for 2003 to 2010 exceeded the imputed adopted amounts by \$35 million. Ex. CPSD-168 at 4-3 (CPSD/Harpster).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate with the following additions: (1) PG&E spent significantly more than the imputed adopted capex amounts for GT&S during that period (Ex. PG&E-10, MPO-1 at 43 (PG&E/O'Loughlin)); (2) the bonus tax depreciation was based on the specific amount of PG&E's capital additions, including PG&E's incremental additions in those years; and (3) by law, the bonus depreciation tax benefits could only be reflected as a rate base offset, and then only if the related capital additions were included in rate base. Effective 2011, the Commission established a memorandum account to track the benefits of new bonus depreciation against the cost of PG&E's incremental spending, providing the Commission with the ability to determine if ratepayers should receive a refund in the event the benefits of the tax savings exceed the costs of the incremental spending.</p>
<p>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.)</p>	<p>Disputed. Ex. PG&E-10, MPO-7 at 26 (PG&E/O'Loughlin). Furthermore, there is no support for this proposed fact on Ex. CPSD-170, p. 86.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>The first sentence is generally accurate. With regard to the second sentence, PG&E cannot verify information regarding Sempra Energy or Southern California Gas Company.</p>
<p>48. PG&E changed assessment methods for some projects from in-line inspections to ECDA to reduce costs. (CPSD-1, p.134.)</p>	<p>Misleading without the following addition: The assessment method changes were made based on engineering, safety and compliance considerations. <i>See, e.g.,</i> Ex. CPSD-227 at OC-260 Attachment 1; Ex. CPSD-226 at OC-259, Attachment 4 at 8.</p>
<p>49. PG&E deferred some integrity management expense projects to future years. (CPSD-1, p.134.)</p>	<p>Misleading without the following addition: The integrity management assessment deferrals were made based on engineering, safety and compliance considerations. <i>See</i> Ex. CPSD-226 at OC-259, Attachment 4 at 9; Ex. CPSD-227 at OC-260, Attachment 1.</p>
<p>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.)</p>	<p>Disputed. CPSD's own witness found that PG&E did not change the definition. Ex. CPSD-168 at 9-12 (CPSD/Harpster).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate. However, this proposed finding of fact has no apparent relationship to this proceeding and should not be adopted for that reason.</p>
<p>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.)</p>	<p>Disputed. With regard to the first sentence, the Business Transformation initiative was presented to the Board by another PG&E executive, not the CEO. Furthermore, the description of the initiative as a "campaign to reduce operating costs" is incomplete and misleading. With regard to the second sentence, the 2006 annual report states that the Business Transformation initiatives were implemented "in an effort to provide better, faster and more cost-effective service to [PG&E's] customers." PG&E's 2006 Annual Report is available at http://investor.pgecorp.com/phoenix.zhtml?c=110138&p=irol-sec&secCat01.1_rs=11&secCat01.1_rc=10&control_searchbox=&control_selectgroup=1. The proposed finding of fact is misleading and incomplete for the addition reason that the sentence that immediately follows the quoted sentence in the proposed finding reads: "Conversely, if these cost savings are not realized, earnings available for shareholders would be reduced." Ex. CPSD-1 at 136 (CPSD/Stepanian). Moreover, Business Transmission is not relevant to the issues in this proceeding and therefore this is not an appropriate proposed finding of fact.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>The first sentence of this proposed finding of fact lacks context and is unclear as written. The underlying evidence shows that PG&E reduced its requested revenue requirement in the 2007 General Rate Case (GRC) by \$41 million for 2008 and another \$56 million for 2009. Ex. CPSD-106. GT&S costs are not part of the GRC. The first sentence of the proposed finding of fact is therefore unrelated to the issues in this proceeding and is not an appropriate proposed finding of fact. The second sentence is disputed. Ex. PG&E-10, MPO-1 at 19 (PG&E/O'Loughlin).</p>
<p>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.)</p>	<p>Disputed. The presentations cited at Ex. CPSD-1, p. 138 n.291 both mention "Transformation" – in the May 22, 2008 presentation slides at p. 8 and in the June 5-6, 2008 conference slides at p. 4. These presentations are available at http://www.pgecorp.com/investors/pdfs/080522InvestorConference.pdf and http://www.pgecorp.com/investors/pdfs/2008CitiPowerGasUtilityConf.pdf. Furthermore, this proposed finding of fact is confusing and vague and has no apparent connection to this proceeding and therefore it is not an appropriate proposed finding of fact.</p>
<p>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.)</p>	<p>Generally accurate. However, this proposed finding has no apparent relationship to gas transmission or the issues in this proceeding and should not be adopted for that reason.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Generally accurate with the following additions: (1) PG&E's expert calculated a slightly different actual return amount (Ex. PG&E-10, MPO-1 at 67 (Figure 19) (PG&E/O'Loughlin)); (2) GT&S is not a standalone company with its own GAAP financial statements and profits; and (3) PG&E as a whole earned returns during that period that were consistent with the authorized rates of return (Ex. PG&E-10, MPO-1 at 80 (Figure 23) (PG&E/O'Loughlin)).</p>
<p>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.)</p>	<p>Generally accurate with the qualification that this appears to refer to Pacific Gas and Electric Company.</p>
<p>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.)</p>	<p>Generally accurate.</p>
<p>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.)</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
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.)	Generally accurate.
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.)	Disputed. The content of the prior NTSB report is the best evidence of what the NTSB found; the summary asserted in this Proposed Finding of Fact is vague and does not accurately describe the NTSB's prior findings. Ex. CPSD-9 (NTSB Report) at 87, 116-17; 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.)	Generally accurate with the clarification that the involved pipe was small diameter plastic distribution pipe, not similar to the Segment 180 pipe. The content of the prior NTSB report is the best evidence of what the NTSB found. Ex. CPSD-9 (NTSB Report) at 87, 116-17; 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.)	Disputed. The content of the prior NTSB report is the best evidence of what the NTSB found; the summary asserted in this Proposed Finding of Fact is vague and does not accurately describe the NTSB's prior findings. Ex. CPSD-9 (NTSB Report) at 87, 116-17; NTSB Investigation PAB-10/10.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Finding of Fact	PG&E's Response
<p>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.)</p>	<p>Disputed. The content of the prior NTSB report is the best evidence of what the NTSB found. However, consistent with its procedure, PG&E dispatched a Gas Service Representative to the initial leak report for the purpose of investigating and determining the appropriate personnel for additional response. Ex. CPSD-9 (NTSB Report) at 87, 116-17; NTSB Investigation PAB-10/10.</p>
<p>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.)</p>	<p>Disputed as overbroad and misleading. The content of the prior NTSB report is the best evidence of what the NTSB found. Ex. CPSD-9 (NTSB Report) at 87, 116-17; NTSB Investigation PAB-10/10.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Findings of Fact

CCSF Proposed Finding of Fact	PG&E's Response
I. GENERAL	
1. PG&E's witness admits that testimony on industry practices is irrelevant to the inquiry of whether an operator complied with the applicable safety laws. Joint RT 715:8-17 (Zurcher/CCSF).	Disputed. The assertion takes out of context and mischaracterizes the testimony. In addition, this is not a finding of fact, but is more properly characterized as argument.
2. As Mr. Zurcher characterized it, for natural gas operators, "Compliance with the regulations is the price of admission." Joint RT 752:2-3 (Zurcher/CCSF).	Disputed. The assertion takes out of context and mischaracterizes the testimony.
3. As a general principle, where aspects of gas operations create uncertainty, the operator must take steps to ensure the safe and reasonable operations of its system. Ex CCSF-1 at pp. 2-3.	Disputed. CCSF does not provide sufficient specificity as to what aspects of gas operations it is referring to and what uncertainty is created to enable a response.
II. PG&E'S TIMP	
4. The Independent Review Panel found that "PG&E was not identifying all threats, as required by regulation; is not identifying segments of highest risk and remediating significant anomalies; and hence is not taking programmatic actions to prevent or mitigate threats." Independent Panel Report at p. 8.	Disputed. PG&E does not dispute that the IRP made the quoted statement. However, no one with knowledge of the basis for the IRP's statement testified in this proceeding and thus this statement has not been tested. The record evidence shows that PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue. Ex. PG&E-7 (Tab 4-13) at 35-37.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>5. The NTSB found that “the PG&E gas transmission integrity management program was deficient and ineffective.” Ex CPSD-9 (NTSB Pipeline Accident Report) at p. 125 (Finding 19).</p>	<p>Disputed. PG&E does not dispute that the NTSB made the quoted statement. However, no one with knowledge of the basis for the NTSB’s statement testified in this proceeding and thus this statement has not been tested. The record evidence shows that PG&E’s integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E’s data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher). PG&E’s threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue. Ex. PG&E-7 (Tab 4-13) at 35-37.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>6. The NTSB made three recommendations to PG&E. These three recommendations were to: (1) revise its risk model to reflect PG&E's actual recent experience data on leaks, failures and incidents, (2) consider all defect and leak data for the life of the pipeline, including risk analysis for similar or related segments, and (3) revise its risk analysis methodology to ensure that the proper assessment methods are selected for all applicable integrity threats, with particular emphasis on design/material and construction threats. Ex CPSD-9 at p. 114.</p>	<p>PG&E does not dispute that NTSB made these recommendations. However, PG&E disputes that these recommendations are evidence of a failure on the part of PG&E's integrity management program.</p> <p>(1) As stated in ASME B31.8S, risk assessment models are not an exact mathematical calculation, but should be used in conjunction with subject matter experts and people familiar with the facilities, and should evolve over time based on incorporation of information learned through operation of the system. PG&E's risk model complied with federal regulations and industry standards. Ex. PG&E-1c at 4-32 (PG&E/Keas).</p> <p>(2) PG&E's integrity management program gathered and integrated data from the required data elements, as confirmed by CPSD in its 2005 and 2010 audits. Ex. PG&E-7 (Tab 4-13, Tab 4-25). PG&E's data gathering was consistent with industry standards and regulatory requirements. Joint R.T. 797-98 (PG&E/Zurcher).</p> <p>(3) PG&E's threat identification process evaluated all potential threats (with the exception of equipment failure and hard spots), including interactive threats and cyclic fatigue. Ex. PG&E-7 (Tab 4-13) at 35-37.</p>
<p>A. Data Gathering</p>	
<p>7. Eight months after the NTSB requested to provide all leak and repair information for Line 132, PG&E produced a 1988 an inspection report stating that Line 132 had experienced a longitudinal seam leak at mile post 30.44, approximately 8.78 miles south of the rupture. Ex CPSD-9 at p. 38. fn 61.</p>	<p>Generally accurate with the addition that the leak was identified as a pin hole leak that could not be detected during metallurgical analysis. Ex. PG&E-7 (Tab 4-16).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>8. The segment identified in the memorandum was 0.375 inch wall thickness, X52, 30" DSAW pipe, installed in 1948. Ex. CCSF-1 (Exhibit 2 to Testimony of John Gawronski: 1989 TES Memorandum).</p>	<p>Generally accurate.</p>
<p>9. This report included a March 1, 1989 memorandum from PG&E's Technological and Ecological Services stating that a 30" section of Line 132 had been "removed for failure analysis because of a pinhole leak in the longitudinal seam weld." Ex. CCSF-1 (Exhibit 2 to Testimony of John Gawronski: 1989 TES Memorandum).</p>	<p>Generally accurate with the addition that the leak was identified as a pin hole leak that could not be detected during metallurgical analysis. Ex. PG&E-7 (Tab 4-16). Moreover, as the memorandum states, "With the leak removed, the remaining pipe should be fully operational again." <i>Id.</i></p>
<p>10. The memorandum also states that "the cracks are pre-service defects, i.e. they are from the original manufacturing of the pipe joint." <i>Id.</i></p>	<p>Misleading without additional information. As described by a Moody report, the method of fabricating DSAW pipe used by Consolidated Western (the manufacturer of the pipe used in this segment) in 1948 often resulted in cracking in the external longitudinal weld at the ends of pipe joints due to "spring-back" of the plate. Workers at the pipe mill repaired the small cracks in the exterior weld prior to fabricating the interior longitudinal weld. The finished pipe length was then carefully inspected inside and out, and subjected to a 90% SMYS hydrotest at the pipe mill before being placed into service. Ex. PG&E-7 (Tab 4-18). Any remaining defects are too small to fail at the allowable operating pressure established by the mill test. Ex. PG&E-1 at 6-5 (PG&E/Kiefner). Moreover, as the memorandum states, "With the leak removed, the remaining pipe should be fully operational again." Ex. PG&E-7 (Tab 4-16).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
11. PG&E replaced the segment upon discovering the leak in the longitudinal seam. Joint RT 885:19-886:2 (Zurcher/CCSF)	Generally accurate.
12. PG&E admits that the pipe characteristics of this segment are essentially identical to the pipe characteristics of segment 180 as identified in its job files. Joint Evidentiary Hearings of I.11-02-016 and I.12-01-007, at p. 567:23-27 (Harrison/CCSF).	Generally accurate. The 1956 relocation project that constructed Segment 180 called for the use of approximately 1,900 feet of the same type of 30-inch DSAW pipe used in the 1948 Line 132 project, 1949 Line 153 project, and 1953 Line 131 project. Ex. PG&E-1 at 2-1 to 2-3 (PG&E/Harrison). The leak was identified as a pin hole leak that could not be detected during metallurgical analysis. Ex. PG&E-7 (Tab 4-16). Moreover, as the memorandum states, "With the leak removed, the remaining pipe should be fully operational again." <i>Id.</i>
13. PG&E's testimony concedes that it did not consider this report in its TIMP. PG&E-1c at p. 4-15 ("Even if our data gathering process had located records following the 1988 leak...") (emphasis added)	Misleading. Pinhole leaks such as the leak on Line 132 discovered in 1988 are not evidence of manufacturing threats, and are therefore not relevant to the integrity management manufacturing threat identification process. Joint R.T. 779-780, 870-71 (PG&E/Zurcher). Moreover, as the 1989 TES memorandum states, "With the leak removed, the remaining pipe should be fully operational again." Ex. PG&E-7 (Tab 4-16).
14. The NTSB found that "until May 6, 2011, the PG&E GIS had listed the cause of the leak as 'unknown.'" Ex CPSD-1 at p. 38.	Generally accurate. PG&E notes that page 38 of Exhibit CPSD-1 (the CPSD January 12, 2012 Staff Report) does not discuss the 1988 leak.
15. Following the discovery of the memorandum, PG&E updated its database to indicate the pipe had been replaced due to a longitudinal defect. <i>Id.</i>	CCSF presents no evidence that PG&E updated GIS. Page 38 of Exhibit CPSD-1 does not discuss the 1988 leak.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>16. PG&E did not consider radiography records of girth from the 1948 construction of Line 132 indicating longitudinal seam defects. Ex CPSD-9 at p. 110-111.</p>	<p>Disputed. The radiography records did not indicate the presence of potential manufacturing defects. As described by a Moody report, the method of fabricating DSAW pipe used by Consolidated Western (the manufacturer of the pipe used in this segment) in 1948 often resulted in cracking in the external longitudinal weld at the ends of pipe joints due to “spring-back” of the plate. Workers at the pipe mill repaired the small cracks in the exterior weld prior to fabricating the interior longitudinal weld. The finished pipe length was then carefully inspected inside and out, and subjected to a 90% SMYS hydrotest at the pipe mill before being placed into service. Ex. PG&E-7 (Tab 4-18). Any remaining defects are too small to fail at the allowable operating pressure established by the mill test. Ex. PG&E-1 at 6-5 (PG&E/Kiefner). Radiography records from the 1948 construction are not evidence of manufacturing threats, and are therefore not relevant to the manufacturing threat identification process. Joint R.T. 779-780 (PG&E/Zurcher).</p>
<p>17. The NTSB found that “because only 10 percent of the welds were radiographed as part of the 1948 construction, and those radiographs captured only a few inches of each longitudinal seam weld, less than 0.2 percent of the longitudinal seams on pipe segments installed in 1948 were radiographed. In light of the fact that five rejectable defects were found in the small percentage of longitudinal seam welds that were so examined, it is probable that additional longitudinal seam weld defects have remained in service since 1948.” <i>Id.</i> (emphasis added).</p>	<p>Disputed. The radiography records did not indicate the presence of potential manufacturing defects. As described by a Moody report, the method of fabricating DSAW pipe used by Consolidated Western (the manufacturer of the pipe used in this segment) in 1948 often resulted in cracking in the external longitudinal weld at the ends of pipe joints due to “spring-back” of the plate. Workers at the pipe mill repaired the small cracks in the exterior weld prior to fabricating the interior longitudinal weld. The finished pipe length was then carefully inspected inside and out, and subjected to a 90% SMYS hydrotest at the pipe mill before being placed into service. Ex. PG&E-7 (Tab 4-18). Any remaining defects are too small to fail at the allowable operating pressure established by the mill test. Ex. PG&E-1 at 6-5 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
18. The 1948 and 1989 memoranda demonstrate that PG&E should have been aware of both potential manufacturing and construction defects present on Line 132. Ex CCSF-1 at p. 6.	Disputed. Neither of these records indicate the presence of potential manufacturing or construction threats, and are not relevant to the integrity management threat identification process. Joint R.T. 779-80 (PG&E/Zurcher); Ex. PG&E-1 at 5-11 to 5-13 (PG&E/Zurcher).
19. When asked whether he knew if PG&E has considered these weld reports, PG&E witness Zurcher conceded that he does not know if PG&E considered these reports. Joint RT 779:17-21 (Zurcher/CCSF)).	Misleading without additional information. Neither of these records indicate the presence of potential manufacturing or construction threats, are not relevant to the integrity management threat identification process, and were not required to be considered under integrity management regulations. Joint R.T. 779-80 (PG&E/Zurcher); Ex. PG&E-1 at 5-11 to 5-13 (PG&E/Zurcher).
20. Instead, Mr. Zurcher asserted that the 1948 and 1988 weld reports were irrelevant to PG&E's TIMP. Joint RT 779:22-28 (Zurcher/CCSF)).	Generally accurate. Neither of these records indicate the presence of potential manufacturing or construction threats, and are not relevant to the integrity management threat identification process. Joint R.T. 779-80 (PG&E/Zurcher); Ex. PG&E-1 at 5-11 to 5-13 (PG&E/Zurcher).
21. CCSF witness Gawronski reviewed additional PG&E records of pipe seam inspection and welding defects. Ex CCSF-1 at p. 10.	Generally accurate.
22. These documents confirm the existence of manufacturing and construction defects on steel transmission lines over 50 years old in PG&E's service territory. Ex CCSF-1 at pp. 10-11.	Misleading as stated. These reports indicate the presence of girth welds constructed prior to 1947 using now-obsolete welding methods, and the presence of single submerged arc welded longitudinal seam pipe. PG&E identified and properly reviewed each segment identified in these reports for potential manufacturing or construction threats. See PG&E RB at 56-58.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>23. First, there are laboratory test reports from 1975 discussing brittle failure on four unidentified segments of Line 101 constructed with oxyacetylene welds, and two unidentified segments of Line 109 constructed with arc welds. Ex CCSF-1 (1975 PG&E Lab Test Report (Exhibit 6)).</p>	<p>Misleading as stated. These reports indicate the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. See PG&E RB at 56-58.</p>
<p>24. For the segments removed from Line 101, the 1975 reports notes "weld defects present in fracture of all test specimens (porosity, lack of fusion, and slag inclusions (sic)). Some shear fracture present at all test temperatures." <i>Id.</i>, at p. 16.</p>	<p>Misleading as stated. These reports indicate the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. See PG&E RB at 57. Moreover, industry standards allow for the presence of imperfections in welds. CCSF does not assert that the imperfections in the reports exceed what is allowed by code. <i>E.g.</i>, Ex. Joint-13 (API 1104).</p>
<p>25. For the segments removed from Line 109, the report notes "weld defects present in fracture of all test specimens (porosity, lack of fusion and slag inclusions). No shear fracture present in specimens tested at +70° or +100 ° F, some shear fracture present in specimens tested at +185° F." <i>Id.</i>, at p. 17.</p>	<p>Misleading as stated. This report indicates the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. See PG&E RB at 57. Moreover, industry standards allow for the presence of imperfections in welds. CCSF does not assert that the imperfections in the report exceed what is allowed by code. <i>E.g.</i>, Ex. Joint-13 (API 1104).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>26. There are even earlier reports discussing issues with oxy-acetylene welds on Line 109. In 1965, PG&E issued an evaluation of an oxyacetylene weld from Main #109, San Francisco. CCSF-1 (Exhibit 7 to Testimony of John Gawronski: 1965 PG&E Evaluation of Oxy-Acetylene Weld From Main #109 San Francisco) at p. 1.</p>	<p>Misleading as stated. This report indicates the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 57. Moreover, industry standards allow for the presence of imperfections in welds. CCSF does not assert that the imperfections in the report exceed what is allowed by code. <i>E.g.</i>, Ex. Joint-13 (API 1104).</p>
<p>27. The report found that the oxy-acetylene weld on a section of 26 inch diameter pipe on Line 109 in San Francisco did not meet the minimum requirements of the (then) current A.P.I. Standard 1104, and that excessive carbon in the weld metal caused the failure. <i>Id.</i> at p. 1.</p>	<p>Misleading as stated. These reports indicate the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 57. Moreover, this section of Line 109 was constructed several decades prior to issuance of the report. CCSF does not assert that the imperfections in the reports exceed what was allowed by code at the time of installation.</p>
<p>28. PG&E agrees that “these welding techniques are obsolete methods of fabricating larger diameter transmission pipeline girth welds.” Ex. Joint-34 (PG&E Response to Data Request CCSF_001-Q05).</p>	<p>Not disputed. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 56-58.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>29. In a metallurgical report, PG&E found evidence of cracking in its girth welds from 2 spools removed from Line 109. CCSF-1 (Exhibit 8 to Testimony of John Gawronski: 1996 Metallurgical Evaluation of Cracking in Line 109 Seam Welds) at p. 1.</p>	<p>Misleading as stated. This report indicates the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 57. Moreover, industry standards allow for the presence of imperfections in welds. CCSF does not assert that the imperfections in the reports exceed what is allowed by code. <i>E.g.</i>, Ex. Joint-13 (API 1104).</p>
<p>30. Although the report did not identify which segments the sections of pipe were removed from, it states "the spools are believed to be from gas transmission line 109 which was installed in 1935." <i>Id.</i></p>	<p>Misleading as stated. This report indicates the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 56-58.</p>
<p>31. One of the cracks was found to be 76.5% of the wall thickness. <i>Id.</i>, at p. 2.</p>	<p>Misleading as stated. This report indicates the presence of girth welds constructed prior to 1947 using now-obsolete welding methods. PG&E conservatively identifies all pipelines constructed prior to 1947 as being potentially susceptible to a construction threat. <i>See</i> PG&E RB at 56-58.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>32. Using in-pipe remote video inspection of 22-inch line 109 gas pipe along Miranda Avenue, Palo Alto, another report found “linear crack-like indication, about ½ inch long ... in the toe of a flush-ground, seam repair weld,” “another linear indication, 4 inches long, ... in the base metal about ½ inch away from the seam,” and “[i]ncomplete root penetration ... in the seams of several spools. In two spools it extends intermittently for the entire spool length.” CCSF-1 (Exhibit 9 to Testimony of John Gawronski: 1996 In-Pipe Remote Video Inspection of Long Seam Welds 22-Inch Line 109 Gas Pipe, Miranda Avenue, Palo Alto) at p. 2.</p>	<p>Misleading as stated. This report summarizes an investigation of sections of Line 109, installed in 1935, with a longitudinal seam manufactured using the single submerged arc welding (SSAW) process. PG&E’s integrity management program identifies pipe manufactured using the SSAW process as subject to a potential manufacturing threat, and subjects such pipe to a stability evaluation to determine whether conditions on the pipeline have rendered the manufacturing threat unstable. Ex. Joint-34.</p>
<p>33. PG&E was unable to provide any documentation demonstrating that these reports were considered as part of PG&E’s TIMP. Ex. Joint-34 (PG&E Response to Data Request CCSF_001-Q05).</p>	<p>Disputed. See PG&E RB, Section V.B.1.d. The data response that CPSD cites (Ex. Joint-34) indicates that PG&E conservatively identifies all pipeline constructed prior to 1947 as potentially subject to construction threats for ground movement-related failure, and identifies SSAW pipeline as potentially subject to a manufacturing seam threat. The data response indicates that PG&E appropriately assessed each of the lines in question for the threats identified in the reports. Ex. Joint-34.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>34. PG&E's witnesses were unable to provide any evidence that PG&E considered these reports in its TIMP. Ex Joint 34 (PG&E Response to Data Request CCSF 001-Q05 in I.12.01-007 ("Mr. Zurcher has no personal basis for a conclusion as to whether PG&E was or was not aware of the referenced reports at the time it developed its TIMP.")).</p>	<p>Disputed. <i>See</i> PG&E RB, Section V.B.1.d. The data response that CPSD cites (Ex. Joint-34) indicates that PG&E conservatively identifies all pipeline constructed prior to 1947 as potentially subject to construction threats for ground movement-related failure, and identifies SSAW pipeline as potentially subject to a manufacturing seam threat. The data response indicates that PG&E appropriately assessed each of the lines in question for the threats identified in the reports. Ex. Joint-34.</p> <p>PG&E does not dispute that Mr. Zurcher, who is not a PG&E employee, is not aware of whether PG&E considered these reports in its integrity management program.</p>
<p>B Threat Identification</p>	
<p>35. As part of its TIMP, an operator's threat identification needs to be proactive and investigative in nature. Ex CCSF-1 at p. 3.</p>	<p>This proposed finding of fact is vague and does not provide an objective or measurable standard for conduct of integrity management programs.</p>
<p>36. Operators must address all other threats that stem from the unique characteristics of their pipeline system. <i>Id.</i></p>	<p>Disputed. ASME B31.8S states: "All threats to pipeline integrity shall be considered. Gas pipeline incident data has been analyzed and classified by the Pipeline Research Committee International (PRCI) into 22 root causes. Each of the 22 causes represents a threat to pipeline integrity that shall be managed. One of the causes reported by operators is "unknown"; that is, no root cause or causes were identified. The remaining 21 threats have been grouped into nine categories of related failure types according to their nature and growth characteristics, and further delineated by three time-related defect types." Ex. Joint-28 (ASME B31.8S) § 2.2 – Integrity Threat Classification.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>37. In addition to considering the nine threat categories identified by the ASME B31.8S, operators need to address all other threats that stem from the unique characteristics of their pipeline system. <i>Id.</i>; Ex. Joint-28 (ASME B.31.8S) section 2.3.2.</p>	<p>Disputed. ASME B31.8S states: "All threats to pipeline integrity shall be considered. Gas pipeline incident data has been analyzed and classified by the Pipeline Research Committee International (PRCI) into 22 root causes. Each of the 22 causes represents a threat to pipeline integrity that shall be managed. One of the causes reported by operators is "unknown"; that is, no root cause or causes were identified. The remaining 21 threats have been grouped into nine categories of related failure types according to their nature and growth characteristics, and further delineated by three time-related defect types." Ex. Joint-28 (ASME B31.8S) § 2.2 – Integrity Threat Classification.</p>
<p>38. In practice, if any additional threats are known, it is incumbent on the operator to identify and evaluate any threat to the integrity of the pipeline. Ex CCSF-1 at p. 3.</p>	<p>Disputed. <i>See</i> PG&E's response to CCSF proposed finding of fact 36 and 37.</p>
<p>39. If a line is missing data specified in ASME B31.8S-2004, Appendix A, then the line must be assessed for that threat. CCSF-1 at p. 18.</p>	<p>Disputed. <i>See</i> PG&E RB at 50-54. ASME B31.8S allows operators to use conservative assumptions in the place of actual attribute data during threat identification. Joint R.T. 1186-87 (PG&E/Keas). ASME B31.8S was written with full recognition that records would not be available in all instances. Joint R.T. 653 (PG&E/Zurcher).</p>
<p>40. When a pipeline operator concludes that a particular threat is not applicable to its pipeline, the threat evaluation must be documented and the basis for drawing such conclusions must be documented. Joint -38 (ASME B.31.8S).</p>	<p>Misleading as stated. ASME B31.8S does not contain such a requirement. Documentation requirements for integrity management programs are set forth in 49 C.F.R. § 192.947.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
41. PG&E's Risk Management Procedure 06 (RMP-06) represents its Integrity Management Program as it existed on September 9, 2010. PG&E's Joint RT 1106:7-26 (Keas/CCSF).	Generally accurate. RMP-06 provides the framework for PG&E's Integrity Management Program. For clarification, RMP-06, Revision 5 was effective as of September 9, 2010. Ex. PG&E-6 (Tab 4-6).
42. Section 5.1 of RMP-06 "describes the tools and method selected to assess pipeline integrity and the process by which the assessment results are collected and integrated with other data." Ex PG&E-6 (Tab 4-6) at p. 39.	Partially disputed. Section 5.1 sets forth the scope of Section 5, but does not contain any substantive discussion. Section 5 describes the tools and method selected, and the process by which assessment results are collected and integrated. Ex. PG&E-6 (Tab 4-6) at 39.
43. Section 5.5 of RMP-06 states that "the Company does not plan to use pressure testing to assess the integrity of its pipelines unless it is a post installation test or up-rate test for an HCA. However, during the course of assessing data for ECDA or ILI, it may become apparent that pressure testing is the only feasible option. If so, the Company will perform a pressure test." <i>Id.</i> at p. 40.	Not disputed.
44. In its 2004 Baseline Assessment Plan, PG&E identified 456.6 miles of pipeline that had manufacturing threats, and 88.75 miles with construction threats. Ex Joint 46 (Coversheet and summary page of PG&E's 2004 Baseline Assessment Plan)	Generally accurate. The vast majority of this mileage is identified as having a manufacturing threat due to the fact that the pipe is more than 50 years old. The 50 year condition is not related to the presence of seam-related manufacturing threats. Joint R.T. 1181-82 (PG&E/Keas).
45. According to PG&E's 2004 Baseline Assessment Plan, PG&E believed that 100% of its pipelines were subject to the external corrosion threat. Ex Joint 46 (Coversheet and summary page of PG&E's 2004 Baseline Assessment Plan)	Not disputed.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
46. PG&E used External Corrosion Direct Assessment (ECDA) to assess the external corrosion threat on its pipelines. ECDA, however, does not detect missing or cracked seams and the "code doesn't allow for the use of ECDA in the evaluation of manufacturing threats." Joint RT 960:3-961:7 (Keas/CPSD)	PG&E does not dispute that the code requires operators to use an assessment method capable of assessing the integrity of the longitudinal seam where records indicate the presence of an unstable manufacturing seam threat. ECDA is an appropriate assessment method to assess for the threat of external corrosion. 49 C.F.R. § 192.925.
47. According to PG&E's 2009 Baseline Assessment Plan, of the 1021 miles to be assessed by December 17, 2012 "zero miles will be assessed using pressure testing. Ex CCSF-8 (8/12/11 NTSB Factual Addendum Report) at p. 28	Generally accurate.
48. As of September 9, 2010, PG&E's TIMP "had identified 11.15 miles of piping to be assessed for manufacturing seam threats." Ex CCSF-1 (Exhibit 3 to Testimony of John Gawronski: PG&E Response to Data Request CCSF_004-Q08 in R.11-02-016).	Generally accurate.
49. Of these approximately 11 miles, PG&E had assessed 4.9 miles of piping using an in-line inspection tool called Transverse Field Inspection. <i>Id.</i>	Generally accurate.
50. PG&E intended to inspect the remaining 6.2 miles using a similar tool. <i>Id.</i>	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
51. In March 2012, PG&E identified 523 pipeline segments (247,206 feet or over 46 miles of pipeline) that it admits have unstable seam-related manufacturing defects Ex CCSF-1 at p. 9.	Disputed. PG&E's post-accident changes to its integrity management program included an enhanced manufacturing threat identification process that exceeds what is required by law. This process identifies all pipe that has not been pressure tested to at least 1.25 times pipeline MAOP as subject to a potential manufacturing threat, even though it is not required by code. Following March 2012, the majority of the miles of pipe on this list were determined to not be subject to an unstable manufacturing threat, as PG&E personnel located records demonstrating that the segments were subjected to a qualifying strength test. Joint R.T. 1206-09 (PG&E/Keas). Moreover, it is inappropriate to use post-accident improvement efforts to support alleged violations.
52. As of March 2012, PG&E had not yet assessed those defects. <i>Id.</i>	Disputed. The majority of the miles of pipe on this list were subsequently determined to not be subject to an unstable manufacturing threat, as PG&E personnel located records demonstrating that the segments were subjected to a qualifying strength test. Joint R.T. 1206-09 (PG&E/Keas).
53. In San Francisco alone there are 6 segments on Line 101, totaling approximately one mile (5,333 feet) in length, that have unstable manufacturing defects. <i>Id.</i>	Disputed. The majority of the miles of pipe on the original list were subsequently determined to not be subject to an unstable manufacturing threat, as PG&E personnel located records demonstrating that the segments were subjected to a qualifying strength test. Joint R.T. 1206-09 (PG&E/Keas). CCSF has not presented evidence that the six segments in question are still subject to an unstable manufacturing defect.
54. These segments were all installed in 1953. <i>Id.</i>	CCSF does not identify the particular segments that it refers to, which prevents PG&E from specifically responding. More importantly, CCSF's failure to identify particular segments renders its evidentiary showing inadequate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>55. These segments with oxy-acetylene welds in San Francisco, which have been identified as being susceptible to brittle like cracking, are not included in Phase I of PG&E's recently filed Pipeline Enhancement Safety Plan, and will not be addressed by 2014 under PG&E's current proposals. <i>Id.</i></p>	<p>CCSF does not identify the particular segments that it refers to, which prevents PG&E from specifically responding. More importantly, CCSF's failure to identify particular segments renders its evidentiary showing inadequate. Moreover, the question of whether segments will be replaced is more properly addressed in the PSEP rulemaking (OIR 11-02-019).</p>
<p>56. There are also 22 segments on Line 109, amounting to nearly 2 miles (9,781 feet) of pipeline, that have unstable seam-related manufacturing defects. <i>Id.</i></p>	<p>Disputed. The majority of the miles of pipe on the original list were subsequently determined to not be subject to an unstable manufacturing threat, as PG&E personnel located records demonstrating that the segments were subjected to a qualifying strength test. Joint R.T. 1206-09 (PG&E/Keas). CCSF has not presented evidence that the six segments in question are still subject to an unstable manufacturing defect.</p>
<p>57. Most of these segments were installed in 1932, and many also have oxy-acetylene girth welds. <i>Id.</i></p>	<p>CCSF does not identify the particular segments that it refers to, which prevents PG&E from specifically responding. More importantly, CCSF's failure to identify particular segments renders its evidentiary showing inadequate.</p>
<p>58. In October 2009, PG&E hired an outside consultant to perform a high-level audit of its integrity management program and identify strengths and weaknesses. Ex Joint 48 (October 20, 2009 WKMC Review of Pipeline IMP Documents).</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
59. The consultants identified PG&E's risk assessment methodology as a "weakness." <i>Id.</i> at p. 1.	Disputed. The 2009 WKMC audit found that "This set of control documents is a very good collection of IMP procedures The main criticism is directed at the risk assessment (RA) methodology. Note that this criticism is <i>not</i> suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators." The 2009 WKMC found that PG&E's risk assessment methodology was a "possible" weakness. Ex. Joint-48 (emphasis in original).
60. RMP-06 was one of the documents considered in this audit. <i>Id.</i>	Generally accurate.
61. Based on this review, the consultant found that PG&E's risk assessment methodology suffered from "significant weaknesses." <i>Id.</i> at p. 3.	Disputed, misleading as stated. CCSF omits the consultant's more relevant conclusion: "Note that this criticism is <u>not</u> suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators." Ex. Joint-48 at 1 (emphasis in original). PG&E notes that risk assessment determines <i>when</i> a segment is assessed, relative to all other identified HCA segments, which had to be assessed by December 17, 2012. Ex. PG&E-1c at 4-33 (PG&E/Keas).

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>62. The two of the significant weaknesses in PG&E's risk assessment methodology were weighting and awarding of points or scores. <i>Id.</i></p>	<p>Disputed, misleading as stated. CCSF omits the consultant's more relevant conclusion: "Note that this criticism is <u>not</u> suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators." Ex. Joint-48 at 1 (emphasis in original).</p> <p>PG&E notes that risk assessment determines <i>when</i> a segment is assessed, relative to all other identified HCA segments, which had to be assessed by December 17, 2012. Ex. PG&E-1c at 4-33 (PG&E/Keas).</p>
<p>63. Weightings "carry inherent risks of bias and masking" and some "reasons why weightings are currently out of favor and not used in robust risk assessment include the following: force pre-conceived results, difficult to support technically, potential for masking risk issues." <i>Id.</i></p>	<p>Disputed, misleading as stated. CCSF omits the consultant's more relevant conclusion: "Note that this criticism is <u>not</u> suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators." Ex. Joint-48 at 1 (emphasis in original).</p> <p>PG&E notes that risk assessment determines <i>when</i> a segment is assessed, relative to all other identified HCA segments, which had to be assessed by December 17, 2012. Risk assessment does not determine <i>if</i> a segment will be assessed, or <i>how</i> the segment will be assessed. Ex. PG&E-1c at 4-33 (PG&E/Keas).</p>
<p>64. Using points or scores "often has inadequate defensible linkage to real world phenomena." <i>Id.</i></p>	<p>Disputed, misleading as stated. CCSF omits the consultant's more relevant conclusion: "Note that this criticism is <u>not</u> suggesting that errors were made. The current PG&E RA methodology is in fact consistent with models in widespread use several years ago and still today by many pipeline operators." Ex. Joint-48 at 1 (emphasis in original).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
65. An April 12, 2010 PG&E internal memorandum shows that PG&E purposefully under-calculated potentially unstable manufacturing threats for assessment. Ex Joint 9 (PG&E Response to CPSD Data Request 015-Q01, Attachment 692 in I.11-02-016).	Disputed. 49 C.F.R. § 192.917(e)(3), relating to the stability of manufacturing threats, was intended to address changed operating conditions, not transient pressure excursions. 68 Fed. Reg. 69,804; Joint R.T. 749-50 (PG&E/Zurcher).
66. The April 12, 2010 memorandum “documents that the operating pressure in a pipeline with a manufacturing seam threat, that has previously not been pressure tested, will not activate unless the historical operating pressure (MOP) plus 10 percent is exceeded.” <i>Id.</i>	PG&E does not dispute that the memorandum contains this statement. However, for clarification, 49 C.F.R. § 192.917(e)(3), relating to the stability of manufacturing threats, was intended to address changed operating conditions, not transient pressure excursions. 68 Fed. Reg. 69,804; Joint R.T. 749-50 (PG&E/Zurcher).
67. As PG&E uses MOP in this context, it is the MAOP for the pipeline system, i.e. the entire line as opposed to one segment. <i>Id.</i>	The April 12, 2010 memorandum is the best evidence of what it says. As stated in the memorandum, PG&E defines maximum operating pressure (MOP) as “the maximum pressure a gas pipeline system may operate in accordance with the requirements of CFR Title 49, Part 192 definition of maximum allowable operating pressure for a <i>system</i> .” Ex. Joint-9.
68. In the memorandum, PG&E acknowledges that section 192.917(e)(3), and ASME B31.8S do not specify any allowance past the MOP (as it is used in that memorandum). <i>Id.</i>	Disputed in part. The April 12, 2010 memorandum is the best evidence of what it says. The assertion in the Proposed Finding of Fact is not accurate. PG&E does not dispute that the memorandum contains the statement “does not specify any allowance past MOP . . .” The meaning and application of 49 C.F.R. § 192.917(e)(3) and ASME B31.8S are legal issues that are not addressed in this proposed finding. Ex. Joint-9. Moreover, 49 C.F.R. § 192.917(e)(3), relating to the stability of manufacturing threats, was intended to address changed operating conditions, not transient pressure excursions. 68 Fed. Reg. 69,804; Joint R.T. 749-50 (PG&E/Zurcher).

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>69. The memorandum states “although PHMSA FAQs further states (sic) that ‘any pressure increase, regardless of amount’ will require assessment, PG&E will interpret that an allowance of MOP + 10% is suitable before the pipeline with a manufacturing defect must be assessed.” <i>Id.</i></p>	<p>PG&E does not dispute that the memorandum contains this statement. However, 49 C.F.R. § 192.917(e)(3), relating to the stability of manufacturing threats, was intended to address changed operating conditions, not transient pressure excursions. 68 Fed. Reg. 69,804; Joint R.T. 749-50 (PG&E/Zurcher).</p>
<p>70. Older DSAW pipe is more susceptible to rupture. Ex Joint 49 9(Integrity Characteristics of Vintage Pipelines (INGAA report)) at p. E-6.</p>	<p>Disputed. DSAW pipe is considered to be the highest quality welded pipe, and federal regulations assign DSAW a joint efficiency rating equivalent to seamless pipe without distinction as to age of pipe. Ex. PG&E-1 at 3-5 (PG&E/Caligiuri); 49 C.F.R. § 192.113.</p>
<p>71. Based on this report over 44% of the incidents are attributed to pipe produced in 1950, and another 17% in 1949, 1951, or 1952. <i>Id.</i></p>	<p>PG&E does not dispute that this is what is stated in Joint Exhibit 49. However, neither this proposed finding of fact nor the Integrity Characteristics of Vintage Pipelines report provide any information relating to the characteristics and circumstances of the incidents reflected in the report. These incidents do not contain the requisite level of detail to inform the integrity management manufacturing threat analysis process. Joint R.T. 973-74 (PG&E/Keas).</p>
<p>72. PG&E admitted that the INGAA report is one of the sources of information that PG&E uses to determine whether there are any defects in its older pipelines as part of its Integrity Management Program. Joint RT 970:21-26 (Keas/CPSD).</p>	<p>Disputed. The INGAA report does not contain sufficient information or detail relating to what service the pipelines were in, what specifications the pipes were ordered pursuant to, and how the pipelines were installed to be relevant to a manufacturing threat identification process. Joint R.T. 973-74 (PG&E/Keas).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
73. PG&E provided a Moody's report that shows that some of the steel used by Consolidated Western for PG&E's pipelines came from the Kaiser Company. Ex PG&E -7 (Tab 4-20: July 19, 1949 Moody's Report) at p. 2 ("the balance of the steel plates were supplied by Kaiser Company, Inc., and rolled at their plant in Fontana California.").	Disputed. Exhibit PG&E-7 (Tab 4-18) contains the Moody Report that PG&E believes CCSF intended to reference. This document states: "The major portion of the steel plates from which the pipe was made were supplied through the Columbia Steel Company, Los Angeles California, by the Geneva Steel Company, and rolled at their plant in Geneva, Utah. The balance of the plates were supplied by the Kaiser Company, Inc. and rolled at their plant in Fontana, California." The Moody Report also indicates that the pipe was to be subjected to a 90% SMYS hydrotest at the mill. The document referenced in this proposed finding of fact does not represent that any pipe plate came from Kaiser. Ex. PG&E-7 (Tab 4-20). The document does indicate that pipe ordered for the 1948 installation of Line 132 was to be subject to a 90% SMYS (1170 psig) hydrotest at the mill. Ex. PG&E-7 (Tab 4-20) at 3.
74. The INGAA report specifically identifies the Kaiser Company as being the predominant supplier of SSAW and DSAW pipelines that resulted in reported incidents. Ex Joint 49 at p. E-6 .	Generally accurate. Ex. Joint-49 at E-6. However, neither this proposed finding of fact nor the Integrity Characteristics of Vintage Pipelines report provide any information relating to the characteristics and circumstances of the incidents reflected in the report. These incidents do not contain the requisite level of detail to inform the integrity management manufacturing threat analysis process. Joint R.T. 973-74 (PG&E/Keas).
75. During the years 2002-2009, 6 out of the 17 reportable incidents involving longitudinal seam welds occurred on DSAW pipelines. Pinhole leaks accounted for all six reportable incidents. Ex PG&E-1 at p. 5-10.	Generally accurate. As discussed by John Zurcher, the pinhole leaks likely were reported because they were significant in the judgment of the operator, even though they did not meet other criteria for reportable incidents. Joint R.T. 764 (PG&E/Zurcher).
76. PG&E has stated that it believes that segment 180 was constructed with DSAW pipe from Consolidated Western. Ex PG&E-1 at p. 2-1.	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
77. During the hearings, PG&E admitted that if segment 181 was identified as having a manufacturing threat in 2004 BAP because segment 181 was identified as being over 50 years old, segment 180 should also have been identified as having a manufacturing threat because it was also over 50 years old in 2004. Joint RT 966:20-26 (Keas/CPSD).	Partially disputed. Kris Keas testified that Segment 180 should have been identified as having a non-seam related manufacturing threat, as the pipe used in constructing segment 180 was manufactured more than 50 years prior to 2004, even though it was not installed until 1956. Joint R.T. 966, 1181-82 (PG&E/Keas). That designation is not related to a seam manufacturing threat.
78. When questioned why PG&E's TIMP did not identify segment 180 as having a manufacturing defect, PG&E's witness asserted that she believed it was because "we thought we knew what the installation was, which was in, I believe 1956." Joint RT 967:5-7 (Keas/CPSD).	Generally accurate, though misleading without the following additional information: Kris Keas testified that Segment 180 should have been identified as having a non-seam related manufacturing threat, as the pipe used in constructing segment 180 was manufactured more than 50 years prior to 2004, even though it was not installed until 1956. Joint R.T. 966, 1181-82 (PG&E/Keas). That designation is not related to a seam manufacturing threat.
79. PG&E asserted that it over-pressurized its pipelines "to avoid [pressure testing] and any potential customer curtailments that may result." CCSF-1 (Exhibit 11 to Testimony of John Gawronski: PG&E's Amended Data Response NTSB Exhibit 2-AI of the San Bruno Investigation (Docket No. SA-534)).	Disputed. PG&E did not "over-pressurize" its pipelines. PG&E's practice of raising pressure in its pipelines to pipeline MAOP was common in the pipeline industry, both before and after implementation of the Integrity management regulations. Ex. PG&E-1 at 5-14 (PG&E/Zurcher).
80. PG&E "operated, within the applicable five-year period, some of its pipelines that would be difficult to take out of service at the maximum pressure experienced during the preceding five-year period in order to meet peak demand and preserve the line's operational flexibility." <i>Id.</i>	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
81. Increasing the pressures in this way can affect the stability of manufacturing and construction (especially weld) defects in pipeline segments. Ex CCSF-1 at p. 16.	Disputed. There is no empirical evidence to support this proposed finding. Even yearly pressure excursions that exceed MAOP by up to five percent do not meaningfully diminish the expected time to failure of manufacturing defects. Ex. PG&E-1c at 4-25 (PG&E/Keas); Ex. PG&E-7 (Tab 4-21) (Kiefner 2007 DOT Report at 28).
82. PHMSA believes that “if you’re adjusting the pressure periodically, you need to ... make that part of your overall assessment of the risk on that pipeline.” Ex CPSD-9 at p. 37.	Disputed. The MAOP and MOP of PG&E’s pipelines remained unchanged. 49 C.F.R. § 192.917(e)(3) require a change to one or both of these operating conditions to render a manufacturing threat unstable. See PG&E OB at 91; 68 Fed Reg. 69,804, Joint R.T. 749-50 (PG&E/Zurcher).
83. In addition, it appears that PG&E is the only operator who followed this practice. <i>Id.</i> (“PHMSA officials were unaware of any other operators following such a practice.”)	Disputed. The practice of operating transmission pipelines to MAOP was common within the gas industry and considered standard industry practice by many operators. Ex. PG&E-1 at 5-13 to 5-14 (PG&E/Zurcher).
84. PG&E over-pressurized segments of Line 101 and Line 109 within the City and County of San Francisco on December 11, 2003. Ex CCSF-1 (Exhibit 11 to Testimony of John Gawronski: NTSB Exhibit 2-AI of the San Bruno Investigation (Docket No. SA-534)), p. 4 of spreadsheet titled “NTSB_036-005 Amended.”)	Disputed. CCSF does not present evidence that the segments of Lines 101 and 109 that are within the City and County of San Francisco exceeded the MAOP of each line. CCSF’s failure to identify the segments and pressures reached on these lines renders its evidentiary showing inadequate.
85. Prior to December 11, 2003, the five-year MOP for the Line 101 segments in San Francisco (segment numbers 181 to 201) was 223.5 psi. Ex CCSF-1 (Exhibit 12 to Testimony of John Gawronski: PG&E Response to Data Request OII_DR_CCSF_003-Q05 in I.11-02-016).	Misleading as stated. As of December 11, 2003, no federal or state pipeline regulation attached any significance to the highest pressure experienced on a particular pipeline in the preceding five years.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
86. The five-year MOP for Line 109 segments in San Francisco (segment numbers 195.2 to 248) was 149.8 psi. <i>Id</i>	Misleading as stated. The DR response cited refers to the MOP in the five years prior to December 11, 2003. As of that date, no federal or state pipeline regulation attached any significance to the highest pressure experienced on a particular pipeline in the preceding five years.
87. On December 3, 2011, PG&E raised the pressure on these segments of Line 101 to 249.42. Ex CCSF-1 (Exhibit 11 to Testimony of John Gawronski: NTSB Exhibit 2-AI of the San Bruno Investigation (Docket No. SA-534), p. 4 of spreadsheet titled "NTSB_036-005 Amended.")	Misleading as stated. As of December 11, 2003 (assuming the intended date reference was December 11, 2003 not December 3, 2011), no federal or state pipeline regulation attached any significance to the highest pressure experienced on a particular pipeline in the preceding five years.
88. Similarly, PG&E raised the pressures on these segments of Line 109 to 150.01 psi. <i>Id.</i>	Misleading as stated. As of December 11, 2003, no federal or state pipeline regulation attached any significance to the highest pressure experienced on a particular pipeline in the preceding five years.
89. PG&E's witness admitted that it is very possible that PG&E exceeds its MAOP everyday on every pipeline. Joint RT 750:2-20 (Zurcher/CCSF).	Disputed. This statement is not an accurate characterization of the testimony. Joint R.T. 750:2-20 (PG&E/Zurcher).
90. PG&E's witness admitted that "I don't believe a prudent operator would exceed MAOP on purpose." Joint RT 788:7-8 (Zurcher/CCSF).	Disputed. This is not an accurate quotation of the testimony. Joint R.T. 788:7-8 (PG&E/Zurcher). The actual statement was, "I don't believe an operator would exceed MAOP on purpose." CCSF added the word prudent.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>91. It is Mr. Zurcher's opinion that "prudent pipeline operators manage system pressures to never exceed MAOP, which often means that a safety margin below MAOP is necessary." Ex Joint 35 (Determination of Available Capacity and A Review of Maintenance on the El Paso Natural Gas Co. System for the Period November 1, 2000 through March 31, 2001) at p. 12.</p>	<p>The quote of the testimony is accurate.</p>
<p>92. Even after the San Bruno explosion, PG&E still asserts that "even a 20-pound excursion (equivalent to 5% over the 400 psig MAOP) would not be enough to render a manufacturing threat unstable." Ex PG&E-1c at p. 4-26.</p>	<p>PG&E does not dispute that this quote comes from its testimony. However, as explained by witness Kris Keas, if a pressure increase over MAOP occurs, PG&E would conduct a stability determination that takes into consideration several factors, such as whether the pipe was hydrotested, and what method was used to manufacture the pipe. Applying the pipe specifications for pipe that was to be used in construction of Segment 180, the stability analysis would not identify an unstable manufacturing defect if the line was pressured to 420 psig. Joint R.T. 1102-04 (PG&E/Keas).</p>
<p>C. Cyclic Fatigue</p>	
<p>93. The NTSB found that fatigue cracking weakened the pipe segment that ruptured. Ex CPSD-9 at p. 124 (Finding 5)</p>	<p>Generally accurate, with a modification. The pipe that ruptured was not properly manufactured gas transmission pipe. Ex. PG&E-1 at 3-5. (PG&E/Caligiuri). In addition to missing an interior weld, the pipe experienced a ductile tear likely caused by a post-construction hydro test. Properly manufactured DSAW pipe without a ductile tear would not have experienced the fatigue cracking seen on the pup in Segment 180. Ex. PG&E-1 at 3-5 to 3-17 (PG&E/Caligiuri); Ex. PG&E-1 at 6-5 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
94. PG&E admits the rupture of segment 180 was caused by a ductile tear that grew from "fatigue cracking [...] to a point that the relatively small increase in pressure on September 9, 2010 caused the Pup 1 longitudinal seam to rupture." Ex PG&E-1 at p. 3-7.	Generally accurate.
95. PG&E did not incorporate cyclic fatigue or other loading conditions into their segment specific threat assessments and risk ranking algorithm in either its 2005 or 2010 Integrity Management Protocol Matrices. Ex CPSD-1 at p. 51.	Disputed. PG&E conducted initial calculations to determine whether pipelines in its system were subject to cyclic fatigue. Using this, in combination with an evaluation of industry literature regarding the potential for cyclic fatigue to occur, PG&E determined that cyclic fatigue was not an active threat. Joint R.T. 1001 (PG&E/Keas).
96. PG&E lacks a documented record that it evaluated the pressure cycles on its pipelines. CCSF-1 at p. 18.	Disputed. PG&E documented its evaluation of cyclic fatigue in audit protocol matrices provided to PHMSA and CPSD during 2005 and 2010 audits. Ex. PG&E-1c at 4-30 (PG&E/Keas); Ex. PG&E-7 (Tab 4-24) (2005 audit protocol matrix); Ex. PG&E-7 (Tab 4-25) (2010 audit protocol matrix).
97. PG&E's RMP-06 does not even list cyclic fatigue as one of the threats to be considered. Joint RT 110:5-17 (Keas/CCSF).	Misleading as stated. PG&E's RMP-06 identifies threat categories consistent with ASME B31.8S, section 2.2. CPSD audits of PG&E integrity management program found that PG&E properly evaluated cyclic fatigue. Ex. PG&E-7 (Tab 4-24) (2005 audit protocol matrix) at 31-32; Ex. PG&E-7 (Tab 4-25) (2010 audit protocol matrix) at 35-36. Cyclic fatigue is not an identified category of threat in the ASME standard. Ex. Joint-28 (ASME B31.8S) § 2.2. Joint R.T. 1187-90 (PG&E/Keas) ("Q: Are there any threats listed in the ASME that are not listed in RMP06? A: No.").

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>98. To perform the cyclic fatigue analysis, an operator must track its pressure histories. CCSF-1 at p. 17.</p>	<p>Disputed. CCSF does not present any evidence that any operator uses its method of evaluation of cyclic fatigue. The pressure cycle analysis may use recent pressure cycles as a proxy for older data, because “as time goes on the systems tend to be operated more vigorously, let’s say, or aggressively, because the demand increases.” This is a conservative approach. R.T. 802 (PG&E/Kiefner). Moreover, CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>
<p>99. The operator must consider the changes or variations in pressures and related stress levels on the pipeline and track the percent increase or decrease caused by the change in pressure. <i>Id.</i></p>	<p>Disputed. CCSF does not present any evidence that any operator uses its method of evaluation of cyclic fatigue. CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>
<p>100. Next, the operators must identify what constitutes a significant threat due to severe or moderate pressure/stress cycles. <i>Id.</i></p>	<p>Disputed. CCSF does not present any evidence that any operator uses its method of evaluation of cyclic fatigue. CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>101. Operators must count the number of severe cycles experienced by the pipeline. <i>Id.</i></p>	<p>Disputed. CCSF does not present any evidence that any operator uses its method of evaluation of cyclic fatigue. The pressure cycle analysis may use recent pressure cycles as a proxy for older data, because “as time goes on the systems tend to be operated more vigorously, let’s say, or aggressively, because the demand increases.” This is a conservative approach. R.T. 802 (PG&E/Kiefner). Moreover, CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>
<p>102. All operators must perform this analysis, and although failure due solely to cyclic fatigue is rare, the effects due to pressure cycling should be considered as part of an operator’s evaluation of interactive threats. <i>Id.</i></p>	<p>Disputed. CCSF does not present any evidence that any operator uses its method of evaluation of cyclic fatigue. CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>103. Based on this analysis, operators calculate an expected time to failure and time for reassessment. The expected time to failure is the “minimum amount of time that we would expect to see a failure.” 704:13-14 (Kiefner/CPSD).</p>	<p>PG&E does not dispute that this is one method of analysis for cyclic fatigue. However, CCSF presents no evidence that its specific method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner). PG&E notes that Dr. Kiefner described this type of analysis as a worst case scenario that assumes that the pipeline is operating at the maximum pressure allowed in a class-1 location (72% SMYS), and also assumes that the pipe contains defects, which may not exist in reality. R.T. 704-05 (PG&E/Kiefner).</p>
<p>104. This calculation is not 100% predictive, i.e. the pipeline could fail before or after that time. 706:21-28. (Kiefner/CPSD).</p>	<p>Generally accurate, with the clarification that the calculation is a minimum time to failure. R.T. 704 (PG&E/Kiefner). The logical implication is that it is more likely that a pipeline would fail after the minimum time to failure, not before.</p>
<p>105. The time for re-assessment is half the expected time to failure. In other words, operators apply a safety factor of two by taking the calculated time to failure and dividing that number by two. 707:3-22 (Kiefner/CPSD).</p>	<p>PG&E does not dispute that this is what Dr. Kiefner recommends. However, CCSF presents no evidence that this method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner)</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
106. Upon reaching time for assessment, operators have two options: "one is to hydrostatically test the pipeline again to reset the clock. The other is to run in-line inspection with a crack detection tool that's capable of finding the defects." 708:7-12." (Kiefner/CPSD).	PG&E does not dispute that this is what Dr. Kiefner recommends. However, CCSF presents no evidence that this method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner)
107. The results of the cyclic fatigue analysis will vary depending on the specific characteristics of the pipelines subject to cyclic fatigue. 780:7-10 (Kiefner/CCSF).	PG&E does not dispute that this is what Dr. Kiefner states. However, CCSF presents no evidence that this method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner)
108. In March 2012, Kiefner and Associates wrote a report addressing the threat of cyclic fatigue on PG&E's peninsula pipelines based on the pressure histories for 10 years prior to September 9, 2010 (KAI report). 801:16-21 (Kiefner/CCSF).	Generally accurate. However, the proper citation is R.T. 786 (PG&E/Kiefner).
109. The report finds that some segments in PG&E's gas transmission system have passed the time for reassessment and some have even passed their expected time to failure based on seam weld fatigue. Ex. CCSF-5.	Misleading as stated. The reassessment intervals are worst case scenarios, and "in real life, the answer is that [cyclic fatigue is not present] because they haven't failed, they haven't failed in tests in some of the segments." R.T. 801-02 (PG&E/Kiefner).
110. Failure due to seam-weld fatigue on high pressure transmission lines tends to lead to rupture. 797:16-18 (Kiefner/CCSF)	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>111. The report makes clear that several of the key assumptions contained in PG&E's testimony are inapplicable to the older vintages of PG&E's gas transmission system. 780:22-25 (Kiefner/CCSF).</p>	<p>Disputed. The record citation does not support this proposed finding of fact. As explained by Dr. Kiefner, the key factor in his fatigue analysis is the existence of a hydrostatic test. R.T. 780 (PG&E/Kiefner). The record citation demonstrates that Dr. Kiefner used a hypothetical 24-inch diameter, .289 wall, X52 pipe with a toughness level equivalent to 25 foot pounds of Charpy energy to provide an example of different times to failure given different hydrostatic test levels. R.T. 780 (PG&E/Kiefner). As explained by Dr. Kiefner, pipelines of other specifications "would have some effect, not a big effect, but it would have some." R.T. 781 (PG&E/Kiefner). The fact that PG&E has pipeline of different specifications from the hypothetical used in the table referred to in this finding of fact does not render Kiefner's conclusions inapplicable to PG&E's system.</p>
<p>112. One key assumption is based on the vintage of the pipe. Pipelines of older vintage were not tested to as high a level, or possibly not even at all. CCSF-05 (March 2012 Kiefner and Associates Inc. Final Report: Analysis of the Effects of Pressure-Cycle-Induced Fatigue-Crack Growth on the Peninsula Pipeline) at p. 1.</p>	<p>Partially disputed. As stated by Dr. Kiefner, the "key factor" is the existence of a hydrostatic test, not the vintage of the pipe. R.T. 780 (PG&E/Kiefner). PG&E does not dispute that older pipelines were not subject to regulatory pressure test requirements, but API-specification pipe was subject to a hydro test in the pipe mill. R.T. 712 (PG&E/Kiefner) ("Well, having knowledge that your pipeline is comprised of a material made to a line-pipe specification, an API 5L for example, guarantees that you had a mill hydrostatic test. If you didn't get one, the manufacturer was cheating. And I know of no instances where that's ever been proven. You cannot put an API monogram on a piece of pipe without having done the mill hydrostatic test.").</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>113. Not all of PG&E's pipelines were tested to the highest levels. Several types lower grade pipe that are present in PG&E's system and are more susceptible to seam failure are PG&E specified grade, API 5L Grade A and Grade B pipe. Ex CCSF-05 at p. 1.</p>	<p>Partially disputed. CCSF presents no evidence that lower grade pipe in PG&E's system is more susceptible to seam failure. PG&E does not dispute that certain grades of pipe are subjected to lower percentage SMYS hydrostatic mill tests than other grades.</p>
<p>114. API 5L Grade A and Grade B pipe were subject to minimum test pressure of only 60 percent SMYS. Ex CCSF-05 at p. 2.</p>	<p>Generally accurate with regard to the mill test specified in the API standard. However, these pipelines were often tested in the field to a higher pressure, resulting in a longer fatigue life. Ex. CCSF-2 at 2. .</p>
<p>115. In some cases, the calculated fatigue life for these types of pipe is on the order of 50 years. <i>Id.</i></p>	<p>Misleading as stated. For each of the pipe segments identified in Table 1 (cited by CCSF for this proposed finding of fact), the pipe was either tested by PG&E to a higher pressure resulting in a long fatigue life, or the pipe is seamless so the threat of seam-weld fatigue does not apply. Ex. CCSF-2 at 2.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>116. Not all of PG&E's pipelines may been pressure tested. Based on the NTSB's interview of a former Consolidated Western employee it appears that not every piece of pipe made at Consolidated Western was subjected to a mill test. Ex CCSF-08 (NTSB Operations Chairman Factual Report Addendum, Dated 8/12/11).</p>	<p>Disputed. CCSF presents no evidence that not all of PG&E's pipelines were pressure tested, either at the mill or in the field. PG&E further disputes the accuracy and relevance of the statements made by the former Consolidated Western employee, as he did not work at the plant that manufactured 30" DSAW pipe for PG&E in 1948 and 1949, and he retired two years before PG&E's 1953 pipe purchase was fulfilled by Consolidated Western. Ex. CPSD-305 at 32-33. The former employee was not involved in making pipe for PG&E or familiar with the process by which it was made. The Moody's Engineering report that describes the actual manufacturing process for PG&E's 1949 Consolidated Western pipe purchase is the best evidence of how the Line 132 pipe was manufactured. Ex. PG&E-5 (Tab 2-3). API-specification pipe, such as the pipe ordered for Line 132 and Segment 180, was subject to a hydro test in the pipe mill. R.T. 712 (PG&E/Kiefner) (Well, having knowledge that your pipeline is comprised of a material made to a line-pipe specification, an API 5L for example, guarantees that you had a mill hydrostatic test. If you didn't get one, the manufacturer was cheating. And I know of no instances where that's ever been proven. You cannot put an API monogram on a piece of pipe without having done the mill hydrostatic test.").</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>117. In the NTSB's deposition of a former Consolidated Western employee, the employee stated that he believed only 1 in 50 pipes manufactured were subject to a mill test. Ex CPSD-305 (Deposition of Arthur "Mike" Massaglia) at p. 11:4-5.</p>	<p>Disputed. The former Consolidated Western employee did not work at the plant that manufactured 30" DSAW pipe for PG&E in 1948 and 1949, and retired two years before PG&E's 1953 pipe purchase was fulfilled by Consolidated Western. Ex. CPSD-305 at 32-33. The former employee was not involved in making pipe for PG&E or familiar with the process by which it was made. The Moody's Engineering report that describes the actual manufacturing process for PG&E's 1949 Consolidated Western pipe purchase is the best evidence of how the Line 132 pipe was manufactured. Ex. PG&E-5 (Tab 2-3). API-specification pipe, such as the pipe ordered for Line 132 and Segment 180, was subject to a hydro test in the pipe mill. R.T. 712 (PG&E/Kiefner) (Well, having knowledge that your pipeline is comprised of a material made to a line-pipe specification, an API 5L for example, guarantees that you had a mill hydrostatic test. If you didn't get one, the manufacturer was cheating. And I know of no instances where that's ever been proven. You cannot put an API monogram on a piece of pipe without having done the mill hydrostatic test.").</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>118. PG&E admits that cyclic fatigue was a threat to its pipelines even before the explosion on September 9, 2010. “Q: So even before the San Bruno explosion happened, based on the operating pressures, the threat of cyclic fatigue was present on PG&E’s pipelines? A: Well, on the basis of these calculations, you could infer that.” 801:16-21 (Kiefner/CCSF).</p>	<p>Disputed. This proposed finding of fact omits the context of the cited testimony. The full response reads as follows: “Q: So even before the San Bruno explosion happened, based on the operating pressures, the threat of cyclic fatigue was present on PG&E’s pipelines? A: Well, on the basis of these calculations, you could infer that. But in real life the answer is probably still no because they haven’t failed, they haven’t failed in tests of some of the segments, and so evidence, really evidence is pointing to the fact that there isn’t a fatigue problem. R.T. 801 (PG&E/Kiefner). Moreover, this testimony discusses the 2012 Kiefner and Associates report on cyclic fatigue that was commissioned using information gained in hindsight from the San Bruno incident.</p>
<p>119. Based on these considerations, the manufacturing techniques and the lack of documented pressure tests, PG&E should have considered cyclic fatigue a threat to its pipelines before the September 9, 2010 rupture occurred. Ex CCSF-05 at p. 2.</p>	<p>Disputed. This proposed finding of fact requires hindsight knowledge. Prior to San Bruno, informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constituted a legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner).</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>120. Based on the report's analysis, one segment of Line 109 made with PG&E Spec pipe, which was installed in 1936 had an expected time to failure of 139 years, and a time for reassessment of 70 years. Ex CCSF-05 at p. 2</p>	<p>PG&E does not dispute that this is what is recommended in the Kiefner and Associates report. However, the reassessment intervals are worst case scenarios, and "in real life, the answer is that [cyclic fatigue is not present] because they haven't failed, they haven't failed in tests in some of the segments." R.T. 801-02 (PG&E/Kiefner). CCSF presents no evidence that this method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner)</p>
<p>121. Based on the ten year pressure history prior to September 9, 2010, the cyclic fatigue analysis shows that this segment should have been hydrotested or in-line inspected for crack growth in 2006. 793:25-794:28 (Kiefner/CCSF)</p>	<p>For clarity, the Kiefner and Associates cyclic fatigue analysis was conducted after the San Bruno incident, using pressure cycle data from the years preceding the incident as a proxy for the pressure cycles experienced during the life of the pipeline. PG&E does not dispute that this proposed finding of fact is what is recommended in the Kiefner and Associates report. However, the reassessment intervals are worst case scenarios, and "in real life, the answer is that [cyclic fatigue is not present] because they haven't failed, they haven't failed in tests in some of the segments." R.T. 801-02 (PG&E/Kiefner). Moreover, CCSF presents no evidence that this method of evaluation is the only acceptable way to consider the threat of cyclic fatigue. Informed reliance on DOT-sponsored research that found cyclic fatigue to not constitute a threat to natural gas pipelines also constitutes a proper and legally adequate evaluation of cyclic fatigue. R.T. 719-20 (PG&E/Kiefner)</p>
<p>122. It also appears that this segment has not been pressure tested as of March 2012. 796:1-22 (Kiefner/CCSF).</p>	<p>Disputed. CCSF does not establish that Dr. Kiefner had knowledge whether certain segments had been hydrotested as of March 2012.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
123. In addition, the KAI report finds that a segment of Line 132 installed in 1948 with a SMYS of 33,000 psi that has not been pressure tested passed time to failure in 2008. 797:19-798:19 (Kiefner/CCSF).	PG&E does not dispute that this is what is stated in the Kiefner and Associates report. However, the time to failure intervals are worst case scenarios, and “in real life, the answer is that [cyclic fatigue is not present] because they haven’t failed, they haven’t failed in tests in some of the segments.” R.T. 801-02 (PG&E/Kiefner).
124. Yet another segment of Line 132 passed its time to failure in 1997. 798:20-799:1 (Kiefner/CCSF).	PG&E does not dispute that this is what is stated in the Kiefner and Associates report. However, the time to failure intervals are worst case scenarios, and “in real life, the answer is that [cyclic fatigue is not present] because they haven’t failed, they haven’t failed in tests in some of the segments.” R.T. 801-02 (PG&E/Kiefner).
125. The KAI report also makes clear that the threat of cyclic fatigue exists on DSAW pipelines too. 800:19-801:7 (Kiefner/CCSF).	PG&E does not dispute that this is what is stated in the Kiefner and Associates report. However, the threat of cyclic fatigue and the analysis in the report are the result of worst case scenarios and with the hindsight knowledge of the San Bruno accident, and “in real life, the answer is that [cyclic fatigue is not present] because they haven’t failed, they haven’t failed in tests in some of the segments.” R.T. 801-02 (PG&E/Kiefner).
126. There may have been additional over-pressurizations of PG&E’s pipelines that could further shorten the expected times to failure. 804:26-805:3 (Kiefner/CCSF).	This proposed finding of fact is unsupported speculation.
127. PG&E has admitted that it lost records relating to over-pressurizations from 2005 and 2007, and although it was able to provide a partial list of lines that it over-pressurized, it “cannot confirm that this represents all such events.” Ex CCSF-7 (PG&E Response to CCSF Data Request 004-Q01 and Q05 in I.11-02-016) See response to Q-01.	Disputed. CCSF took the data response out of context for its testimony. PG&E maintains pressure in its SCADA data historian from 1998 and 2000 through the present day. Joint R.T. 973-74 (PG&E/Keas). That data shows any “over-pressurization events” that may have occurred.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
128. PG&E only “began tracking over-pressurization events in the Gas Events database in September 2008.” Ex CCSF-1 (Exhibit 13 to Testimony of John Gawronski: PG&E Response to Data Request TURN_040-27 (A.09-12-020)).	Disputed. CCSF took the data response out of context for its testimony. PG&E maintains pressure in its SCADA data historian from 1998 and 2000 through the present day. Joint R.T. 973-74 (PG&E/Keas). That data shows any “over-pressurization events” that may have occurred.
129. PG&E states that prior to 2008 it experienced approximately 10 to 20 untracked over-pressurization events each year. <i>Id.</i>	Disputed. CCSF took the data response out of context for its testimony. PG&E maintains pressure in its SCADA data historian from 1998 and 2000 through the present day. Joint R.T. 973-74 (PG&E/Keas). That data shows any “over-pressurization events” that may have occurred.
130. PG&E also admitted that it does not have pressure histories for the entire year of 1999. Ex CCSF-1 (Exhibit 14 to Testimony of John Gawronski: PG&E Response to Data Request CPUC_015-10 (I.11-02-016)).	Generally accurate.
131. PG&E did not incorporate the loss of the 1999 SCADA pressure records into its integrity management model because it believes that “pipeline pressure and flow data are not directly incorporated into the integrity management risk model. The reason the risk model does not directly incorporate pressure and flow data is that the condition those records might provide information about, cyclic fatigue in a pipeline, is considered to be a low likelihood event for pipelines carrying natural gas.” <i>Id.</i>	Generally accurate, but for clarification, this data response related to risk assessment, not threat identification.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
132. The fact that PG&E did not track over-pressurization events prior to 2008 means that it cannot know the full extent to which cycling has affected the integrity of its pipelines and the stability of the manufacturing defects. CCSF-1 at p. 18.	Disputed. CCSF is mistaken that "PG&E did not track over-pressurization events prior to 2008...." See PG&E's response to Proposed Finding of Fact, No. 128 & 129, above. Regardless, operators do not have to maintain a full pressure history to conduct a fatigue analysis. As discussed by Dr. Kiefner, one method of evaluating cyclic fatigue uses recent pressure cycle data in place of older data, which Dr. Kiefner believes to be a conservative approach. R.T. 802 (PG&E/Kiefner).
133. PG&E's witness stated that he had no reason to believe that PG&E lacked the resources and ability to perform this analysis. 741:6-10(Kiefner/CPSD).	CCSF does not establish that Dr. Kiefner has the knowledge to answer this question. This statement cannot support a finding of fact.
134. PG&E has still has not asked Kiefner and Associates to perform a cyclic fatigue analysis for other lines that it over-pressurized. 809:8-18 (Kiefner/CCSF).	Generally accurate, though PG&E does not adopt CCSF's characterization of "over-pressurized."
D. Interactive Threats	
135. PG&E did not evaluate or analyze the interactive nature of threats (i.e., more than one threat occurring on a section of pipeline at the same time). Ex CCSF-1 at p. 19.	Disputed. CPSD integrity management audits in 2005 and 2010 did not identify any issues in PG&E's threat identification procedure, including specifically its evaluation of interactive threats. Ex. PG&E-7 (Tab 4-13) at 35-37; Ex. PG&E-7 (Tab 4-25).

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>136. RMP-06 does not include interactive threats. Ex PG&E 6 (Tab 4-6 (RMP-06), Joint RT 1110:14-20 (Keas/CCSF).</p>	<p>Misleading as stated. PG&E's RMP-06 identifies threat categories consistent with ASME B31.8S, Section 2.2. Ex. Joint-28 (ASME B31.8S) § 2.2; Joint R.T. 1187-90 (PG&E/Keas) ("Q: Are there any threats listed in the ASME that are not listed in RMP06? A: No."). Additionally, CPSD integrity management audits in 2005 and 2010, which CPSD describes as focusing on operator procedures, did not identify any issues in PG&E's threat identification procedure, including specifically its evaluation of interactive threats. Ex. PG&E-7 (Tab 4-13) at 35-37; Ex. PG&E-7 (Tab 4-25).</p>
<p>137. ASME B31.8S-2004 requires operators to consider interactive threats. Ex CCSF-1 at p. 19; Ex Joint-28 (ASME B.31.8S) section 2.2.</p>	<p>Generally accurate as a generic description of the ASME standard.</p>
<p>138. This is particularly important when considering manufacturing and construction threats as well as pipe seam threats. Ex CCSF-1 at p. 19.</p>	<p>This is opinion, is not objectively measurable or reviewable, and would be an inappropriate and meaningless finding of fact.</p>
<p>139. Interacting threats can result in otherwise stable defects becoming unstable, and necessitate assessment. <i>Id</i></p>	<p>Disputed. CCSF presents no evidence supporting this proposed finding of fact. ASME B31.8S only provides: "The interactive nature of threats (i.e., more than one threat occurring on a section of pipeline at the same time) shall also be considered. An example of such an interaction is corrosion at a location that also has third party damage." Joint-28 (ASME B31.8S) § 2.2.</p>
<p>140. It is clear that PG&E relied on the manufacturing and construction defects in its system being stable, and failed to consider the interactive nature of the threats on its lines, or that changing pressures could affect the stability of the manufacturing and construction defects. <i>Id</i></p>	<p>Disputed. PG&E gathered adequate data and appropriately identified and assessed threats indicated by that data. <i>See</i> PG&E OB at 57-92.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
E. Emergency Response	
<p>141. On the evening of the rupture, PG&E “did not notify emergency responders that the fire was being fed from a rupture in PG&E’s natural gas transmission line.” CPSD-9 at p. 100; RT 284:22-23 (Almario/CPSD).</p>	<p>Disputed. PG&E does not have a record of making a call to 911 on the day of the incident. PG&E disputes that it did not “notify” emergency responders. PG&E sent first responders to the scene to investigate and respond to the cause of the fire. R.T. 284-85 (PG&E/Almario); Ex. PG&E-40 at 6. At 6:41 p.m., the GSR and Peninsula On-Call Supervisor were confirmed at the scene of the incident working side-by-side with the fire department and the police. Ex. PG&E-40 at 10; R.T. 284-85 (PG&E/Almario); Ex. CPSD-1 at 110 (CPSD/Stepanian); PG&E OB at 110. PG&E’s Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m., served as PG&E’s Deputy Incident Commander and was in communication with the fire battalion chief regarding the fact that the fire involved a PG&E gas transmission line. Ex. CPSD-97 at 9-11, 15-16. As emergency response expert David Bull testified, the notification and coordination requirement was fulfilled at the time PG&E personnel arrived at the scene, confirmed that there was a gas emergency and coordinated with public responder on additional emergency actions. PG&E OB at 110; R.T. 420-21 (PG&E/Bull).</p>
<p>142. In general, PG&E’s first responders to a gas incident are general its Gas Service Representatives (GSRs). RT 297:23-298:2 (Almario/CPSD).</p>	<p>Generally accurate with the following addition: PG&E’s Gas Maintenance & Construction Superintendent for the Bay Area region arrived at the scene at approximately 6:30 p.m. and served as PG&E’s Deputy Incident Commander. Ex. CPSD-97 at 11-12, 15-16.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
143. The NTSB found although GSRs are directed to evaluate the danger to life and property, assess damage, and make or ensure that conditions are safe, PG&E's emergency response procedures for Gas Service Representatives does not direct them to call 911. CPSD-9 at p, 14, fn 25.	Partially disputed. PG&E's written procedures provide for notifying the appropriate fire and police officials. Ex. PG&E-39 at 1-40, 1-47, IV-20; Ex. PG&E-1 at 11-24 to 11-25 (PG&E/Bull).
144. PG&E's Company Gas Emergency Plan "defines the required procedures that all local gas operating departments must have in place to respond to gas emergencies." Ex PG&E-39 at p. Part I-1	Generally accurate.
145. The plan states that the first step in "GAS EMERGENCY RESPONSE POLICIES" is to "shut off gas if possible." <i>Id.</i> at p. Part 1-37.	Generally accurate but misleading without additional context. Shutting off the gas to a large geographic area, such as the San Francisco Peninsula, can create additional and severe dangers. Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner).
146. PG&E did not turn of the gas for 95 minutes. CPSD-9 (NTSB Report Executive Summary at p. x)	Generally accurate with the following addition: PG&E does not dispute that 95 minutes elapsed from the time of the rupture to the time the closest valves on both sides of the rupture were closed. However, "no specific regulations exist pertaining to emergency response time." Ex. CPSD-1 at 102 (CPSD/Stepanian). The record evidence establishes that the response time was reasonable. Ex. PG&E-1, Chapter 10 (PG&E/Almario); Ex. PG&E-1, Chapter 11 (PG&E/Bull).
147. Further under External Notification Requirements, the Gas Emergency Plan states "local fire departments must be contacted whenever a gas emergency poses a threat of fire or explosion. Fire department can assist in fire suppression, evacuations, and traffic control." Ex PG&E-39 at p. Part 1-40.	Generally accurate.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>148. Depending on circumstances at the scene, initiate a previously developed joint action to control the gas emergency.” <i>Id.</i> at p. Part 1-47.</p>	<p>Generally accurate.</p>
<p>149. Despite this direction, and even though it had knowledge that the fire was near a gas transmission line, PG&E did not call the fire department when it dispatched its GSR at 6:23 pm. RT 360:24-361:12 (Almario/CCSF).</p>	<p>Partially disputed. PG&E admits that it does not have a record of making a call to 911 on the day of the incident. San Bruno Fire Department already had notice of the fire and was onsite when PG&E was first notified about the fire at 6:18 p.m. Ex. PG&E-40 at 6; R.T. 369-71 (PG&E/Almario). PG&E sent first responders to the scene to investigate and respond to the cause of the fire. At 6:41 pm, the GSR and Senior Distribution Specialist were at the scene of the incident working side-by-side with the first department and the police. Ex. CPSD-1 at 110 (CPSD/Stepanian); PG&E OB at 110. PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m., served as PG&E's Deputy Incident Commander and was in communication with the fire battalion chief regarding the fact that the fire involved a PG&E gas transmission line. Ex. CPSD-97 at 9-11, 15-16. As emergency response expert David Bull testified, the notification and coordination requirement was fulfilled at the time PG&E personnel arrived at the scene, confirmed that there was a gas emergency and coordinated with public responders on additional emergency actions. PG&E OB at 110; R.T. 420-21 (PG&E/Bull).</p>
<p>150. As of 6:31 pm (20 minutes after Line 132 ruptured), PG&E's Concord Dispatch knew that the explosion may have involved a PG&E's gas transmission line in the area. Ex PG&E 40 (NTSB San Bruno Event Timeline, Exhibit 2-DX) at p. 8.</p>	<p>Generally accurate.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
151. Although PG&E did not call 911 at that time, PG&E admits that first responders would have been aided by the knowledge that the possibility that the fire was being fed by a high pressure transmission line. RT 355:12-16 (Almario/CCSF).	Partially disputed. PG&E's Gas Maintenance & Construction Superintendent for the Bay Area region, who arrived at the scene at approximately 6:35 p.m., served as PG&E's Deputy Incident Commander, recognized that the cause of the fire likely was gas and was in communication with the fire battalion chief about the cause of the fire. Ex. CPSD-97 at 11-12.
F. Credibility of PG&E Witnesses	
152. Prior to submitting his testimony in this case, Mr. Zurcher and his associates at P-PIC were retained by PG&E's Board of Directors to perform an independent review of PG&E's natural gas transmission and distribution practices (Blacksmith Audit). Ex Joint 31 (PG&E Response Data Request CCSF_002-Q02, Attachment 1)	Generally accurate.
153. This "review was intended to identify industry practices that PG&E could adopt to improve the operations and maintenance of its natural gas system." <i>Id.</i>	Generally accurate.
154. Mr. Zurcher considered this to be a top to bottom examination of PG&E's Customer Care, Field Operations, Prevention and Maintenance, Damage Prevention, Information and Support, Capital and Expense Budgeting, Safety Culture, Public Awareness, and Emergency Response and Preparedness. Joint RT 696:13-697:24 (Zurcher/CCSF).	Disputed. The proposed finding combines disparate testimony into a single statement that was not made.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
155. Mr. Zurcher was the lead for the Blacksmith Audit's review of PG&E's prevention and maintenance practices. Joint RT 703:3-22 (Zurcher/CCSF).	Generally accurate.
156. Included in this part of the audit were assessing PG&E's pressurization practices, and PG&E's integrity management. Joint RT 703:23-704:8 (Zurcher/CCSF).	Disputed. The cited testimony states that Mr. Zurcher did not recall assessing "pressurization practices" in the audit. Joint R.T. 703:14-27 (PG&E/Zurcher).
157. Despite the very clear relationship between this aspect of the Blacksmith Audit and the scope of this investigation, Mr. Zurcher stated that he did not believe that any of the facts from the Blacksmith Audit were relevant to the San Bruno testimony. Joint RT 699:8-17 (Zurcher/CCSF).	Disputed. CCSF's statement, "Despite the very clear relationship..." is a statement of opinion, not fact, and CCSF's opinion is contradicted by the witness who performed the audit. PG&E does not dispute the content of the cited testimony.
158. When asked specifically if was directed to not consider the Blacksmith Audit when preparing testimony for this investigation, Mr. Zurcher was unable to answer no ("Q: Were you directed to not consider this audit in your testimony for either case? A: Not that I recall. I am just not sure. I should say that. I'm not sure.") . Joint RT 698:1-5 (Zurcher/CCSF)	Disputed. CCSF's characterization of the testimony is not accurate; the witness testified that he did not recall. PG&E does not dispute the content of the testimony.
159. PG&E very carefully manipulated the scope of Mr. Zurcher's testimony by providing him with only a limited set of materials upon which he was asked to prepare testimony for this case. Joint RT 705:19-27 (Zurcher/CCSF).	Disputed. CCSF's characterization of the cited testimony is inaccurate and misleading. The assertion that "PG&E very carefully manipulated the scope of Mr. Zurcher's testimony" is inappropriate and has no basis in fact.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>160. When discussing his 2007 study on the stability of manufacturing and construction defects, Mr. Kiefer stated that he believed the purpose of the study was “to prove the point that in a natural gas pipeline, this cyclic fatigue is simply not a threat.” RT 716:26-717:2 (Kiefer/CPSD).</p>	<p>Misleading as stated. The record evidence establishes that cyclic fatigue is, in fact, “simply not a threat” on properly manufactured natural gas pipelines. PHMSA itself stated that in a letter to the NTSB. CCSF’s suggestion that Dr. Kiefer’s study was result-oriented is without factual support, and contrary to universally-held industry and expert opinion. Ex. PG&E-1, Chapter 6 (PG&E/Kiefer); Ex. PG&E-3 (PHMSA letter to NTSB stating cyclic fatigue is not a threat).</p>
<p>161. As Mr. Kiefer noted, this 2007 report is premised upon several key assumptions, and that not all of the assumptions are applicable to PG&E’s pipelines. RT 780:22-782:1 (Kiefer/CCSF).</p>	<p>Disputed. Dr. Kiefer indicated that the results of the <i>table</i> on page 6-5 of his testimony (reproduced from the 2007 report) were based on a particular set of specifications (24 inch diameter, .289 wall, X52 pipe, with a toughness equivalent to 25-foot pounds of Charpy energy) that are not identical to all pipe in PG&E’s system. R.T. 780 (PG&E/Kiefer). Dr. Kiefer did not indicate that the broader conclusion of the study (“cyclic fatigue is simply not a threat”) is inapplicable to PG&E’s pipelines.</p>
<p>162. In Mr. Kiefer’s view, in absence of specificity, the cyclic fatigue analysis is “somewhat arbitrary unless you actually do a study of a particular material in a particular environment...” RT 687:6-9 (Kiefer/CPSD).</p>	<p>Disputed. This quote is taken from a discussion of what constitutes a single pressure cycle, not what is required to conduct the larger process for evaluating cyclic fatigue. As described by Dr. Kiefer, “one benchmark that we tend to go by in analysis is 25 pounds per square inch. . . in most cases, we don’t do a true test of the material and the environment to get a threshold stress.” R.T. 687 (PG&E/Kiefer). Thus, Dr. Kiefer confirms that, in most cases, a cyclic fatigue evaluation will use a pressure variation minimum of 25 psig , rather than an actual, calculated minimum depending on pipe characteristics.</p>

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
163. Mr. Kiefner's firm (Kiefner and Associates Inc.) prepared a report (KAI Report) applying the analysis from the 2007 study to the specific characteristics of PG&E's peninsula pipelines. Ex CCSF-5	Not disputed that Kiefner and Associates prepared the referenced report.
164. Mr. Kiefner asserted that his testimony was based upon a review and analysis of PG&E's gas transmission pipeline system, with specific focus on data and records relating to the physical assets and operations of gas transmission Line 132; records related to PG&E's TIMP; and the testimony provided by other parties in this proceeding. Ex PG&E-1 at p. 6-2.	Generally accurate.
165. The KAI report was prepared in March 2012. Ex CCSF-5.	Generally accurate.
166. Even though the KAI report was available to Mr. Kiefner prior to submitting his testimony in this case, he did not consider the report prior to preparing testimony. RT 783:26-28 (Kiefner/CCSF).	Misleading as stated. Dr. Kiefner's testimony addressed pre-San Bruno facts and events related to cyclic fatigue. CCSF has no valid basis for suggesting that the March 2012 report was necessary to Dr. Kiefner's testimony. Ex. PG&E-1, Chapter 6 (PG&E/Kiefner). As demonstrated by the cited transcript, CCSF also had full opportunity to ask Dr. Kiefner about the study.
167. While Mr. Kiefner was familiar with the KAI report's analysis, he "didn't see anything that I needed to quote from this report." RT 784:6-19 (Kiefner/CCSF).	Not disputed that this reflects Dr. Kiefner's testimony, but the proposed finding is misleading as stated. Dr. Kiefner's testimony addressed pre-San Bruno facts and events related to cyclic fatigue. CCSF has no valid basis for suggesting that the March 2012 report was necessary to Mr. Kiefner's testimony. Ex. PG&E-1, Chapter 6 (PG&E/Kiefner). As demonstrated by the cited transcript, CCSF also had full opportunity to ask Mr. Kiefner about the study.

REPLY BRIEF APPENDIX C
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Finding of Fact	PG&E's Response
<p>168. In other words, even though Kiefner's firm had conducted a detailed assessment of the threat of cyclic fatigue for Line 132 for PG&E prior to the time he submitted his testimony, he did not believe the KAI report was relevant to the Commission's examination of PG&E's "past operations, practices and other events or courses of conduct that could have led to or contributed to the San Bruno explosion and fire." RT 784:6-19 (Kiefner/CCSF).</p>	<p>Misleading as stated. Dr. Kiefner's testimony addressed pre-San Bruno facts and events related to cyclic fatigue. However, the referenced report was prepared after San Bruno and with the benefit of the hindsight knowledge of that accident. PG&E acknowledges that pipeline operators and regulators have reconsidered the significance of cyclic fatigue following San Bruno. However, this does not support CCSF's assertion that the report is relevant to determine whether pre-San Bruno practices violated the law. Moreover, post-accident improvements are inappropriate to use as evidence of pre-accident legal violations.</p>
<p>169. In a data response Mr. Kiefner stated that "Mr. Kiefner has no personal basis for a conclusion that the pipe used in Segment 180 was subject to a mill test." Ex CCSF-6 (PG&E Response to Data Request CCSF_001-Q02).</p>	<p>Dr. Kiefner has no direct personal knowledge of the mill tests performed on the DSAW pipe PG&E purchased in the late 1940s and early 1950s, which is the pipe used in Segment 180 was installed. Dr. Kiefner inferred that the pipe designated for use in Segment 180 was subject to a mill test based on the fact that the pipe was ordered to the API 5LX-52 grade standard. R.T. 731 (PG&E/Kiefner).</p>
<p>170. On cross-examination, when Mr. Kiefner was asked about whether or not segment 180 was subject to a mill test, he asserted that he believed that it was. RT 780:9-25 (Kiefner/CCSF).</p>	<p>Dr. Kiefner inferred that the pipe designated for use in Segment 180 was subject to a mill test based on the fact that the pipe was ordered to the API 5LX-52 grade standard. R.T. 731 (PG&E/Kiefner).</p>
<p>171. When further questioned about this inconsistency, Mr Kiefner stated that he was unfamiliar with the data response, had not prepared the data response, that he had never been asked about his personal knowledge related to the question in the response, and that he did not agree with the response. RT 789:3-14.</p>	<p>Disputed. There is no inconsistency. Dr. Kiefner has no personal knowledge regarding the pipe PG&E ordered and purchased approximately 60 years ago. His conclusion that the pipe was subject to a mill test was inferred based on the API specifications to which the pipe was ordered.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

PG&E'S RESPONSES TO PROPOSED CONCLUSIONS OF LAW

Preliminary Statement : Most of the parties' Proposed Conclusions of Law are actually allegations of legal violations against PG&E. PG&E objects to every Proposed Conclusion of Law to the extent it reiterates or is based on an improper newly-alleged and/or recharacterized violation contained in CPSD's Appendix C, submitted March 11, 2013 with CPSD's opening brief, or CPSD's Revised Appendix C, submitted April 18, 2013, pursuant to the ALJ's April 2, 2013 Ruling on PG&E's Motion to Strike Appendix C and/or the ALJ's April 12, 2013 Ruling on CPSD's Motion for Clarification of ALJ's April 2, 2013 Ruling on PG&E's Motion to Strike Appendix C. In responding to the Proposed Conclusions of Law below, PG&E provides citations to sections in its Opening Brief (OB) and Reply Brief (RB) that address the Proposed Conclusion of Law or the related legal issue. PG&E provides these responses only for purposes of this proceeding, I.12-01-007.

CPSD Proposed Conclusions of Law

CPSD Proposed Conclusion of Law	PG&E's Response
1. PG&E failed to follow industry safety standards during the construction of Segment 180 in 1956, creating an unreasonably unsafe system in violation of Public Utilities Code Section 451.	Public Utilities Code Section 451 cannot serve as an independent source of safety violations. The industry standards PG&E is alleged to have violated were voluntary guidelines without the force of law. PG&E OB at 28-39, 48-57; PG&E RB at 15-19, 39-48.
2. By installing pipe sections (pups) in Segment 180 that did not meet any known industry specifications for fabrication of gas transmission pipe, PG&E created an unreasonably unsafe system in violation of Public Utilities Code Section 451.	Public Utilities Code Section 451 cannot serve as an independent source of safety violations. The industry standards PG&E is alleged to have violated were voluntary guidelines without the force of law. PG&E OB at 28-39, 48-57; PG&E RB at 15-19, 39-48. This proposed conclusion is also duplicative of proposed conclusion no. 1.
3. By installing pipeline sections that were not suitable and safe for the conditions under which they were used, PG&E violated the safe industry practices described in Section 810.1 of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.	Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. Further, Section 810.1 of [ASA] B31.1.8-1955 does not establish a duty of reasonable care. PG&E RB at 45. This proposed conclusion is also duplicative of proposed conclusion no. 1.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>4. PG&E violated Section 841.412(c) by not conducting a hydrostatic test on Segment 180 post-installation, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39, 51-52; PG&E RB at 15-19, 47-48. Segment 180 was never subject to a legal requirement to be hydrostatically tested. PG&E OB at 51-52. Despite the lack of any legal requirement to do so, the record supports the conclusion that PG&E performed a post-installation hydro test on Segment 180. PG&E OB at 53-55; PG&E RB at 41.</p>
<p>5. By failing to visually inspect for and discover the defects in Segment 180, PG&E violated Section 811.27(A) of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law, and thus Section 811.27(A) did not create any duty to inspect. PG&E OB at 28-39, 51-52; PG&E RB at 15-19, 47-48. Further, Section 811.27(A), which applies to used pipe, unidentified new pipe, and pipe purchased under Specification ASTM A120, does not apply to the pipe specified for use in Segment 180. PG&E OB at 49.</p>
<p>6. By installing pipe sections in Segment 180 that were less than 5 feet in length, PG&E violated API 5LX Section VI, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. In addition, API 5LX, Section VI is a standard directed to manufacturers and not pipeline operators and pipe purchasers, like PG&E. PG&E OB at 50; PG&E RB at 45-46. Properly made and installed short pieces of pipe do not present a safety issue. R.T. 1059-61 (PG&E/Caligiuri); Joint R.T. 410-11 (PG&E/Harrison).</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>7. By installing pipe sections which did not meet the minimum yield strength prescribed by the specification under which the pipe was purchased, PG&E violated Section 805.54 of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. Further, Section 805.54 is part of a section of ASA B31.1.8-1955 entitled, "Units and Definitions." The section does no more than define specified minimum yield strength; it does not contain a construction standard or guideline for use of pipe with any particular SMYS value. PG&E OB at 48-49; PG&E RB at 39-40.</p>
<p>8. By assigning a yield strength value for Segment 180 above 24,000 psi when the yield strength was actually unknown, PG&E violated Section 811.27(G) of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. Further, Section 811.27(G) does not apply because an operator must be aware that it is installing pipe with an unknown specification. CPSD's claim that the yield strength was unknown is based on information that did not exist at the time the pups were installed. PG&E RB at 39-40.</p>
<p>9. By welding the pups in a deficient manner PG&E violated Section 811.27(E) of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. Further, Section 811.27(E) relates to the suitability of different types of pipe for welding, not girth welds made during construction, and therefore does not apply. PG&E OB at 50; PG&E RB at 42-43. CPSD withdrew its allegation related to Section 811.27(E) in its August 2012 rebuttal testimony. Ex. CPSD-5 at 7 (CPSD/Stepanian).</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>10. By welding the pups in a deficient manner such that the girth welds contained incomplete fusion, burnthrough, slag inclusions, cracks, undercuts, excess reinforcement, porosity defects, and lack of penetration, PG&E violated Section 1.7 of API standard 1104 (4th edition, 1956).</p>	<p>API 1104 was a non-mandatory guideline in 1956, without the force of law. CPSD failed to establish that the purported girth weld imperfections fell below the acceptance criteria set forth in Section 1.7 of API 1104. PG&E RB at 42-43.</p>
<p>11. By not completely welding the inside of the longitudinal seams on pups 1, 2, and 3 of Segment 180 and failing to measure the wall thickness to ensure compliance with the procurement orders which required 0.375-inch wall thickness, PG&E violated Section 811.27(C) of ASME B31.1.8-1955, creating an unsafe system in violation of Section 451.</p>	<p>The record evidence does not support this conclusion. Among other things, there is no evidence that PG&E, rather than the pipe manufacturer, welded the longitudinal seam of the pups in Segment 180. Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. In addition, [ASA] B31.1.8-1955 was a source of non-mandatory guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. Further, Section 811.27 only applies to used pipe, unidentified new pipe, and pipe purchased under Specification ASTM A120, and therefore does not apply to Segment 180. PG&E OB at 49-50. Section 811.27(C) is also inapplicable because it addresses nominal wall thickness, and does not address dimensions of long seam welds. PG&E RB at 42. The NTSB concluded that the wall thickness of the pipe in Segment 180, including the pups, was consistent with the 0.375-inch specification. PG&E RB at 42.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>12. PG&E did not incorporate the pups, which were the weakest element of Segment 180, when it calculated the design pressure at 400 psi. This resulted in an unreasonably high MAOP for Segment 180, creating an unsafe system condition in violation of Section 451.</p>	<p>The record evidence does not support this conclusion. There is no evidence that the MAOP was incorrectly determined based on the specifications of the pipe PG&E ordered for the Segment 180 job (X-52 DSAW, 52,000 psig SMYS). Even with hindsight knowledge of the SMYS of the pups, a 400 MAOP would be appropriate. PG&E OB at 56-57. In addition, Public Utilities Code Section 451 cannot serve as an independent source of safety violations. Further, [ASA] B31.1.8-1955 was a source of non-mandatory industry guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. This alleged violation is also duplicative of CPSD's alleged violation of Public Utilities Code Section 451 based on a violation of Section 845.22 of [ASA] B31.1.8-1955, for failure to meet MAOP determination requirements due to incomplete knowledge. <i>See</i> CPSD OB, Revised Appendix C at 2.</p>
<p>13. By not having complete and accurate knowledge of the specifications or characteristics of the pup that failed, PG&E could not have accurately determined the weakest element of the pipeline, and consequently did not know the design pressure of the pups. PG&E therefore did not meet the MAOP determination requirements in Section 845.22 of ASME B31.1.8-1955, creating an unsafe system condition in violation of Section 451.</p>	<p>The record evidence does not support this conclusion. There is no evidence that the MAOP was incorrectly determined based on the specifications of the pipe PG&E ordered for the Segment 180 job (X-52 DSAW, 52,000 psig SMYS). Even with hindsight knowledge of the SMYS of the pups, a 400 MAOP would be appropriate. PG&E OB at 56-57. In addition, Public Utilities Code Section 451 cannot serve as an independent source of safety violations. Further, [ASA] B31.1.8-1955 was a source of non-mandatory guidelines in 1956, without the force of law. PG&E OB at 28-39; PG&E RB at 15-19, 47-48. This violation is duplicative of CPSD's alleged violation of Section 451 based on failure to incorporate the pups in calculating the design pressure and MAOP. <i>See</i> CPSD OB, Revised Appendix C at 2.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<u>Integrity Management</u>	
14. PG&E violated 49 CFR Part 192.107(b)(2), by not assigning a yield strength of 24,000 psi when the yield strength was unknown and untested.	The record evidence does not support this conclusion. There is no evidence that PG&E has assigned an assumed value greater than 24,000 psi to pipe for which it had no information and that was, therefore, unknown. 49 C.F.R. § 192.107(b)(2) does not require in every instance the use of 24,000 psig for an unknown yield strength value. It allows the use of different conservative assumptions where there is a basis, such as historical purchasing practices, to support such assumptions. CPSD has misinterpreted this provision, and has failed to meet its evidentiary burden to establish this violation. PG&E OB at 65-68; PG&E RB at 52-54.
15. PG&E violated 49 CFR Part 192.917(b), by not adequately gathering and integrating required pipeline data, thereby not having an adequate understanding of the threats on Line 132.	PG&E's Integrity Management procedures provided for gathering and integration of all data elements necessary to perform threat identification and risk assessment. CPSD audits prior to San Bruno did not identify the shortcomings that CPSD now asserts, and CPSD has not in this proceeding addressed the two steps of data gathering used by PG&E's integrity management program. PG&E OB at 58-65.
16. By failing to check for and verify the accuracy of its pipeline data, PG&E violated Section 5.7 of ASME B31.8S, which is incorporated by reference into 49 CFR Part 192.	The record evidence does not support this conclusion. CPSD's 2010 integrity management program audit verified that PG&E checked its data for accuracy, and used appropriate conservative assumed values where data was missing. PG&E OB at 68-69. CPSD's allegation, which rests on the assertion that PG&E should have documented its pipeline installations at the joint-by-joint level and identified the six pups in Segment 180, as well as the 30-inch seamless pipe error, seeks to retroactively impose standards far exceeding pre-incident interpretations of the integrity management rules. PG&E OB at 65-72.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>17. PG&E's failure to analyze the data on pipeline weld defects resulted in an incomplete understanding of the manufacturing threats to Line 132, in violation of 49 CFR Part 192.917(a) and ASME-B31.8S Section 2.2.</p>	<p>The data relating to longitudinal seam defects identified by CPSD does not indicate the presence of a potential manufacturing seam defect on Line 132. Longitudinal seam cracks identified during the 1948 construction of Line 132 were repaired and re-tested at the mill, which removed any defects large enough to grow to failure. PG&E RB at 66-67. Pinhole leaks, such as the leak identified on Line 132 in 1988, do not indicate potential integrity threats. <i>Id.</i> CPSD failed to meet its burden of proof to establish this violation. PG&E OB at 81-85; PG&E RB at 58-67.</p>
<p>18. As a result of ignoring the category of DSAW as one of the weld types potentially subject to manufacturing defects, PG&E failed to determine the risk of failure from this defect in violation of 49 CFR Part 192.917(e)(3).</p>	<p>Prior to San Bruno, PG&E, regulators, and the industry as a whole considered DSAW pipe to be equivalent to seamless pipe, as reflected by its joint efficiency factor and its absence from the categories of pipe identified in ASME B31.8S as subject to potential manufacturing threats (49 C.F.R. § 192.917(e)(4)). PG&E OB at 92-93. CPSD failed to prove that PG&E had evidence of a DSAW seam failure on its pipelines that would cause PG&E to identify DSAW pipe as subject to a potential manufacturing threat under 49 C.F.R. § 192.917(e)(3). PG&E RB at 65-67.</p>
<p>19. PG&E violated 49 CFR Part 192.917(e) and (e)(3)(i), by not determining the risk of failure from manufacturing and construction defects of Line 132 after operating pressure increased above the maximum operating pressure experienced during the preceding five years.</p>	<p>The record evidence does not support this conclusion. 49 C.F.R. § 192.917(e)(3) was not published or in force in 2003, therefore PG&E could not violate this regulation during the 2003 planned pressure increase. The 2008 pressure increase on Line 132 did not significantly exceed pipeline MAOP, and was only a transient excursion that did not constitute an operating pressure increase under 49 C.F.R. § 192.917(e). Moreover, the segments of Line 132 identified by CPSD were not subject to a manufacturing threat that could be rendered unstable by an increase above the five-year maximum operating pressure. PG&E OB at 89-91.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>20. PG&E violated 49 CFR Part 192.917(e)(3)(i), by not considering manufacturing and construction defects on Line 132 unstable and prioritizing the covered segments as high risk for the baseline assessment or a subsequent reassessment, after operating pressure increased above the maximum operating pressure experienced during the preceding five years.</p>	<p>This proposed conclusion of law is duplicative of proposed conclusion 19. 49 C.F.R. § 192.917(e)(3) was not published or in force in 2003, therefore PG&E could not violate this regulation during the 2003 planned pressure increase. The 2008 pressure increase on Line 132 did not significantly exceed pipeline MAOP, and was only a transient excursion that did not constitute an operating pressure increase under 49 C.F.R. §192.917(e). Moreover, the segments of Line 132 identified by CPSD were not subject to a manufacturing threat that could be rendered unstable by an increase above the five-year maximum operating pressure. PG&E OB at 89-91.</p>
<p>21. PG&E violated 49 CFR Part 192.917(e)(2), by failing to consider and test for the threat of cyclic fatigue on Segment 180.</p>	<p>PG&E adequately considered the potential for cyclic fatigue through informed reliance on DOT-sponsored research and a review of pressure cycles on its transmission system. CPSD has failed to introduce any evidence supporting its contention that the code "evaluation" requires a segment-by-segment analysis of the potential for cyclic fatigue. CPSD audits prior to San Bruno did not identify any issues with PG&E's threat identification procedures, including PG&E's express notification to CPSD that it did not consider cyclic fatigue to pose a threat. PG&E OB at 72-81.</p>
<p>22. By not performing pipeline inspections using a method capable of detecting seam issues, PG&E violated Part 192.921(a).</p>	<p>The record evidence does not support this conclusion. CPSD has introduced no evidence that Line 132 was subject to an unstable manufacturing seam threat, and that PG&E was therefore required to use an assessment method capable of assessing the integrity of the longitudinal seam. PG&E OB at 92-93; PG&E RB at 79-80.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>23. PG&E violated 49 CFR Part 192.917(e)(4), by not conducting appropriate testing such as hydrostatic testing or in-line inspections on Line 132, after exceeding MOP on segments of Line 132 that contained electric resistance welded (ERW) pipe.</p>	<p>CPSD failed to provide notice of this allegation, as it was raised for the first time in CPSD's opening brief. Even so, the record evidence does not support this conclusion. 49 C.F.R. § 192.917(e)(4) was not published or in force in 2003, therefore PG&E could not violate this regulation during the 2003 planned pressure increase. The 2008 pressure increase on Line 132 did not significantly exceed pipeline MAOP, and was only a transient excursion that did not constitute an operating pressure increase under 49 C.F.R. § 192.917(e). PG&E OB at 89-91. Moreover, CPSD fails to prove the existence of segments it on Line 132 that contain low-frequency pipe subject to the requirements of 49 C.F.R. § 192.917(e)(4), or that these segments were subject to pressure increases in 2003 or 2008. PG&E RB at 70-71.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>24. PG&E did not know the variability or accuracy of assessment results as a consequence of failing to identify where and how unsubstantiated data was being used, in violation of ASME-B31.8S Section 4.4, which is incorporated by reference into 49 CFR Part 192.</p>	<p>The record evidence does not support this conclusion. CPSD has presented no evidence that PG&E used unsubstantiated data in risk assessments. Prior to the San Bruno accident, PG&E researched historic pipe procurement and construction documentation to identify the minimum pipe specifications PG&E used during various eras. Ex. PG&E-1c at 4-10 (PG&E/Keas); Joint R.T. 979 (PG&E/Keas). This research allowed PG&E to make conservative assumptions regarding the pipe characteristics. Ex. PG&E-1c at 4-10 (PG&E/Keas); Joint R.T. 979 (PG&E/Keas). PG&E's practice has been to use the most conservative specifications from Company material procurement specifications for pipeline projects installed during the same time period as the pipe segment in question. Ex. PG&E-1c at 4-9 (PG&E/Keas). This practice has explicit support in ASME B31.8S, is consistent with industry norms, and allows PG&E to properly prioritize pipeline segments for assessment in PG&E's risk evaluation process. <i>See, e.g.</i>, Joint R.T. 1186-87 (PG&E/Keas); Ex. Joint-28 (ASME B31.8S) Appendix A, § 4.2 (2004); Ex. PG&E-1c at 4-10 (PG&E/Keas); Ex. PG&E-1 at 5-7 to 5-8 (PG&E/Zurcher). <i>See also</i>, PG&E OB at 65-68.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>25. PG&E violated 49 CFR Part 192.917(c) and ASME-B31.8S Section 5.7, by: 1) failing to conduct risk assessment that considers the identified threats for Line 132; 2) failing to consider the consequences of past events on Line 132; and 3) failing to account for missing or questionable data.</p>	<p>PG&E's Integrity Management procedures provided for gathering and integration of all data elements necessary to perform threat identification and risk assessment. PG&E OB at 58-65. The miscellaneous long seam issues identified by CPSD would not inform a manufacturing threat assessment of line 132. PG&E OB at 81-85. PG&E's use of conservative assumed values in its integrity management program has explicit support in ASME B31.8S, is consistent with industry norms, and allows PG&E to properly prioritize pipeline segments for assessment in PG&E's risk evaluation process. <i>See, e.g.</i>, Joint R.T. 1186-87 (PG&E/Keas); Ex. Joint-28 (ASME B31.8S) Appendix A, § 4.2 (2004) ("Where the operator is missing data, conservative assumptions shall be used when performing the risk assessment or, alternatively, the segment shall be prioritized higher."); Ex. PG&E-1c at 4-10 (PG&E/Keas); Ex. PG&E-1 at 5-7 to 5-8 (PG&E/Zurcher).</p>
<p>26. PG&E violated 49 CFR Part 192.917(c) and ASME-B31.8S Section 5, by using risk ranking algorithms that did not: 1) properly weigh the threats to Line 132, because PG&E did not include its actual operating experience; 2) properly identify the Potential Impact Radius of a rupture, by using a value of 300 feet where the PIR is less than that; 3) identify the proper Consequence of Failure formula, by not accounting for higher population densities; 4) use conservative values for electrical interference on Line 132, which created an external corrosion threat; 5) include any consideration of one –call tickets, which indicates third party damage threats; 6) include any consideration of historic problems with the type of pipe used on Segment 180.</p>	<p>These alleged deficiencies are more properly viewed as competing perspectives on best practices, rather than failures to conform to regulatory requirements. Ex. PG&E-1 at 5-16 (PG&E/Zurcher). For example, ASME B31.8S, section 5.7(i) states that risk assessment weighting factors "can be based on operational experience, the opinions of subject matter experts, or industry experience." Ex. Joint-28. ASME B31.8S, section 5.4 further states that risk assessment models "should be used in conjunction with knowledgeable, experienced personnel (subject matter experts and people familiar with the facilities)" in order to make appropriate risk determinations. Ex. Joint-28. The evidentiary record establishes that PG&E utilized just such a process by basing its risk model on the experience and expertise of subject matter experts and multiple threat committees from within the Company, in addition to industry data. Ex. PG&E-1 at 4-32 (PG&E/Keas).</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
27. PG&E violated ASME-B31.8S Appendix A, Section 4.2, by failing to use conservative assumptions where PG&E was missing important pipeline data such as pipe material, manufacturing process, and seam type.	The record evidence does not support this conclusion. CPSD has failed to prove that PG&E did not use conservative assumptions when it did not have records for a particular section of pipe. CPSD's argument depends on hindsight knowledge regarding the failure of the pups in Segment 180 to meet any known pipe procurement standard. PG&E OB at 40-42; PG&E RB at 49-54.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>28. PG&E violated Public Utilities Code section 451, by engaging in the practice of increasing the pressure on Line 132 every 5 years to set the MAOP for the purpose of eliminating the need to deem manufacturing and construction threats unstable, thereby avoiding the need to conduct hydrostatic testing or in-line inspections on Line 132.</p>	<p>The record evidence does not support this conclusion. The federal regulations recognize that pressure excursions occasionally occur (49 C.F.R. § 192.201(a)(2)(i)) and require that an operator <i>report</i> such an excursion only if the pressure reaches 110% of pipeline MAOP. 49 C.F.R. § 191.23(a)(5) The Commission incorporated these federal regulations into GO-112E, thus CPSD's assertion of a violation based on Section 451 for any pressure excursion above MAOP directly conflicts with adopted Commission safety regulations. This violation also must be rejected because it is merely a repackaged allegation. CPSD asserts that the practice of raising pressure to MAOP "created an unreasonably unsafe system" in violation of Section 451. CPSD OB at 50. But in support, CPSD argues that, because of the pressure excursions, PG&E was required to conduct a seam assessment. CPSD OB at 50. Thus, the Section 451 violation is not based on planned pressure increases to MAOP, but to the purportedly required assessments that form the basis for CPSD's alleged violations related to threat identification and integrity assessments. <i>See</i> CPSD OB at 45-46 (alleging violations of law arising from 2003 and 2008 excursions above MAOP on L132 because ". . . both of these pressure increases legally required PG&E to consider potential defects on Segment 180 to be unstable"). On this basis as well, the Commission should disregard CPSD's alleged violation. Lastly, CPSD fails to provide any evidence (much less proof) to support a theory that pressure increases to a pipeline's MAOP violate Section 451. In contrast, PG&E submitted testimony from Mr. Zurcher that from approximately 2002 to 2010, the practice of raising pressure on transmission pipelines to MAOP was common within the gas pipeline industry, and was in fact considered standard practice by many operators. Ex. PG&E-1 at 5-13 (PG&E/Zurcher); Joint R.T. 786 (PG&E/Zurcher).</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<u>Milpitas Terminal/SCADA</u>	
29. PG&E violated 49 CFR Part 192.13(c), by failing to follow its internal work procedures that are required to be established under Part 192.	Not disputed.
30. By failing to follow its work procedures on September 9, 2010, PG&E created an unreasonably dangerous condition in violation of Section 451.	This alleged violation is duplicative of CPSD's alleged violation of 49 C.F.R. § 192.13(c). Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. Regardless, the record evidence does not support this conclusion. Although the written clearance documentation did not comply with PG&E's procedure, the personnel at Milpitas Terminal communicated with gas control operators throughout each step of the UPS work. Ex. PG&E-1 at 8-8 to 8-10 (PG&E/Slibsager/Kazimirsky).
31. PG&E violated 49 CFR Part 192.605(c), by failing to establish adequate written procedures for maintenance and operations activities under abnormal conditions.	PG&E admits it did not follow internal clearance procedures in violation of Section 192.13(c) (above); this proposed conclusion of law is duplicative of that violation. CPSD presented no evidence or argument establishing that Section 192.605(c) properly applies to PG&E's clearance procedure and the events on September 9, 2010.
32. PG&E created an unreasonably unsafe system in violation of Public Utilities Code Section 451, by poorly maintaining a system at Milpitas that had defective electrical connections, improperly labeled circuits, missing wire identification labels, aging and obsolete equipment, and inaccurate documentation.	Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. CPSD conceded that there are no federal or state regulations or laws that apply to the conditions on which they base this alleged violation. CPSD has not identified any criteria or standard on which they base this allegation; rather it is CPSD's subjective conclusion. PG&E OB at 28-39, 98-100; PG&E RB at 15-19, 86-89; Ex. CPSD-1 at 99 (CPSD/Stepanian).

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>33. PG&E created an unreasonably unsafe system in violation of Section 451, by poorly designing a SCADA system that gave too many unnecessary alarm messages to its Operators, thereby increasing the risk of an important alarm being mishandled.</p>	<p>The record evidence does not support this conclusion. CPSD conceded that there are no federal or state regulations or laws that apply to the conditions on which they base this alleged violation. CPSD has not identified any criteria or standard on which they base this allegation; rather it is CPSD's subjective conclusion. Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. PG&E OB at 28-39, 98-100; PG&E RB at 15-19, 86-89; Ex. CPSD-1 at 99 (CPSD/Stepanian).</p>
<u>Emergency Response</u>	
<p>34. PG&E's failure to create and follow good emergency plans created an unreasonably unsafe system in violation of Public Utilities Code Section 451.</p>	<p>Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. CPSD failed to meet its burden; the evidence, including CPSD's prior audits of PG&E's emergency plans, demonstrated that PG&E's emergency plans complied with applicable regulations, and that its response on September 9, 2010 was reasonable and did not violate any law. Ex. PG&E-1, Chapter 10 & Appendices A & B (PG&E/Almario); Ex. PG&E-1, Chapter 11 (PG&E/Bull); PG&E OB at 106-14; PG&E RB at 15-19, 89-113.</p>
<p>35. 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.</p>	<p>The record evidence does not support this conclusion. CPSD did not establish any material inconsistency between the two plans or that inconsistencies in the descriptions referenced by CPSD violated the requirements for written emergency procedures under 49 C.F.R. § 192.615(a)(3). CPSD's prior audits of PG&E's emergency plans contradict this conclusion. Ex. PG&E-1, Chapter 10 (PG&E/Almario) & Appendices A & B; Ex. PG&E-1, Chapter 11 (PG&E/Bull); PG&E RB at 91-94.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>36. 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).</p>	<p>The record evidence does not support this conclusion. CPSD failed to establish that mutual assistance agreements were required under 49 C.F.R. § 192.615(a)(8); they are not. PG&E emergency response plans contained procedures for notifying and coordinating with appropriate fire, police, and other public officials of gas pipeline emergencies. Additionally, PG&E actively coordinated with first responders at the scene of the emergency. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-39 § 4.0 (Emergency Response Plans); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E RB at 96-97.</p>
<p>37. 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.</p>	<p>The record evidence does not support this conclusion. CPSD failed to establish that mutual assistance agreements were required under 49 C.F.R. § 192.615(c)(4); they are not. PG&E emergency response plans contained procedures for notifying and coordinating with appropriate fire, police, and other public officials of gas pipeline emergencies, as CPSD confirmed in two recent audits of PG&E's emergency plans. Additionally, PG&E actively coordinated with first responders at the scene of the emergency. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-39 § 4.0 (Emergency Response Plans); Ex. PG&E-1 at 10-1 to 10-5 & Appendices A & B (PG&E/Almario); PG&E RB at 91-94, 96-98.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>38. 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.</p>	<p>49 C.F.R. § 192.615(a)(3) relates to requirements for written emergency response procedures. Section 192.615(a)(3) does not support a violation based on CPSD's subjective judgment that PG&E's response was "too slow" and "uncoordinated." It imposes no standards by which to determine if an operator responded "promptly and effectively." Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E's emergency response was prompt and effective. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E OB at 106-09; PG&E RB at 101-03.</p>
<p>39. PG&E did not adequately receive, identify, and classify notices of the emergency, in violation of 49 CFR Part 192.615(a)(1)..</p>	<p>49 C.F.R. § 192.615(a)(1) relates to requirements for written emergency response procedures. Section 192.615(a)(1) does not support a violation based on CPSD's subjective judgment that PG&E's did not "adequately" process notices of the emergency. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E's emergency response was prompt and effective. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E OB at 100-03, 106-09; PG&E RB at 101-03.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>40. 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).</p>	<p>49 C.F.R. § 192.615(a)(4) relates to requirements for written emergency response procedures, not for the provision of certain materials and personnel at the scene of an emergency. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof demonstrating that PG&E failed to provide proper personnel, equipment, tools and materials at the scene of an emergency. PG&E personnel immediately responded to the event after becoming aware of it, including several off-duty personnel who took the initiative to respond. Ex. PG&E-40; Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); R.T. 382-85 (PG&E/Almario); PG&E OB at 100-03, 106-11; PG&E RB at 101-02.</p>
<p>41. 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).</p>	<p>49 C.F.R. § 192.615(a)(6) relates to requirements for written emergency response procedures. Section 192.615(a)(6) does not support a violation based on CPSD's subjective judgment that PG&E's shutdown and pressure reduction efforts were "inadequate" to minimize hazards to life or property. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E's emergency response was adequate and its shutdown of the gas effective and reasonable under the circumstances. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); R.T. 415-16 (PG&E/Bull); R.T. 275-76 (PG&E/Almario); PG&E OB at 106-09; PG&E RB at 101-03.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>42. 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).</p>	<p>There is no support for the conclusion that PG&E's emergency response "made the hazards worse." PG&E responded immediately and resolved the situation effectively given the circumstances. Immediately shutting off the gas supply to the Peninsula actually would have "made the hazards worse." Additionally, 49 C.F.R. § 192.615(a)(7) relates to requirements for written emergency response procedures and does not support a violation as CPSD alleges. Even if a violation could be alleged in the manner proposed, CPSD fails to carry its burden of proof. PG&E worked to make safe hazards to life and property. Ex. PG&E-1 at 9-9 to 9-10 (PG&E/Miesner); Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); R.T. 415-16 (PG&E/Bull); R.T. 275-76 (PG&E/Almario); PG&E OB at 106-09; PG&E RB at 101-03.</p>
<p>43. 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.</p>	<p>CPSD failed to establish that calling 911 was required under 49 C.F.R. § 192.615(a)(8); it is not. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E's emergency plans were effective and complied with regulations, as confirmed by CPSD's prior audits. Fire and police personnel were on the scene before PG&E was notified of the incident. PG&E communicated, notified, and worked with emergency personnel at the scene of the incident. Ex. PG&E-41 at 469; Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 & Appendices A & B (PG&E/Almario); PG&E OB at 109-11; PG&E RB at 91-94, 108-10. .</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>44. 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.</p>	<p>CPSD failed to meet its evidentiary burden to establish this violation. CPSD does not provide analysis or discussion of PG&E's written response plan, nor does it attempt to tie any evidence to its allegations. PG&E had an appropriate response plan that complied with the regulations, as confirmed by CPSD's prior audits, and PG&E responded according to it. Ex. PG&E-1, Chapter 10 & Appendices A & B (PG&E/Almario); Ex. PG&E-1, Chapter 11 (PG&E/Bull); PG&E RB at 91-94, 108-10.</p>
<p>45. 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).</p>	<p>49 C.F.R. § 192.615(a)(2) relates to requirements for written emergency response procedures. Section 192.615(a)(2) does not support a violation based on CPSD's subjective, undefined standard regarding the "adequacy" of PG&E's means of communication with fire, police and other public officials. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E coordinated and communicated with emergency personnel at the scene of the incident. San Bruno's Fire Chief said that PG&E's coordination was "great. They had liaisons established and worked it out." Ex. PG&E-41 at 469; Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E OB at 109-11; PG&E RB at 108-10.</p>
<p>46. PG&E failed to protect "people first and then property", in violation of 49 CRF Part 192.615(a)(5).</p>	<p>49 C.F.R. § 192.615(a)(5) relates to requirements for written emergency response procedures. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E worked to protect people first and then property. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E OB at 106-11; PG&E RB at 108-10.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
47. 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).	The record evidence does not support this conclusion. CPSD failed to establish that mutual assistance agreements were required under 49 C.F.R. § 192.615(c)(4); they are not. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. PG&E's plans satisfied 192.615(c)(4) and PG&E did plan and coordinate with fire and police officials at the scene of the incident. San Bruno's Fire Chief said that PG&E's coordination was "great. They had liaisons established and worked it out." Ex. PG&E-41 at 469; Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); PG&E OB at 109-11; PG&E RB at 97-98.
48. 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).	The record evidence does not support this conclusion. CPSD failed to establish that the training it focuses on was required under 49 C.F.R. § 192.615(a)(3). Section 192.615(a)(3) does not support a violation based on CPSD's subjective, undefined standard regarding "inadequate," "slow," and "ineffective" recognition of the incident. Even if a violation could be alleged in the manner CPSD proposes, CPSD fails to carry its burden of proof. Ex. PG&E-1 at 11-25 to 11-28 (PG&E/Bull); Ex. PG&E-1 at 10-1 to 10-5 (PG&E/Almario); R.T. 415-16 (PG&E/Bull); R.T 275-76 (PG&E/Almario); PG&E RB at 110-12.
49. 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).	CPSD failed to meet its evidentiary burden to establish this violation. CPSD submitted no competent evidence regarding PG&E's training. PG&E trained its personnel about emergency response procedures and verified that the training was effective, as confirmed in CPSD's prior audits. Ex. PG&E-1, Chapter 11 (PG&E/Bull); Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario); PG&E RB at 91-94, 110-12.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
50. 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).	CPSD failed to meet its evidentiary burden to establish this violation. CPSD submitted no competent evidence regarding PG&E's training. PG&E trained its personnel about emergency response procedures and verified that the training was effective, as confirmed in CPSD's prior audits. Ex. PG&E-1, Chapter 11 (PG&E/Bull); Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario); PG&E RB at 91-94, 110-12.
51. 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).	CPSD does not support this conclusion with any evidence. The cited requirement relates to for written procedures. PG&E's relevant written procedures complied with regulatory requirements as verified in CPSD's prior audits of PG&E's emergency plans. CPSD failed to meet its evidentiary burden to establish this violation. Ex. PG&E-1, Chapter 11 (PG&E/Bull); Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario); PG&E RB at 91-94, 108-10.
52. 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).	The record evidence does not support this conclusion. CPSD acknowledged in its January 12, 2012 Report PG&E's actions to comply with this regulatory provision, and CPSD's prior audits confirmed PG&E's compliance. CPSD failed to meet its evidentiary burden to establish this violation. Ex. CPSD-1 at 123-24 (CPSD/Stepanian); Ex. PG&E-1, Chapter 10, Appendices A & B (PG&E/Almario); PG&E RB at 91-94, 110-12.
53. PG&E violated 49 CFR Part 199.225(a), by failing to perform alcohol tests on the employees involved within 2 hours of the incident, and failing to record the reasons for not administering the test in a timely fashion.	Not disputed.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CPSD Proposed Conclusion of Law	PG&E's Response
<p>54. By failing to test any of the PG&E Gas Control staff, PG&E violated 49 CFR Part 199.225(a) and 49 CFR Part 199.105(b), which requires drug and alcohol testing of all personnel whose performance cannot be completely discounted as a contributing factor.</p>	<p>CPSD failed to meet its evidentiary burden to establish this violation. CPSD submitted no competent evidence demonstrating that PG&E was required to “test any of the PG&E Gas Control staff” on September 9, 2010. CPSD does not address the issue in its January 12, 2012 report or its August 20, 2012 rebuttal testimony. Ex. CPSD-1 (CPSD/Stepanian); Ex. CPSD-5 (CPSD/Stepanian); PG&E RB at 112-13.</p>
<u>Safety Culture</u>	
<p>55. 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) a reduction in the replacement of PG&E’s aging transmission pipeline by spending significantly less than the Commission had authorized through its approved funding of its GPRP and ending the transmission replacement part of its GPRP prematurely well before its original goal; 2) not seeking sufficient funds for its O&M, and then spending less than the amount it sought from the Commission, including using less effective and 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, claimed that cost savings would accrue to the shareholders, 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.</p>	<p>The record evidence does not support this conclusion. Public Utilities Code Section 451 cannot serve as an independent source of safety violations in this proceeding. CPSD did not meet its evidentiary burden to establish this alleged violation. See PG&E OB at 114-47; PG&E RB at 113-159</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Conclusions of Law¹

DRA Proposed Conclusion of Law	PG&E's Response
<u>Disallowance for Errors and Omissions</u>	
1. The hearsay testimony of PG&E's integrity management witness should be given very little weight to the extent they were testifying to PG&E practices that they did not observe.	DRA's hearsay objection is unfounded. A substantial portion of the evidence on which DRA, CPSD and the other Intervenor rely constitutes hearsay, including the NTSB Report and the IRP Report.
2. Section 463 of the California Public Utilities Code requires the Commission to disallow direct and indirect expenses related to the unreasonable errors or omissions of a utility costing more than \$50 million.	Disallowance of expenses is not a proper subject matter in this enforcement proceeding. "Reasonableness" or "prudence" determinations made in this proceeding would unlawfully shift the burden of proof onto PG&E. Potential fines, penalties and other remedies are the topic of separate briefing as ordered by the Commission.
3. The Commission has relied upon § 463 and its general ratemaking authority on many occasions to disallow costs resulting from unreasonable utility errors and omissions, and should do so here.	Disallowance of expenses is not a proper subject matter in this enforcement proceeding. "Reasonableness" or "prudence" determinations made in this proceeding would unlawfully shift the burden of proof onto PG&E. Potential fines, penalties and other remedies are the topic of separate briefing as ordered by the Commission.
4. While ratemaking issues are not usually taken up in an OII, D.12-12-030, which addressed the ratemaking treatment for PG&E's post-San Bruno remediation plan, invited consideration of such issues here.	Ratemaking determinations are not proper in this proceeding. Evidence necessary to make such determinations has not been offered or received. There is no evidentiary basis for such determinations.
5. D.12-12-030 expressly provided for the possibility of refunds based on ratemaking adjustments adopted in this proceeding.	Commission determinations in D.12-12-030 are the proper subject for that proceeding. There is no evidentiary basis for such determinations in this enforcement proceeding.

¹ PG&E objects to each alleged violation Intervenor asserts. As demonstrated in PG&E's Reply Brief, only CPSD can lawfully allege violations against PG&E in an enforcement proceeding; Intervenor has no authority to do so. PG&E RB, Section VI.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Conclusion of Law	PG&E's Response
6. To the extent the parties to this proceeding have shown that PG&E has committed errors or omissions costing more than \$50 million, all direct and indirect remediation costs should be disallowed.	Commission determinations in D.12-12-030 are the proper subject for that proceeding. There is no evidentiary basis for such determinations in this enforcement proceeding.
7. Pursuant to D.12-12-030 and sections 451 and 463, the Commission should order disallowances for PG&E's errors and omissions in this proceeding.	Disallowance of expenses is not a proper subject matter in this enforcement proceeding. Potential fines, penalties and other remedies are the topic of separate briefing as ordered by the Commission. <i>See</i> PG&E RB at 5.
<u>Adoption of an Independent Third Party Monitor</u>	
8. The various reports on the San Bruno explosion identify several contributing factors to the San Bruno explosion, which, when viewed holistically, demonstrate that PG&E's inattention to safety is pervasive and goes back over 50 years.	The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.
9. In light of this history, it is unrealistic to expect PG&E to change its culture successfully overnight.	The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.
10. In light of PG&E's historical lack of a safety culture, including failure to embody quality assurance practices, there is a need for ongoing "hands on" oversight of PG&E's work testing and replacing its gas transmission system, and updating its records with accurate information.	The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.
11. The Commission, as well as PG&E, must confront and change elements of their respective cultures to assure the citizens of California that public safety is the foremost priority.	The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Conclusion of Law	PG&E's Response
<p>12. The Commission, with the help of independent third parties, should adopt a qualitatively different type of oversight of PG&E at every level.</p>	<p>The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.</p>
<p>13. To restore public confidence in the Commission's ability to supervise PG&E, and to provide the expertise necessary to ensure that PG&E's work is implemented in a timely and competent manner, the Commission should establish an oversight process that employs independent monitors to actively monitor PG&E's remedial work and who report publicly on their findings until the Commission has found that PG&E has fully complied with its orders regarding testing, replacement, and database upgrades relative to its gas transmission system.</p>	<p>The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.</p>
<p>14. The Commission should maintain this stepped-up oversight until PG&E has demonstrated that it can operate its gas transmission system safely.</p>	<p>The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.</p>
<p>15. To establish an independent monitor process, the decision in this matter should direct the parties to meet and confer and, if possible, file joint comments proposing an independent monitor process acceptable to the majority of them. At a minimum, the decision should require the parties' joint proposal to include these elements:</p> <ul style="list-style-type: none"> a. A hiring process for the independent monitors that ensures their independence, to the extent practicable; b. PG&E will hire and pay for the independent monitors; c. The independent monitors will 	<p>The Commission has ordered separate briefing on fines, penalties and other remedies. The issue of an independent third party monitor should be addressed in that briefing, and is not an appropriate subject matter in briefing related to violations.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

DRA Proposed Conclusion of Law	PG&E's Response
<p>conduct and present all analyses and recommendations independently of any suggestions or conclusions of PG&E, the Commission, or other interested parties;</p> <p>d. Quarterly public reporting by the independent monitors to a joint meeting of PG&E, the Commission, and other interested parties;</p> <p>e. The independent monitors will notify PG&E, the Commission, and other interested parties in writing within 10 days of discovery of any potential non-compliance with the requirements of the PSEP or presents a potential, but not immediate, threat to public safety;</p> <p>f. The independent monitors will notify PG&E, the Commission, and interested parties in writing within 24 hours of any condition that poses a potential and immediate threat to public safety; and</p> <p>g. PG&E's contracts with independent monitors shall prohibit an independent monitor from seeking work from PG&E while performing the duties of an independent monitor.</p>	

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Conclusions of Law²

San Bruno Proposed Conclusion of Law	PG&E's Response
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB, Section VI. This is not a "conclusion" of law but an alleged violation.
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.

² PG&E objects to each alleged violation Intervenor assert. As demonstrated in PG&E's Reply Brief, only CPSD can lawfully allege violations against PG&E in an enforcement proceeding; Intervenor have no authority to do so. PG&E RB at 159-65

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Conclusion of Law	PG&E's Response
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
6. PG&E did not adequately receive, identify, and classify notices of the emergency, in violation of 49 CFR Part 192.615(a)(1).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Conclusion of Law	PG&E's Response
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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.	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
13. PG&E failed to protect "people first and then property", in violation of 49 CRF Part 192.615(a)(5).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Conclusion of Law	PG&E's Response
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.
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).	This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB, at 159-65. This is not a "conclusion" of law but an alleged violation.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

San Bruno Proposed Conclusion of Law	PG&E's Response
II. Safety Culture	
<p>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.</p>	<p>This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusions of Law³

CCSF Proposed Conclusion of Law	PG&E's Response
<p>1. Under the Integrity Management rules, PG&E must have documented proof that an operator meets all the requirements of TIMP, including data collection, review and analysis. 49 CFR § 192.917</p>	<p>The record evidence does not support this conclusion. An operator must maintain certain records demonstrating compliance with the integrity management rules. These records include a written integrity management program, documents supporting threat identification and risk assessment, a baseline assessment plan, and documents supporting decisions, analyses, and processes developed and used to implement the baseline assessment plan and integrity management program. 49 C.F.R. § 192.947.</p>
<p>2. Record keeping is essential to this process because operators must both consider all available information about the pipeline, and document each of step of its decision making process. 49 CFR 192.917(b).</p>	<p>The record evidence does not support this conclusion. An operator must gather and consider the data specified in ASME B31.8S, Appendix A, as specified in 49 C.F.R. § 192.917(b). PG&E OB at 61-62.</p>
<p>3. The TIMP regulations require operators to collect and integrate all relevant data. Specifically, operators must “consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.” 49 CFR 192.917(b).</p>	<p>The record evidence does not support this conclusion. TIMP regulations require that “At a minimum, an operator <i>must gather and evaluate</i> the set of data specified in Appendix A to ASME/ANSI B31.8S, and <i>consider</i> both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.” 49 C.F.R. § 192.917(b) (italics added).</p>

³ PG&E objects to each alleged violation Intervenor's assert. As demonstrated in PG&E's Reply Brief, only CPSD can lawfully alleged violations against PG&E in an enforcement proceeding; Intervenor's have no authority to do so. PG&E RB, Section VI.

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>4. Under ASME B.31.8S section 2.3.2, PG&E should have reviewed all information necessary to understand the condition of the pipe, identify the location-specific threats to its integrity, and understand the public, environmental, and operational consequences of an incident. Relevant information to consider include the operation, maintenance, patrolling, design, operating history, and specific failures and concerns unique to each system and segment.</p>	<p>The record evidence does not support this conclusion. PG&E agrees that TIMP regulations require the collection of relevant data. As 49 C.F.R § 192.917(b) states, "At a minimum, an operator <i>must gather and evaluate</i> the set of data specified in Appendix A to ASME/ANSI B31.8S, and <i>consider</i> both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline."</p>
<p>5. Under ASME B.31.8S § 4.4, earlier data is relevant to stable and time independent threats (such as manufacturing and construction defects), and should be included as part of an operator's data collection, review and analysis.</p>	<p>The record evidence does not support this conclusion. ASME B31.8S, Appendix A identifies each data element required to be gathered for each particular threat category, including manufacturing and construction threats. PG&E OB at 61-62.</p>
<p>6. PG&E failed to collect and analyze relevant data, failed to use conservative assumptions when it lacked pertinent data, underestimated the potential threat posed by manufacturing and construction defects and failed to appreciate the effect of cyclic fatigue and interactive threats on those pipeline threats. 49 CFR 192.917(b).</p>	<p>The record evidence does not support this conclusion. PG&E adequately gathered the data elements required by the integrity management regulations and ASME B31.8S. PG&E's threat identification procedures, including manufacturing threat analysis and cyclic fatigue evaluation, satisfied regulatory requirements. PG&E OB at 58-85.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>7. Based on available inspection and weld memoranda, PG&E should have known that certain segments of Line 132 originally installed in 1948 probably contain seam weld defects and that one such segment had even experienced seam failure. 49 CFR 192.917(b).</p>	<p>The record evidence does not support this conclusion. Rather, the evidence shows that the pipe used in the 1948 construction of Line 132 was subjected to a 90% SMYS mill hydrotest. Such testing ensures that any imperfections in the pipe, including those in the longitudinal seam, will not grow to failure during the life of the pipeline. The pinhole leak identified on Line 132 in 1988 does not constitute evidence of a manufacturing threat, and is not a seam failure. PG&E OB at 82-85.</p>
<p>8. Under the TIMP regulations, an operator must identify of all potential threats to covered pipeline segments; select a proper assessment method to ensure the integrity of the line pipe, including explain why the assessment method was selected; and provide a schedule for completing the assessments. 49 CFR § 192.919.</p>	<p>Not disputed.</p>
<p>9. PG&E failed to select proper assessment technologies to assess all potential threats in its system. 49 CFR 192.919(a).</p>	<p>The record evidence does not establish this proposed conclusion. Rather, the evidence shows that, based on the information known and available, PG&E selected appropriate integrity management assessment methods for potential threats in its gas transmission system, including Line 132 and Segment 180. PG&E OB at 81-93.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>10. PG&E should have reviewed its records for other similar pipe segments installed at approximately the same time to determine the extent of the quality control issue. 49 CFR 192.917(b).</p>	<p>This proposed conclusion does not specify to which pipe segment it is referring.</p> <p>The record evidence does not support this conclusion with regard to pipe installed on Line 132. Rather, the evidence shows that the pipe used in the 1948 construction of Line 132 was subjected to a 90% SMYS mill hydrotest. Such testing ensures that any imperfections in the pipe, including those in the longitudinal seam, will not grow to failure during the life of the pipeline. PG&E RB, Section V.B.2.a.(i). The pinhole leak identified on Line 132 in 1988 does not constitute evidence of a manufacturing threat, and is not a seam failure. PG&E RB, Section V.B.2.a.(v). CCSF has failed to produce any evidence of any structural integrity concerns relating to the pipe used to construct Line 132 in 1948, and later used in the construction of Segment 180. PG&E OB at 82-85.</p>
<p>11. PG&E's failure to consider these reports demonstrates that PG&E did not perform the proper data gathering and integration required. 49 CFR 192.917(b).</p>	<p>This conclusion does not specify to which reports it is referring.</p> <p>The record evidence does not support this conclusion. Rather, the evidence shows that the pipe used in the 1948 construction of Line 132 was subjected to a 90% SMYS mill hydrotest. Such testing ensures that any imperfections in the pipe, including those in the longitudinal seam, will not grow to failure during the life of the pipeline. The pinhole leak identified on Line 132 in 1988 does not constitute evidence of a manufacturing threat, and is not a seam failure. CCSF has failed to produce any evidence of any structural integrity concerns relating to the pipe used to construct Line 132 in 1948, and later used in the construction of Segment 180. PG&E OB at 82-85. With regard to the four weld anomaly reports discussed in Exhibits 5-8 to Ex. CCSF-1, PG&E's integrity management properly identified, evaluated, and addressed the potential manufacturing and construction defects present on the pipelines in the reports. PG&E RB at 56-58.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>12. PG&E should have documented how it evaluated and took conservative steps to address the fact that these reports suggest that defects may also be present on similar of pipe vintages. ASME B.31.8S section 12.1.</p>	<p>This conclusion does not specify to which reports it is referring.</p> <p>The record evidence does not support this conclusion. Rather, the evidence shows that the pipe used in the 1948 construction of Line 132 was subjected to a 90% SMYS mill hydrotest. Such testing ensures that any imperfections in the pipe, including those in the longitudinal seam, will not grow to failure during the life of the pipeline. The pinhole leak identified on Line 132 in 1988 does not constitute evidence of a manufacturing threat, and is not a seam failure. CCSF has failed to produce any evidence of any structural integrity concerns relating to the pipe used to construct Line 132 in 1948, and later used in the construction of Segment 180. PG&E OB at 82-85. With regards to the four weld anomaly reports discussed in Exhibits 5-8 to Ex. CCSF-1, PG&E's integrity management properly identified, evaluated, and addressed the potential manufacturing and construction defects present on the pipelines in the reports. PG&E RB at 56-58.</p>
<p>13. PG&E rendered segments with manufacturing defects on Lines 101 and 109 in San Francisco unstable by exceeding the five-year MOP of Line 101 and the MAOP of Line 109. As a result, these segments should have been prioritized for a hydrostatic pressure test and in-line inspection assessment. 49 CFR 192.917(e)(3) and (e)(4).</p>	<p>The record evidence does not support this conclusion. 49 C.F.R. § 192.917(e) (including (e)(3) and (e)(4)) was not published or in force in 2003, therefore PG&E could not violate this regulation during the 2003 planned pressure increase. The 2008 pressure increase on Line 132 did not significantly exceed pipeline MAOP, and was only a transient excursion that did not constitute an operating pressure increase under 49 C.F.R. § 192.917(e). PG&E OB at 89-91.</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>14. These pressure increases also exacerbated the threat of cyclic fatigue on these lines, and PG&E should have prioritized these segments for assessment. 49 CFR 192.917(e)(2).</p>	<p>The record evidence does not support this conclusion. The referenced pressure increases did not constitute operating pressure increases that would require the pipeline to be prioritized for assessment. As explained in the preamble to the integrity management regulations, 49 C.F.R. § 192.917(e)(3) was intended to address changed operating conditions, not transient excursions. <i>See</i> PG&E OB at 91. Even assuming a transient pressure excursion were relevant under 49 C.F.R. § 192.917(e)(3), the pressure increase cited by CPSD would not have triggered a priority assessment. As explained in Dr. Kiefner's 2007 DOT Report (at pages 17-21), an increase of such a small magnitude (less than 1 pound over MAOP on pipeline that has been mill tested to at least 1.25 times the pipeline MAOP) does not have the capability of rendering stable manufacturing threats on a long seam unstable. Ex. PG&E-7 (Tab 4-21) at 17-21; R.T. 738-39 (PG&E/Kiefner).</p>
<p>15. Prior to September 9, 2010, PG&E failed to consider the threat of cyclic fatigue in its TIMP. 49 CFR 192.917(e)(2)</p>	<p>The record evidence does not support this conclusion. The integrity management regulations direct operators to “<i>evaluate whether</i> cyclic fatigue or other loading condition (including ground movement, suspension bridge condition) could lead to a failure of a deformation, including a dent or gouge, or other defect in the covered segment.” 49 C.F.R. § 192.917(e)(2) (emphasis added). <i>See also</i> PG&E OB at 76-78. CPSD has introduced no evidence that supports its contention that the code “evaluation” requires a segment-by-segment analysis. By contrast, Dr. Kiefner (the unquestioned industry expert on cyclic fatigue) testified that prior to San Bruno many natural gas operators satisfied the regulation by referencing the prior industry research (and concluding that cyclic fatigue did not pose a significant threat to their pipelines) rather than conducting a detailed segment-by-segment assessment of their pipelines. Ex. PG&E-1 at 6-7 (PG&E/Kiefner). The evidence establishes that PG&E undertook and documented just such an evaluation. Joint R.T. 1000-02 (PG&E/Keas).</p>

REPLY BRIEF APPENDIX D
I.12-01-007 San Bruno Order Instituting Investigation

CCSF Proposed Conclusion of Law	PG&E's Response
<p>16. Prior to September 9, 2010, PG&E failed to consider the interactive nature of threats in its TIMP. 49 CFR 192.919(a).</p>	<p>The record evidence does not support this conclusion. Prior audits of PG&E's integrity management threat identification process did not identify issues or potential issues relating to the identification of interactive threats. PG&E OB at 73-74.</p>
<p>17. PG&E's emergency response was ineffective on the night of September 9, 2010. 49 CFR 192.615(a).</p>	<p>This proposed conclusion of law is duplicative of those asserted by CPSD. For the same reasons, the proposed conclusion has not been established. 49 C.F.R. § 192.615(a) requires certain written emergency procedures; it does not set forth a subjective standard for judging the "effectiveness" of an emergency response. <i>See</i> PG&E OB, Section V.E.; PG&E RB at 89-112. Additionally, intervening parties are not authorized to allege violations of law against PG&E. <i>See</i> PG&E RB at 159-65. This is not a "conclusion" of law but an alleged violation.</p>

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

PG&E’S RESPONSES TO APPENDIX C: TABLE OF VIOLATIONS
REVISED AS OF 4/18/13, PURSUANT TO ALJ RULING

Violations relating to PG&E’s fabrication and construction of Segment 180 on Line 132.

Violations	Duration	Reference	PG&E’s Responses To CPSD’s References
PU Code 451 – failure to safely construct segment 180	1956-09/09/2010	<u>OII, p. 2.</u> <u>CPSD-1, p. 3, p. 162, pp. 15-23.</u>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X, “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD’s use of Public Utilities Code Section 2108, however, to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E Reply Brief (RB), Section III.D.
PU Code 451 – installing pipe that did not meet industry standards	1956-09/09/2010	<u>OII, p. 2.</u> <u>CPSD-1, p. 3, p. 162, pp. 15-23.</u>	<ul style="list-style-type: none"> • This alleged violation is duplicative of the Section 451 violation alleged immediately above. There is no substantive difference between “fail[ing] to safely construct segment 180” and “installing pipe that did not meet industry standards” that can permit CPSD to allege these two distinct violations under Section 451.
PU Code 451 – violation of ASME B31.1.8-1955 (§810.1) by installing sections unsafe for operational conditions	1956-09/09/2010	<u>CPSD-1, p. 3, p. 162, pp. 15-23.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD did not allege a violation of ASME B31.1.8, Section 810.1 anywhere in its January 12, 2012 Report (Ex. CPSD-1) or in its August 20, 2012 rebuttal testimony (Ex. CPSD-5).

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • The cited references do not mention [ASA] B31.1.8-1955, Section 810.1. Section 810.1 is a general statement regarding “materials and equipment” in the nature of a preamble to Chapter 1 of the ASA B31.1.8 standard. None of the cited references involve or relate to Section 810.1. The cited references also do not reference Section 451 in connection with Section 810.1. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
PU Code 451 – violation of ASME B31.1.8-1955 (§811.412(c)) by not conducting a hydrostatic test	1956-09/09/2010	<u>CPSD-1, p. 19; over 20 other references to the failure to hydro-test in CPSD-1, CPSD-9, pp. 33-34.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited reference in the NTSB Report (Ex. CPSD-9) is a general discussion of hydrotesting regulations, including that there were no such regulations when Segment 180 was constructed.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • CPSD's reference to CPSD-1, page 19, is a general statement of ASA B31.1.8 provisions and a generic assertion that PG&E "failed to comply" with them. • The cited discussion also does not reference Section 451 in connection with hydrotesting. • CPSD's blanket reference to "over 20 other references to the failure to hydrotest in CPSD-1" provides no support for prior notice of this violation. In addition, it does not comply with the ALJ's April 12th order, which stated: <div style="padding-left: 40px;">For each alleged violation, CPSD should provide in this column specific reference to where the OII or one or more of its referenced documents provides PG&E with notice of the factual basis for the allegation. To the extent, if any, that no such reference can be identified for any particular alleged violation, CPSD should delete that alleged violation. (Emphasis added.)</div> • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
PU Code 451 – violation of ASME B31.1.8-1955 (§811.27 (A) by failing to visually inspect segments	1956-09/09/2010	<u>CPSD-1, p. 4, p. 162, p. 19. CPSD-9, p. 96.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • PG&E was not put on notice of an alleged violation under ASME [ASA] B31.1.8-1955, Section 811.27 (A) for "failing to visually inspect segments." CPSD referenced Section 811.27 in its January Report but without referencing Subpart A, relating to "Inspection." In fact, CPSD referenced Section 811.27 in the context of "welding," not "inspection." Ex. CPSD-1 at 162. • CPSD further confused the situation by alleging a separate violation under Subpart E of Section 811.27. Ex. CPSD-1 at 21. Subpart E pertains to "weldability" – which is the topic CPSD connected to the initial assertion of Section 811.27. Ex. CPSD-1 at 20-21, 162. • The cited references also do not reference Section 451 in connection with Section 811.27(A) or "inspection." • The cited references do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>PU Code 451 – violation of API 5LX (§VI) by installing pups less than five feet</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, p. 22, p. 162.</u> <u>CPSD-9, p. 94.</u></p>	<p>of adequate notice to PG&E and failure to comply with the ALJ's order.</p> <ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>PU Code 451 – violation of ASME B31.1.8-1955 (§805.54) by installing segments that did not meet the appropriate minimum yield strength</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, p. 7, p. 13, pp. 19-20, p. 22, pp. 64-65, p. 162. CPSD-9, pp. 46-50.</u></p>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>precedent and controlling authority. See PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>PU Code 451 – violation of ASME B31.1.8-1955 (§811.27(G)) by assigning a yield strength above 24,000psi on a segment of unknown yield strength</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, p. 31, p. 15, p. 19.</u> <u>CPSD-9, p. 61, p. 108.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD did not allege a violation of ASME [ASA] B31.1.8, Section 811.27(G) anywhere in its January 12, 2012 Report (Ex. CPSD-1) or in its August 20, 2012 rebuttal testimony (Ex. CPSD-5). As noted above, CPSD alleged a violation of Section 811.27 (without specifying a subpart) with respect to "welding." Ex. CPSD-1 at 162 (CPSD/Stepanian). The cited reference in the NTSB Report (Ex. CPSD-9) does not allege such a violation (nor could the NTSB allege a violation of law). • CPSD's references do not mention Section 811.27(G). They also do not reference Section 451 in connection with yield strength or unknown pipe specifications. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>PU Code 451 – violation of ASME B31.1.8-1955 (§811.27(E)) by using deficient welds</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, p. 13, p. 19, pp. 20-21, p. 162.</u> <u>CPSD-9, pp. 41-43, pp. 95-96.</u></p>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • However, in its August 20, 2012 rebuttal testimony, CPSD withdrew it. Ex. CPSD-5 at 7 (CPSD/Stepanian) (“CPSD withdraws this allegation.”). • CPSD’s apparent attempt to reinstate this alleged violation with its opening brief is improper, and if allowed, would violate of PG&E’s constitutional due process rights. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>PU Code 451 – violation of Section</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, p. 13, p. 19, pp. 20-21, p. 162.</u> <u>CPSD-9, pp.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.”

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>1.7 of API Standard 1104 (4th Ed 1956) by using deficient welds</p>		<p><u>41-43, pp. 95-96.</u></p>	<p>Ex. CPSD-1 at 162-63 (CPSD/Stepanian).</p> <ul style="list-style-type: none"> • CPSD did not allege a violation of API 1104 anywhere in its January 12, 2012 Report (Ex. CPSD-1) or in its August 20, 2012 rebuttal testimony (Ex. CPSD-5). The cited reference in the NTSB Report (Ex. CPSD-9) does not allege such a violation (nor could the NTSB allege a violation of law). The cited references also do not mention Section 451 in connection with API 1104. • Previously, CPSD asserted that the Segment 180 girth welds violated ASME [ASA] B31.1.8-1955, Section 811.27(E) because they purportedly did not meet API 1104 standards. Ex. CPSD-1 at 21. CPSD referenced API 1104 coupled with Section 811.27(E); as noted above, CPSD withdrew the Section 811.27(E) allegation in its rebuttal testimony. With its opening brief, CPSD has uncoupled API 1104 from the withdrawn allegation, and identified API 1104, Section 1.7 for the first time as the basis for a stand-alone violation. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			of adequate notice to PG&E and failure to comply with the ALJ's order.
PU Code 451 – violation of ASME B31.1.8-1955 (§811.27(C)) by using incomplete welds and failing to measure wall thickness	1956-09/09/2010	<u>CPSD-1, p. 21, p. 7, p. 19, p. 56, p. 61, p. 63, CPSD-9, pp. 27-28, pp. 41-43, pp. 92-96.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD did not allege a violation of ASME [ASA] B31.1.8, Section 811.27(C) anywhere in its January 12, 2012 Report (Ex. CPSD-1) or in its August 20, 2012 rebuttal testimony (Ex. CPSD-5). The cited references in the NTSB Report (Ex. CPSD-9) do not allege such a violation (nor could the NTSB allege a violation of law). • CPSD's references do not mention Section 811.27(C). They also do not reference Section 451 in connection with Section 811.27(C) or incomplete welds and wall thickness. • As discussed above, CPSD's generic reference to Section 811.27 without specifying a subpart, and its reference to Section 811.27(E) for a "weldability" violation, created additional haziness around the violations CPSD was attempting to allege. Having never before alleged a violation based on Subpart C of Section 811.27, CPSD added to the haziness. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>precedent and controlling authority. See PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>PU Code 451 – failure to incorporate pups in calculating the design pressure and MAOP</p>	<p>1956-09/09/2010</p>	<p><u>CPSD-1, pp. 22-24, p. 3, p. 162.</u> <u>CPSD-9, p. 106.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD did not allege a violation of Section 451 regarding MAOP and incorporation of the pups anywhere in its January 12, 2012 Report (Ex. CPSD-1) or in its August 20, 2012 rebuttal testimony (Ex. CPSD-5). The cited references in the NTSB Report (Ex. CPSD-9) do not allege such a violation (nor could the NTSB allege a violation of Section 451). • CPSD previously based this violation on ASA B31.1.8-1955, alleging that PG&E "did not follow ASA B31.1.8-1955 when it initially established the MAOP for the failed segment." Ex. CPSD-1 at 23. With its opening brief, CPSD alleges for the first time a new factual and legal basis – a Section 451 violation for "failure to incorporate pups in calculating the design pressure and MAOP." • None of CPSD's cited references state this allegation; PG&E was not put on notice of this alleged violation prior to CPSD's opening brief. • This alleged violation is a duplicate of the alleged violation discussed

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			immediately below; CPSD has reworded the same conduct to improperly allege a duplicative violation under Section 451.
			<ul style="list-style-type: none"> • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
PU Code 451 – violation of ASME B31.1.8-1955 (§845.22) failure to meet MAOP determination requirements due to incomplete knowledge	1956-09/09/2010	<u>CPSD-1, pp. 22-24, p. 3, p. 162. CPSD-9, p. 106.</u>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E's Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162 (CPSD/Stepanian). • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1956. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPD's References
			PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations relating to PG&E’s Integrity Management Program.

Violations	Duration	Reference	PG&E’s Responses To CPSD’s References
<p>49 CFR 192.107(b)(2) – failure to assign a yield strength of 24,000 psi when strength was unknown</p>	<p>08/19/1970 – 09/09/2010</p>	<p><u>CPSD-1, p. 31.</u> <u>CPSD-9, p. 61,</u> <u>p. 106, p. 108.</u></p>	<ul style="list-style-type: none"> • This alleged violation was not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD’s Report, quoting the NTSB Report (Ex. CPSD-9), asserts that PG&E used improper assumed SMYS values for two segments on Line 132. CPSD does not identify the segments in question, nor does the NTSB Report. Without notice of the identity of the two segments in question, PG&E could not present evidence supporting the use of assumed SMYS values to refute the violation. CPSD therefore failed to provide adequate notice of this violation. • CPSD’s opening brief expands the scope of this alleged violation, stating that “By <i>routinely</i> using yield strength values above 24,000 psi, PG&E violated Part 192.107(b)(2).” CPSD OB at 41 (emphasis added). PG&E had no notice of the broader scope of this allegation. Neither the CPSD Report nor the NTSB Report allege additional uses of improper assumed SMYS values beyond two unspecified segments on Line 132. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1970. The integrity management regulations were effective on February 14, 2004. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(b) – failure to gather and integrate required pipeline data</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 26-30, p. 163.</u> <u>CPSD-9, p. 60, p. 69, p. 70, p. 85.</u></p>	<ul style="list-style-type: none"> • This allegation is asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). CPSD alleges particular data gathering failings on pages 26-30 of its report: (1) the failure to gather relevant leak data; (2) failure to use conservative default values; and (3) failure to consider known longitudinal seam cracks from the 1948 construction and the 1988 pinhole leak. • The cited portions of the NTSB Report (Ex. CPSD-9) contain high-level descriptions of the data gathering process called for by federal regulations and ASME B31.8S, but do not allege specific failures by PG&E to meet these requirements. For example, page 70 contains a reference to PHMSA audit protocols and a quotation from a PHMSA deputy associate administrator stating that “every operator is expected to thoroughly understand their system[.]” • CPSD has provided notice of three particular alleged failures identified above. CPSD has not provided notice to support any additional data gathering or integration failures. • The references cited by CPSD do not provide notice of or support for a purported continuing violation. The integrity management regulations were

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>effective on February 14, 2004. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation other than with respect to the three alleged failures identified above. The remainder of the alleged violation should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192 (incorporating ASME B31.1.8S [sic] (§5.7)) – failure to check for & verify accuracy of data</p>	<p>08/19/1970 – 09/09/2010</p>	<p><u>CPSD-1, p. 26, pp. 28-29, p. 55. CPSD-9, p. 107, p. 110, p. 114.</u></p>	<ul style="list-style-type: none"> • CPSD did not assert this allegation in its January Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not provide notice of anything more than broad, conclusory statements relating to the importance of data accuracy, or the general concern that PG&E’s GIS contained unspecified inaccurate data. CPSD has failed to provide notice regarding specific data accuracy violations. • The general discussion in the CPSD Report contains broad statements relating to data accuracy, but does not identify particular data elements that CPSD claims are inaccurate. On page 26, CPSD states “PG&E did not ensure that only conservative default values were chosen on Line 132, or that the data was sufficiently checked for accuracy. The failure to use conservative default values and adequately check the accuracy of the data is violation of ASME B31.8S, Section 5.7(e).” Pages 28-29 discuss data quality and accuracy at a high

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>level, stating that it is “of fundamental importance” but does not identify particular failures to meet the requirements of ASME B31.8S. Page 55 discusses the importance of data verification relating to risk assessment (ranking segments for assessment), but does not identify particular data inaccuracies or violations.</p> <ul style="list-style-type: none">• The NTSB Report (Ex. CPSD-9) similarly does not present particular findings relating to data accuracy. Page 107 of the NTSB Report identifies the elements of an integrity management program at a high level, including “accurate, complete, and verifiable data.” Page 114 is a summary of the NTSB’s opinion, and includes one sentence relating to the accuracy of data in GIS. While the NTSB Report does identify class location errors in GIS (Ex. CPSD-9 at 110), these were self-reported by PG&E in the Class Location OII, and have been addressed in that proceeding.• The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning in 1970. The integrity management regulations were effective on February 14, 2004. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.• CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
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REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

<p>49 CFR 192.917(a) (incorporating ASME B31.8S (§2.2)) – failure to analyze manufacture threat of weld defect</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 33-36.</u> <u>CPSD-9, p. 36-39.</u></p>	<ul style="list-style-type: none"> • Based on the ALJ’s April 2, 2013 ruling, and without waiving its position that due process limits the charges to those listed in Section X of CPSD’s January 12, 2012 report, PG&E acknowledges that CPSD generally described alleged facts related to this allegation in the body of its report. This alleged violation overlaps with other, more specific alleged violations including the next two alleged violations in Revised Appendix C. • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on December 15, 2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(e)(3) – failure to consider DSAW as potentially subject to manufacturing defects</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 32-34, p. 41, pp. 46-47, p. 163.</u> <u>CPSD-9, p. 36.</u></p>	<ul style="list-style-type: none"> • Based on the ALJ’s April 2, 2013 ruling, and without waiving its position that due process limits the charges to those listed in Section X of CPSD’s January 12, 2012 report, PG&E acknowledges that CPSD generally described alleged facts related to this allegation in the body of its report. • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

			<p>beginning on December 15, 2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917 (e), and 192.917 (e)(3)(i) – failure to consider risks after operating above MOP of last five years</p>	<p>12/11/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 42-44.</u> <u>CPSD-9, pp. 36-38.</u></p>	<ul style="list-style-type: none"> • Based on the ALJ’s April 2, 2013 ruling, and without waiving its position that due process limits the charges to those listed in Section X of CPSD’s January 12, 2012 report, PG&E acknowledges that CPSD generally described alleged facts related to this allegation in the body of its report. • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on December 11, 2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

<p>49 CFR 192.917(e)(3) (i) – failure to consider risk unstable and prioritize assessment of risks after operating above MOP of last five years</p>	<p>12/11/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 42-44.</u> <u>CPSD-9, pp. 36-38.</u></p>	<ul style="list-style-type: none"> • This alleged violation is duplicative of the preceding allegation (as CPSD’s duplicative cited references confirm). • As noted above, CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(e)(2) – failure to consider and test for cyclic fatigue</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, p. 38, pp. 50-54, p. 26, p. 28, p. 36, p. 163.</u> <u>CPSD-9, p. 38.</u></p>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • However, CPSD did not allege this as a continuing violation until its opening brief, and the references do not provide notice of or support for a purported continuing violation beginning on 12/15/2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.921(a) – failure to use and inspection method capable of finding seam issues</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 26-27, p. 47, p. 48, pp. 59-61, p. 134, p. 163.</u></p>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • However, CPSD did not allege this as a continuing violation until its opening brief, and the references do not provide

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>notice of or support for a purported continuing violation beginning on 12/15/2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(e)(4) – failure to properly inspect or test after exceeding MOP on ERW pipe</p>	<p>12/11/2003 – 09/09/2010</p>	<p><u>CPSD-9, p. 36.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • This allegation is not asserted anywhere in CPSD’s January 12, 2012 Report (Ex. CPSD-1) or the NTSB Report (Ex. CPSD-9), and is raised for the first time in CPSD’s opening brief. • The NTSB Report (Ex. CPSD-9) cannot provide notice that CPSD is alleging a violation of law, nor can the NTSB allege violations of law. In addition, page 36 of the NTSB Report does not allege that PG&E failed to inspect or test after exceeding MOP on ERW pipe. Rather, the NTSB Report restated parts of 49 C.F.R. § 192.917, including sections (e)(3) and (e)(4). The discussion in the NTSB Report at pages 36-38 relates to 49 C.F.R. § 192.917(e)(3) only, and does not discuss ERW pipe. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on 12/11/2003. In addition,

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192 (incorporating ASME B31.8S (§4.4)) – failure to identify where and how unsubstantiated data was used in threat identification</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 27-29, p. 31, pp. 56-57.</u> <u>CPSD-9, pp. 60-61.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • This alleged violation is not asserted anywhere in CPSD’s January 12, 2012 Report (Ex. CPSD-1), and is raised for the first time in CPSD’s opening brief. • The references cited do not make any allegation regarding PG&E’s purported failure to identify where and how unsubstantiated data was used in threat identification. The cited references consist primarily of recitations of statutory language or ASME guidance. To the extent the cited references include allegations specific to PG&E, those allegations relate to PG&E’s purported failure to use conservative values, purportedly erroneous information in PG&E’s GIS system and/or purported issues with PG&E’s risk algorithms. • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on 12/15/2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(c) (incorporating ASME B31.8S (§5.7)) – failure to (1) consider identified threats in risk assessment; (2) consider past events on Line 132; and (3) account for missing/questionable data</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, pp. 26-27, pp. 32-25, pp. 54-61. CPSD-9, p. 39, p. 162.</u></p>	<ul style="list-style-type: none"> • Based on the ALJ’s April 2, 2013 ruling, and without waiving its position that due process limits the charges to those listed in Section X of CPSD’s January 12, 2012 report, PG&E acknowledges that CPSD generally described this allegation in the body of its report. • However, CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on December 15, 2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of the alleged continuing violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>49 CFR 192.917(c) (incorporating ASME B31.8S (§5)) – failure to use risk algorithms that: (1) properly weighed threats known via</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, p. 37, pp. 55-59.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The references cited by CPSD discuss the subject matter but did not provide notice that CPSD intended to allege a

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

<p>operating experience; (2) identified the proper potential impact radius; (3) identified the proper Consequences of Failure formula; (4) used conservative values for electrical interference; (5) considered one-call tickets; and (6) considered historic problems with pipe type</p>			<p>violation of law. <i>See, e.g.</i>, Ex. CPSD-1 at 58 (CPSD/Stepanian) (“Therefore, PG&E should consider adjusting the point formula for known versus unknown interference currents.” (emphasis added)). Thus, the referenced materials did not provide constitutionally adequate notice. <i>See</i> PG&E RB, Section III.C.</p> <ul style="list-style-type: none"> • CPSD did not allege this as a continuing violation until its opening brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on December 15, 2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>PU Code 451 – violation of ASME B31.8S, Appendix A (§4.2) by failing to use conservative data where data was missing</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, p. 26, p. 28, pp. 30-32, p. 46, pp. 55-56, p. 58, p. 162.</u> <u>CPSD-9, pp. 60-61.</u></p>	<ul style="list-style-type: none"> • Contrary to CPSD’s assertion (citing CPSD-1, p. 162), this alleged violation is not raised in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violation of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • This alleged violation is duplicative of CPSD’s allegation relating to use of assumed SMYS values greater than 24,000 psig. <i>E.g.</i>, Ex. CPSD-1 at 31 (“However, as identified in the NTSB report on the San Bruno incident, there were multiple examples where PG&E did not use conservative assumptions. These examples include: (1) Three different values for the SMYS of Grade B steel were used – 35,000 psi

REPLY BRIEF APPENDIX E

I.12-01-007 San Bruno Order Instituting Investigation

			<p>(consistent with the value given in ASME B31.1.8 1955 edition), 40,000 psi, and 45,000 psi; and (2) Two segments with unknown SMYS were assigned non-conservative values of 33,000 psi and 52,000 psi although Part 192.107(b)(2) requires a conservative value of 24,000 psi when the exact SMYS of a pipe segment is not known or documented.”). The cited pages of the NTSB Report (Ex. CPSD-9) do not provide notice of any additional failure to substitute conservative assumptions for missing data.</p> <ul style="list-style-type: none"> • The references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on 12/15/2003. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
<p>PU Code 451 – failure to safely operate its system by its practice of pressure spiking every 5 years to avoid testing or inspecting</p>	<p>12/15/2003 – 09/09/2010</p>	<p><u>CPSD-1, p. 40, pp. 42-44.</u> <u>CPSD-9, pp. 36-38.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The references cited by CPSD discuss planned pressure increases but did not provide notice that CPSD intended to allege a violation of law. Thus, the referenced materials did not provide constitutionally adequate notice. <i>See</i> PG&E RB, Section III.C. • CPSD did not allege this as a continuing violation until its opening

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

			<p>brief, and the references cited by CPSD do not provide notice of or support for a purported continuing violation beginning on December 15, 2003. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none">• CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
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REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations relating to PG&E’s SCADA system and the Milpitas Terminal.

Violations	Duration	Reference	PG&E’s Responses To CPSD’s References
49 CFR 192.13(c) – failure to follow internal work procedures	09/09/2010	<u>CPSD-1, p. 4, p. 70, pp.84-85, p. 163. CPSD-9, pp. 90-91.</u>	<ul style="list-style-type: none"> • CPSD alleged this violation in its January 12, 2012 Report, Section X “PG&E’s Violation of Applicable Laws and Regulations.” Ex. CPSD-1 at 163 (CPSD/Stepanian). • PG&E has previously acknowledged this violation of Section 192.13(c). <i>See</i> PG&E OB at 103.
PU Code 451 – failure to follow internal work procedures to the extent it created an unsafe condition	09/09/2010	<u>CPSD-1, p. 4, p. 70, pp. 84-85, p. 163. CPSD-9, pp. 90-91.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 pages 4, 70, 84-85 and 163 do not state that CPSD is asserting a violation of Section 451, or that PG&E’s alleged conduct related to its work clearance constituted a violation of Section 451. • CPSD-9 (NTSB Report) pages 90-91 describe facts related to the clearance; the NTSB did not state that the described conduct violated Section 451, nor could the NTSB assert a violation of Section 451. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
49 CFR 192.605(c) – failure to establish procedures for abnormal conditions	09/09/2010	<u>OII, p. 2.</u> <u>CPSD-1, p. 4, p. 70, 84-85, p. 163.</u> <u>CPSD-9, pp. 90-91.</u>	<ul style="list-style-type: none"> • CPSD asserted this alleged violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 163 (CPSD/Stepanian).
PU Code 451 – failure to properly maintain the Milpitas Station	02/2010 – 09/09/2010	<u>CPSD-1, pp. 81-82, pp91-92, pp. 94-95, pp. 98-99.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1, pages 81-82, 91-92 and 94-95 are factual descriptions of purported “deficiencies” related to Milpitas Terminal. No statement of an alleged violation is contained in those pages, and Section 451 is not mentioned. Describing deficiencies is not alleging a violation. <i>See</i> PG&E RB, Section III.C. • CPSD-1, pages 98-99, lists 10 “deficiencies” in a wide range of topics related to Milpitas Terminal and PG&E’s SCADA system. CPSD concluded the list of “deficiencies” by stating: “<i>There are no specific requirements in the federal or state codes which address the above conditions. However, PG&E allowed these deficiencies to exist and jeopardizes [sic] the safety of its system. PG&E is therefore in violation of Public Utilities Code Section 451.</i>”

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • In asserting this Section 451 violation in Revised Appendix C, CPSD selected one “deficiency” (No. 1 – conditions at Milpitas Terminal) from the 10 it described as the Section 451 violation. <i>See</i> CPSD OB, Appendix B, Proposed Conclusion of Law 32; CPSD OB, Revised Appendix C. What CPSD previously described as a Section 451 violation based on 10 purported “deficiencies” transformed into a stand-alone violation when CPSD submitted its opening brief. • The cited references do not provide notice of a continuing violation purportedly beginning in February 2010. CPSD claims conditions at Milpitas Terminal were “deficient” for decades and does not state how conditions became illegal in February 2010. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.
PU Code 451 – failure to design a SCADA system without too many unnecessary alarms	2005 – 09/09/2010	<u>OII, p. 2.</u> <u>CPSD-1, p. 4,</u> <u>pp. 70-72, pp.</u> <u>73-74, p. 92, p.</u> <u>96, p. 98, p. 99.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. OII page 2 contains generalized statements regarding

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>CPSD's purported findings. It does not include a reference to Section 451 or any statement that PG&E's SCADA system violated that section. CPSD-1, page 4, broadly references an alleged violation of Section 451 "for allowing deficiencies to exist in its SCADA system which interfered with [PG&E's] ability to detect and respond to the emergency." CPSD does not specify that the alleged violation relates to "too many unnecessary alarms," as it ultimately asserted in Revised Appendix C.</p> <ul style="list-style-type: none"> • CPSD-1, pages 70-72, 73-74, 92 and 96 are factual descriptions of PG&E's SCADA system or SCADA systems in general. CPSD does not assert an alleged violation in those pages, and Section 451 is not mentioned. • CPSD-1, page 98, contains the first half of the 10 "deficiencies" CPSD listed regarding Milpitas Terminal and PG&E's SCADA system. As it did for the Section 451 violation discussed immediately above, CPSD selected a single "deficiency" (No. 5 – "too many unnecessary alarms") as the basis for this Section 451 violation. What CPSD previously described as a violation based on 10 purported "deficiencies" transformed into a stand-alone violation with CPSD's opening brief. • The cited references do not provide notice of a continuing violation purportedly beginning in 2005. CPSD provides no basis for the 2005 initiation date. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations relating to PG&E’s Emergency Response.

Violations	Duration	Reference	PG&E’s Responses To CPSD’s References
<p>PU Code 451 – failure to create and follow adequate emergency plans</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>OII, p. 2.</u> <u>CPSD-1,</u> <u>pp. 113-116,</u> <u>pp. 116-125.</u></p>	<ul style="list-style-type: none"> • CPSD included PG&E’s purportedly ineffective emergency response as one among several identified actions that, together, allegedly constituted a Section 451 violation. Ex. CPSD-1 at 162 (CPSD/Stepanian). However, CPSD did not assert this as a stand-alone violation in its January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1, pages 113-116 and 116-125, contains a high-level description of regulatory provisions related to emergency plans and PG&E’s actions during the emergency response. CPSD does not reference Section 451 in these pages, much less contend that the described actions violated Section 451. • The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ’s order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>49 CFR 192.615(a)(3) – failure to have a prompt and effective response due to inconsistent emergency plans</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>CPSD-10, p. 76; CPSD-1, pp. 55-56, p. 114 (FN 221), p. 117.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-10, page 76, is the IRP report. The IRP report cannot serve as notice that CPSD is charging a legal violation. Additionally, the cited page discusses PG&E's emergency response on the day of the incident but does not address purported inconsistent emergency plans. In fact, the cited page states that PG&E's "[Emergency Response Plan] is comprehensive, embodies many current best practices, and is revised and tested on a frequent basis." Ex. CPSD-10 at 76. • The reference to CPSD-1, pages 55-56, addresses integrity management, not emergency plans or response; it is irrelevant to this alleged violation.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • CPSD-1, page 114, footnote 221, is a generic reference to emergency plan training. The reference has no substantive content, and says nothing about CPSD charging a violation of law. • The reference to CPSD-1, page 117, states that PG&E's Emergency Plan consists of two parts but otherwise has no substantive content. The cited reference does not address inconsistent emergency plans or anything related to an alleged violation. • The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(8) – failure to create a mutual assistance agreement with local first responders</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>CPSD-1, p. 114 (FN 221), pp. 117-118;</u> <u>CPSD-9, pp. 55-56;</u> <u>CPSD-10, p.76.</u> <u>CPSD propounded DR Legal Division 001-Q08 to obtain PG&E's Emergency Response Plan</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3"

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
		<p><u>(ERP), which is hearing exhibit CPSD-297.</u></p> <p><u>Mutual Assistance Agreements are discussed on F-2.1 of PG&E's ERP.</u></p>	<p>subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1, page 114, footnote 221, is a generic reference to training on PG&E's emergency plan. The reference has no substantive content, and says nothing about CPSD charging a violation of law. • CPSD-1, pages 117-18, do not mention mutual assistance agreements. Nor do they reference Section 192.615(a)(8). • The reference to the NTSB Report (CPSD-9, pp. 55-56), cannot serve as notice of CPSD charging a legal violation. Additionally, the cited pages reference a flowchart of PG&E's emergency response procedures, and generally describe procedures regarding emergency contacts. The pages do not mention mutual assistance agreements. • CPSD-10 (page 76) is the IRP report; as noted, it cannot serve as notice of CPSD charging a legal violation. Additionally, the cited page has nothing to do with mutual assistance agreements. • CPSD's reliance on a data request provides no support. Propounding a data request to obtain PG&E's emergency plans provides no notice that CPSD is charging a legal violation of Section 192.615(a)(8). Nor can

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>PG&E's production of the emergency plan to CPSD provide notice that CPSD is charging a violation.</p> <ul style="list-style-type: none"> The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(c)(4) – failure to plan how to engage in mutual assistance</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>CPSD-1, p. 114 (FN 221), pp. 117-118;</u> <u>CPSD-9, pp. 55-56;</u> <u>CPSD-10, p.76.</u></p> <p><u>CPSD propounded DR Legal Division 001-Q08 to obtain PG&E's Emergency Response Plan (ERP), which is hearing exhibit CPSD-297.</u></p> <p><u>Mutual Assistance Agreements are discussed on F-2.1 of PG&E's ERP.</u></p>	<ul style="list-style-type: none"> This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • These are the same supporting references as offered for the violation immediately above. For the same reasons, they provide no support for the conclusion that PG&E had adequate notice of this violation. • The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(3) – failure to have a prompt and effective response due to a slow and uncoordinated response</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 102-103, p. 114 (FN 221), pp. 117-118; CPSD-9, pp. 55-56, pp. 97-100.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD-1, pages 102-03 and 117-18, generally discuss PG&E's emergency response on September 9, 2010, including CPSD's assertion that PG&E violated 49 C.F.R. § 192.615 pertaining to emergency response. These references do not, however, provide notice of a violation of Section 192.615(a)(3), specifically, which states that emergency plans must have procedures that provide for prompt and effective emergency response. Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • CPSD-1, page 114, footnote 221, is a generic reference to emergency response training. The reference has no substantive content, and says nothing about CPSD charging a violation of law.
			<ul style="list-style-type: none"> • The reference to the NTSB Report (CPSD-9, pp. 55-56, 97-100), cannot serve as notice that CPSD is charging a legal violation. Additionally, the cited pages do not state that PG&E's emergency plan lacked procedures for a prompt and effective emergency response under Section 192.615(a)(3). The NTSB's factual description and critique of PG&E's emergency response is not notice that CPSD is charging a violation of law, in particular under Section 192.615(a)(3). • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(1) – failure to adequately receive, identify and classify emergency notices</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 115-116, 118; CPSD-9, pp. 55-56, pp. 98-102; CPSD-10, p. 75, p. 77.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting “level 3” subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1, pages 115-116, address PG&E’s actions to determine the location and nature of the rupture; the discussion does not address PG&E’s alleged failure to “adequately receive, identify and classify emergency notices.” Nowhere is Section 192.615(a)(1) mentioned. CPSD-1, page 118, discusses internal communication and communications with external agencies during the emergency response. Again, Section 192.615(a)(1) is not referenced. • References to the NTSB Report (Ex. CPSD-9, pages 55-56, 98-102) cannot serve as notice of CPSD charging a legal violation. Additionally, the cited pages reference a flowchart of PG&E’s emergency response procedures, generally describe procedures regarding emergency contacts, and describe factual events during PG&E’s response to the emergency. The pages do not mention Section 192.615(a)(1). • CPSD-10, pages 75, 77, are from the IRP report; it cannot serve as notice that CPSD is charging a legal violation. Additionally, the cited pages discuss

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>PG&E's emergency response plans generally and have nothing to do with an alleged failure to adequately receive, identify and classify emergency notices. In fact, the IRP stated on page 76 that PG&E's "[Emergency Response Plan] is comprehensive, embodies many current best practices, and is revised and tested on a frequent basis." Ex. CPSD-10 at 76.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(4) – failure to provide for proper personnel and resources at the emergency scene</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 120-122;</u> <u>CPSD-9, pp. 55-56, p. 99.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1, pages 120-22, discusses PG&E's emergency

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>response. It does not state that PG&E's emergency plan failed to provide for proper personnel and resources at the emergency scene, or allege a violation of Section 192.615(a)(4) based on the actions of the responding personnel. CPSD's criticism of various actions is not a statement that the conduct violated the law or that CPSD is pursuing a legal violation under Section 192.615(a)(4) against PG&E. <i>See</i> PG&E RB, Section III.C.</p> <ul style="list-style-type: none"> • The NTSB Report (CPSD-9, pages 55-56, 99) cannot serve as notice of CPSD charging a legal violation. Additionally, the cited pages reference a flowchart of PG&E's emergency response procedures, generally describe the roles of SCADA center and the dispatch personnel, and the actions of those personnel on September 9, 2010. Not mentioned are an alleged violation of Section 192.615(a)(4) or any other violation of law. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(6) – failure to perform an emergency shutdown to adequately minimize hazards to life and property</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 103, 117-118, 120-122;</u> <u>CPSD-9, pp. 99, 101-102.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>(CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting “level 3” subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 103, 120-122) discusses PG&E’s response to the rupture and assignment of responsibilities. Page 103 provides an overview of PG&E’s emergency operations; pages 120-122 discuss PG&E’s response to the emergency. CPSD’s conclusion that the response was ineffective and the time unreasonable does not provide notice of a violation. There are no regulations establishing response time or effectiveness criteria. CPSD-1 (pp. 117-18) discusses PG&E’s emergency plan itself, and makes no mention that the plan failed to provide procedures to perform an emergency shutdown. • The reference to the NTSB Report (Ex. CPSD-9, pp. 99, 101-102) cannot serve as notice of CPSD charging a legal violation. The cited pages generally discuss actions by the SCADA control group and dispatch center personnel, execution of the emergency plan, and recognition of the line break, but do not reference Section 192.615(a)(6) or assert a violation of law. • CPSD failed to provide constitutionally adequate notice of this alleged

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
49 CFR 192.615(a)(7) – failure to make safe any actual or potential hazards to life and property	09/09/2010	<u>CPSD-1, pp. 117-118, 120-122; CPSD-9, pp. 55-56, p. 99, pp. 101-102.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 117-18) discusses PG&E's emergency plan and procedures for describing job responsibilities and internal communication, but makes no mention that the plan failed to provide for procedures to make safe any actual or potential hazards to life and property. CPSD-1 (pp. 120-122) discusses PG&E's response to the emergency. CPSD's conclusion that the response was ineffective and the response time unreasonable does not provide notice of a violation of law. There are no

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>regulations establishing response time requirements or effectiveness criteria.</p> <ul style="list-style-type: none"> • The reference to the NTSB Report (Ex. CPSD-9, pp. 99, 101-102) cannot serve as notice of CPSD charging a legal violation. The cited pages generally discuss actions by the SCADA control group and dispatch center personnel, execution of the emergency plan, and recognition of the line break, but do not reference Section 192.615(a)(7) or assert a violation of law. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(8) – failure to notify local first responders</p>	<p>09/09/2010</p>	<p><u>CPSD-1, p. 114, p. 118;</u> <u>CPSD-9, pp. 55-56, pp. 100-101.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>violation. CPSD-1 (p. 114, 118) does not provide notice of the violation. Page 114, fn. 221 cites PG&E's emergency plan; the rest of page 114 discusses training of first responders; and page 118 describes coordination with external agencies. None of the pages assert that PG&E's emergency plan failed to provide for procedures to notify first responders. That PG&E personnel did not notify local first responders by calling 9-1-1 is not asserted as a violation of law, in particular under Section 192.615(a)(8).</p> <ul style="list-style-type: none"> • References to the NTSB Report (CPSD-9, pp. 55-56, 100-01) cannot serve as notice of CPSD charging a legal violation. The NTSB Report did address local first responder notification, and the NTSB made a recommendation that PG&E adopt a policy for gas control operators to contact 9-1-1 upon indications of an emergency. (PG&E acted on that recommendation and has such a policy.) Nowhere did the NTSB state that not contacting first responders on September 9, 2010 violated the law, in particular Section 192.615(a)(8). Rather, that the NTSB made the 9-1-1 recommendation after San Bruno demonstrates that the law did not previously require it. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>49 CFR 192.605(c)(1) and (3) – failure to have emergency manual that required the appropriate actions</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>CPSD-1, pp. 117-118;</u> <u>CPSD-1, pp. 119-122;</u> <u>CPSD-9, pp. 55-56,</u> <u>pp. 99-100.</u> <u>CPSD-1, pp. 118-119;</u> <u>CPSD-9, p. 100.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD alleged a generalized violation based on Section 192.605(c). Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.605(c) contains multiple subsections, each of which address different emergency response requirements. Generically alleging a violation of Section 192.605(c) provides no information regarding the particular conduct alleged to be contrary to the law, and thus no notice of what violation is being alleged. That CPSD has now alleged violations of subsections (c)(1), (c)(3), and (c)(4), but not (c)(2), demonstrates that a general reference to Section 192.605(c) does not provide notice of the actual violation(s) CPSD intends to pursue. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 117-18) discusses PG&E’s emergency plan and procedures for describing job responsibilities and internal communication. CPSD-1 (pp. 119-122) discusses PG&E’s response to the emergency. CPSD’s conclusion that the response was ineffective and the response time unreasonable does not provide notice of a violation of law. There are no regulations establishing response time requirements or effectiveness criteria.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<ul style="list-style-type: none"> • The reference to the NTSB Report (Ex. CPSD-9, pp. 55-56, 99-100) cannot serve as notice of CPSD charging a legal violation. The cited pages generally discuss actions by the SCADA control group and dispatch center personnel, execution of the emergency plan, and recognition of the line break, but do not reference Section 192.605(c)(1) or (c)(3), or assert a violation of law. • The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
49 CFR 192.615(a)(2) – failure to establish and maintain communications with local first responders	09/09/2010	<u>CPSD-1, pp. 118-119;</u> <u>CPSD-9, p. 100.</u>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 118-19) discusses PG&E's coordination with external agencies but does not assert that PG&E's conduct violated any law, in particular Section 192.615(a)(2). The reference to the NTSB Report (CPSD-9, p. 100) cannot serve as notice of CPSD charging a legal violation. The cited page discusses notifying emergency responders but also does not contend PG&E's conduct violated any law. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(a)(5) – failure to protect people first then property</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 118-119;</u> <u>CPSD-9, p. 100.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 118-19) discusses PG&E's coordination with external agencies but does not allege that PG&E personnel "failed to protect people first then property." Nowhere in CPSD's January 12, 2012 or August rebuttal testimony report are the words "failed to protect people first then property." • The reference to the NTSB Report (CPSD-9, p. 100) cannot serve as notice of CPSD charging a legal violation. The cited page discusses notifying emergency responders but does not contend PG&E's conduct violated any law. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(c)(4) – failure to establish and maintain a liaison with local first responders</p>	<p>08/31/2009 – 09/09/2010</p>	<p><u>CPSD-1, pp. 118-119;</u> <u>CPSD-9, p. 100.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3"

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged.</p> <ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 118-19) discusses PG&E's coordination with external agencies but does not allege that PG&E personnel violated the law, in particular Section 192.615(c)(4). The reference to the NTSB Report (CPSD-9, p. 100) cannot serve as notice of CPSD charging a legal violation. The cited page discusses notifying emergency responders but does not contend PG&E's conduct violated any law. • The cited references do not provide notice of or support for a purported continuing violation beginning on August 31, 2009. On the contrary, the cited references are exactly duplicative of those cited for the violation immediately above, which is not alleged as a continuing violation. In addition, CPSD's use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and controlling authority. <i>See</i> PG&E RB, Section III.D. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>49 CFR 192.615(a)(3) – failure to properly train personnel to recognize incidents</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 102-103, p. 114, p. 123; CPSD-10, p. 14. CPSD-9, p. 21, pp. 98-99.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 102-03, 114, 123) does not provide notice of a violation. Pages 102-103 and 123 assert that PG&E failed to provide training to first responders to recognize the cause of different types of fire, but do not allege that the emergency plan failed to have procedures that provide for prompt and effective response to an emergency, which is what Section 192.615(a)(3) addresses. Page 114 states that PG&E trains first responders to assess the situation on-site when they arrive at an incident scene, but does not provide notice of a violation. Section 192.615(a)(3) does not require that operators provide specific training

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>regarding the identification of different types of fire.</p> <ul style="list-style-type: none"> • CPSD-10 (p. 14) is the IRP report; it cannot serve as notice that CPSD is charging a legal violation. Additionally, the cited page states there was confusion when PG&E personnel sought to identify the source and location of the incident, but does not assert that PG&E violated Section 192.615(a)(3). In fact, the page acknowledges PG&E conducts training exercises in emergency preparedness. • References to the NTSB Report (CPSD-9, pp. 21, 98-99) cannot serve as notice of CPSD charging a legal violation. The cited pages describe the training courses taken by PG&E employees working at the Milpitas terminal (e.g., Ex. CPSD-9 at 21, n. 37), generally discuss internal communication and coordination, actions by the SCADA control and dispatch center personnel, and execution of the emergency plan. They do not provide notice that PG&E's emergency plan failed to have procedures providing for a prompt and effective response to an emergency under Section 192.615(a)(3). • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.615(b)(2) – failure to properly train personnel and ensure they are</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 102-103, p. 114, p. 123;</u> <u>CPSD-10, pp. 14-15.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations."

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPD's References
knowledgeable about procedures		<u>CPSD-9, p. 21, pp. 98-99.</u>	<p>Ex. CPSD-1 at 162-63 (CPSD/Stepanian).</p> <ul style="list-style-type: none"> • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting “level 3” subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. These are the same supporting references cited for the violation immediately above, with the addition of page 15 from the IRP Report, CPSD-10. As noted, the IRP Report does not serve as notice that CPSD is alleging a violation. Additionally, CPSD-10 (p. 15) actually states that the IRP did not establish a definitive view of what did or should have transpired during the emergency response, and that had it not been for the experience and quick reaction of the first responders from PG&E, the San Bruno incident could have been even worse. This does not provide notice of a violation. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
<p>49 CFR 192.615(b)(3) – failure to determine if training is effective</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 102-103, p. 114, p. 123; CPSD-9, p. 21, pp. 98-99.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD asserted a non-specific alleged violation of Section 192.615, but did not allege a violation involving this subsection. Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.615 contains more than 18 sections and subsections (more counting "level 3" subsections), each of which address different emergency response requirements. Generically alleging a violation of Section 192.615 provides no information regarding the particular conduct alleged to be in violation of the law, and no notice of what violation is actually being alleged. • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 102-03, 114, 123) does not provide notice of a violation. Pages 102-103 and 123 assert that PG&E failed to provide training to first responders to recognize the cause of different types of fire; page 114 states that PG&E trains first responders to assess the situation on-site when they arrive at an incident scene. The cited pages do not provide notice of a violation under Section 192.615(b)(3), which provides that each operator shall review employee activities to determine whether the procedures were effectively followed in each emergency. • References to the NTSB Report (CPSD-9, pp. 21, 98-99) cannot serve

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>as notice of CPSD charging a legal violation. The cited pages describe the training courses taken by PG&E employees working at the Milpitas terminal (e.g., Ex. CPSD-9 at 21, n. 37), generally discuss internal communication and coordination, actions by the SCADA control and dispatch center personnel, and execution of the emergency plan. They do not provide notice that PG&E failed to review employee activities to determine whether the procedures were effectively followed in each emergency, which is what Section 192.615(b)(3) addresses.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.605(c)(4) – failure to periodically review its emergency response</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 102-103, p. 114, p. 123;</u> <u>CPSD-9, p. 21, pp. 98-99.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • CPSD alleged a generalized violation based on Section 192.605(c). Ex. CPSD-1 at 163 (CPSD/Stepanian). Section 192.605(c) contains multiple subsections, each of which address different emergency response requirements. Generically alleging a violation of Section 192.605(c) provides no information regarding the particular conduct alleged to be contrary to the law, and thus no notice of what violation is being alleged. That CPSD has now alleged violations of subsections (c)(1), (c)(3), and (c)(4),

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>but not (c)(2), demonstrates that a general reference to Section 192.605(c) does not provide notice of the actual violation(s) CPSD intends to pursue.</p> <ul style="list-style-type: none"> • These are the same references as the violation above. The cited pages do not provide notice that PG&E's emergency response manual failed to provide for periodic review of the "response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation." • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 192.616(d) – failure to properly educate the public and local officials</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 123-125;</u> <u>CPSD-9, pp. 57-59, p. 77,</u> <u>p. 115.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (pp. 123-25) does not assert that PG&E failed to properly educate the public and local officials. In fact, CPSD acknowledged that to comply with the federal requirement, PG&E developed its own Public Awareness Program and described the training PG&E provided. Referencing post-incident concerns that first responder agencies were not aware of the location or specifications of PG&E's pipelines did not put PG&E on notice that CPSD intended to pursue a violation under Section 192.616(d). On the contrary, the cited pages conclude by describing PG&E's actions to

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>resolve those concerns with local first responders.</p> <ul style="list-style-type: none"> • References to the NTSB Report (CPSD-9, pp. 57-59, 77, 115) cannot serve as notice of CPSD charging a legal violation. Additionally, the pages cited do not demonstrate notice of an alleged violation. Pages 57-59 describe PG&E's annual public awareness program reviews; page 77 states that PG&E's public awareness program did not identify pipeline locations; page 115 describes PG&E's annual public awareness program reviews. Despite NTSB criticisms, the discussion does not assert that PG&E's public awareness program violated the law, in particular Section 192.616(d). • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.
<p>49 CFR 199.225(a) – failure to perform alcohol tests in a timely manner and failure to record the reasons for lack of compliance</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 99-101.</u> <u>CPSD-9, pp. 21-22, pp. 104-105.</u></p>	<ul style="list-style-type: none"> • PG&E acknowledges that this violation was alleged in CPSD's January 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • PG&E also acknowledges the violation. <i>See</i> PG&E OB at 105-06.
<p>49 CFR 199.225(a) and 49 CFR 199.105(b) – failure to perform drug and alcohol</p>	<p>09/09/2010</p>	<p><u>CPSD-1, pp. 99-101.</u> <u>CPSD-9, pp. 21-22, pp. 104-105.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD's January 12, 2012 Report, Section X "PG&E's Violations of Applicable Laws and Regulations." Ex. CPSD-1 at 162-63 (CPSD/Stepanian).

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
tests Gas Control staff			<ul style="list-style-type: none"> • The cited references do not show that PG&E had adequate notice of this violation. CPSD-1 (p. 99-101) discusses PG&E's failure to timely test the Milpitas Terminal personnel, but CPSD does not allege or even discuss that the Gas Control staff were required to be tested. • References to the NTSB Report (CPSD-9, pp. 21-22, 104-105) cannot serve as notice of CPSD charging a legal violation. While the NTSB opined that the Gas Control staff should have been tested (p. 105), the NTSB emphasized that the regulations provided discretion in determining who is tested. In fact, the NTSB recommended that PHMSA amend Section 199.105 and 199.225 to eliminate operator discretion with regard to testing. PG&E cannot be deemed to have notice that its election not to test Gas Control staff was in violation of a law that did not exist. • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order.

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations relating to PG&E’s Safety Culture.

Violations	Duration	Reference	PG&E’s Responses To CPSD’s References
<p>PU Code 451 – failure to place safety over profits by: reducing safety-related budgets; spending less than authorized on safety; prematurely ending its transmission pipeline replacement plan; not seeking sufficient O&M funds; using less effective and cheaper IM tools; reducing safety-related personnel; while at the same time using retained earnings to pay dividends, repurchasing stock, providing bonuses, expending funds on public relations and ballot initiatives.</p>	<p>01/01/1998 – 09/09/2010</p>	<p><u>OII, p. 2.</u> <u>CPSD-1, p. 3.</u> <u>CPSD-1, Chapter IX,</u> <u>pp. 126-161.</u> <u>CPSD-168,</u> <u>passim.</u></p>	<ul style="list-style-type: none"> • This alleged violation is not asserted in CPSD’s January 12, 2012 Report, Section X “PG&E’s Violations of Applicable Laws and Regulations.” Ex. CPSD-1 at 162-63 (CPSD/Stepanian). • The cited references do not show that PG&E had adequate notice of this violation. The first two references do not indicate that CPSD intended to allege a stand-alone violation of Section 451 based on PG&E’s corporate culture or provide the basis for any such claim. Merely referring to alleged problems with PG&E’s “corporate culture” or “safety culture” is too broad and amorphous to provide the notice required by due process. • The last two references (the entire “safety culture” section of CPSD’s January 2012 Report and the entire Overland Report) are so broad, and cover so many different issues, that they could not conceivably provide the type of specific notice that is required. <i>See</i> PG&E RB, Section III.C. The fact that CPSD referenced entire reports to claim that PG&E had notice of this alleged violation itself demonstrates that CPSD provided no adequate notice. • The cited references do not provide notice of or support for a purported continuing violation beginning on January 1, 1998. In addition, CPSD’s use of Public Utilities Code Section 2108 to assert continuing violations is contrary to Commission precedent and

REPLY BRIEF APPENDIX E
I.12-01-007 San Bruno Order Instituting Investigation

Violations	Duration	Reference	PG&E's Responses To CPSD's References
			<p>controlling authority. <i>See</i> PG&E RB, Section III.D.</p> <ul style="list-style-type: none"> • CPSD failed to provide constitutionally adequate notice of this alleged violation. It should be stricken for lack of adequate notice to PG&E and failure to comply with the ALJ's order. <i>See also</i> PG&E RB, Section III.C.