BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion into Operations and Practices of Pacific Gas and Electric Company with Respect to Facilities Records for its Natural Gas Transmission System Pipelines	I.11-02-016 (Filed February 24, 2011)

REPLY BRIEF
OF PACIFIC GAS AND ELECTRIC COMPANY

LISE H. JORDAN
Law Department
Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-6965
Facsimile: (415) 973-0516
Email: LHJ2@pge.com

JOSEPH M. MALKIN
COURTNEY J. LINN
Orrick, Herrington & Sutcliffe LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105
Telephone: (415) 773-5505
Facsimile: (415) 773-5759
Email: jmalkin@orrick.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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I. INTRODUCTION AND SUMMARY[1]

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.

Understandably, PG&E has been strongly criticized for past practices both related and unrelated to the San Bruno accid ent. 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. In the area of records, on which this proceeding is focused, since the San Bruno tragedy, PG&E has retrieved, scanned and uploaded more than 3.5 million paper documents dating back more than 50 years and has started to implement a significant new asset management program to transition away from reliance on traditional paper records, increase data accuracy and integrate records into centralized and integrated electronic databases.

The Commission started this OII in the wake of the NTSB's January 3, 2011 urgent safety recommendations related to MAOP validation, recommendations prompted by the well - publicized "seamless" error in PG&E's GIS database. The proceeding is to determine if PG&E's past recordkeeping practices violated the law, and in particul ar whether those practices contributed to the San Bruno accident.

Following the issuance of the OII in February 2011, Legal Division (and later CPSD) investigated for more than a year, producing two reports and written testimony in March 2012 – one set of reports from an engineering consultant with no pipeline experience or expertise, and a second from recordkeeping consultants from England with no significant U.S. utility experience or engineering expertise. From the outset, CPSD's reports and testimony l acked clarity about what recordkeeping rules CPSD contends PG&E violated. Though recordkeeping provisions unique to California existed in past versions of General Order 112, CPSD has not cited them as

[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 analo gous authority for construing the California Constitution and/or California law.

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sources of law to support its violations. [2] The federal Part 192 regulations have, since 1970, contained specific recordkeeping provisions, but again CPSD largely ignored them. Except to point to provisions addressing weld inspections, operation and maintenance records, and "general requirements,"[3] CPSD does not allege a violation of any specific federal recordkeeping requirements.[4]

Instead, CPSD has primarily rested its alleged violations on Public Utilities Code Section 451, a provision that appears in an article of the Public Utilities Code addressed to "RATES." CPSD's efforts to bend Section 451 into a recordkeeping standard have been confused and contradictory. Where once CPSD stated that Section 451 required PG&E to comply with "good engineering practices," it revised its position the night before the hearings to assert a "best engineering practices" standard, only now in its opening brief to abandon its "best engineering practices" standard and revert to the previously discarded "good engineering practices" standard.[5] Previously, CPSD maintained that industry practices were "irrelevant" to this proceeding, and repeatedly challenged PG&E's attempts to produce evidence of "industry practices."[6] CPSD now maintains PG&E was "required" to have complied with those same industry practices.[7] CPSD once maintained that PG&E's recordkeeping practices were "substandard" when measured by the 2009 Generally Accepted Recordkeeping Principles (GARP), and thus violated Section 451. CPSD now abandons its prior GARP analysis in favor of an "our consultants know it when they see it" standard of liability: "Regardless of whether CPSD's experts used GARP® or not, CPSD's experts would have still assessed that PG&E's records and recordkeeping practices were poor based upon the facts uncovered during their investigation, regardless of the framework used to assess PG&E's recordkeeping."[8] Having separated itself from its consultants' prior GARP analysis, the general recordkeeping violations asserted by CPSD's recordkeeping consultants overlap with violations asserted by CPSD's

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[2] Ex. CPSD -15 (CPSD/Felts) (Felts Revised Table of Violations); Ex. CPSD -16 (CPSD/Duller and North) (Duller/North Revised Table of Violations).

[3] *See* 49 C.F.R. §§ 192.13(c), 192.241, 192.243, 192.709.

[4] Ex. CPSD-15 (CPSD/Felts); Ex. CPSD-16 (CPSD/Duller and North).

[5] *See* CPSD Opening Brief (OB) at 26, 30, 31, 34, 39, 41, 45, 51, 54, 57, 61, 64, 67, 71, 88, 93, 101, 110, 115, 118, 122, 131, 135, 158, 162.

[6] Ex. PG&E-1 at 2 (CPSD/Halligan).

[7] CPSD OB at 12-13.

[8] CPSD OB at 189.

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engineering consultant. By CPSD's own account its consultants' testimony presents the cause (records consultants) and effect (engineering consultant) of the same alleged conduct. [9] Though CPSD tries in its opening brief to differentiate the two sets of v iolations they are now distinguishable only by small degrees of emphasis.

CPSD, Intervenors and PG&E agree this is an important proceeding that carries the potential for the Commission to impose substantial penalties and other remedies. But they disagree about what the high stakes consequences of the proceeding mean in terms of the burden of proof. PG&E maintains that the extraordinary nature and scope of the proceeding require CPSD to prove its case by "clear and convincing" evidence. CPSD looks at the seriousness of the allegations and reaches a different conclusion: The Commission should not apply a "clear and convincing" evidence standard because that would "reward" a utility that CPSD considers to have behaved badly. In fact, CPSD deems PG&E's recordkeeping practices so bad, for so long a period of time, that it urges the Commission to invert the burden of proof: "[T]he Commission must shift the burden of proof to PG&E . . ." [10] It is too late for CPSD to urge that it bear no burden of proof. Among other reasons, CPSD alone took and received the benefits of submitting rebuttal testimony.

Perhaps sensing that CPSD's evidentiary showing has come up short, Intervenors also seek to reverse the burden of proof and put it on PG&E. CCSF claims that "the C ommission has required utilities to demonstrate that they acted reasonably," a statement that would place the burden of proof on PG&E to justify its past practices. [11] TURN mischaracterizes PG&E's submission of responsive evidence as asserting affirmative d efenses for which PG&E has the burden of proof.[12] TURN's contention is legal sleight-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 and DRA advocate that, even if the Commission finds PG&E did not violate the law, the Commission should make

[9] CPSD OB at 87 n.241.

[10] CPSD OB at 17.

[11] CCSF OB at 11. CPSD, DRA and TURN less directly make the same assertion. CPSD OB at 17 -20; DRA OB at 19-20; TURN OB at 7-9.

[12] TURN OB at 7.

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"prudence" or "reasonableness" determinations on which PG&E bears the burden of proof.[13] This assertion is extraordinary. It suggests that after the Commission concludes that PG&E's conduct did not violate the law as alleged, it would judge whether PG&E met a different burden – the burden to prove that the same conduct was "prudent" and "reasonable" – or face cost disallowances equivalent to or in excess of the penalties it faced. Adopting these suggestions would create an irreparable constitutional defect. Each attempt to shift the burden of proof to PG&E is improper – CPSD alone bears the burden of proof on every legal violation alleged against PG&E.[14] Having failed to prove violations, Intervenors cannot convert this proceeding into a prudence review.

CPSD's discussion of its violations also seeks to reverse the burden of proof. Over and over, CPSD asks the Commission to find facts based on conjecture. It asserts, for example, in Felts Violation 1 that PG&E violated the law by installing reused pipe in Segment 180.[15] But its proof rests on what CPSD itself describes as suggestions and possibilities. "The best available evidence now remaining, [sic] strongly suggests that the pipe that failed was salvaged and possibly junked, but then reused."[16] Still other times, it loads its analysis with conditional facts and supposition. Elsewhere, CPSD simply inverts the burden of proof.[17] At times, it asserts a violation even while acknowledging that PG&E's practices comported with applicable law.[18] In places, CPSD's discussion of the violations goes pages with few, if any, citations to the record – just sweeping statements of alleged but unsubstantiated wrongdoing. In an opening brief that is more than 225 pages in length (excluding appendices), there are just a few dozen citations to the live testimony of witnesses during the weeks of evidentiary hearings.

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[13] TURN explicitly states its view that PG&E "bears the burden of proof on the issue of prudence." TURN OB at 9. DRA suggests "[t]o the extent this proceeding finds that PG&E has committed unreasonable errors or omissions, additional findings should be made to facilitate disallowance of both direct and indirect costs associated with correcting those errors or omissions." DRA OB at 21. DRA does not expressly state that PG&E should bear the burden of proof as to the "reasonableness" of its conduct, but that burden generally rests on the utility in ratemaking cases.

[14] Intervenors can 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 VII.

[15] Ex. CPSD-15 (Violation 1) (CPSD/Felts).

[16] CPSD OB at 25 (emphasis added).

[17] *See* CPSD OB at 107 (urging the Commission to reverse the burden of proof as to pressure tests); *id.* at 164, 167, 175, 176, 184, 189 (where CPSD appears to assert that the Commission should reverse the burden of proof as to all of the Duller/North Violations); *id.* at 184 ("Applying the Cedars-Sinai standard here, it is reasonable to infer that PG&E has practiced substandard records management presently, recently, and all the way back to inception.").

[18] CPSD OB at 66-70.

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PG&E understands that its recent recordkeeping practices have fallen short. They need to substantially improve. PG&E has taken huge steps – industry-leading steps – to improve its recordkeeping and asset knowledge. The Company is responsible for the San Bruno accident and the loss of life and human suffering that resulted. However, recordkeeping was not the cause of the San Bruno accident. CPSD tried everything in its power to prove otherwise, and did not succeed. With the exception of the clearance for the Milpitas Terminal electrical work that did not comply with PG&E's internal procedure, [19] CPSD has not established any violations. The ALJ and the Commission should so conclude.[20]

II. BACKGROUND (PROCEDURE/FACTS)

In the background section of CPSD's opening brief it mentions "two rounds of hearings constituting multiple weeks in which four CPSD witnesses and multiple PG&E witnesses testified."[21] That is one of the last substantive references CPSD makes to the testimony and evidence received during the hearings. From that point forward in its brief, CPSD seldom cites to the evidence produced during the multiple weeks of hearings. It instead relies on its prior written reports and testimony, implying multiple weeks of hearings contributed nothing to the Commission's understanding of the facts or raised any questions about CPSD's prior testimony. Not only does CPSD fail to engage PG&E's evidence, or address problems that emerged with its case in the course of hearings, CPSD largely presents its case as if PG&E did not submit evidence and no evidentiary hearing occurred. CPSD's approach leaves its opening brief supported almost exclusively by reiterated statements from its own testimony or statements extracted from external reports (CPSD relies heavily on NTSB reports). As described in more detail below, CPSD's one-sided briefing lacks credibility and is entitled to little weight.

[19] PG&E OB at 74.

[20] Appendix A to this brief contains PG&E's Responses to CPSD's and Intervenors' Proposed Findings of Fact. Appendix B contains PG&E's Responses to Proposed Conclusions of Law.

[21] CPSD OB at 10.

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III. LEGAL ISSUES OF GENERAL APPLICABILITY

A. CPSD Bears The Burden Of Proof

1. The Commission Should Apply A "Clear And Convincing" Evidentiary Standard

In certain civil cases of exceptional importance, the Constitution requires proof by "clear and convincing" evidence.[22] Cal. Const. art. I, § 7(a). These high-stakes cases require more than the usual preponderance of the evidence standard because society demands a greater "degree of confidence . . . in the correctness of [the adjudicator's] factual conclusions."[23] In other words, as the consequences of erroneous fact-finding increase, society and the Constitution insist on a higher standard of proof.

CPSD's statements in its opening brief help explain why a "clear and convincing" standard is necessary here. CPSD maintains it would be "anomalous" to "reward" a utility alleged to have committed multiple violations with the benefit of a higher standard of proof.[24] But the law does not grant a higher evidentiary standard of proof as a reward for good behavior and withhold it for perceived bad behavior. It instead fixes the standard of proof based on an evaluation of society's need for confidence in accurate factual findings.[25] CPSD's opening brief tries to draw a link between the San Bruno accident and PG&E's alleged recordkeeping deficiencies in urging that the Commission "bears a responsibility to direct maximum affordable statutory fines consistent with the scope and scale of PG&E's serious violations of law over many years[.]"[26] If anything, these and other statements about the seriousness of PG&E's alleged misconduct "over many years", and the perceived need to "direct maximum affordable statutory fines," counsel a higher standard of proof, not a lower one. CPSD's contradictory statements about what duties it believes Section 451 imposes[27] also call for a higher standard of proof. Indefinite legal standards for finding violations of law, and civil penalty standards that

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[22] *See, e.g.*, *In re Angelia P.*, 28 Cal. 3d 908, 919 (1981).

[23] *In re Angelia P.*, 28 Cal. 3d at 919.

[24] CPSD OB at 21.

[25] *In re Angelia P.*, 28 Cal. 3d at 919.

[26] CPSD OB at 6.

[27] *See infra* Section III.C.

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approach the level of strict liability, increase the risk of error, and thus contribute to the need to apply heightened standards of proof.

CPSD tries to distinguish *Grubb Co., Inc. v. Department of Real Estate*, 194 Cal. App. 4th 1494 (2011), as a case where the "potential remedy is revocation of a professional license."[28] The *Grubb* decision cannot be so easily cabined. *Grubb* required a "clear and convincing" standard where the sanction did not contemplate a license revocation or even require a license suspension. Rather, it involved a 30-day license suspension or a $3,000 fine in lieu thereof.[29] The court set aside that penalty because the alleged misconduct was not established by clear and convincing evidence.[30]

Clear and convincing proof is more necessary here than in *Grubb* because CPSD is seeking penalties much greater, even relative to PG&E's size. The threatened monetary sanctions are potentially so large that the Commission has received evidence to help it determine how big a financial penalty PG&E could withstand without significantly impairing PG&E's finances on a going-forward basis.[31] Merely asking that question – how big a penalty can we impose on PG&E without "seriously eroding the company's current credit quality"? – demonstrates that this case raises considerations beyond the typical enforcement proceeding.[32] Questions such as these are asked in punitive damages cases as to which the "clear and convincing" standard applies. *See, e.g.*, *Adams v. Murakami*, 54 Cal. 3d 105, 111-12 (1991) (holding that a plaintiff must introduce evidence of a defendant's financial condition to sustain a punitive damages award because such an award must be set aside as excessive if, among other things, it is "disproportionate to the defendant's ability to pay").

In arguing in favor of a preponderance standard, CPSD relies on *Investigation of Qwest Communications Corp.*, D.03-01-087, 2003 Cal. PUC LEXIS 67 ("*Qwest*"). As explained in PG&E's opening brief, however, *Qwest* supports application of the clear and convincing

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[28] CPSD OB at 21 & n.25.

[29] *Grubb*, 194 Cal. App. 4th at 1501; *see also* PG&E's Request for Official Notice, Ex. 9 (*Grubb Co., Inc. v. Dep't of Real Estate*, No. RG08 364823, slip op. at 4 (Cal. Super. Ct. May 29, 2009)). That *Grubb* did not involve the revocation of a license also refutes CPSD's suggestion that clear and convincing evidence would be required only if PG&E's certificate of public convenience and necessity were in jeopardy. *See* CPSD OB at 21.

[30] *Grubb*, 194 Cal. App. 4th at 1506.

[31] Ex. Joint-51 at 1 ("In this report, we have provided the CPSD Staff with an objective examination, of PCG's financial health, as well as our estimate of its ability to raise equity capital sufficient to fund a CPUC imposed fine").

[32] Ex. Joint-51 at 14.

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evidence standard in this proceeding.[33] CPSD's reliance on *Investigation of TracFone Wireless, Inc.*, D.12 -02-032, 20 12 Cal. PUC LEXIS 74, is also misplaced. There, the Commission explained that in enforcement proceedings it usually requires CPSD to prove its case by a preponderance of the evidence.[34] PG&E agrees. But nothing about this enforcement proceeding is "usual." It is extraordinary and the threatened sanctions are unusually severe. It therefore warrants application of the clear and convincing standard.

More than monetary fines or penalties are at stake. The Commission has indicated that it may impose other " appropriate relief under the law," including rate adjustments or even dictate specific actions PG&E must take.[35] DRA's request for a third -party monitor exemplifies how invasive and onerous threatened non -monetary relief conceivably could be.[36] TURN argues for prudence determinations as a sort of backup sanction "In the Event That the Commission Finds that Particular Conduct Does Not Constitute a Violation."[37] CCSF argues in favor of its own set of violations as to which it did not give sufficient notice pr ior to the hearings.[38] DRA asks the Commission to make ratemaking findings as part of this enforcement proceeding.[39] The prospect of these and other unspecified sanctions take this case out of the category of a pure monetary fine and penalty case and into a category of cases, like the professional licensing cases, that involve potentially more significant alternative sanctions.

For all of these reasons, the Commission should require CPSD to prove its alleged violations by clear and convincing evidence. To meet that burden, CPSD must 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.'"[40]

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[33] *See* PG&E OB at 23-24.

[34] D.12-02-032, 2012 Cal. PUC LEXIS 74, at *4.

[35] *Order Instituting Investigation*, I.11-02-016 at 11; *see* PG&E OB at 22-23.

[36] *See* DRA OB at 23-25.

[37] TURN OB at 7.

[38] CCSF OB at 23-38.

[39] DRA OB at 19 ("The Commission should consider making findings here regarding PG&E's unreasonable errors and omissions for application in that rulemaking.").

[40] *In re Angelia P.*, 28 Cal. 3d at 919 (quoting *Sheehan v. Sullivan*, 126 Cal. 189, 193 (1899)).

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

Throughout its opening brief, CPSD either makes statements without evidentiary support or relies on citations to the March 2012 reports and supplements of Ms. Margaret Felts, [41] Dr. Paul Duller, and Mrs. Alison North, [42] and the Aug ust 2012 rebuttal testimony from these same witnesses. [43] Largely absent from CPSD's opening brief are references to PG&E's responsive testimony, citations to documentary evidence PG&E submitted during the evidentiary hearings or references to the live test imony of witnesses. Reading CPSD's opening brief, a stranger to the proceeding would have difficulty knowing PG&E submitted responsive evidence that called into question CPSD's allegations or that a multiple -week evidentiary hearing had taken place, which also elicited evidence that challenged CPSD's conclusions. CPSD's reliance on its own prior reports and rebuttal testimony without discussion of the countervailing evidence renders its showing weak and short of meeting its burden of proof.

For instance, consider CPSD's discussion of "PG&E's Defenses" to Violation 18 – "Design and Pressure Test Records Missing." In the course of a discussion that spans three pages, CPSD substantiates its statements with citations to the record in only four instances. [44] In only one instance does CPSD cite to PG&E's responsive testimony. There are no citations to any exhibits produced at the hearings or to any testimony given at the hearings. Consider also CPSD's discussion of Violation 13 – "PG&E's Data Responses Regardin g Brentwood Camera Six Video." In four pages of discussion there are only three citations to any facts. [45] There are no citations to any exhibits or testimony introduced at the hearing. This is extraordinary, particularly in light of how the hearings unfo lded on the Brentwood video issue. The ALJ asked PG&E to produce a witness on the issue of the Brentwood video, which the Company did. [46] PG&E employee Kerry Cochran testified at length about the configuration of the Brentwood video camera and how he had a ssumed (mistakenly but reasonably) that the camera had been

[41] *See* Ex. CPSD-2 (CPSD/Felts); *see also* Ex. CPSD-3 (CPSD/Felts).

[42] *See* Ex. CPSD-6 (CPSD/Duller and North); *see also* Ex. CPSD-7 (CPSD/Duller and North).

[43] *See, e.g.*, CPSD OB at 43, 44, 47, 53, 54, 56, 61, 63, 70, 71, 73, 79, 92, 101, 102, 106, 124, 141, 157.

[44] CPSD OB at 106-08.

[45] CPSD OB at 80-83.

[46] R.T. 1433-35, 1508-28 (PG&E/Cochran).

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configured to record as all of the other cameras had been configured.[47] CPSD ignores the testimony even though it goes to the heart of the issues raised by CPSD's violation.

B. CPSD At All Times Bears The Burden Of Proof

1. CPSD's Argument For Shifting The Burden Of Proof To PG&E Invites Constitutional And Procedural Error

CPSD concedes that customarily it bears the burden of proof in enforcement proceedings.[48] Prior to and during the hearings the parties understood as much. CPSD submitted initial reports and testimony, PG&E submitted testimony responding, then CPSD submitted rebuttal testimony. PG&E formed its defenses on the premise that CPSD bore the burden of proof.[49] And, indeed CPSD asked for and received the benefits that come with the burden of proof. CPSD was allowed to submit written rebuttal reports and testimony to PG&E's responsive testimony precisely because it bore the burden of proof in this and the other OIIs.[50] But after enjoying the benefits of getting two bites at the apple, and having waited until the hearings concluded, it now states: "CPSD should not bear the burden in this proceeding."[51] Its reasoning is a variation on its argument (discussed in Section III.A.1 above) that the greater the perceived evil the less procedural protection that should be afforded the accused: "Given the magnitude and duration of PG&E's recordkeeping failure, the Commission must shift the burden of proof to PG&E . . . ."[52]

CPSD's assertion that PG&E should bear the burden of proof invites constitutional error. *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"). It also invites procedural error. The logical consequence of CPSD's post-hearing statement that PG&E should bear the burden of proof is to start the proceeding over – strike all

[47] Ex. PG&E-61 at 5-3 (PG&E/Seager); R.T. 1508-28 (PG&E/Cochran); PG&E OB at 95-97.

[48] CPSD OB at 17.

[49] *See, e.g.*, Ex. PG&E-62 at MD-1 (PG&E/Dunn) (where Ms. Dunn explains her assignment as rebutting Dr. Duller and Mrs. North's written report and testimony).

[50] *See* Motion of the Consumer Protection and Safety Division to File Rebuttal Testimony, filed May 18, 2012.

[51] CPSD OB at 17.

[52] CPSD OB at 17.

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the written reports and testimony (especially CPSD's rebuttal testimony), allow PG&E initial and rebuttal written testimony, and begin hearings anew with PG&E placed on notice that it bears the burden of proving a negative (proving it did not violate the law).[53] No one benefits from starting over, least of all the public, and for that reason alone the Commission should reject CPSD's late assertion that PG&E bears the burden of proof. In any event, CPSD's constructive request for a "do over" is unwarranted. As explained below, CPSD's justifications for shifting the burden of proof to PG&E rest on misunderstandings of the spoliation doctrine and what constitutes an affirmative defense.

2. CPSD Misuses The Spoliation Doctrine

Spoliation is the destruction of evidence during pending litigation or in anticipation of litigation.[54] For destruction to qualify as "spoliation" the party must generally have notice that the evidence is relevant to *specific* pending or threatened litigation. *See Millenkamp v. Davisco Foods Int'l, Inc.*, 562 F.3d 971, 981 (9th Cir. 2009) (requiring evidence that "the evidence-destroying party knew of impending litigation that would render the evidence relevant"). CPSD seemingly agrees with this proposition: "[S]poliation is the destruction of evidence *in anticipation of its relevance* to pending or future litigation."[55] A party is not required to imagine all of the possible future actions in which items in its possession could hypothetically be relevant as evidence. For example, in *Millenkamp*, the court rejected a spoliation argument because there was no record evidence to indicate *knowledge* that litigation was impending.[56]

The spoliation doctrine does not apply here because CPSD has not shown that PG&E destroyed records in anticipation of litigation. CPSD's spoliation theory starts by assuming the ultimate issue of fact (there has been a recordkeeping failure). Rather than demonstrate the destruction of a particular record, and then ask that an adverse inference be drawn from that fact, CPSD assumes PG&E's records failings were so massive as to knock the burden of proof governing the entire case off its axis. Its theory is that PG&E lost or misplaced broad categories

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[53] PG&E does not advocate this result. As explained, shifting the burden of proof would violate state due process guarantees.

[54] *See, e.g., R.S. Creative, Inc. v. Creative Cotton, Ltd.*, 75 Cal. App. 4th 486, 497 (1999).

[55] CPSD OB at 74 (emphasis added) (citing *Willard v. Caterpillar, Inc.*, 40 Cal. App. 4th 892, 907 (1995), *disapproved of on other grounds by Cedars-Sinai Med. Ctr. v. Superior Court*, 18 Cal. 4th 1, 18 n.4 (1998)).

[56] *Millenkamp*, 562 F.3d at 981.

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of records, beginning in some instances more than 80 years ago. It is safe to say this enforcement proceeding was not foreseeable to PG&E 80 years ago. During the intervening decades, CPSD has conducted numerous audits of PG&E's records without ever alleging the deficiencies it now asserts. [57] Rather than being placed on notice that it was in possession of records relevant to a pending or anticipated enforcement proceeding about its records, PG&E had reason to believe that CPSD generally approved of its records practices.[58]

CPSD maintains that PG&E knowingly (or perhaps negligently) destroyed the records that form the bases for its alleged violations, but in taking this position it loses sight of what the spoliation doctrine aims to curb. It aims to deter a party from suppressing evidence in anticipation of litigation to prevent the evidence's use in litigation.[59] We have an example of that kind of spoliation in this proceeding. Dr. Duller and Mrs. North deliberately destroyed notes taken during weeks of visits to PG&E facilities and at a time when they knew they were going to be testifying witnesses.[60] These notes, taken in the course of their engagement as contemplated expert witnesses, might have discredited Dr. Duller's and Mrs. North's testimony, or raised questions about it. [61] The cases CPSD cites for its spoliation theory were meant to address the situation raised by Dr. Duller's and Mrs. North's destruction of notes.

CPSD's allegations, in contrast, turn the spoliation doctrine on its head. The records it alleges PG&E destroyed would exculpate PG&E – the supposedly destroyed records, if produced today, would tend to negate allegations that PG&E lost or misplaced records. PG&E's incentive was not to destroy the records to prevent CPSD from using them in this hearing. Its incentive was to retain the records because the records help it defend against false accusations. To assert that PG&E destroyed records to prevent CPSD from using them here makes no analytic sense under the spoliation doctrine. It amounts to a claim that "PG&E destroyed records to prevent CPSD from proving that PG&E lacked the records." If CPSD had demonstrated that, it would

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[57] Ex. PG&E-8 at 11-15 (CPSD USRB Electric, Natural Gas & Propane Safety Report 2009); *see also* R.T. 151-53 (CPSD/Halligan) (where Ms. Halligan attempts to explain why CPSD did not identify recordkeeping problems in past audits); Ex. Joint-50 at 9 (Cover Letter to May 2010 CPUC USRB Integrity Management Program Audit of PG&E).

[58] *See* Ex. PG&E-50.

[59] Evid. Code § 413.

[60] R.T. 641-43 (CPSD/Duller and North).

[61] *See* PG&E OB at 52-53.

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not need to resort to a discovery sanction to shift the burden of proof. Merely stating CPSD's position confirms it is in error.

One premise underlying CPSD's spoliation argument is that there is a dearth of quality evidence bearing on the facts CPSD has put at issue. The premise points to a different conclusion: CPSD is guilty of laches for having delayed as many as 80 years before raising its allegations.[62] Evidence that might have shed light on PG&E's past practices has had decades to deteriorate or disappear. The poor quality of the evidentiary record is due to CPSD's unreasonable delay in asserting its violations and it is prejudicial to PG&E's ability to mount a defense. *See 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").[63]

Finally, even if CPSD could prove spoliation, it has reached for the wrong remedy. The most drastic evidentiary remedy courts impose based on a finding of spoliation is an adverse inference as to particular facts.[64] CPSD cites *Cedars-Sinai* for the proposition that the "remedies for spoliation of evidence include shifting the burden of proof or imposition of a discretionary inference against the spoliator."[65] But *Cedars-Sinai* only supports the latter half of CPSD's statement. Nothing in *Cedars-Sinai* – or any other authority cited by CPSD – supports its

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[62] *See* PG&E OB at 43-48.

[63] CPSD may argue that PG&E has waived its laches defense. Such an argument would be without merit. *See Suhr v. Lauterbach*, 164 Cal. 591, 593 (1913) ("[T]he defense of laches need not be pleaded." (internal quotation marks omitted)). To preserve a laches defense, it is sufficient that it be "in some manner raised in the trial court." *Caviglia v. Jarvis*, 135 Cal. App. 2d 415, 420 (1955). Moreover, CPSD cannot claim surprise in having to respond to a laches defense. In the course of responding to data responses in this proceeding, PG&E repeatedly alerted Legal Division/CPSD that PG&E was prejudiced in its ability to answer questions about events that occurred decades ago. *See* Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 17, Questions 1, 3); *id.* (PG&E Response to CPSD Data Request No. 18, Questions 13, 14); *id.* (PG&E Response to CPSD Data Request No. 22, Questions, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33); *id.* (PG&E Response to CPSD Data Request No. 24, Question 4); *id.* (PG&E Response to CPSD Data Request No. 25, Questions 2(a), 2(f), 2(i), 3, 8); *id.* (PG&E Response to CPSD Data Request No. 33, Questions 3, 5); *id.* (PG&E Response to CPSD Data Request No. 36, Question 16); *id.* (PG&E Response to CPSD Data Request No. 42, Question 3); *id.* (PG&E Response to CPSD Data Request No. 49, Questions 3, 5, 6); *id.* (PG&E Response to CPSD Data Request No. 50, Question 1); *id.* (PG&E Response to CPSD Data Request No. 60, Questions 12, 13); *id.* (PG&E Response to CPSD Data Request No. 67, Questions 2, 21); *id.* (PG&E Response to CPSD Data Request No. 70, Questions 12, 13).

With respect to Ex. CPSD-18, CPSD had reserved exhibit numbers CPSD 18-30 for documents on its hard drive, that were to consist of documents referenced in CPSD's testimony and PG&E's data request responses 1-86 that were allowed into the record in bulk. However, CPSD did not specify how parties are to cite to the documents supporting its testimony or PG&E's data request responses which were not otherwise cited in parties' testimony or in hearing room exhibits. PG&E cites to these materials as Ex. CPSD-18, and includes the data request response number, which corresponds to the file name used by CPSD on its hard drive.

[64] *See Cedars-Sinai*, 18 Cal. 4th at 11; *see also* Evid. Code § 413.

[65] CPSD OB at 18 (citing *Cedars-Sinai*, 18 Cal. 4th at 11-13).

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assertion that the burden of proof itself may be inverted as to all issues it seeks to raise in the proceeding.

CPSD bears the burden of proof in this proceeding. Its repeated attempts to reassign the burden of proof show CPSD's recognition it has not sustained its burden. CPSD misapplies the "spoliation" doctrine when it attempts to reassign the burden of proof to PG&E.

3. CPSD And Intervenors Mistake PG&E's Challenge Of CPSD's Case For An Affirmative Defense

CPSD and TURN also try to reverse the burden of proof by characterizing PG&E's responsive testimony as an "affirmative defense."[66] An affirmative defense 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. W. Valley Mission Cmty. Coll. Dist.*, 66 Cal. App. 4th 1532, 1542 n.3 (1998) ("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." (internal quotation marks omitted)); *accord City of Stockton v. Superior Court*, 42 Cal. 4th 730, 746 n.12 (2007) (explaining that an affirmative defense "is one that depends on facts beyond those put at issue by the plaintiff").

CPSD's and TURN's argument confuses responsive testimony – testimony that challenges CPSD's case – with an affirmative defense. With the exception of laches, however, PG&E has not asserted affirmative defenses.[67] PG&E's submission of testimony and evidence refuting CPSD's and Intervenors' evidence and allegations does not constitute the assertion of an "affirmative defense." Thus, when PG&E argues that there was no regulation requiring it to maintain a certain record, it is not putting forward an affirmative defense; it is pointing out a material deficiency in CPSD's theory of the case. When PG&E brings forward evidence of the practices of other operators, it is not putting forward an affirmative defense; it is pointing to a deficiency in CPSD's proof, particularly where CPSD seeks to prove that PG&E violated a free-floating notion of what Section 451 requires. In other words, PG&E is rebutting evidence and allegations – *i.e.*, showing that the evidence marshaled against it is not correct or persuasive or

[66] CPSD OB at 21-23; TURN OB at 7.

[67] *See* PG&E OB at 43-48.

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that CPSD's legal theories lack merit. PG&E's act of defending against allegations with testimony and documentary evidence does not present an "affirmative defense," as CPSD suggests, and does not reassign CPSD's burden of proof to PG&E.

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

Prior to their post -hearing briefs, neither TURN, DRA nor CCSF stated their current position that PG&E bore the burden in this proceeding to prove the prudence or re asonableness of its past behavior. [68] Nor did the Commission assign PG&E any such burden in this OII. Nonetheless, TURN and DRA contend that if CPSD fails to prove any violation of law against PG&E, then the Commission should make "prudence" determinations in this proceeding. [69] CCSF also seeks to have PG&E prove the reasonableness of its actions, citing Section 451. [70] TURN and CCSF explicitly argue that PG&E bears the burden of proof on such reasonableness determinations.[71] In short, they contend PG&E shoul d 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," and sho uld PG&E fail to meet that burden, the Commission should disallow additional costs in the PSEP proceeding, notwithstanding the lack of proven violations.[72] If TURN's and DRA's view were adopted, the Commission would judge PG&E on issues and apply a burden of proof that the Commission did not articulate until the hearings were long over.

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[68] TURN's prepared testimony advocated for "prudency" findings, but did not address the burden of proof. Ex. TURN-16 at 1-2 (TURN/Long). If anything, it suggested that a determination of imprudence would turn on the strength of the CPSD's reports. *Id.*

[69] TURN OB at 7; DRA OB at 18-21.

[70] CCSF OB at 10 ("Section 451 Imposes a Reasonableness Standard Upon Utility Conduct").

[71] TURN OB at 7; CCSF OB at 10-11. TURN explicitly assigns the burden of proof to PG&E; CCSF does so in the way it frames its reasonable ness inquiry: "Instead, the Commission has required utilities to demonstrate that they acted reasonably, in addition to complying with minimum requirements in a rule or guideline." CCSF OB at 11. DRA states no express view.

[72] TURN OB at 7; CCSF OB at 10-11.

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The constitutional defects in these suggestions are manifest. Cal. Const. art. I, § 7(a).[73] This is an enforcement proceeding in which PG&E is a respondent potentially subj ect to massive fines and penalties and other relief or sanctions.[74] The sole purpose of this proceeding is and has been from the outset "limited to ascertaining and understanding PG&E's past practices, determining whether they were unsafe and violated the law. . . ."[75] PG&E defended itself against alleged legal violations, not alleged lack of "prudence" or "reasonableness." Nor did PG&E receive constitutionally required notice before presenting its defense that it would be required to *prove* that its action s were "prudent" and "reasonable," in addition to responding to alleged violations on which CPSD has the burden of proof. *In re Ruffalo*, 390 U.S. 544, 550 (1968) (due process guarantees "notice of the charge[s]"); *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's and CCSF's suggestion and make "prudence" and "reasonableness" determi nations as to 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 condu ct do not lead to the result TURN advocates.[76] Rather, these decisions make it clear that this enforcement proceeding is not the appropriate forum for "prudence" or "reasonableness" determinations. Both cited decisions involved ratesetting issues, not enforcement proceedings.[77] 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 ratesetting, which is outside of the s cope 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-

[73] *See, e.g.*, 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).

[74] I.11-02-016 at 11-12.

[75] I.11-02-016 at 14.

[76] *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.

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

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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 the Commission's authority to disallow expenses associated with unreasonable error in rat esetting context). The parties' 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.90-09-88, 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 circumstances existent at the time," did not involve an enforcement proceed ing, like this, where there has been no allegation or evidence as to "reasonableness."[78] 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.[79]

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.[80] In that decision, the Commission recognized that GO 165 require s the exercise of judgment to conduct inspections as often as necessary, stating that GO 165 requirements are "in addition to the requirements imposed upon utilities under GO 95 and 128 to maintain a safe and reliable electric system."[81] 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 G Os and inspections "as necessary," but not less often than the times indicated.[82]

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[78] CCSF OB at 11 (quoting *Application of S. Cal. Edison Co.*, D.90-09-088, 1990 Cal. PUC LEXIS 847, at *22).

[79] D.90-09-088, 1990 Cal. PUC LEXIS 847, at *15, *21-22.

[80] *See* CCSF OB at 11.

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

[82] *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 ratesetting proce eding 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.

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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.

C. Public Utilities Code Section 451 Is Not, And Cannot Constitutionally Be, A Free-Floating Pipeline Safety Regulation

1. Section 451 Is Not A Source Of Pipeline Safety Requirements

As discussed in PG&E's opening brief,[83] Public Utilities Code Section 451 is a ratemaking provision that cannot properly serve as an independent source of safety violations. CPSD and Intervenors 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.[84]

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: "[A] Utility Must Promote the Safety of Its System Regardless of Specific Prescription or Prohibition."[85] Section 451 cannot act as an independent source for the wide-ranging alleged violations CPSD asserts against PG&E.[86]

In *Carey v. Pacific Gas & Electric Co.*,[87] 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 identifia ble in that action.[88] 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

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[83] PG&E OB at 24-33.

[84] CPSD OB at 9-12; TURN OB at 4-5; CCSF OB at 9-11; DRA OB at 5-13.

[85] CPSD OB at 187.

[86] 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.

[87] D.99-04-029, 1999 Cal. PUC LEXIS 215.

[88] PG&E OB at 29-32 (and citations contained therein).

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and facilities" clause of Section 451.[89] Likewise, *Pacific Bell Wireless, LLC (Cingular) v. Public Utilities Commission* is inapposite because that utility had notice that its conduct "in this instance" was unlawful through prior Commission decisions and marketplace reaction.[90] PG&E had no such notice. CPSD overlooks the critical conclusion from *Cingular*: Section 451 was not void for vagueness *as applied* to the facts of that case.[91]

The Commission has never applied Section 451 to punish a utility for what CPSD contends was a broad array of shoddy recordkeeping practices or for actions that indisputably complied with pipeline safety regulations.[92] For instance, CPSD continues to assert a general records violation (Duller/North Violation A.1). It cites Section 451 as the source of the law that governs the violation, but never explains what level of records management Section 451 requires. Formerly, it had argued that PG&E's historic recordkeeping practices were "substandard" when judged against 2009 GARP principles. But in 30 pages of discussion that accompanies Violation A.1, CPSD mentions GARP only to try to establish that it need not rely on it: CPSD's experts think PG&E's records are poor "regardless" of what standard may apply.[93]

Attempting to justify its unprecedented use of Section 451, CPSD cites a collection of cases and Commission decisions in its opening brief.[94] But these decisions do not support CPSD's position. Several *do not even mention* Section 451, and those that do mention it do so in

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[89] PG&E OB at 31 (and citations contained therein). 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 37-39. 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 mandatory, CPSD has identified no other industry definition, standard or common understanding defining the boundaries of what Section 451 prohibits.

[90] 140 Cal. App. 4th 718, 741-43 (2006).

[91] CPSD OB at 11; *Cingular*, 140 Cal. App. 4th at 741-43.

[92] The OII states that the focus of this enforcement proceeding will be to determine whether PG&E's historic "gas safety recordkeeping" violated Section 451 or any other applicable law and defines "gas safety recordkeeping" to mean "PG&E's acquisition, maintenance, organization, safekeeping, and efficient retrieval of data that that Commission finds is necessary and appropriate under the circumstances for PG&E to make good and safe engineering decisions, and thus to promote safety as required by Section 451." I.11 -02-016 at 11. PG&E is confident that the Commission did not intend this broad statement to prejudge the issue of whether Section 451 imposes an enforceable standard in this proceeding without the benefit of briefing. And even if it did, the OII's definition came too late to be constitutionally applied to judge PG&E's past recordkeeping practices. Cal. Const. art. I, § 7(a). *See FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307, 2317 (2012) (due process requires that laws that regulate persons or entities must give fair notice of conduct that is forbidden or required).

[93] CPSD OB at 163-93.

[94] *See* CPSD OB at 9-12.

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contexts very di fferent from this enforcement proceeding. *Investigation of the Mohave Coal Plant Accident*, D.94-03-048, was a prudence review decision that never mentions Section 451. [95] A prudence review is distinguishable from an enforcement proceeding for several reaso ns, including the fact that the utility, not CPSD, bears the burden of proof in a prudence review. [96] 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 does not remove the "primary obligation" to provide safe service shed any light on the proper interpretation of Section 451. [97] The decision does not refer to Section 451, let alone an enforceable legal requirement imposed by Section 451.[98] *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 addressed rate recovery. In rulemaking proceedings, the Commission has unquestioned authority to adopt safety rules, and Section 451 properly applies to the determination of rates. [99] 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 o f 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 stric t liability provision to be applied based on 20/20 hindsight judgments.[100]

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. [101] The majority opinion mentioned Section 451 only once. A written contract obligated the utility to furnish electricity

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[95] 1994 Cal. PUC LEXIS 216.

[96] *See* D.94-03-048, 1994 Cal. PUC LEXIS 216, at *35. Although CPSD's brief quotes this decision as authoritative, it is not . *See* CPSD OB at 10 & n.7. The opinion quoted by CPSD is a plurality opinion joined by only two Commissioners. Commission President Fessler concurred only in the result, and Commissioners Eckert and Shumway dissented.

[97] Ex. PG&E-4 at 12 (Decision No. 61269, with GO 112 attached).

[98] Implicitly recognizing that this vague and aspirational statement does not carry the force of law, CPSD recharacterizes it as describing utilities' "'primary' *legal* obligation" to ensure safety. CPSD OB at 14 (emphasis added). The word "legal" is CPSD's, not Commission's.

[99] *See* Pub. Util. Code § 768; *see also* PG&E OB at 24-29.

[100] *See* PG&E OB at 27-29.

[101] *Langley*, 41 Cal. 2d at 657.

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according to the Commission's rules and regulations. [102] 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." [103] 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.*, *Langley*, 41 Cal. 2d 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 mention 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 disadvantage."[104] 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. [105] 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*.[106] 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.

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[102] *Langley*, 41 Cal. 2d at 658.

[103] *Langley*, 41 Cal. 2d at 660-61.

[104] *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)).

[105] *Gay Law Students Ass'n*, 24 Cal. 3d at 485-86.

[106] *Barnett*, 137 Cal. App. 3d at 682-83.

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2. Any Attempt To Use Section 451 As A Free -Floating Pipeline Safety Law Violates Due Process/Fair Notice Principles

CPSD's constantly changing articulation of the Section 451 standard signals that something is seriously amiss with CPSD's theory of the case. Consider the evolution of CPSD's thinking about what Section 451 requires. It began in August 2012 by asserting that a utility must use "good" engineering practices consistent with Section 451. [107] The night before the hearing it changed its positio n to assert that a utility must use "best" engineering practices. [108] Its policy witness, Ms. Halligan, explained during the hearings that real and substantive differences exist between "good" and "best." [109] She "raised the bar" by shifting to the "best" engi neering practices standard.[110] In its opening brief, CPSD continues to shift position. Its legal discussion of Section 451 [111] omits any mention of its "best engineering practices" standard. [112] In fact, reading its brief one would never know that CPSD submitted and revised policy testimony about what Section 451 required.[113] One would never know that its policy witness testified about what CPSD understood Section 451 to require. [114] Instead, CPSD characterizes its past contradictory statements as "semantics" and proceeds in its briefing of the alleged violations to revert back to a "good engineering practices" standard, as if its prior change in testimony from "good" to "best" had never happened. [115] CPSD now finds itself advocating for a legal standard – "good engineering practices" – its policy witness said previously in sworn testimony needed to be "clarif[ied]" and made "more specific."[116]

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[107] Ex. PG&E-2 at 2 (PG&E Redline of Revised Halligan Testimony).

[108] Ex. PG&E-2 at 2 (PG&E Redline of Revised Halligan Testimony); *see also* R.T. 72-74 (CPSD/Halligan).

[109] R.T. 72-73, 80-81 (CPSD/Halligan).

[110] R.T. 80-81 (CPSD/Halligan) (explaining that the difference between "good" and "best" is the difference between giving a utility the option to choose between goo d options and requiring the utility to choose the best one available); R.T. 72-73 (CPSD/Halligan) ("Q: So between the time of your initial testimony and the time of your revised testimony CPSD has raised the bar, so to speak. Don't you agree? A: Yes.").

[111] CPSD OB at 9-12.

[112] CPSD's opening brief refers to "best industry practices" only once when arguing that the distinction between best engineering practices and good engineering practices is "a matter of semantics." CPSD OB at 13.

[113] CPSD's opening brief refers to Ms. Halligan's testimony only by mistake. At footnotes 263 through 265 it cites CPSD Exhibit 1 (Halligan) when it appears to have meant to cite to CPSD Exhibit 2. Otherwise, it does not mention Ms. Halligan's prior written testimony.

[114] R.T. 43-48, 54-87, 128-33, 158-61 (CPSD/Halligan).

[115] *See* CPSD OB at 26 ("Compliance with PUC section 451 requires the use of good engineering practices."); *see also id.* at 30, 31, 34, 39, 41, 45, 51, 54, 57, 61, 64, 67, 71, 88, 93, 101, 110, 115, 118, 122, 131, 135, 158, 162.

[116] R.T. 72 (CPSD/Halligan).

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Beneath CPSD's back and forth about "good" versus "best" eng ineering practices lies a misunderstanding about the relevance of industry practices to the issues in this proceeding. CPSD began by taking the categorical position that "industry practice is irrelevant to whether PG&E's recordkeeping practices have viola ted the law." [117] What once CPSD viewed as categorically "irrelevant" it now in its opening brief concludes is "required":

> *PG&E is required to comply with industry practice* , and the term used by CPSD, *e.g.*, "best engineering practices," "good utility safety practices" or "good utility practices" is a matter of semantics and does not change PG&E's duty. Significantly, industry practice does not itself conclusively establish the required degree of care. D.94-03-048, 53 Cal. P.U.C.2d at 465 -470. Accordingly, even if PG&E complied with industry standards, this does not necessarily establish that PG&E fulfilled its obligation if PG&E did not act reasonably in light of what it knew or should have known. However, at a minimum, it sets the floor of what should be expected of PG&E, since it represents the knowledge of the industry at the time of [sic] the industry standards were adopted.[118]

CPSD's current views about the relevance of industry practices allow it to embrace industry practices if they help it win, but di sregard them if they cause it to lose. Thus, CPSD invites the Commission to apply the following results -oriented rule of decision: If PG&E fails to adhere to industry practices, then industry practices provide the applicable legal standard; if PG&E complies with industry practices, then those practices should be disregarded.

CPSD's embrace of "industry practices" in its opening brief relates to further revisions in its thinking about the standard of liability. Previously it had not uttered a word about " a duty to act reasonably" when its policy witness discussed CPSD's views about what Section 451 required.[119] Its policy witness alluded to the "reasonable service" provision in Section 451, but only because she quoted language that appeared in *Carey*.[120] Otherwise, she hewed to CPSD's "good" and later, "best" engineering practices standard. CPSD's consultants did not base any of their opinions on the conclusion that PG&E had failed to act reasonably. Ms. Felts based her opinion on whether a condition was uns afe, as she judged it. [121] Dr. Duller and Mrs. North

[117] Ex. PG&E-2 at 2 (CPSD/Halligan).

[118] CPSD OB at 12-13 (emphasis added).

[119] *See* Ex. PG&E-2 (CPSD/Halligan); R.T. 43-48, 54-87, 128-33, 158-61 (CPSD/Halligan).

[120] Ex. PG&E-1 at 4-5 (CPSD/Halligan).

[121] R.T. 357-58 (CPSD/Felts).

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applied GARP to conclude PG&E's records were "sub -standard."[122] Nonetheless, CPSD now maintains that PG&E had a duty "to act reasonably" and that such a duty provides the standard for decision: "While PG&E does not have an absolute duty (PG&E is not the guarantor of the safety of its gas operations), it does have an ongoing duty to act reasonably to protect the public[.]"[123] What CPSD means by its "duty to act reasonably" is never developed in its application of this putative duty to the facts it argues in its opening brief. By the time CPSD gets down to arguing its asserted violations, it reverts back to the phrase "good engineering practices" without ever defining it.[124] A duty to act reasonably is never me ntioned in CPSD's discussion of those violations. CPSD's changing positions about the standard imposed by Section 451 are further proof that PG&E cannot be held to have had notice of what CPSD contends Section 451 requires. *See FCC v. Fox Television Stat ions, Inc.*, 132 S. Ct. 2307, 2317 (2012) (due process requires that laws that regulate persons or entities must give fair notice of conduct that is forbidden or required).[125] A legal standard that is so indeterminate that the regulator itself – much less regulated parties – cannot consistently articulate what it requires is unconstitutional.[126]

CPSD dismisses its inconsistent statements about the legal standard it seeks to apply as "semantics."[127] To treat these differences as "semantics" contradicts the sworn testimony of CPSD's policy witness, who went to lengths to try to articulate CPSD's position in terms that

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[122] Ex. CPSD-6 at 1-8 (CPSD/Duller and North); Ex. CPSD-16 (Violation A.1 n.1) (CPSD/Duller and North).

[123] CPSD OB at 9-12.

[124] After reciting in its legal discussion that PG&E had a duty to act reasonably, CPSD never again refers to the duty in its discussion of the violations. Instead, it makes dozens of references to the term its policy witness abandoned – "good engineering practices" without once defining what the term means. *See* CPSD OB at 26, 30, 31, 34, 39, 41, 45, 51, 54, 57, 61, 64, 67, 71, 88, 93, 101, 110, 115, 118, 122, 131, 135, 158, 162. Similarly, Ms. Halligan repeatedly deferred questions about what good or best engineering practices required in specific contexts. R.T. 86, 96-97, 104, 105, 129, 136 (CPSD/Halligan).

[125] CPSD may contend that *Fox Television Stations* is distinguishable, either because it involved a federal administrative agency or because it raised First Amendment concerns. Neither basis affords a legitimate grounds for distinguishing the case. The void for vague ness doctrine is essentially identical under California and federal constitutional law, and a California court would give significant (if not dispositive) weight to a U.S. Supreme Court decision construing the federal Due Process Clause. *See, e.g.*, *People v. Superior Court (Engert)*, 31 Cal. 3d 797, 801-05 (1982) (holding a statute unconstitutionally vague under the California and federal Due Process Clauses and citing federal and state authorities interchangeably). Moreover, while *Fox Television Stations* involved First Amendment considerations, the Supreme Court was clear in explaining it would have reached the same result applying the same reasoning even in the absence of those considerations. 132 S. Ct. at 2318.

[126] *Fox Television Stations*, 132 S. Ct. at 2317. As this case exemplifies, such a "standard" invites arbitrary enforcement. *See id.* (explaining that one reason vague laws offend due process is that "precision and guidance are necessary so that those enforcing the law do not act in an arbitrary or discriminatory way").

[127] CPSD OB at 13.

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were not mere semantics.[128] What CPSD's view of Section 451 really means is that PG&E bears absolute liability for anything that CPSD determines, base d on hindsight, to have been "unsafe." Thus, if, in its hindsight judgment, PG&E took too long to stop the flow of gas to the ruptured pipe then "[t]hese facts alone are sufficient to find that PG&E's emergency plan was ineffective, deficient, and unsafe. "[129] Similarly, CPSD's proposed finding of fact No. 18 exemplifies its view: "The San Bruno pipe explosion is proof that PG&E engaged in inherently unsafe practices when it failed to create and retain orderly records of new, salvaged, reconditioned, reused , or junked pipe."[130] CPSD's application of Section 451 to its alleged violations confirms that it views Section 451 as a strict liability provision to be applied after -the-fact. In its legal discussion, CPSD pays lip service to a "reasonableness" standard and even purports to disavow the position that PG&E has an "absolute duty" of care under Section 451.[131] Unfortunately, CPSD's consistent practice in this proceeding proves otherwise. And, as explained in PG&E's opening brief, interpreting Section 451 as imposing strict liability would violate accepted principles of statutory construction as well as PG&E's due process right to notice of the legal standard.[132]

CPSD's partial shift to a "duty to act reasonably" standard[133] reflects an effort to align its theory of the case with the Commission's decision in *Carey*. In *Carey*, the Commission rejected the argument that Section 451 was unconstitutionally vague on its face or as applied. It reasoned that Section 451's "reasonable service" clause was objectively ascert ainable by reference to an existing definition, standard or common industry understanding. The legal discussion portion of CPSD's opening brief, to be sure, contains plenty of references to reasonableness, which *Carey* determined to be a facially constitut ional standard in the context of Section 451. CPSD fails,

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[128] R.T. 80-81 (CPSD/Halligan) (explaining the distinction Ms. Halligan was attempting to draw when she changed her testimony from good to best).

[129] CPSD OB at 68.

[130] CPSD OB, Appendix A at A -2; CPSD O B at 32; *see also id.* at 67 ("The ultimate proof of [the inadequacy of PG&E's Emergency Response Plans] is PG&E's inexcusably tardy response time to the pipeline explosion in San Bruno.").

[131] CPSD OB at 9-12.

[132] PG&E OB at 28-29.

[133] The shift is only partial because in actually discussing its alleged violations in the opening brief CPSD does not apply a reasonableness standard. It instead returns again and again to its former "good engineering practices" standard. *See* CPSD OB at 26 , 30, 31, 34, 39, 41, 45, 51, 54, 57, 61, 64, 67, 71, 88, 93, 101, 110, 115, 118, 122, 131, 135, 158, 162.

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however, to identify an existing definition, standard or common understanding among utilities, which *Carey* considered essential to its rejection of the as -applied challenge to Section 451. [134] The testimony of CPSD's witnesses did not address this standard. And, in arguing the violations themselves, CPSD does not apply *Carey*'s reasonable service standard. Despite donning the mantle of reasonableness, CPSD has not brought itself within the reasoning of *Carey*.

For this same reason, and as explained in PG&E's opening brief, CPSD has also failed to bring itself within the reasoning of *Cingular*.[135] That case determined that Section 451 was not void for vagueness *as applied* because Cingular had notice that the specific conduct at issue was unjust and unreasonable. [136] DRA also analogizes to *Cingular,* but its efforts similarly fail. [137] DRA points to information PG&E received from Bechtel in the 1980s about "missing pipeline data," but such information does nothing to differentiate PG&E from countless other operators. [138] Indeed, the Integrity Management rules take into account that operators may be missing pipeline data.[139] DRA contends the "Commission decision on Rancho Cordova" put PG&E on notice, but that decision did not involve records, did not involve transmission pipe, and was rendered after the San Bruno accident. [140] Isolated statements contained in the Commission decision that adopted GO 112 in 1960 do not create enforceable standards or impart notice. [141] A 1982 NTSB accident investigation (referenced in the NTSB's August 30, 2012 San Bruno Accident report) at least mentions recordkeeping. But in drawing upon that report, DRA fails to explain how a particular records inaccuracy that the NTSB cited as a contrib uting cause of delay in PG&E's response to that 1981 incident (which was the record of the specific location of a valve that had been paved over[142]) imparts notice that the Commission would treat as violations a whole range

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[134] The only industry standard cited by CPSD is ASA B31.8, but that voluntary standard cannot be enforced through Section 451. *See* PG&E OB at 37-39; *supra* note 89.

[135] PG&E OB at 32-33.

[136] *Cingular*, 140 Cal. App. 4th at 741-43.

[137] See DRA OB at 12-13.

[138] Ex. PG&E-61 at 1 -4 (PG&E/De Leon); Ex. PG&E -61 at 1 -12 to 1 -16 (PG&E/Howe); *see also* Joint R.T. 711 (PG&E/Zurcher).

[139] Ex. PG&E-61 at 1-7 to 1-8 (PG&E/De Leon).

[140] *See Investigation into the Gas Explosion and Fire in Rancho Cordova*, D.11-11-001, 2011 Cal. PUC LEXIS 509.

[141] *Fox Television Stations*, 132 S. Ct. at 2319 (rejecting argument that an isolated and ambiguous statement from a 1960 FCC decision imparted notice); *see also* PG&E OB at 36.

[142] Ex. CPSD -6 at 5 -22, n.45, file 063.pdf (CPSD/Duller and North) (NTSB Pipeline Accident Report – 1981 Natural Gas Pipeline Puncture).

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of records deficiencies that CPSD now alleges.[143] Similarly, an internal evaluation that PG&E undertook of its Integrity Management program in 2009 identified areas for improvement, but even crediting the document as imparting notice that PG&E could improve its risk assessment methodology, DRA never explains how an internal report issued in 2009 imparts notice that the Commission would treat as Section 451 violations records deficiencies that allegedly arose decades ago. In stark contrast to DRA's references to these generalized gas safety issues, the evidence in *Cingular* showed that the utility had notice of the specific practices the Commission later found violated Section 451. Among other things, Cingular received numerous customer complaints, "including complaints specific to the failur e of Cingular's service to perform as promised," and its unlawful practice of imposing an early termination fee without a grace period deviated from that of all other providers in the industry and even all other regions within Cingular itself.[144] *Cingular* is inapposite.

In short, Section 451 cannot supply the rule of decision in a gas pipeline safety enforcement proceeding. Even if the Commission were of a mind to read into Section 451 a "reasonableness" standard, as it did in *Carey*, CPSD has not presented evidence addressed to that standard. To adopt any of CPSD's ever -changing theories of what Section 451 requires would introduce constitutional error into this proceeding. *See* Cal. Const. art. I, § 7(a).[145] Because CPSD elected to rest almost its entire case on Section 451, its entire prosecution bears this flaw.[146]

D. CPSD Has Not Articulated A Cognizable "Continuing" Violation Theory

In the course of these hearings, CPSD's engineering expert provided a definition of a "continuing violation" that had no limi ting principle: "My understanding of a continuing

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[143] *See* DRA OB at 13.

[144] *See Cingular*, 240 Cal. App. 4th at 742 ("[T]he record shows Cing ular's California region was the only major wireless provider in the California market and the only Cingular region to impose an [early termination fee] without a grace period.").

[145] *See also Fox Television Stations*, 132 S. Ct. at 2317; PG&E OB at 34-37.

[146] At the end of its Section 451 discussion, CPSD suggests that under Public Utilities Code Section 702 PG&E was required to comply with other "more particular standards." CPSD OB at 12. CPSD does not identify what these "more particular standards" might be and has never previously asserted any violations based on Section 702. It cannot do so for the first time now. *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)).

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violation is that once it occurs, it's a violation and it continues into the future." [147] CPSD attempted to deflect further questions about what conduct Ms. Felts treated as a "continuing violation" by asserting that such questions were matters for briefing:

> MR. CAGEN: Your Honor, I object. At this point what we're really asking for is the legal meaning of continuing violations. This is a matter that attorneys have been concerned about for a long time. I' ll be glad to provide information on that if any one wants it, but this is a matter for briefing.
>
> ALJ YIP-KIKUGAWA: Okay. I'd agree with Mr. Cagen.[148]

CPSD's opening brief does not include the promised discussion of CPSD's understanding of the legal meanin g of a "continuing violation." Instead, and in the context of discussing its violations, CPSD includes sections addressed to the "Duration and Scope of Violation." But those discussions do little more to illuminate CPSD's theory of a continuing violation than did Ms. Felts' testimony.[149]

Thus, CPSD still has not explained its legal theory as to why its violations are alleged to be continuing, and if it offers an explanation in its reply brief, PG&E will not have the opportunity to comment. For the reasons PG&E explained in its opening brief, the text and proper construction of Section 2108 forecloses CPSD's boundless theory of continuing liability.[150] Acceding to CPSD's broad and ill -defined theory of continuing liability would also transgress the narrow con struction rule the California Supreme Court applies to statutes that permit the aggregation of daily penalties. [151] Moreover, to accept CPSD's theory here, where it has alleged "continuing" violations lasting decades without giving PG&E prior notice or the opportunity to cure them, would violate Commission precedent and due process, and would constitute the imposition of an excessive fine in violation of the State Constitution. [152] CPSD's

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[147] R.T. 252 (CPSD/Felts).

[148] R.T. 254 (CPSD/Cagen).

[149] A typical CPSD statement about the "Duration and Scope of Violation" provides: "This violation applies to all weld inspection reports missing from as early as 1930 and is therefore a continuing violation from 1930 to present. For purposes of this investigation, the duration of the violation is continuous from 1930 to 2010." CPSD OB at 114.

[150] PG&E OB at 39-43.

[151] PG&E OB at 39-43.

[152] PG&E OB at 39-43.

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failure to provide a cogent articulation of its continuing violation theo ry is itself a failure to provide the kind of notice due process requires.

E. Felts Violations 16-27 Duplicate Duller/North Violation A.1

Due process prohibits "double penalties for the same conduct." [153] Cal. Const. art. I, § 7(a). Yet CPSD's presentation of Violation A.1 shows the complete overlap between the general records violations CPSD alleges as Felts Violations 16 -27 and those it asserts as part of Duller/North Violation A.1. In its opening brief, CPSD breaks down Violation A.1 into 16 specific categories of deficiencies that almost perfectly replicate Felts' general records violations (Violations 16-27).[154] The table below, using CPSD's descriptions, shows that the categories of deficiencies that underlie Violation A.1 are substantively identical to Felts Violations 16-27:

Record Categories Identified in Section VI.A of CPSD's Opening Brief		**Correspondent Felts Violation**
i.	Missing Strength Test Records	Felts Violation 18 (Design and Pressure Test Records Missing)
ii.	Missing Weld Records	Felts Violation 19 (Weld Maps and Weld Inspection Records Missing or Incomplete)
iii.	Incomplete Job Files	Felts Violation 16 (Job Files Missing and Disorganized)
iv.	Missing Job Files	Felts Violation 16 (Job Files Missing and Disorganized)
v.	Duplicate Job Files	Felts Violation 16 (Job Files Missing and Disorganized)
vi.	Missing Operating Pressure Records	Felts Violation 20 (Operating Pressure Records Missing, Incomplete or Inaccessible)
vii.	Inaccurate and Erroneous GIS Data	Felts Violation 24 (Bad data in Pipeline Survey Sheets and the Geographic Information System)
viii.	Missing GIS Data	Felts Violation 24 (Bad data in Pipeline Survey Sheets and the Geographic Information System)
ix.	PG&E's GIS is A System of Record for Pipeline Records and a Primary Source of Information for Its Integrity Management Program	Felts Violation 25 (Use of an Integrity management Risk Model that uses inaccurate data)
x.	PG&E's Multiple Corrections to GIS Records After the San Bruno Pipeline Explosion Suggest Multiple GIS Errors Before the San Bruno Pipeline Explosion	Felts Violation 24 (Bad data in Pipeline Survey Sheets and the Geographic Information System)
xi.	PG&E Frequently Does Not Use the Most Conservative Values When Missing GIS Records	Felts Violation 24 (Bad data in Pipeline Survey Sheets and the Geographic Information System)

[153] *De Anza Santa Cruz Mobile Estates Homeowners Ass'n v. De Anza Santa Cruz Mobile Estates*, 94 Cal. App. 4th 890, 912 (2001).

[154] *See* CPSD OB at 163-93.

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Record Categories Identified in Section VI.A of CPSD's Opening Brief		Correspondent Felts Violation
xii.	Many of PG&E's GIS Assumed SMYS Values Have Not Complied with Federal Regulations	Class Location OII and San Bruno OII[155]
xiii.	Lack of Complete and Comprehensive Inventory of All Gas Leaks Over the Lifetime of Pipelines	Felts Violation 21 (Pre-1970 Leak Records missing, incomplete and inaccessible); Felts Violation 22 (Post 1970 Leak Records Incomplete and Inaccessible)
xiv.	Missing Pipeline History Files	Felts Violation 17 (Pipeline History Records Missing)
xv.	Missing Records Showing Reused Pipe	Felts Violation 1 (No records for salvaged pipe installed in Segment 180) and Felts Violation 23 (Records to Track Salvaged and Reused Pipe Missing)
xvi.	Missing and Incomplete Metallurgical Reports	Felts Violation 26 (1988 weld failure – no Failure Report); Felts Violation 27 (1963 weld failure – no Failure Report)

CPSD does not explain the substantial overlap that has emerged between Felts' "General Records Violations for all Transmission including 132" and Dr. Duller and Mrs. North's Violation A.1. The closest CPSD comes to offering an explanation is a footnote that accompanies its discussion of Felts Violation 16 (Job Files Missing and Disorganized):

> This violation is related to but inde pendent of the Duller/North violations presented in section VI of this document. The primary purpose of Violation 16 is to state a violation for the reduction in safety engineering caused by the problems with the job files. The Duller/North violations in Section VI of this document are based upon an in depth analysis of how and why the job files are deficient from a recordkeeping perspective.[156]

Though meant to articulate a distinction between violations, this explanation collapses them.[157] According to CPSD , the Duller/North testimony looks in -depth into the cause of the perceived deficiency (poor recordkeeping) while Ms. Felts' testimony explains the deficiency's effects (reduced safety). But the "cause" of conduct is not a separate unit of prosecution fro m the

[155] In the Class OII, CPSD alleged 133 violations of 49 C.F.R. § 192.107(b) and Section 451 based on PG&E's alleged use of assumed SMYS values greater than 24,000 psig where PG&E did not have a record of a tensile test. (*See* CPSD Investigative Report at 55). The parties stipulated to reserve this issue for hearing in the San Bruno OII, and ALJ Yip-Kikugawa and ALJ Wetzel sat together for the testimony of John Zurc her on this topic and indicated that they would coordinate their decisions on this issue. Thus, CPSD's attempt to introduce assumed SMYS value issues into this proceeding replicates issues already being adjudged in two other OII proceedings. In the event the Commission intends to address the assumed SMYS issue here as well as in the other two OIIs, PG&E attaches as Appendix C the relevant pages of the briefs in those cases. Section V.B of PG&E's reply brief in the San Bruno OII, to be filed April 25, 2013, also addresses this issue.

[156] CPSD OB at 87 n.241.

[157] The distinction CPSD asserts is not just legally unsupportable, it is factually false. In Violation A.1, CPSD freely offers argument about how Violation A.1 "has negatively affected safety." CPSD OB at 190.

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"effect" of the same conduct. Breaking conduct down into its "cause" and "effect" does not multiply one alleged violation into two. It is the same conduct; and the same conduct may only be punished once. Either Felts Violations 16 -27 are redundant of Duller/North Violation A.1 or Duller/North Violation A.1 is redundant of Felts Violations 16-27.

Even if the law allowed violations to be split between the cause and effect of the same conduct, CPSD's arguments do not hold that line. Both Felts Violat ions 16-27 and Duller/North Violation A.1 address causes of perceived poor records and do so marshaling substantially the same allegations. Consider the example CPSD has provided: the relationship between Felts Violation 16 and Duller/North Violation A.1 . CPSD maintains Felts Violation 16's primary purpose is to explain the engineering consequences caused by "problems with the job files."[158] But in fact its allegations address perceived causes of poor recordkeeping too. CPSD argues in support of this vio lation that job files are missing or missing documents of a kind CPSD expects to find in them.[159] It argues PG&E's job files are "un-indexed."[160] It argues PG&E has a "history of destroying or discarding important records."[161] Compare these arguments to those CPSD makes about job files in support of Dr. Duller and Mrs. North's Violation A.1. There, CPSD argues that PG&E lacks a master index of its job files.[162] It argues that the job files are incomplete.[163] It argues that PG&E is missing "copious" numbers of job files.[164]

Similarly, both Felts Violations 16 -27 and Duller and North Violation A.1 address substantially the same "negative effects." In a section of its discussion of Felts Violation 16 entitled "Summary of Violation's Negative Effect on Safety," CPSD argues that missing and incomplete engineering and construction records "can lead" to bad engineering decisions.[165] Though Violation A.1 purportedly examines the causes of PG&E's allegedly poor recordkeeping, the discussion of that violation also includes a section entitled "Violation A.1 Has

[158] CPSD OB at 87 n.241.
[159] CPSD OB at 87-90.
[160] CPSD OB at 103.
[161] CPSD OB at 89.
[162] CPSD OB at 169-70.
[163] CPSD OB at 167.
[164] CPSD OB at 168.
[165] CPSD OB at 92.

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Negatively Affected Safety."[166] In fact, its discussion of these negative effects is substantially lengthier than its discussion of negative "effects" in support of Violation 16.[167] CPSD argues that the kinds of records a ddressed in Duller/North Violation A.1, including job files, are "important to the engineers who are responsible for the safety of the pipeline system."[168]

In other words, and using job files as an illustration, CPSD argues Felts Violation 16 and Duller/North Violation A.1 stem from substantially the same alleged causes – PG&E's job files are missing, incomplete, and not indexed. And they address substantially the same effects – allegedly missing, incomplete, and un-indexed job files can have bad effects on engineering. The remaining differences between the violations turn on slight variations in the facts marshaled to support the same substantive allegations. But in the end even these slight differences do not exist. CPSD eliminates them throug h broad cross-references. Arguing for Felts Violation 16, CPSD writes: "As discussed by CPSD's records manager expert testimony, the problem includes not only missing job files, but also a host of other deficiencies."[169]

The problem of duplicative violatio ns is a serious one. PG&E faces potentially hundreds of millions of dollars in legally unwarranted fines and penalties if CPSD's duplicative violations are allowed to stand. Even CPSD apparently acknowledges this should not occur. It revised its tables of violations "to clarify that CPSD does not seek to count a single violation multiple times."[170] It did so presumably because the State Constitution forbids the Commission from extracting multiple penalties for the same underlying conduct. *See De Anza San ta Cruz Mobile Estates*, 94 Cal. App. 4th at 912 (due process prohibits "double penalties for the same conduct"). For example, in *Troensegaard v. Silvercrest Industries, Inc.* , 175 Cal. App. 3d 218 (1985), the court set aside a punitive damages award "based upon substantially the same conduct" as a civil penalty award.[171] The court explained: "A defendant has a due process right to be protected against unlimited multiple punishment for the same act. . . . [O]verlapping damage awards violate that sense of 'f undamental fairness' which lies at the heart of constitutional due

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[166] CPSD OB at 190.

[167] *Compare* CPSD OB at 190-93 (Violation A.1) *with* CPSD OB at 92 (Violation 16) (only six lines of text and no citations).

[168] CPSD OB at 190.

[169] CPSD OB at 90.

[170] Ex. CPSD-16 at 1 (CPSD/Duller and North) (Duller/North Revised Table of Violations).

[171] *Troensegaard*, 175 Cal. App. 3d at 226-28.

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process."[172] As in *Troensegaard*, Felts Violations 16 -27 and Duller/North Violation A.1 are "based upon substantially the same conduct."[173] Due process forbids punishing PG&E more than once for this same alleged conduct.

F. CPSD Provides An Incomplete Discussion Of ASA B31.8 (1955) And The Part 192 Regulations

1. The Commission Did Not Understand PG&E Or The Other Utilities To Represent That They Adhered To ASA B31.8 For All Purposes

CPSD's discussion of GO 112 in its opening brief is misleading in two respects. First, it suggests that PG&E's and other gas utilities' statements to the Commission that they voluntarily followed the ASA B31.1.8 Code rendered the Code mandatory, and that absent a retrac tion, their representations took on the force of law compelling their adherence to the ASA B31.1.8 (later ASME) standards into the indefinite future. [174] CPSD's assertion might be plausible if the Commission: (a) had declined to impose gas safety regulation s in reliance on the utilities' representations; and (b) had understood that the utilities had adhered to ASA B31.1.8 for all purposes. Neither is true. The Commission adopted GO 112 notwithstanding the utilities' representations that they were already u sing the voluntary standard. [175] And, in its decision adopting GO 112, the Commission expressly stated its understanding that the utilities "generally" followed the voluntary industry standard.[176] The Commission did not understand that PG&E or any other California utility had followed ASA B31.1.8 in all instances.

Second, CPSD's opening brief cites for the first time the recordkeeping provisions in GO 112, GO 112 -A, and GO 112 -B that are unique to California: Sections 301 -303.[177] CPSD has not previously assert ed any violations of law based on these recordkeeping provisions. [178] Instead, in its Revised Tables of Violations, CPSD pointed specifically to Section 107, a provision of GO 112, GO 112-A, and GO 112-B that, among other things, incorporated the ASA

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[172] *Troensegaard*, 175 Cal. App. 3d at 227-28 (internal quotation marks omitted).

[173] *Troensegaard*, 175 Cal. App. 3d at 226.

[174] CPSD OB at 15.

[175] Ex. PG&E-4 at 6.

[176] Ex. PG&E-4 at 6.

[177] CPSD OB at 15.

[178] Ex. CPSD -15 (CPSD/Felts) (Felts Revised Table of Violations); Ex. CPSD -16 (CPSD /Duller and North) (Duller/North Revised Table of Violations).

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B31.1.8 industry code into GO 112. TURN also purports to assert violations of Section 301 - 303.[179] But for the reasons explained in Section VII below, Intervenors lack the authority to assert violations in a Commission-initiated enforcement proceeding and, in any event, TURN did not give constitutionally adequate notice of its alleged violations.

2. CPSD's Discussion Of GO 112 And The Part 192 Federal Safety Requirements Is Similarly Incomplete

CPSD's position has been that PG&E must meet and exceed specific regulator y requirements. It implicitly makes this point when referring to a utility's "unending obligation" to maintain safe operations and makes it again when emphasizing that GO 112 and the federal regulations impose "minimum" safety standards. [180] CPSD and TURN b oth argue that pipeline regulations are not meant to "identify each and every unsafe practice that is proscribed by law."[181]

CPSD's position is not consistent with the Commission's historical view of pipeline safety regulations. The original GO 112 containe d a provision stating that its provisions were meant to be adequate for safety in normal conditions. [182] A similar provision carried forward into subsequent iterations of GO 112 including GO 112-E.[183] What the Commission stated it intended to require through this provision was that the utilities shall "meet or exceed" the requirements of GO 112. [184] Consistent with those statements of intent, CPSD's past safety reports show that CPSD historically enforced GO 112, and the federal regulations incorporated through it.[185] CPSD's safety reports do not evidence a history of CPSD enforcing standards above or beyond those set forth in GO 112 (or its successive iterations). Thus, while PG&E agrees with the general proposition that the Part 192 federal regulations impose "minimum" safety standards, it

[179] TURN OB at 11-12.

[180] CPSD OB at 8, 14-17.

[181] TURN OB at 4; CPSD OB at 10-11.

[182] Ex. PG&E-4 (GO-112, § 104.1).

[183] *See* Ex. PG&E-4 (GO 112, § 104.1); Ex. CPSD-36A (GO 112-A, § 104.1); Ex. CPSD-60 (GO 112-B, § 104.1); Ex. PG&E-5 (GO 112 -C, § 103.1); PG&E's June 20, 2011 Response at 1 -11 (RH-34) (GO 112 -D, § 103.1); Ex. PG&E-7 (GO 112-E, § 103.1).

[184] *See* Ex. PG&E-4 (GO 112, § 104.1) (emphasis added); Ex. CPSD -36A (GO 112 -A, § 104.1) (emphasis added); Ex. CPSD-60 (GO 112-B, § 104.1) (emphasis added); Ex. PG&E-5 (GO 112-C, § 103.1) (emphasis added); PG&E's June 20, 2011 Response at 1-11 (RH-34) (GO 112-D, § 103.1) (emphasis added); Ex. PG&E-7 (GO 112-E, § 103.1) (emphasis added).

[185] Ex. PG&E-8 at 3 (setting out a "Description of a Typical GO 112-E Inspection").

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takes exception to CPSD's theory that the Commission may impose penalties when a utility fails to fulfill "unending obligations" or practices that CPSD may deem unsafe based on hindsight judgments. CPSD's position is inconsi stent with the Commission's previous statements of intent, it is inconsistent with CPSD's own past inspection practices, and it is inconsistent with State constitutional guarantees of fair notice.

IV. OTHER ISSUES OF GENERAL APPLICABILITY

CPSD's opening brief did not address any other issues of general applicability. DRA proposes the appointment of an independent monitor in its section addressed to other issues of general applicability. PG&E opposes this recommendation, and will address it in the fines, penalties, and "other remedies" portion of this proceeding.

TURN attacks the credibility of PG&E's witnesses for lacking expertise in a subject that CPSD did not raise. "PG&E's 'expert' witnesses admitted they had no expertise regarding the stricter recordkee ping requirements in California law, if any recordkeeping expertise at all." [186] CPSD has not predicated any of its alleged recordkeeping violations on the supposedly "stricter recordkeeping requirements" of California law. [187] CPSD mentions former Section 107 in GO 112, 112-A, and 112-B, but that provision addressed "Compliance with ASA Code." [188] In any event, California's unique recordkeeping provisions were removed when the Commission issued GO 112-E in 1995.[189] Over TURN's objection, the ALJ admitted a NAPSR report issued in 2011 confirming that while some states indeed have more strenuous pipeline recordkeeping requirements than the federal regulations, California is not among them. [190] TURN's added argument that PG&E witnesses lack "recordkeeping expertise at all" is a stretch. [191] PG&E's employees and witnesses were the only witnesses who testified at the hearings with actual expertise in the records requirements of U.S. and California law.

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[186] TURN OB at 13.

[187] Ex. CPSD -15 (CPSD/Felts) (Felts Revised Table of Violations); Ex. CPSD -16 (CPSD/Duller and North) (Duller/North Revised Table of Violations).

[188] Ex. PG&E-4 (Decision No. 61269, with GO 112 attached).

[189] Ex. PG&E-7 (Decision No. 95-08-053, with GO 112-E attached); Ex. Joint-36 (Compendium of State Pipeline Safety Requirements); *see also* Joint R.T. 850-56 (PG&E/Zurcher).

[190] Ex. Joint-36 (Compendium of State Pipeline Safety Requirements); *see also* Joint R.T. 850-56 (PG&E/Zurcher).

[191] TURN OB at 13.

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Cesar De Leon

CCSF attacks the credibility of PG&E's witnesses but, li ke TURN, it overreaches. In what may go down as one of the more memorable exaggerations from this case, CCSF writes: "Mr. De Leon's testimony exhibits no knowledge of pipeline safety regulations or utility obligations to the public." [192] What, in fact, the hearings established was that Mr. De Leon has little expertise in GO 112 or the ASA (ASME) industry standards. [193] But his direct written testimony on those subjects was brief. [194] The vast majority of his testimony went to the regulatory developments in the federal pipeline safety laws and regulations beginning in 1970, particularly as they related to the grandfather clause and pipeline records. [195] That is what he spent years of his career working on; that is his expertise. Each time CCSF attempted to impeach Mr. De Leon on his knowledge of pipeline safety regulations it came up short. CCSF tried to attack Mr. De Leon's credibility because he was not a lawyer, only to be met with the rejoinder: "I use the English language just the way Funk and Wagnells does. "[196] Repeatedly, CCSF tried to establish that Mr. De Leon was not an expert on the ASME B31.8 only to be told that the federal regulations, about which Mr. De Leon is an expert, reflected a purposeful decision not to adopt the ASME B31.8 standard.[197] CCSF's efforts to impeach Mr. De Leon with questions about the grandfather clause similarly failed.[198]

TURN also tried to impeach Mr. De Leon's expertise with questions about his background, the ASA B31.1.8 Code, GO 112, and the Part 192 Code. TURN tried to establ ish that Mr. De Leon's consulting practice was biased towards industry only to learn that a substantial part of his consulting practice (approximately 35%) involves consulting for those outside of the industry. [199] TURN tried to establish that Mr. De Leon di d not factor Section 451 or other broad regulatory policy statements into his analysis only to be told by this former federal pipeline safety regulator that it would be inappropriate to hold a utility to such vague

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[192] CCSF OB at 20.

[193] R.T. 731, 760 (PG&E/De Leon).

[194] Ex. PG&E-61 at 1-5 to 1-7 (PG&E/De Leon).

[195] R.T. 754-55 (PG&E/De Leon); Ex. PG&E-61 at 1-4, 1-6 to 1-8 (PG&E/De Leon).

[196] R.T. 771 (PG&E/De Leon).

[197] R.T. 761-62 (PG&E/De Leon).

[198] R.T. 775-76 (PG&E/De Leon).

[199] R.T. 788 (PG&E/De Leon).

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standards.[200] TURN tried to establish that a regulator might seek to enforce standards above the federal minimum standards. Mr. De Leon answered: "I don't think [PHMSA] would let you write a violation if it wasn't in Part 192." [201] TURN tried to establish that Mr. De Leon had no expertise in provisions of ASME B31.8 only to be reminded of their marginal relevance in U.S. pipeline regulation: "I should make a statement that [ASME] B31.8 is used in Kenya and China and the Arab Emirates. It is used throughout the world. It is not used here." [202] TURN's attempt to establish the limited effect of GO 112 exemption for existing facilities backfired. [203] It then tried to marginalize Mr. De Leon's position that there must be a rule for there to be a violation. Mr. De Leon's responded forcefully:

> Q: Again, that is under your view that if it is not in a rule that then – unless it is in a specific rule there is no violation. Is that what informed your answer?
>
> A: That is correct. There has to be a rule. An operator must know what he has to follow. You just can't come up with a new rule because there has been a new accident. And by gosh we didn't have a rule for that, but by gosh he should have realized that this could have happened. You have to tell an operator what rule he has to follow. It is difficult for an operator to follow an undisclosed rule.[204]

TURN tried to establish the need to maintain certain kinds of records only to be met with the common sense observation that if the records were so important the regulator would not have exempted the recordkeeping requirements as to existing facilities.[205] TURN tried to establish that past regulators did not condone missing data. Mr. De Leon responded: "I don't know if they were condoning not having the data, but in reality many operators don't have the data."[206]

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[200] R.T. 791-96 (PG&E/De Leon).

[201] R.T. 795-97 (PG&E/De Leon).

[202] R.T. 797-800 (PG&E/De Leon).

[203] R.T. 807-10 (PG&E/De Leon) ("The federal rules say almost the same thing. I said that there was nothing to keep someone from not having the records. They didn't have to have records before the federal rules in 1970. They said that. This says the same thing.").

[204] R.T. 810-11 (PG&E/De Leon).

[205] *See* R.T. 819-21 (PG&E/De Leon); Ex. PG&E-61 at 1-4 (PG&E/De Leon).

[206] R.T. 834 (PG&E/De Leon).

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Mr. De Leon held leadership and policy-making positions in the Office of Pipeline Safety as far back as the early/mid 1970s. [207] TURN and CCSF miss the key point of Mr. De Leon's testimony. Mr. De Leon's testimony provides a window into a past era of pipe line safety regulation – the era when many of the violations are alleged to have occurred. When, for example, Mr. De Leon says he has not been involved in pipeline records issues to the degree they are at issue in this case,[208] we should not take from this statement the conclusion that he "exhibits no knowledge of pipeline safety regulations." [209] We should take from this statement that in the past pipeline records were not the subject of intense regulatory focus.

John Zurcher

CCSF and TURN's attack on Mr. Zurcher's expertise is baffling. Mr. Zurcher is not just an expert in federal pipeline safety regulations, he was the primary author of the initial ASME B31.8S standard incorporated into Subpart O of the federal regulations. [210] He served as Chair of the AS ME B31.8S committee through 2005, and continues to serve as a member of the committee.[211] He has been involved in standard committees for the National Association of Corrosion Engineers, the American Society of Nondestructive Testing, the American Welding Association and other standard -writing bodies. [212] He wrote a draft of regulations DOT is expected to issue later this year addressed to pipeline recordkeeping requirements. [213] He has testified before state agencies and Congress on pipeline safety regulation. [214] He has conducted pipeline safety training sessions for Congressional staffers. [215] He has been invited "hundreds of times" to speak to PHMSA inspectors and regulators. [216] Mr. Zurcher was appointed by the Secretary of Transportation to serve on the DOT Techn ical Pipeline Safety Standards Committee.[217] He was one of two people appointed by the Secretary of State to represent the

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[207] Ex. PG&E-61, Chapter 1, Appendix C (CV of Cesar de Leon) (PG&E/De Leon).

[208] R.T. 782-83 (PG&E/De Leon); R.T. 832-33 (PG&E/De Leon).

[209] CCSF OB at 20.

[210] Ex. PG&E-61 at 3-4 to 3-5 (PG&E/Zurcher).

[211] Joint R.T. 837 (PG&E/Zurcher).

[212] Joint R.T. 837 (PG&E/Zurcher).

[213] Joint R.T. 834 (PG&E/Zurcher).

[214] Joint R.T. 833 (PG&E/Zurcher).

[215] Joint R.T. 833 (PG&E/Zurcher).

[216] Joint R.T. 834 (PG&E/Zurcher).

[217] Ex. PG&E-61 at 3-5 (PG&E/Zurcher); Joint R.T. 836 (PG&E/Zurcher).

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United States at international conferences addressed to pipeline safety. [218] He has worked in the pipeline industry for decades. He has consulted on behalf of dozens of pipeline operators. [219] He created two GIS systems and spearheaded the industry effort that lead to the development of the Pipeline Open Data Standards (PODS). Certainly, Mr. Zurcher stated opinions that did not fit well with either CCSF or TURN's theory of the case, and in the end that is ultimately what they most complain about.[220] But that says more about deficiencies in their theories of the case than it does about Mr. Zurcher's qualifications.

V. ALLEGED VIOLATIONS P REDICATED ON THE REPORTS AN D TESTIMONY OF MARGARET FELTS

A. Alleged Records Violations Relating To Line 132, Segment 180, San Bruno Incident

1. Violation 1: No Records For Salvaged Pipe Installed Into Segment 180

The evidence showed that Segment 180 was to be constru cted entirely with new 30 -inch diameter, X52 -grade 0.375 -inch wall thickness DSAW pipe, and nothing during construction indicated that PG&E ordered, accepted or was even aware of the presence of any other type of pipe. Records from the GM 136471 job link the pipe used in construction with material codes that in every instance demonstrate the use of new pipe. While PG&E acknowledges that substandard pipe was installed on Segment 180 as a result of failed quality control measures, CPSD's allegation depends upon the reversal of the burden of proof. In other words, CPSD's allegation fails unless the Commission requires PG&E to prove, through records that meet the post-San Bruno traceable, verifiable, and complete requirement, that each foot of pipe on the segment was new pipe. Prior to San Bruno, no gas pipeline operator had records to this level of detail.

CPSD raises additional arguments related to this violation, asserting that (1) the failure to maintain records of the pups rendered PG&E unable to calculate MAOP; (2) the absence of

[218] Joint R.T. 836 (PG&E/Zurcher).

[219] Joint R.T. 837-38 (PG&E/Zurcher).

[220] *See, e.g.*, CCSF OB at 21 (complaining about Mr. Zurcher's opinion that in the 1960s a utility did not need to prove its MAOP calculations to its regulator). Incidentally, Mr. Howe offered similar testimony. Ex. PG&E -61 at 1-17 (PG&E/Howe) (explaining that operators used the grandfather clause to determine MAOP, and regulators did not "audit for further records when that methodology was used").

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records of a reconditioning process that CPSD assumes occurred is evidence that Segment 180 used reconditioned pipe; and (3) that a coincidence between a 90 -foot section of pipe installed in 1948 and abandoned in place du ring the 1956 relocation is sufficient evidence to find that the failed section of pipe was reused without adequate inspection and testing. [221] Similarly, TURN claims that PG&E failed to keep records of reconditioning work that TURN believes must have occurred for the pipe used in Segment 180, and that this failure to document the alleged reconditioning process is evidence that PG&E failed to adequately inspect Segment 180, resulting in failure.[222] Each of these speculative arguments fails for lack of evidence.

a. There Is No Evidence Of Salvaged Pipe In Segment 180

CPSD alleges that PG&E violated Public Utilities Code Section 451 because PG&E does not have records for salvaged pipe in Segment 180. Through multiple rounds of written testimony, evidentiary hearing s, and an opening brief, CPSD has failed to introduce a shred of evidence showing salvaged pipe was used in the construction of Segment 180. CPSD's allegation was initially premised solely on Figure 5 from the NTSB report. [223] Upon being informed that Figur e 5 was a creation of the NTSB rather than PG&E, and further that material codes for each portion of "salvaged" pipe on Segment 180 identified new, rather than salvaged, pipe, CPSD witness Margaret Felts abandoned her belief that salvaged pipe was used in Segment 180.[224] In a telling admission, CPSD's opening brief makes no reference to Figure 5, nor does CPSD substitute any evidence for the now -disavowed Figure 5. This is because CPSD witness Margaret Felts *conducted no independent investigation into the s ource of pipe in Segment 180*.[225] CPSD's allegation fails for lack of evidence, and for failing to attempt to substantiate the facts required to prove this violation. [226] CPSD's opening brief provides no factual support for this allegation.

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[221] CPSD OB at 27-30.

[222] TURN OB at 17-19.

[223] Ex. CPSD-2 at 44-45 (CPSD/Felts); R.T. 280, 466 (CPSD/Felts).

[224] R.T. 542-63 (CPSD/Felts).

[225] R.T. 471 (CPSD/Felts).

[226] R.T. 471 (CPSD/Felts) ("I didn't ever provide an accounting of the actual pieces of pipe [in Segment 180] or attempt to provide that.").

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b. CPSD Does Not, And Cannot, Prove Facts To Substantiate Its Newly-Raised Theories Of Violation

Rather than concede it has not made out a violation, CPSD instead falls back on the argument that PG&E's failure to document the Segment 180 job installation at the foot -by-foot level absolves CPSD of any burden to introduce evidence. [227] Using this premise, CPSD asserts several additional, substitute arguments: (1) because PG&E does not know the source of the six pups, PG&E lacked the necessary records to calculate the MAOP for Segment 180, and therefore operated the line in an unsafe manner; [228] (2) PG&E records do not document the inspection and reconditioning processes required for salvaged pipe under ASA B31.1.8 -1955, therefore PG&E failed to meet the minimum requirements for the safe reuse of salvaged pipe; [229] and (3) despite the lack of any evidentiary support and notwithstanding PG&E's evidence that the 90 -foot section of pipe was abandoned in place, 90 feet of pipe may or may not have been salvaged, may or may not have been junked but was instead reinstalled, and may or may not have been taken from the location of a creek crossing, and together these suppositions prove that PG&E used salvaged pipe in the failed section of Segment 180. [230] None of these arguments withstands scrutiny.

(i) PG&E Did Not Lack Sufficient Records To Calculate MAOP On Segment 180

CPSD's first additional argument asserts that, because PG&E cannot document the source of the six pups, PG&E lacked the pipe specification data necessary to establish safe operating pressures following construction of Segment 180. [231] CPSD's argument requires the benefit of hindsight, specifically the knowledge of the presence and characteristics of the six pups. CPSD's argument is disproved by job file documents and other records indicating that PG&E designed Segment 180 to be operating safely and within code at a 400 psig MAOP. Finally, CPSD's argument requires that the burden of proof be reversed – namely, that if PG&E

[227] CPSD OB at 24-25.
[228] CPSD OB at 26-27.
[229] CPSD OB at 27-28.
[230] CPSD OB at 28-29.
[231] CPSD OB at 26-27.

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cannot prove that the pups were new pipe, or cannot identify the line from which the pipes were salvaged, then PG&E was not operating the line safely.

CPSD claims that PG&E did not know the wall thickness, yield strength, joint efficiency or longitudinal weld used in Segment 180. [232] However, PG&E designed Segment 180 to be constructed from 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS, or yield strength) DSAW pipe with a joint efficiency factor of 1.0, [233] and has confirmed that the majority of the pipe used on the job meets these specifications.[234] Other PG&E records created shortly following the 1956 construction confirm that PG&E believed Segment 180 was constructed from new 30-inch, X-52 grade, 0.375-inch wall thickness DSAW pipe. [235] CPSD does not dispute that pipe constructed from these specifications was operating safely and within code.

Moreover, CPSD's claim that PG&E operated Line 132 without a properly-established MAOP ignores that the grandfather clause authorized utilities to operate pipelines at the highest pressure experienced on the pipeline during the five year period in 1965-1970, regardless of whether the utility maintained design or pressure test records for the pipeline. [236] CPSD's argument depends upon information gained in hindsight, namely that six short pipe sections did not meet material specifications for construction of Segment 180.[237] However, CPSD has offered no evidence showing that PG&E was aware of the presence of the pups, and the logical conclusion is that the pups were delivered to PG&E as part of a longer wrapped section of pipe.[238] CPSD has advanced no legal justification or evidence that would support its claim that PG&E improperly established the MAOP of Line 132 at any point in time.

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[232] CPSD OB at 26-27.

[233] Joint R.T. 322, 368, 386, 393-95, 424, 442 (PG&E/Harrison).

[234] Ex. PG&E-61 at 4-1 to 4-2 (PG&E/Harrison).

[235] *E.g.*, P7-7094 at 17 (Historical Data on Gas Main 132 in San Mateo and San Francisco Counties (1963)).

[236] R.T. 1249 (PG&E/Howe).

[237] If PG&E had the hindsight knowledge of the SMYS of the pups from the NTSB metallurgical analysis, it still would have calculated an MAOP of 400 psig or greater. Joint R.T. 395-96, 415-19 (PG&E/Harrison).

[238] Joint R.T. 342, 597 (PG&E/Harrison). CPSD attempts to shift to PG&E the burden of proving this to be a fact. CPSD OB at 28. On the contrary, if CPSD asserts PG&E should have observed the pups, it must prove that they were not part of a longer, wrapped section of pipe.

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(ii) Since Segment 180 Was Not Built With Salvaged Pipe, Records Of Cleaning Or Inspection Would Not Have Been Created

CPSD next argues that PG&E's records for Segment 180 are deficient because they "do not demonstrate whether PG&E attempted to meet any of [ASA B31.1.8 § 811.25] requirements [relating to cleaning, inspection, and testing of reused pipe] *assuming the p ipe was indeed reconditioned or reused.* "[239] CPSD's argument presumes the very fact it needs to prove – that Segment 180 was built with reused pipe. The lack of evidence of any procedures to clean, inspect, and test pipe used in Segment 180 is consistent wi th the evidence in the record showing that Segment 180 was constructed using new, not reused, pipe. [240] CPSD cannot assume the predicate facts that would, in its view, require PG&E to generate records of cleaning and inspection, and then claim to have proved a violation for lack of those records.

(iii) Pipe Originally Installed Across The San Bruno Creek Canyon Was Abandoned In Place

CPSD states "evidence exists in the accounting Job File for GM 136471 (the 1956 installation of Segment 180) showing that 90 feet of pipe from a portion of Line 132 was replaced and reused in 1956 on the Segment 180 installation." [241] CPSD believes (1) the portion of Line 132 originally installed in 1948 that crossed the San Bruno Creek canyon was structurally weakened because it was unsu pported;[242] (2) that the length of the span (90 feet) correlates to a job file document CPSD believes shows the reuse of the same length of pipe in Segment 180;[243] (3) the San Bruno incident occurred in the same location as the former canyon crossing;[244] (4) the failed pups had characteristics similar to scrap pipe; [245] (5) an unspecified document from 1955 identifies pups of a length consistent with the failed pipe that is somehow

[239] CPSD OB at 28 (underlining in original, italics added).
[240] Joint R.T. 389, 393 (PG&E/Harrison).
[241] CPSD OB at 28.
[242] CPSD OB at 29.
[243] CPSD OB at 29. The job file document is in evidence as Ex. PG&E-54.
[244] CPSD OB at 29.
[245] CPSD OB at 29.

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relevant to GM 136471;[246] and (5) a lack of records indicating that this unspecified length of pipe was affirmatively scrapped.[247]

PG&E witness David Harrison refuted CPSD's theory. He discussed an internal camera inspection conducted in the section of Line 132 spanning the San Bruno Creek canyon, originally installed in 1948 and abandoned in place as a result of the Segment 180 installation.[248] In 2011, PG&E undertook to investigate the abandoned section of Line 132 at the direction of CPSD.[249] During this inspection, PG&E drove a remote control camera down the abandoned pipeline, recording distances and markings identified inside the line.[250] The camera revealed that the pipe that originally spanned the San Bruno Creek canyon "was still in place and intact, and now it is buried under, you know, I'm not sure, 30 -40 feet of dirt. It is down there pretty deep. **That span is still in place**."[251]

CPSD seeks to discount the results of the camera inspection, incorrectly stating that "PG&E observed that **there is mud where the pipe used to be**, which is what one would expect to see if the pipe had been salvaged before the canyon was filled with dirt."[252] In fact, what Mr. Harrison actually said on cross-examination was that the camera inspection showed that the pipe "was full of gunk in the bottom. But because it was full of gunk in the bottom that indicates that it's the low point in that section of the pipeline."[253] Mr. Harrison never indicated that the pipe was not present, or that the camera ran into mud, rather than pipe. In fact, Mr. Harrison repeated the conclusion that **"[t]he pipe is still in place in the ground**. It's been abandoned, so it's no longer in service. It was abandoned in 1956."[254]

Additional facts CPSD does not address also undermine CPSD's theory. As Mr. Harrison testified, salvaging the pipe from the span section and reusing it on the same line would not have been possible from a pipeline operation perspective, as doing so would have

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[246] CPSD OB at 29.
[247] CPSD OB at 29-30.
[248] Joint R.T. 219-31 (PG&E/Harrison).
[249] Joint R.T. 219 (PG&E/Harrison).
[250] Joint R.T. 220 (PG&E/Harrison).
[251] Joint R.T. 223 (PG&E/Harrison) (emphasis added).
[252] CPSD OB at 32 (emphasis added).
[253] Joint R.T. 225 (PG&E/Harrison).
[254] Joint R.T. 225 (PG&E/Harrison) (emphasis added).

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required taking the line out of service for an unacceptably long period of time.[255] During a pipeline relocation project, the construction crew must be able to tie in the new segment to the existing pipeline in a short period of time in order to avoid having the line out of service for more than a few hours – the pipe must be operational in time for the next morning peak load.[256] It would not be possible to excavate and remove the section of pipe from the former span (then covered in 30 to 40 feet of dirt), remove old girth welds and corrosion coating, re-apply corrosion coating or wrapping, relocate it to the new segment location close to the surface, line it up with other pipe in the new segment, weld it to the other pipe in the new segment, and tie back into the remaining section of Line 132 in such a short period of time.[257] CPSD's theory fails in light of such operational considerations alone.

(iv) TURN Fails To Prove The Ruptured Pipe In Segment 180 Was Reconditioned

TURN asserts that PG&E failed "to keep records of the reconditioning work that PG&E admits needed to be performed before the pipe that was used in Segment 180 could be made ready for service," and that the lack of such records is evidence that PG&E failed to properly inspect the failed section of pipe, and identify the missing interior seam welds.[258] However, TURN fails to prove that any length of pipe, particularly the length that contained the pups, was reconditioned.

In order for TURN's argument to be accepted as true, TURN must prove all of the following: (1) the joint containing the pups was stored outside in PG&E's storage yard prior to installation; (2) the joint containing the pups was located on top of all of the other pipe in storage or was otherwise exposed to sunlight; (3) the anti-corrosion wrapping or coating on the joint containing the pups was significantly deteriorated while in storage; and (4) the re-coating or re-wrapping was conducted by PG&E. However, TURN offers no evidence of any of these four facts.

TURN's argument fails for lack of evidence and, like CPSD's argument, depends on the reversal of the burden of proof.

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[255] Joint R.T. 361 (PG&E/Harrison).
[256] Joint R.T. 361 (PG&E/Harrison).
[257] Joint R.T. 361 (PG&E/Harrison).
[258] TURN OB at 18.

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2. Violation 2: Construction Records For 1956 Project GM 136471

CPSD asserts that PG&E violated Section 451 for failing to include information in its job file relating to the pups in Segment 180. [259] There is no dispute in the record that, had PG&E known about the presence of the pups, it would never have installed them i n the first place. Thus, the absence of records regarding the pups is not a failure to create and retain records, but instead supports the conclusion that the pups were installed without PG&E's knowledge. Contrary to CPSD's assertions, the job file conta ined a level of detail consistent with Company and industry practice, and included information sufficient for PG&E to identify the type of pipe specified and requisitioned from Company storage for use in constructing Segment 180.

CPSD claims the job file s hould have contained records that reflected the presence, specifications, and source of the six pups. [260] No such requirement existed. [261] At the time of construction, no federal or state regulation specifically applied to natural gas pipelines. The industry standard of the time (ASA B31.1.8 -1955) did not require an operator to document pipeline construction jobs at the joint -by-joint level necessary to show the presence of the pups.[262] CPSD has no support for construing Public Utilities Code Section 451 as exp ansively as is necessary to assert that such recordkeeping was required in 1956.

The absence of any information regarding the pups in Segment 180 calls for the conclusion that the defective pups, which did not meet the specifications PG&E established for pipe used in construction of Segment 180, were unknowingly installed as part of a longer pipe joint.[263] The job file contains a number of design and pipe specification records, including the original design drawing and other records that identify the diamete r, grade, seam type, and wall thickness of the pipe to be installed on the segment. [264] The design drawing depicted specific details on the configuration of the pipeline at its tie -in points.[265] In short, the job file contained information that showed that th e segment was to be constructed from 30 -inch diameter, 0.375 -

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[259] CPSD OB at 33-34.
[260] CPSD OB at 35-36.
[261] Ex. PG&E-61 at 4-5 (PG&E/Harrison).
[262] Ex. PG&E-61 at 4-5 (PG&E/Harrison).
[263] Joint R.T. 342, 597-98 (PG&E/Harrison).
[264] Joint R.T. 314-15 (PG&E/Harrison).
[265] Joint R.T. 325 (PG&E/Harrison).

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inch wall thickness, X52 DSAW pipe,[266] and any intentional use of short sections of pipe, such as the tie-in points, would have been documented on the drawings in the job file. [267] The degree of detail in the GM 136471 job file demonstrates that the presence of the substandard pups was unknown to PG&E at the time of installation. Had PG&E been aware of the pups, it would never have installed them.[268]

CPSD also incorrectly maintains that the MAOP of Seg ment 180 was too high based on what we now know about the pups' substandard qualities. [269] This criticism fails for multiple reasons. As PG&E witness David Harrison testified, even when calculated using the reduced SMYS and wall thickness levels present on the pups, Segment 180 qualified for an MAOP of at least 400 psig. [270] Moreover, CPSD does not dispute that the design pressure of the pipe PG&E requisitioned for Segment 180 (30-inch diameter, 0.375-inch wall thickness, X52-grade DSAW) would support and safe ly operate at a 400 psig MAOP. Finally, CPSD's criticism ignores the provision of 49 C.F.R. § 192.619(c), referred to as the "grandfather clause," that allowed pipeline operators to establish a pipeline MAOP based upon the highest operating pressure exper ienced during a five year period between 1965 and 1970. CPSD's allegation that a 400 psig MAOP was not allowed by law is inconsistent with the grandfather clause, which allowed pipelines built before 1970 to stay in the ground, operating at their highest pressure during the five year period 1965-1970, regardless of the presence or absence of other records that could establish MAOP. [271] As explained by Cesar De Leon, former Director of Office of Pipeline Safety, Department of Transportation:

> [I]f [an operator] establish[es] the MAOP using 192.619(c) . . . that was a regulation that established their MAOP. And you didn't have to look to any other part of 192.619 to figure out what you were going to do about the rest of the regulation. You were establishing yo ur MAOP based on 192.619(c), and that was the end of it.[272]

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[266] Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison).

[267] Joint R.T. 324-25 (PG&E/Harrison).

[268] *E.g.*, Joint R.T. 394 (PG&E/Harrison).

[269] CPSD OB at 36.

[270] Joint R.T. 395-96, 415-19 (PG&E/Harrison).

[271] R.T. 739-40 (PG&E/De Leon).

[272] R.T. 740 (PG&E/De Leon).

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3. Violation 3: Pressure Test Records

CPSD contends that PG&E's failure to locate a record demonstrating a post-installation pressure test on Segment 180 constitutes a continuing violation of Section 451.[273] However, CPSD's opening brief fails to explain how anti-retroactivity provisions in General Order 112 that exempt pipelines installed prior to 1961 from testing requirements are trumped by Section 451. CPSD instead offers a new argument that PG&E's failure to conduct a hydro test resulted in the unsafe operation of Line 132 without knowledge of "construction limitations."[274] This argument relates to operational considerations, not to recordkeeping. Moreover, it ignores the provisions of the "grandfather clause" that allow operators to establish pipeline MAOP at the highest pressure experienced between 1965 and 1970, regardless of whether pipe was subject to a hydro test.

TURN similarly fails to prove that PG&E was required by regulations or industry standards to conduct a pressure test, inappropriately citing to a decision in the pipeline safety rulemaking that even TURN acknowledges was discussing PG&E's practices "in the context of a ratemaking disallowance."[275]

a. CPSD Fails To Prove That PG&E Was Required To Conduct A Hydro Test And Maintain Test Records For Segment 180

CPSD has presented no evidence, and openly discounts metallurgical testimony and former PG&E employee statements that suggest that a pressure test was performed.[276] CPSD acknowledges its showing rests on unproven assumptions: "In the absence of records, the most reasonable inference, consistent with burden of proof, is that PG&E did no test for Segment 180."[277] Regardless of whether PG&E conducted a test, CPSD has failed to prove that any regulation required a gas pipeline operator to retain records of strength pressure tests in 1956. At the time, no state or federal regulations mandated post-installation strength pressure tests.[278] The natural gas industry had available to it a number of recommended practices in ASA B31.1.8,

[273] CPSD OB at 38-39.
[274] CPSD OB at 40.
[275] TURN OB at 20-21.
[276] CPSD OB at 42-43 ("The evidence that PG&E conducted a hydrostatic test is less than compelling.").
[277] CPSD OB at 42.
[278] Ex. PG&E-61 at 4-6 (PG&E/Harrison).

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including a provision to conduct strength testing.[279] The ASA B31.1.8 practices were not mandatory, however, and were not incorporated in state or federal regulations until years later.[280] Contrary to CPSD's contention, t he strength pressure testing provisions of ASA B31.1.8 were not "universally respected and widely used."[281] As stated by PG&E's then -General Superintendent of Gas Operations, the ASA B31.1.8 committee was still working in 1955 to gain general acceptance of the code in the industry.[282] Post-installation hydro testing had not yet become a widely accepted industry practice at the time Segment 180 was constructed.[283]

CPSD's claim that PG&E was required to conduct post -installation hydro testing and maintain records thereof is further undermined by General Order 112. When the Commission implemented General Order 112, it required, for the first time, that natural gas transmission pipelines be subjected to pre-service strength tests.[284] However, the new regulations contained an express exemption for existing pipelines like Line 132, stating:

> It is not intended that these rules be applied retroactively to existing installations in so far as design, fabrication, installation, established operating pressure, and **testing** are concerned. It is intended, however, that the provisions of these rules shall be applicable to the operation, maintenance, and up -rating of existing installations.[285]

This provision manifested the Commission's intent not to require existing pipelines to meet the post-installation pressure test standards specified in ASA B31.1.8, the 1958 version of which was incorporated (as modified) in GO 112. Any attempt by CPSD to assert a pressure testing requirement prior to 1961 is contrary to the express statement of intent contained in General Order 112. CPSD does not address this provision of General Order 112 in its reports, direct testimony or opening brief.[286]

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[279] Ex. PG&E-61 at 4-6 (PG&E/Harrison).

[280] Ex. PG&E-61 at 4-6 (PG&E/Harrison).

[281] CPSD OB at 40; Joint R.T. 23-24 (PG&E/Zurcher).

[282] PG&E's June 20, 2011 Response, Attachment P3-00006 at 126.

[283] Joint R.T. 354-57 (PG&E/Harrison).

[284] Ex. PG&E-4 (GO 112, § 209).

[285] Ex. PG&E-4 (GO 112, § 104.3).

[286] On cross-examination, Ms. Halligan attempted to reconcile GO 112's retroactivity clause with CPSD's view that Section 451 required pressure testing prior to GO 112. Her explanation rendered GO 112's anti -retroactivity provision a nullity (*see* R.T. 160-61 (CPSD/Halligan)), and rendered GO 112 itself superfluous.

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CPSD raises a new allegation in its opening brief. Segment 180, CPSD says, posed a safety threat "beca use PG&E was operating the high pressure pipeline without the benefit of knowing the construction limitations." That argument is contrary to the Natural Gas Pipeline Safety Act and the grandfather clause contained in Section 192.619(c). The Act and the regulation allowed existing pipe to operate regardless of whether the line had been hydro tested. As described by Cesar De Leon and discussed in connection with the preceding violation, [287] the grandfather clause allowed an operator to establish a safe MAOP b ased solely on the highest operating pressure experienced during a five year period between 1965 and 1970.

b. TURN Fails To Prove That PG&E Was Required To Conduct A Hydro Test And Maintain Test Records For Segment 180

TURN similarly claims that Section 451 r equired PG&E to conduct hydro tests, and maintain records of such tests.[288] TURN seeks to create the impression that the Commission, in a related proceeding, has already found such a requirement in Section 451. [289] However, as TURN acknowledges, this is not t rue. The pipeline safety rulemaking (R.11 -02-019) looked at PG&E's past practices "in the context of a ratemaking disallowance" [290] and found that ratepayers should not be required to pay for post -San Bruno pressure testing that, assuming PG&E was complying with ASA B31.1.8 in 1956, it would have conducted many decades ago. [291] The decision did not identify a regulatory requirement to conduct a pressure test, but instead held: "from 1956 to 1961: (1) PG&E's practice was generally to pressure test natural gas pipelines before placing the pipeline into service, with record retention being part of the practice, and (2) the costs of such pressure testing were included in revenue requirement recovered from ratepayers. . . . Having paid for such testing once, the ratepayers should not be required to pay for re-testing[.]"[292]

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[287] *See supra* Section V.A.2 (Felts Violation 2).

[288] TURN OB at 20.

[289] TURN OB at 21.

[290] TURN OB at 21.

[291] D.12-12-030 at 60.

[292] D.12-12-030 at 59-60.

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4. Violation 4: Underlying Records Related To Maximum Allowable Operating Pressure On Segment 180

CPSD remains steadfast in its belief that PG&E sectionalized Line 132 at the division boundary[293] even though there has never been any pressure regulating equipment at that location that would make sectionalization possible. CPSD does not confront the testimony of the PG&E engineer who was personally responsible for verifying and documenting pipeline MAOP in the early 1970s, but instead points to the occurrence of the 390 psig value in pipeline survey sheets,[294] which are not PG&E's document of record for MAOP. Finally, CPSD falls back on its flawed spoliation theory of burden shifting, arguing that PG&E lost some unspecified record that supports CPSD's theory that the 390 psig was related to an operating condition.[295]

a. PG&E Conclusively Documented 400 PSIG As The MAOP For Line 132 From Milepost 0.00 To 46.59

The evidence in the record proves that PG&E established a 400 psig MAOP for Line 132 from Milpitas Terminal to Martin Station (mileposts 0.00 to 46.59) pursuant to the grandfather clause.[296] Steven Phillips, the PG&E engineer responsible for confirming and documenting the MAOP for all of PG&E's transmission lines in the early 1970s, testified that the highest pressure for Line 132 was substantiated by a Milpitas Terminal pressure log that recorded a 400 psig pressure at the Milpitas Terminal in October 1968.[297] Several years later, the San Francisco Division, responsible for maintenance of Line 132 from milepost 35.84 to the terminus at the San Francisco Gas Load Center, prepared a memorandum stating the highest pressures occurring on Line 132 during the same five year period was 390 psig at the Milpitas Terminal.[298] However, the memorandum was mistaken, as it explicitly stated that the pressure was measured at *the Milpitas Terminal* (and not at milepost 35.84).[299] As explained by Mr. Phillips, the San Francisco Division memorandum was most likely the result of the Division's failure to locate

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[293] CPSD OB at 43-44.

[294] CPSD OB at 46-47.

[295] CPSD OB at 45-46.

[296] Ex. PG&E-61 at 4-9 (PG&E/Phillips).

[297] Ex. PG&E-61 at 4-9 to 4-10 (PG&E/Phillips); Ex. PG&E-42 (Milpitas Terminal operating pressure logs).

[298] Ex. PG&E-43 (1978 San Francisco Division Memo).

[299] Ex. PG&E-43 (1978 San Francisco Division Memo).

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operating pressure logs showing a 400 psig MAOP,[300] one of which is in evidence in this proceeding.[301]

b. CPSD Does Not Rebut Mr. Phillips' Personal Knowledge, And Instead Advances New Theories Of Violation

CPSD does not confront Mr. Phillips' testimony. CPSD asserts instead an entirely new theory of violation. CPSD states: "CPSD **believes** the San Francisco Division **may** have relied on pressure records from a pressure monitor installed in 1948 . . . . **Presumably**, the San Francisco Division would have referred to its own records to establish the MAOP for its section of Line 132 under the grandfather clause."[302] CPSD's theory is contradicted by the 1978 memorandum itself, which cited pressure measured at the Milpitas Terminal, rather than a reading from the San Francisco Division border.[303] In fact, PG&E has never maintained pressure regulation equipment (*e.g.*, valves) located at the division boundary, as even Ms. Felts conceded.[304] Without such pressure limiting equipment, the San Francisco Division would not be able to limit pressure on Line 132 within its boundaries without lowering the MAOP of the entire line. CPSD's argument is speculation built upon speculation, and it cannot credibly counter the personal knowledge of the PG&E engineer with a working knowledge of the configuration of the pipeline system who researched and documented MAOP on Line 132 in the 1970s.

c. CPSD Misunderstands How PG&E Recorded Pipeline MAOP

CPSD argues that the number of instances in which an MAOP other than an 400 psig appears in pipeline survey sheet revisions proves that the MAOP for Line 132 was lowered on purpose.[305] Contrary to CPSD's view on the authority of these documents, the pipeline survey sheets are not used to document or track pipeline MAOP.[306] PG&E recorded MAOP in the

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[300] Ex. PG&E-61 at 4-11 (PG&E/Phillips); R.T. 1131 (PG&E/Phillips).

[301] Ex. PG&E-42 (Milpitas Terminal operating pressure logs).

[302] CPSD OB at 45 (emphasis added).

[303] Ex. PG&E-43 (1978 San Francisco Division Memo).

[304] Ex. PG&E-61 at 4-12 (PG&E/Phillips); R.T. 429-30 (CPSD/Felts).

[305] CPSD OB at 46-47.

[306] R.T. 2215 (PG&E/Daubin) (Pipeline survey sheets are the predecessor to GIS, and were used to populate GIS. Like GIS, pipeline survey sheets served as reference tools).

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spreadsheets prepared in the 1970s. [307] The presence of differing MAOPs on a pipeline survey sheet does not indicate that PG&E operated Line 132 at anything other than a 400 psig MAOP.

d. CPSD's Arguments Relating To Industry Practice Ar e Mistaken And Out Of Place

CPSD makes the erroneous and unsubstantiated claim that "PG&E's experts stated that it was industry practice to dispose of pressure test records after it was determined that the utility could rely on the Grandfather clause to establish the MAOP of an older line."[308] PG&E's experts did not state that, nor is this argument relevant to whether the MAOP for Line 132 is 400 psig or 390 psig.

As described by CPSD witness Margaret Felts, the grandfather clause "says essentially where a c ompany does not have historical design information it could rely on the highest operating pressure of record between 1965 and 1970 to set the MAOP for the line." [309] PG&E's witnesses concurred with this interpretation. Cesar De Leon indicated that "[t]he pu rpose of the grandfather clause is – as pointed out in the issuance of the original 1970 rule is to allow pipelines that were already built to stay in the ground." [310] James Howe testified that the grandfather clause "recognizes that an operator may not have certain records or may not have a record of a pressure test, and therefore the grandfather clause allows safe operation based on [the pressure recorded during the five year period]."[311]

In regard to Line 132, PG&E has not asserted that it destroyed records of a pressure test on Segment 180 pursuant to the grandfather clause. Instead, PG&E engineer Steven Phillips testified that PG&E established the MAOP of Line 132 in the early 1970s pursuant to the grandfather clause. [312] CPSD's extensive quotation from the decision in the pipeline safety rulemaking (R.11-02-019) is irrelevant. [313] The ratemaking treatment of the lack of pressure test

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[307] Ex. PG&E-61 at 4-8 (PG&E/Phillips).
[308] CPSD OB at 48.
[309] R.T. 432 (CPSD/Felts).
[310] R.T. 739 (PG&E/De Leon).
[311] R.T. 1338 (PG&E/Howe).
[312] Ex. PG&E-61 at 4-9 to 4-10 (PG&E/Phillips); Ex. PG&E-42 (Milpitas Terminal operating pressure logs).
[313] CPSD OB at 48-49.

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records on grandfathered pipe in the context of the Commission's abolition of the grandfather rule in California does not say anything about compliance with the law.

5. Violation 5: Clearance Procedures

PG&E acknowledges that the clearance documentation for the UPS replacement project at Milpitas Terminal on September 9, 2010 did not meet Company standards. However, PG&E's opening b rief demonstrates that PG&E employees and contractors followed safe work procedures and communicated regularly with Gas System Operations to keep control room operators apprised of potential impacts to their ability to monitor the system. [314] The field crew also took precautions even though they were not detailed in the written clearance. [315] Contrary to what CPSD alleges, an adequate or even an overly -detailed clearance procedure could not have prevented the electrical problem that led to the unplanned pressur e increase, which resulted from an unexpected failure of two power supplies not involved in the clearance work. [316] In any event, the Commission should disregard this allegation because it is duplicative of CPSD's allegations in the San Bruno OII proceeding.

6. Violation 6: Operations And Maintenance Instructions

At the time of the San Bruno incident, PG&E maintained a copy of the most recent revision to the Milpitas Terminal Operations and Maintenance Instructions manual (revision 6, dated 2009) at the termina l.[317] CPSD's sole "evidence" that PG&E did not maintain an updated copy of the Milpitas Terminal O&MI manual is a data request, issued nearly a year after San Bruno, that asked PG&E to "[l]ist PG&E policies and procedures, past and present, relevant to the operation and maintenance of major gas facilities, [and] indicate . . . where the document or record was stored on September 9, 2010." [318] This broad data request encompassed numerous

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[314] PG&E OB at 74 -76; Joint R.T. 143 -44 (PG&E/Slibsager); Ex. PG&E -61 at 4 -13 (PG&E/Slibsager and Kazimirsky) (pre-work tailboard meetings on September 9, 2010); *id.* (field crew communicating with Gas Control throughout the day); *see, e.g .*, Ex. PG&E -66 (Tab 4 -3) at 7 -9, 42 -43, 45 -47 (Transcript of Gas Control Log, September 9, 2010).

[315] PG&E OB at 75 (switching the valve controllers into manual after documenting pressures and rechecking the pressures at each controller after reconnecting to the temporary UPS device).

[316] PG&E OB at 75; Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky).

[317] Ex. PG&E-61 at 4-17 to 4-18 (PG&E/Slibsager and Kazimirsky); Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 30, Question 9).

[318] Ex. CPSD-18 (PG&E Response CPSD Data Request No.1, Question 1B).

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categories of records, and even when limited to "major" facilities, would have required PG&E to review and digitize records at 124 facilities (including compressor stations, gas processing facilities, underground gas storage fields, and system control points, such as Terminals and Gas Load Centers) spread across its vast service territory. The data request did not specifically request, and was not limited to, records at the Milpitas Terminal. [319] Acknowledging the size of the request, as well as the time elapsed between San Bruno and the date of the request, PG&E cautioned: "It is not possible to ascertain whether the version contained at a station as of July/August 2011 was the exact version that existed on September 9, 2010[.]"[320]

CPSD issued a follow-up data request, asking specifically "Was there a hard copy version of the most recent Operating and Maintenance instructions at the Milpitas Terminal ("Terminal") on September 9, 2010?"[321] PG&E responded, unequivocally, in the affirmative:[322]

[319] Ex. CPSD-18 (PG&E Response CPSD Data Request No.1, Question 1B).

[320] Ex. CPSD-18 (PG&E Response CPSD Data Request No. 1, Question 1B, Supplement 2).

[321] Ex. CPSD-18 (PG&E Response CPSD Data Request No. 30, Question 9).

[322] Ex. CPSD-18 (PG&E Response CPSD Data Request No. 30, Question 9).

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PG&E Data Request No.:	CPUC_030-09		
PG&E File Name:	GasTransmissionSystemRecordsOII_DR_CPUC_030-Q09		
Request Date:	November 29, 2011	Requester DR No.:	030
Date Sent:	December 17, 2011	Requesting Party:	California Public Utilities Commission
PG&E Witness:		Requester:	Bob Cagen

QUESTION 9

On P. 19 of PG&E's DR1 Q1 Supplemental Response, PG&E states that not all 11 [facilities] contained the most recent revision [hard copy of Operating and Maintenance Instruction]. Was there a hard copy version of the most recent Operating and Maintenance instructions at the Milpitas Terminal ("Terminal") on September 9, 2010? If not, what version was on hand at the Terminal on September 9, 2010?

ANSWER 9

Please explain how in your view this question comes within the scope of this proceeding, particularly in light of Commissioner Florio's November 21, 2011 Scoping Memo. Among other things, the Scoping Memo designates that the first phase of this proceeding will address past recordkeeping practices and, if expanded to include alleged violations other than recordkeeping, it will be expanded once the Safety Branch completes its investigation of the San Bruno pipeline rupture. This question does not relate to past recordkeeping practices.

Nonetheless, PG&E responds: Yes.

CPSD does not even acknowledge the unequivocal affirmation that the most recent revision of the Milpitas Terminal O&MI manual was present in hardcopy at the Terminal, nor does CPSD explain its reliance on the general data request rather than its specific follow-up request. CPSD instead reiterates its assertion that despite issuing five revisions to the O&MI manual prior to San Bruno, PG&E did not transmit an update to the original 1991 revision of the manual to the Terminal until after San Bruno.[323]

[323] CPSD OB at 55.

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7. Violation 7 : Drawing And SCADA Diagrams Of The Milpitas Terminal

a. The Milpitas Terminal Engineering Drawing Accurately Reflected The Facilities Involved On September 9, 2010

On September 9, 2010, the Milpitas Terminal engineering drawing accurately reflected the pipelines, valves, and other equipment that was involved in the unplanned pressure increase. The drawing accurately reflected the regulator and monitor valves that controlled pressure on the outgoing Peninsula pipelines, which were the central focus of the gas control technician as he worked with gas system operators to address the situation. [324] Following the San Bruno incident, PG&E modified the operational configuration of the Milpitas Terminal to lower the maximum operating pressure on Lines 109 and 132 from 375 psig to 300 psig. [325] This required PG&E to modify valve positions from pre -incident c onfigurations, as Line 101 was previously operated together with Lines 109 and 132. The update to the operating diagram was not a correction, but instead reflected post-accident changes to the configuration of the Milpitas Terminal.

PG&E made several minor corrections to the drawing, but these changes were not related to the incident in any way. These changes were (1) correcting the valve number on a pig receiver facility for Line 100, and (2) correcting the valve and pipeline size on the cross -tie between Line 131 and Line 300A. [326] CPSD cannot credibly contend that correcting the valve number on a pig launcher, a facility that is not used during normal operation, was in any way relevant to the events of September 9, 2010. Nor does CPSD explain how the dia meter of a cross-tie between two of the incoming lines at the Milpitas Terminal is related to the pressure measuring equipment that failed, resulting in the pressure increase on September 9, 2010. Not only does CPSD fail to explain how these corrections a re related to events of September 9, 2010, CPSD also fails to explain how such minor, unrelated corrections are unsafe by any legal standard. CPSD does not meet its burden of proof by merely stating that the drawings were inaccurate.

[324] Ex. PG&E-61 at 4-19 to 4-20 (PG&E/Slibsager and Kazimirsky).

[325] Ex. PG&E-61 at 4-19 (PG&E/Slibsager and Kazimirsky).

[326] Ex. PG&E-61 at 4-19 (PG&E/Slibsager and Kazimirsky).

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b. PG&E's SCADA Diagram Accurately And Completely Reflected Equipment In The Milpitas Terminal

On September 9, 2010, PG&E's SCADA diagram accurately and completely reflected piping and valves, including a station bypass, used in daily operations at the Milpitas Terminal.[327] The SCADA diagram for the Milpitas Terminal appropriately did not reflect the 30-300 bypass equipment, which is located outside of the terminal and across a major highway.[328] The 30-300 bypass system was unused (in other words, the valves were closed) during normal operations, including on September 9, 2010.[329] CPSD's argument that the 30-300 bypass may have been in use at any time during the San Bruno incident[330] is unfounded speculation. The valves connecting the bypass to the outgoing lines must be manually opened, and are not able to be remotely actuated by PG&E's control room operators.[331] Consistent with API standard 1165, parts of PG&E's gas transmission system which are operated manually (such as the 30-300 bypass) are not shown on SCADA diagrams.[332]

CPSD further contends that the absence of records confirming that the 30-300 bypass was not opened on September 9, 2010 "exemplifies PG&E's haphazard recordkeeping."[333] The 30-300 bypass system can only be operated manually by local personnel.[334] There is no evidence in this proceeding, or in the related San Bruno OII, that suggests that PG&E personnel left the Milpitas Terminal, crossed the highway, and manually opened multiple valves on the 30-300 bypass system in order to route gas around the Milpitas Terminal and into the outgoing lines. The absence of a record that PG&E's employees did not leave the Terminal and go operate the valves is neither surprising nor evidence of any recordkeeping violation.

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[327] Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).

[328] Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).

[329] Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).

[330] CPSD OB at 58-60.

[331] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 8, Question 8, Attachment 5 at 2); Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 67, Question 39).

[332] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 67, Question 39).

[333] CPSD OB at 60.

[334] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 67, Question 39).

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8. Violation 8: Back-Up Software At Milpitas Terminal

CPSD's prior reports and testimony faulted PG&E for failing to follow the requirements of the Milpitas Terminal O&MI manual relating to backup software. [335] CPSD has apparently realized that the O&MI manual speaks to backup software for programmable logic controllers (PLCs), rather than valve controllers. So instead, it now advances the general argument that Section 451 requires PG&E to "maintain back-up software for all programmed equipment at the site where it is installed." [336] Even with the benefit of this revised theory of violation, CPSD fails to prove that the unavailability of the backup software was involved in the unplanned pressure increase, or hindered PG&E's response thereto, in any way.

CPSD repeats its allegation that the failure to maintain backup software for the valve controllers created an unsafe condition, purportedly because the inability to immediately restore programming "affects the ability of PG&E control operators to safely manage the operations of the high pressure pipeline system." [337] However, CPSD presents no evidence that the valve controllers were in any way responsible for the unplanned pressure increase, or hindered PG&E's response thereto. Moreover, CPSD provides no evidence, other than its own assertion, that backup software is essential to the safe maintenance of the system. Contrary to CPSD's assertion, despite power supply issues experienced prior to the incident, the valve controllers continued to function as designed. [338] When the voltage from the power supplies fluctuated, pressure transmitters sent zero or negative pressure readings to the valve controllers. The valve controllers responded to these pressure readings as designed, commanding the regulator valves open. [339] Thus, the valve controllers were working properly, and had not lost their programming when the pressure increase began. [340] The presence or absence of the backup software was ultimately irrelevant, as the controllers had experienced a rare malfunction that was only resolved through communication with the valve controller manufacturer, who directed PG&E personnel to reset the valve controllers via a physical interface on the controllers

[335] Ex. CPSD-2 at 10 (CPSD/Felts).
[336] CPSD OB at 61.
[337] CPSD OB at 62.
[338] Ex. PG&E-61 at 4-24 (PG&E/Slibsager and Kazimirsky).
[339] Ex. PG&E-61 at 4-24 (PG&E/Slibsager and Kazimirsky).
[340] Ex. PG&E-61 at 4-24 (PG&E/Slibsager and Kazimirsky).

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themselves.[341] CPSD has failed to presen t evidence that the absence of backup software at the Milpitas Terminal violates Section 451.

9. Violation 9: Supervisory Control And Data Acquisition System

CPSD's reports and testimony presented no evidence that PG&E's SCADA system was legally deficient, o r that it hindered gas control operators in identifying the pipeline rupture or responding thereto. CPSD's opening brief continues to misstate the time when gas control operators recognized that there was a line break, characterizing the operators as beco ming aware of the rupture much later than was the case on September 9, 2010.[342] CPSD cannot refute the fact that at 6:29 PM, based on low -pressure SCADA alarms on Line 132 and reports of fire in San Bruno, control room operators determined that "[w]e have a line break of [sic] San Bruno with flames. Sounds like a jet engine and Martin Station is dropping like a rock. . . . Line break in San Bruno."[343]

CPSD faults PG&E's SCADA system for failing to identify valves that could be used to isolate the ruptured se ction of pipe. [344] CPSD discusses no evidence in its opening brief that control room operators were unaware of valves on Line 132, but instead places the burden on PG&E to affirmatively demonstrate the control room operators had that knowledge. [345] CPSD fails to demonstrate that gas control operators were unable to use SCADA. Moreover, CPSD's argument assumes that, in the event of an emergency, PG&E's gas control room operators have the responsibility and legal obligation to identify valves that need to be ope rated to respond to the emergency. In fact, local personnel who have a day-to-day working knowledge of the system are better situated to respond, given the potentially complex network of transmission and distribution valves and pipe configurations involve d in the response. Local personnel know which valves need to be closed to isolate the rupture site, and opened to provide an alternative source of supply to as many customers as possible. On September 9, the on -call San Carlos supervisor informed Gas Con trol that local transmission and regulation personnel were

[341] Joint R.T. 95-96 (PG&E/Kazimirsky).
[342] *E.g.*, CPSD OB at 65 n.177.
[343] Ex. PG&E-66 (Tab 4-3) (Transcript of Gas Control Log, September 9, 2010).
[344] CPSD OB at 64-65.
[345] CPSD OB at 65.

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responsible for isolating the rupture and maintaining supply. [346] Gas Control had the ability to "take out some of the major feeds" [347] by closing remote control valves on Line 132 at Milpitas Terminal (milepost 0.00) and Martin Station (milepost 46.59). However, as Gas Control acknowledged, this would cut off service to "a whole lot of customers" along the Peninsula. [348] CPSD's criticism oversimplifies the inherent complexity of responding to a gas trans mission emergency, and assumes facts that CPSD has yet to attempt to prove.

10. Violation 10: Emergency Response Plans

CPSD's witness Ms. Felts conceded that PG&E's emergency response plans complied with the regulations.[349] CPSD audited the emergency response plans in 2009 and 2010 and found them to be satisfactory and in compliance with the applicable regulations. [350] CPSD nonetheless asserts that PG&E's emergency response plans violated Section 451. It argues: "even if an emergency response plan includes all required elements, the proof of its value is in how well it serves those handling an emergency." [351] Unable to assert a violation under the relevant regulations, CPSD applies hindsight to evaluate the adequacy and effectiveness of PG&E's emergency response and plans by CPSD's own undefined criteria.[352] PG&E has learned from the San Bruno accident. It has taken what it has learned and used it to take significant steps towards improving its emergency response plans. But, CPSD's hindsight judgments do not amoun t to a violation of the law.

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[346] Ex. CPSD -18 (PG&E Response to CPSD Data Request No. 3, Question 2, Attachment SF_9.9.2010_2.05.43_PM_11.57.23_PM_20110113.pdf at 399).

[347] Ex. CPSD -18 (PG&E Response to CPSD Data Request No. 3, Question 2, Attachment SF_9.9.2010_2.05.43_PM_11.57.23_PM_20110113.pdf at 399).

[348] Ex. CPSD -18 (PG&E Response to CPSD Data Request No. 3, Question 2, Attachment SF_9.9.2010_2.05.43_PM_11.57.23_PM_20110113.pdf at 399).

[349] R.T. 443 (CPSD/Felts) ("Q: In your rebuttal testimony, CPSD -4 at page 15, line 21, you acknowledge, quote: 'PG&E points out that its gas emergency plan meets regulatory criteria.' A [Felts]: Yes. Q: You don't take issue with that, do you? A [Felts]: No."); Ex. CPSD -4 at 15 (CPSD/Felts) ("PG&E points out that its Gas Emergency Plan meets regulatory criteria."); PG&E OB at 91-92.

[350] Ex. PG&E-61 at 4 -39 to 4 -56 (PG&E/Bull); Ex. PG&E -61, Chapter 4, Appendix A at 4 -5 (CPSD 200 9 audit finding PG&E emergency response plans complied with law); Ex. PG&E -61, Chapter 4, Appendix B at 4 -5 (CPSD 2010 audit finding PG&E emergency response plans complied with law).

[351] CPSD OB at 68.

[352] CPSD OB at 67. Violation 10 duplicates allegations ma de in the San Bruno OII, which also focused on whether the emergency response plans and response were effective in violation of Section 451. CPSD may not assert the same allegations in two different proceedings.

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a. Section 451 Does Not Provide A Basis For Applying Subjective Judgments About The Degree Of Effectiveness Of The Emergency Response.

CPSD concedes that PG&E's emergency response plans contain all of the requirements for written procedures set forth in 49 C.F.R. § 192.615. [353] CPSD nonetheless alleges a violation under Section 451. PG&E "created unsafe conditions during the September 9, 2012 San Bruno emergency by failing to maintain a clearly defined Emergency Response Plan." [354] CPSD does not explain how Section 451 authorizes a finding of a violation for such conduct. It also fails to explain what its proposed "clearly defined" emergency plan would look like.

Unable to articulate a standard for violation under Section 451, CPSD i nstead applies hindsight judgment that PG&E's emergency response plans must have been deficient because PG&E's response was not fast or "effective" enough. "The ultimate proof of this is PG&E's inexcusably tardy response time to the pipeline explosion." [355] Section 451 provides no basis for CPSD to assert a violation of such subjective, undefined bases for making judgments.

CPSD alleges that the plans were "too complicated," "too voluminous," "too difficult to use," "clearly inadequate," did not "deal effect ively" with the gas emergency, failed to provide a "clearly defined" emergency response plan, and resulted in an "inexcusably tardy response time."[356] CPSD fails to provide criteria by which to measure whether the plans were "too complicated," "too voluminous," "too difficult to use," "clearly inadequate" or "clearly defined." The gravamen of CPSD's argument is that the emergency response took too long. CPSD alleges that the response time was "inexcusably tardy," but there are no California regulations or laws that require an emergency response to be made within a set time period. CPSD fails to define a "tardy" response time, or what would constitute an "inexcusably tardy" as opposed to an excusably tardy response time. It fails to introduce industry prac tice evidence establishing how

[353] CPSD OB at 68; Ex. CPSD -4 at 16 (CPSD/Fel ts); R.T. 443 (CPSD/Felts). CPSD did not challenge or cross-examine PG&E's expert on emergency response plans, David Bull, who concluded that the company's Gas Emergency Plan meets regulatory criteria. Ex. PG&E -61 at 4-39 to 4-56 (PG&E/Bull); Ex. PG&E -61, Chapter 4, Appendix A at 4-5 (CPSD 2009 audit finding PG&E emergency response plans complied with law); Ex. PG&E -61, Chapter 4, Appendix B at 4-5 (CPSD 2010 audit finding PG&E emergency response plans complied with law).

[354] CPSD OB at 67.

[355] CPSD OB at 67.

[356] CPSD OB at 67. CPSD mentions in its brief "good engineering practices" in its evaluation of PG&E's emergency response plans, but provides no evidence of industry practice. In support CPSD cites Margaret Felts' testimony, who never discusses or uses the phrase "good engineering practices." CPSD OB at 67 (citing Ex. CPSD-2 at 12 (CPSD/Felts)).

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PG&E's response time deviated from that of other operators facing similar accidents. CPSD relies upon its own subjective opinion based on unknown criteria to make a determination as to whether the plans and the response violated the law.

b. PG&E's Response Time Did Not Violate The Law

Time to Shut Off Gas. CPSD criticizes PG&E for the time it took to shut off the gas. CPSD summarizes portions of PG&E's emergency response, with no discussion of the plans themselves, and concludes that "these facts alone are sufficient to find that PG&E's emergency plan was ineffective, deficient, and unsafe."[357] As CPSD has acknowledged, there are no applicable regulations or statutes that set forth a time period by which an emergency response must be initiated or completed. CPSD tries to compare the police and fire response time to arrive at the fire to the time it took for PG&E mechanics to arrive at the first valve to shut it off.[358] This is an apples to oranges comparison. CPSD argues that the time it took to turn off the gas "might have been significantly less if PG&E had had better emergency planning and materials."[359] Looking back at the emergency response, PG&E acknowledges that it can and should make improvements to its procedures. CPSD presents only speculation, but not evidence, that things "might have" been different if PG&E had "better" planning.[360] In any event, PG&E did not violate the law by having an emergency plan that hindsight suggests could have been "better."

Gas Control Room. CPSD states that PG&E's control room was working "for almost two hours" to resolve issues when electrical work caused a loss of SCADA data.[361] CPSD summarily speculates, rather than provides evidence, that "[i]t appears from audio records and transcripts of the calls in the San Francisco Gas Control Room that personnel were not sure of their roles in the emergency and were primarily responding to information and directions coming from personnel outside of the control room."[362] CPSD relies on the conclusions of Ms. Felts, who based her conclusion on incomplete information. Ms. Felts testified that she never received training on PG&E's emergency plan and she has never participated in a drill on PG&E's

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[357] CPSD OB at 67-68.
[358] CPSD OB at 68.
[359] CPSD OB at 68.
[360] CPSD OB at 68.
[361] CPSD OB at 67.
[362] CPSD OB at 69.

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emergency response plan.[363] Finally, Ms. Felts conceded th at no one at PG&E ever told her that the emergency plan was, as she claimed, too difficult to use.[364]

David Bull, a former associate staff member of PHMSA's Office of Training and Qualifications who has years of experience instructing gas operators on emerge ncy response regulations, concluded that PG&E's emergency plan was not too difficult to use. [365] Mr. Bull found that the plan sets forth a functional organization that follows 49 C.F.R. § 192.615 and can be implemented by trained personnel.[366] Mr. Bull also reviewed the gas control room transcripts and did not find that there was confusion in the Control Room. [367] "Personnel asked questions necessary to gather information about the emergency management organizations. Their questions were in line with the flow c harts and checklists detailing who should be in the overall communication loop."[368]

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 responder s in the field, remotely close the valves at Martin Station, and maintain the gas supply to the rest of the Peninsula – the importance of which is consistently lost in the criticisms. [369] CPSD disregards that Gas Control had to process and analyze a mixture of valid and invalid SCADA data along with reports from the field.[370] 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.[371]

c. PG&E's Checklists Do Not Constitute A Violation Of The Law

While criticizing the emergency plan for being "too voluminous" and "too complicated," (and providing no examples), CPSD also criticizes checklists in the emergency response plans

[363] R.T. 444-45 (CPSD/Felts).

[364] R.T. 445 (CPSD/Felts).

[365] Ex. PG&E-61 at 4-51 to 4-54 (PG&E/Bull).

[366] Ex. PG&E-61 at 4-54 (PG&E/Bull).

[367] Ex. PG&E-61 at 4-54 to 4-56 (PG&E/Bull).

[368] Ex. PG&E-61 at 4-56 (PG&E/Bull).

[369] Ex. CPSD -6, footnote 1, file 001.pdf, at 5 -14 (CPSD/Duller and North) (NTS B August 30, 2011 Accident Report).

[370] Ex. CPSD -6, footnote 1, file 001.pdf, at 5 -12 (CPSD/Duller and North) (NTSB August 30, 2011 Accident Report).

[371] Ex. CPSD-6, footnote 1, file 001.pdf, at 14 (CPSD/Duller and North) (NTSB August 30, 2011 Accident Report).

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for being too high level and not including enough detailed instructions. [372] CPSD does not point to any regulation that requires the CPSD's recommended specific, detailed information for a checklist. CPSD's criticism ignores that the emergency plan is a reference tool for use by employees who are trained to perform their jobs and to execute the emergency response plan. [373] As PG&E's expert on emergency response explained, emergency response plans are designed for trained personnel to implement, which they did.[374]

d. PG&E Employees Were Not Confused, But Even If They Were, Confusion During An Emergency Does Not Constitute A Violation Of The Law

In one sentence, CPSD summarily states that "when managers off -site must explain the emergency process to gas control operators , as they did during the San Bruno emergency, then there is a problem in the way the emergency plan is written and/or accessed." [375] CPSD does not provide any citation to evidence for its assertion. Nor does CPSD attempt to explain how its statement translates to a violation of the law.

In any event, PG&E employees were not confused. As described in PG&E's opening brief, CPSD misconstrued the understandable level of intensity during the emergency on September 9, 2010, as a "problem" with the emergency plan. [376] The excerpts do not show confusion – they show unscripted communications during a time of intense activity, communications in which Gas Control was supporting the activation of the emergency response centers required under the emergency plan. [377] CPSD has failed to carry its burden of proof and

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[372] CPSD OB at 69.

[373] Ex. PG&E-61 at 4-51 to 4-54 (PG&E/Bull).

[374] Ex. PG&E -61 at 4 -45, 4 -51 (PG&E/Bull). The emergency response plan sets forth personnel roles and responsibilities in an emergency response, and operator qualifications that employees wi th stated jobs must fulfill, including being able to shut off valves. Ex. CPSD -18 (PG&E Response to CPSD Data Request No. 1, Question 8, at Part 1, Section 3.3 (Personnel Roles and Responsibilities), Part 2 (training requirements and skill assessments)). It is untrue that PG&E did not know who to call to shut off the valves. Concord Dispatch called the on -call supervisor, who called the M&C mechanics who reported to the Colma yard to retrieve the truck and tools and then went to shut off the valves. Ex. CPSD-6, footnote 1, file 001.pdf, at 13-16 (CPSD/Duller and North) (NTSB August 30, 2011 Accident Report). Concord Dispatch also called Gas Control, which remotely closed the valves at Martin Station. Ex. CPSD-6, footnote 1, file 001.pdf, at 13-16 (CPSD/Duller and North) (NTSB August 30, 2011 Accident Report).

[375] CPSD OB at 69.

[376] *See* Ex. CPSD-4 at 17 (CPSD/Felts); PG&E OB at 92-93.

[377] Ex. PG&E-61 at 4-37 to 4-38 (PG&E/Almario); Ex. PG&E-61 at 4-54 to 4-55 (PG&E/Bull).

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cannot assert a legal violation based on a conclusory sentence that does not accurately reflect the evidence.

e. CPSD Failed To Justify The Duration And Scope Of The Violation

CPSD contends the alleged violation regard ing PG&E's emergency response plan is a "continuing" violation.[378] Many of CPSD's alleged continuing violations improperly transform a single act into separate and compounded violations contrary to Section 2108, Commission precedent and the California Const itution. Specifically with respect to emergency response plans, the asserted duration of the alleged violations is both arbitrary and not supported by the evidence.

CPSD contends that the latest update to the emergency response plan was April 2010, and then summarily concludes that the violation continues from April 2010 to September 2010. CPSD does not state why April 2010 would be the basis of the start of a violation, or cite evidence to substantiate a continuing violation.

11. Violation 11 : Incidents Of Operating Line 132 In Excess Of 390 Maximum Allowable Operating Pressure

CPSD's reports and testimony claim that PG&E violated Section 451 by operating the section of Line 132 from mileposts 35.84 to 46.59 in excess of 390 psig on three separate occasions.[379] CPSD's alleged violation fails, as CPSD has not proven that Line 132 had an MAOP of anything other than 400 psig.[380] CPSD's alleged violation fails even if the MAOP was 390 psig for this section of Line 132, as pressures in this section of the line *never reached or exceeded 390 psig on any of the three days in question* .[381] CPSD cannot meet its burden of proof for this violation, because the necessary events did not occur.

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[378] CPSD OB at 70.

[379] Ex. CPSD-4 at 17 (CPSD/Felts); Ex. CPSD-15 at 6 (CPSD/Felts) (Felts Revised Table of Violations).

[380] *See supra* PG&E's discussion of Violation 4.

[381] PG&E OB at 94-95.

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Rather than withdraw this violation, CPSD instead apparently [382] raises a new theory of violation based on integrity management regulations relating to longitudinal seam integrity assessments to support the argument that PG&E could not operate *any* portion of Line 132 (not just mileposts 35.84 -46.59) above 390 psig. [383] As a threshold matter, no t only are the federal regulations CPSD intended to cite inapplicable to this violation, but CPSD cannot now, for the first time in its opening brief, substitute its theory of violation from a general statute (Section 451) to a specific (yet unattributed) regulation in the integrity management rules. Violations of the integrity management regulations are properly addressed (and have been alleged by CPSD) in the San Bruno OII.[384] This violation should be stricken entirely from this proceeding.

Even if CPSD is allowed to proceed with this alleged violation, it still fails to identify any law that supports its new claim. CPSD, without attribution, states: "Federal regulations implemented in 2004 required PG&E to set the MAOP of a line at the highest operating pressure experienced on the line during the preceding five years." [385] It appears CPSD intended to refer to 49 C.F.R. § 192.917(e)(3) or (e)(4), which are most similar to CPSD's language. However, these regulations do not purport to limit the **MAOP** of **any** pipeline to the highest pressure experienced on the line during the five years preceding 2004. Rather, 49 C.F.R. §§192.917(e)(3) and (e)(4) state:

> **49 C.F.R. § 192.917: How does an operator identify potential threats to pipeline integrity and use the thre at identification information in its integrity program?**
>
> (e) *Actions to address particular threats* . If an operator identifies any of the following threats, the operator must take the following actions to address the threat.
>
> (3) *Manufacturing and constructi on defects* . If an operator identifies the threat of manufacturing and construction defects (including seam defects) in the covered segment, an operator must analyze the covered segment to determine the risk of failure from these defects. The analysis mus t consider the results of prior

[382] CPSD's argument is based on unspecified "federal regulations implemented in 2004" that approximate the language in 49 C.F.R. § 192.917(e)(3) or (e)(4). However, CSPD does not identify this (or any) provision of the federal regulations in support of its new theory for Violation 11.

[383] CPSD OB at 70.

[384] SB OII CPSD OB at 45-47.

[385] CPSD OB at 70.

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> assessments on the covered segment. An operator may consider manufacturing and construction related defects to be stable defects if the operating pressure on the covered segment has not increased over the maximum operating pressure experienced during the five years preceding identification of the high consequence area. If any of the following changes occur in the covered segment, an operator must prioritize the covered segment as a high risk segment for the baseline assessment or a subsequent reassessment.
>
> (i) Operating pressure increases above the maximum operating pressure experienced during the preceding five years;
>
> (ii) MAOP increases; or
>
> (iii) The stresses leading to cyclic fatigue increase.
>
> (4) *ERW pipe* . If a covered pipeline segment contains low frequency electric resistance welded pipe (ERW), lap welded pipe or other pipe that satisfies the conditions specified in ASME/ANSI B31.8S, Appendices A4.3 and A4.4, and any covered or noncovered segment in the pipeline system with such pipe has experienced seam failure, or operating pressure on the covered segment has increased over the maximum operating pressure experienced during the preceding five years , an operator must select an assessment technology or technologies with a proven application capable of assessing seam integrity and seam corrosion anomalies. The operator must prioritize the covered segment as a high risk segment for the baseline assessment or a subsequent reassessment.[386]

Thus, the "federal regulations implem ented in 2004" did not require an operator to re - establish maximum allowable operating pressure (MAOP) for pipelines at the highest pressure experienced during the five years preceding 2004, as CPSD's new theory states. To the contrary, these regulations only require an operator to conduct an integrity seam assessment if (1) the pipeline is in a high consequence area and is subject to a potential manufacturing threat, and (2) the operating pressure increases above the **maximum operating pressure** (**MOP**, which is separate and distinct from MAOP) experienced during the five years prior to identification of the high consequence area.

Even if CPSD's misinterpretation of the integrity management regulations is taken as true, CPSD's opening brief affirms that PG&E o perated Line 132 to 400 psig during the five

[386] 49 C.F.R. §§ 192.917(e)(3)-(e)(4) (bold and italics in original, underlining added).

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years prior to the implementation of the integrity management rules in 2004. CPSD states: "In 2003 . . . PG&E purposefully pressured Line 132 to 400 psi and held it at this level for 2 hours[.]"[387] Thus, CPSD faults PG&E for operating Line 132 above 390 psig, as it asserts that such pressures exceed the maximum pressure experienced in the five years prior to 2004. However, CPSD states facts that would, under CPSD's interpretation of federal regulations, allow PG&E to operate all of Line 132 to 400 psig. CPSD not only fails to introduce evidence in support of its claim, it admits that PG&E satisfied the regulation it claims PG&E violated. This allegation should be disregarded.

12. Violation 12: Preservation Of Records Related To Brentwood Video Camera Six

CPSD continues to pursue an alleged violation based on the security video from the Brentwood alternate gas control facility. [388] CPSD alleges PG&E failed to preserve video from the Brentwood facility on September 9, 2010 in violation of paragraph 7 of Executive Director Clanon's order to "[p]reserve all records related to the incident," [389] as well as Commission Resolution L-403.[390] In its opening brief, CPSD now suggests that PG&E intentionally destroyed the Brentwood recording and has been purposely misleading the Commission from the outset. [391] CPSD is demonstrably wrong.

PG&E cannot state it more clearly than it has – the camera inside the Brentwood facility did not record on September 9, 2010. PG&E did not destroy the video recording; it never existed. PG&E stated this in written testimony. [392] PG&E presented at the evidentiary hearing testimony from the person with direct knowledge of the camera, the recording system, and the mistaken and corrected data responses. [393] PG&E's counsel has repeatedly stated to CPSD and the ALJ that the video recording never existed, which statements are in addition to the

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[387] CPSD OB at 75.

[388] CPSD OB at 76.

[389] Executive Director Clanon's preservation order states in pertinent part: "Preserve all records related to the incident, including work at the Milpitas terminal during the month of September 2010." Ex. PG&E-26 at 1; R.T. 243 (CPSD/Felts).

[390] Ex. PG&E-27 at 12; R.T. 243-44 (CPSD/Felts); Ex. CPSD-3 at 11 (CPSD/Felts).

[391] CPSD OB at 76 ("the evidence proves that PG&E destroyed highly relevant evidence"); *id.* ("PG&E . . . destroy[ed] evidence form [sic] the control room").

[392] Ex. PG&E-61 at 5-3 (PG&E/Seager).

[393] R.T. 1509-33 (PG&E/Cochran).

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representation necessarily made when testimony is submitted, *i.e.*, counsel believes it to be true. PG&E cannot do more; PG&E cannot convince CPSD and Ms. Felts they are not the victims of an intentional deception if they refuse to accept anything PG&E says as truthful. That PG&E's first data response was factually incorrect (inadvertently, and regarding only a collateral f act) is not a legitimate basis to reject as falsehoods all subsequent statements from PG&E.

The facts are straightforward, as PG&E has repeatedly explained:

1. PG&E's first data response (October 10, 2011) was incorrect; PG&E made a mistake. PG&E incorrec tly concluded, and informed CPSD, that the Brentwood video recording had been overwritten in the normal course of time.[394]
2. The mistake happened because, when the PG&E employee checked the DVR for recordings from September 9, 2010 and found none, he assume d that the recording had been overwritten due to the passage of time, as it was 13 months after the accident.[395]
3. Six months later, the same employee investigated the set -up of the Brentwood security camera system in response to a non -CPSD inquiry. At tha t time he discovered the camera inside the Brentwood facility had not been properly set to record, and was not recording, thus there never was a recording from September 9, 2010. His assumption that the video was not on the DVR because it had been overwritten was wrong.[396]
4. Realizing its prior data response contained incorrect information ***regarding the reason*** the Brentwood video did not exist, PG&E voluntarily updated its prior response to provide CPSD the correct information, *i.e.*, that the Brentwood vide o did not exist because it never recorded, not because it was overwritten.[397]

That is all there is and ever was to this issue. PG&E provided a mistaken data response; PG&E discovered the mistake; PG&E corrected the mistake. PG&E cannot overcome CPSD's and Ms. Felts' disbelief if they insist on dismissing facts as falsehoods.

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[394] Ex. PG&E-61 at 5-3 (PG&E/Seager); R.T. 1513-15 (PG&E/Cochran).

[395] R.T. 1513-15 (PG&E/Cochran).

[396] R.T. 1515-16 (PG&E/Cochran).

[397] Ex. PG&E-61 at 5-3 (PG&E/Seager).

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Their skepticism is not warranted – the actual events described above are far more reasonable than what must be accepted as true to reach CPSD's conclusion. To assert, as they do, that PG&E destroyed the Brentwood video and then lied about it, CPSD and Ms. Felts must contend: (1) the Brentwood camera recorded on September 9, 2010; (2) PG&E intentionally destroyed the recording (either immediately or when CPSD asked for it); (3) PG&E lied in its first data response to cover up the destruction, telling CPSD that the recording was overwritten; (4) six months later, despite getting away with the initial lie, PG&E ***self-reported a different lie contradicting the first lie***, claiming that the camera never recorded. CPSD does not explain why PG&E would be so obtuse in addition to intentionally fraudulent. The obvious reason is because it did not happen that way.[398]

CPSD's contention that the video recording would have been "highly relevant evident [sic]" also is incorrect.[399] As demonstrated at the evidentiary hearing, the picture from the Brentwood security camera does not show anything relevant to gas control operations.[400] The gas control operators' computer screens cannot be read from the camera and there is no audio, so conversations cannot be heard.[401] At most, the camera depicts people and their general movements. Additionally, gas control operations never switched to Brentwood on September 9, 2010.[402] Other than phone conversations with San Francisco gas control, which were recorded and provided to CPSD,[403] the personnel in Brentwood were not involved in the events on

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[398] CPSD could not assert that PG&E inadvertently allowed the Brentwood video to be destroyed, and then lied in its first data response to cover it up. Had that happened, PG&E would not have said in its first data response that the video was overwritten, as that would be admitting the inadvertent destruction, not concealing it.

[399] CPSD OB at 76.

[400] R.T. 1512-13 (PG&E/Cochran); Ex. PG&E-76 (still photo of view from Brentwood security camera).

[401] R.T. 1512-13 (PG&E/Cochran); Ex. PG&E-76.

[402] Joint R.T. 163 (PG&E/Slibsager).

[403] CPSD and Ms. Felts disbelieved that fact as well. Based on the non-sequential numbering of the digital phone recordings PG&E provided, CPSD and Ms. Felts concluded that PG&E deleted gas control phone recordings. *See* Ex. CPSD-3 at 6-8 (CPSD/Felts). PG&E explained multiple times in multiple ways that the non-sequential numbering occurred because the system that recorded gas control phone calls also recorded phone calls in other departments. Ex. PG&E-61 at 5-1 to 5-2 (PG&E/Seager); Ex. PG&E-67 (Tabs 5-1, 5-2, 5-3, 5-4, 5-6, 5-7). Only after PG&E provided a complete list of every phone call recorded from September 9, 2010 (Ex. PG&E-67 (Tab 5-7)), more data response explanations, and digital copies of numerous irrelevant recordings from other departments did CPSD and Ms. Felts accept that PG&E did not delete phone recordings from September 9, 2010. *See, e.g.*, Ex. CPSD-18 (PG&E Response to CPSD Data Request 81, Questions 1, 2); *id.* (PG&E Response to CPSD Data Request 78, Questions 1, 6); *id.* (PG&E Response to CPSD Data Request 63, Questions 2, 3); *id.* (PG&E Response to CPSD Data Request 43, Questions 1, 2, 3, 4).

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September 9, 2010. Contrary to CPSD's assertion, video from the Brentwood facility would not have been "highly relevant[.]"

Even disregarding all of the abov e, the most important fact for the Commission is that CPSD has not met its burden of proof to establish this violation. The evidence establishes the Brentwood recording never existed, thus PG&E did not fail to preserve it. CPSD presents no evidence the recording did exist, and PG&E destroyed it, whether intentionally or inadvertently. Putting aside CPSD's lack of evidence, this alleged violation still fails. CPSD's allegation is really that PG&E did not ***attempt*** to preserve the Brentwood video.[404] Resolution L-403 and the Executive Director's order required preservation; to violate either directive requires a failure to preserve, not the failure to attempt to preserve. Because the evidence proves there was nothing to preserve, PG&E could not have violated Resolution L-403 or the Executive Director's order. Alleging PG&E failed to attempt to preserve the Brentwood video is not a legitimate basis for the violation.

Lastly, CPSD and Ms. Felts persist in contending this is a continuing violation occurring to the present date and beyond.[405] The law requires boundaries, however[406]; the non-existence of the Brentwood videotape will continue forever (the video will never exist and, even if it had once existed, it will never again). CPSD cannot properly allege a viol ation that continues in perpetuity.

13. Violation 13: PG&E's Data Responses Regarding Brentwood Camera Six Video

Based on PG&E's data responses regarding the Brentwood video recording, discussed above in Violation 12, CPSD contends PG&E violated Rule 1.1 of t he Commission's Rules of Practice and Procedure.[407] As PG&E stated in its opening brief,[408] PG&E's first data response contained incorrect information, which PG&E corrected upon discovering its mistake. As with Violation 12, PG&E cannot convince CPSD and Ms. Felts that PG&E's mistake was inadvertent

[404] CPSD OB at 82 ("PG&E did not assert in either of these two data responses that it took a ny steps to comply with the preservation order of the Commission . . . .").

[405] CPSD OB at 82.

[406] *See* PG&E OB at 39-43.

[407] Ex. CPSD-3 at 1-5, 11 (CPSD/Felts); CPSD OB at 80.

[408] PG&E OB at 97-99.

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and its correction truthful. Regardless, the important point is the evidence, and the record establishes that there is no Rule 1 violation.

The evidence proves that the central fact in PG&E's data responses was a lways correct. CPSD asked for a copy of the Brentwood video recording – both PG&E data responses informed CPSD that the Brentwood video did not exist. [409] The inconsistency between the responses only related to reason the video did not exist. [410] Accordingly, CPSD was never misled – the data request asked for the video, and PG&E at all times informed CPSD that it did not exist. That alone defeats the alleged Rule 1 violation.[411]

CPSD cannot establish this violation, even assuming an inconsistency on a collatera l fact implicates Rule 1. CPSD offers no legitimate explanation how PG&E's different explanations about why there was no Brentwood video recording prejudiced CPSD's investigation or harmed "the Commission's regulatory process."[412] CPSD's invocation of "delays" or "disrupt[ion] to the fact-finding process" lack substantive meaning or explanation, such as what was delayed or disrupted as the result of the differing explanations. [413] The fact that the Brentwood video did not exist was not altered by the reason.[414]

In actuality, the prejudice CPSD and Ms. Felts are claiming is that the Commission has purportedly been "deprive[d] . . . of ever learning the truth about whether there really was a videotape of the Brentwood Control Room." [415] Thus, like Violation 12, this alleged violation distills down to CPSD's and Ms. Felts' conviction that PG&E destroyed the Brentwood video and PG&E's subsequent statements have been machinations to conceal that misconduct. Again, however, CPSD and Ms. Felts have no evidence to support their conclusion, only tenacious suspicion. They go so far as to assert "that PG&E is choosing a penalty from violating Rule 1.1

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[409] Ex. PG&E-61 at 5-3 (PG&E/Seager); Ex. PG&E-67 (Tabs 5-8, 5-9).

[410] R.T. 233-34 (CPSD/Felts).

[411] During this investigation, PG&E responded to thousands of data requests from numerous parties under extreme time demands. In this instance, PG&E got wrong the reason that the Brentwood video did not exist; that it did not exist was never incorrect. It is neither surprising nor condemnable that PG&E would make an honest mistake given the volume of data requests to which it responded.

[412] CPSD OB at 86.

[413] CPSD OB at 86.

[414] Had PG&E initially informed CPSD that the Brentwood video did not exist because the camera did not record, CPSD's investigation would have been no different – at all times CPSD had access to the identities of the personnel at the Brentwood facility and had the au thority to interview or depose them regarding their activities. Their activities did not interest CPSD; rather, CPSD focused only on why the video recording did not exist.

[415] CPSD OB at 86.

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rather than be consistent in its response to the data requests . . . ."[416] Such an accusation is simply irrational. Violations require evidence that meets the required standard of proof, and CPSD has not provided it.

At the risk of being repetitive, the facts are what they are: PG&E made a mistake in its first data response regarding why the Brentwood video did not exist; PG&E discovered the mistake several months later; PG&E voluntarily informed CPSD of the mistake.[417] For the Commission to conclude that PG&E violated Rule 1.1, it must ground that conclusion on competent evidence, not CPSD's and Ms. Felts' unsupportable conjecture. The Commission has repeatedly held that Rule 1 violations require a showing of purposeful intent, recklessness or gross negligence in regard to communications with the Commission.[418] Under that standard and the record evidence, PG&E has not violated Rule 1.

CPSD and Ms. Felts also contend this alleged violation continues to the present date.[419] They do not explain when, if ever, the violation can end. Presumably, the violation would only end with PG&E's confession that it destroyed the Brentwood video and intentionally lied about it to the Commission. Since that did not happen, PG&E will not be confessing and this alleged violation suffers from the same defect of continuing forever. That alone demonstrates that alleging a continuing violation is meritless.

14. Violation 14: PG&E's Data Responses Regarding Personnel At Milpitas Terminal On September 9, 2010

As with Violation 13, CPSD has taken PG&E's good-faith responses to data requests and found a defect that allegedly constitutes a Rule 1 violation. In this instance, CPSD contends that PG&E's data responses regarding the personnel present at Milpitas Terminal on September 9, 2010 were incomplete and misleading.[420] Again, the evidence does not support CPSD's conclusion. At most, it appears CPSD and PG&E have been talking past each other.

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[416] CPSD OB at 86.

[417] Ex. PG&E-61 at 5-3 (PG&E/Seager); R.T. 1513-16 (PG&E/Cochran); PG&E OB at 97-100.

[418] *Investigation of S. Cal. Edison Co.*, D.04-04-065, 2004 Cal. PUC LEXIS 207, at *17; *Application of Pac. Fiber Link, LLC*, D.02-08-063, 2002 Cal. PUC LEXIS 533, at *29-30.

[419] CPSD OB at 86.

[420] CPSD OB at 87.

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This alleged violation centers on PG&E's failure to state in data response CPSD_30 -002 that the Milpitas Terminal temporary supervisor returned to Milpitas Terminal on September 9, 2010.[421] PG&E admits that its response to CPSD_30-002 did not include that fact. As PG&E explained in its opening brief, PG&E did not understand the data request to ask for that information. Accordingly, the perceived failure to provide it should not be the basis of an alleged Rule 1 violation.[422] CPSD disagrees.

CPSD also states PG&E "did not ***identify all of the people in Milpitas handling the pressure problem*** on September 9, 2010."[423] Thus, CPSD's concern appears to be its belief that the temporary supervisor was present at Milpitas Terminal and involved in the response to the pressure increase, and that PG&E's failure to identify him in the data responses was a material omission because of his presence and involvement in those events. Assuming that is a fair characterization of CPSD's concern, further explanation may resolve the issue.

The temporary supervisor was not at Milpitas Terminal during the pertinent time period and was not involved in the crew's response to the pressure increase. As PG&E described in its response to CPSD_30 -002, the t emporary supervisor left Milpitas Terminal that day around 11:30 a.m., and went home from a different location at the end of his scheduled shift at 4:30 p.m.[424] He did, as CPSD points out, return to Milpitas Terminal on September 9, 2010, but he did not return until approximately 8:30 p.m., after the unexpected pressure increase and after the Line 132 rupture. [425] The gas control transcript referred to by CPSD reflects telephone calls involving the temporary supervisor while he was at home; at 6:47 p.m. he sta tes he will be going to Milpitas Terminal.[426] He was not present at Milpitas Terminal and was not involved when the crew was responding to the unexpected pressure increase.

With this clarification, PG&E suggests that the issue of a Rule 1 violation is moot. As noted in its opening brief, in hindsight PG&E would add to its data response a statement that the

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[421] CPSD OB at 87-88.

[422] PG&E OB at 101-03.

[423] CPSD OB at 89 (emphasis added).

[424] Ex. PG&E-67 (Tab 5-14); PG&E OB at 102-03.

[425] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 77, Question 1 (cited in Ex. CPSD-4 at 22 n. 116)).

[426] CPSD OB at 88 n.233 (citing to NTSB transc ript of gas control log – Call ID 6.47.51 PM – 6079390000393963 ("Okay, um, I am going to just jump in the shower and I will be heading over [to Milpitas].")).

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temporary supervisor returned to Milpitas Terminal after the rupture.[427] But given CPSD's apparent concern that PG&E omitted from its data response a key player who was present during the pressure increase and response at Milpitas Terminal, and the fact established by the evidence that he was not present and involved in those events, the basis for the alleged Rule 1 violation has dissolved.

At worst, as fully explained in PG&E's opening brief,[428] the evidence shows that PG&E provided good faith responses to the questions it understood CPSD to be asking, and that PG&E did not attempt or intend to "mislead the Commission or its staff by an artifice or false statement of fact or law."[429] Under these facts, PG&E has not violated Rule 1.

15. Violation 15: WITHDRAWN

B. Alleged General Records Violations For All Transmission Lines Including Line 132

16. Violation 16: Job Files

CPSD alleges that PG&E's job files are missing and disorganized in violation of Section 451, ASME B31.8, and PG&E's records retention polices.[430] CPSD, however, has not proven that any of PG&E's job files are in fact missing, or that the organizational structure of PG&E's job files constitutes a violation of law. Because these allegations lack any legitimate factual or legal basis, they cannot stand.

CPSD repeatedly asserts PG&E is missing job files. In most instances when it makes the assertion, it fails to provide any facts to support it. The table below collects from CPSD's discussion of Violation 16 unsupported statements about missing job files:

CPSD Statement	Evidentiary Support Cited for Statement
"Many of PG&E job files are missing" (CPSD OB at 87)	None
"Despite PG&E's reliance on master job files, many master PG&E job files are missing" (CPSD OB at 89)	None

[427] PG&E OB at 103.

[428] PG&E OB at 101-03.

[429] *See* Commission Rules of Practice and Procedure, Rule 1.1.

[430] CPSD OB at 88. CPSD cites "49 CFR whatever" for the premise that gas operators are required to follow their own safety rules and policies, and on that basis alleges a violation of "federal gas regulations and GO 112."

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"Missing job files, and missing information in job files that do exist, do not constitute anything close to the full measure of PG&E's job file deficiencies that severely hamper PG&E eng ineering of a safe gas system." (CPSD OB at 90)	None
"PG&E fails to specifically address the issue of missing job files, a primary subject of section 4.2 of the March 16, 2012 CPSD testimony and of Violation 16." (CPSD OB at 90)	None
"Apparently, as ti me passed, PG&E lost some of the records that had been in these files." (CPSD OB at 91)	None
"Some job files contain accounting information but are missing essential engineering information." (CPSD OB at 87)	None
"Complete correction of the violations is unlikely, because missing or incorrect information cannot always be obtained or rectified except by expensive pipe replacement or testing." (CPSD OB at 87)	None
"The loss of a job file represent the loss of virtually all information about a particular c onstruction project, which includes the physical characteristics and the status of that segment of pipe as of the date of the project." (CPSD OB at 91)	None
"In short, the missing information is critical to safety, especially because PG&E has identified job files as its primary source of information about pipeline characteristics." (CPSD OB at 91)	None
"…PG&E lost control of the contents of its job files." (CPSD OB at 91)	None

CPSD's statements in its opening brief about missing job files, no matter how many times they are repeated, do not marshal evidence or prove facts.

In the few instances where CPSD attempts to support its allegations of missing job files with record citations, those citations lead to unsupported statements contained in its c onsultants'

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written testimony. CPSD asserts: "Felts notes that many job files are missing from PG&E records."[431] CPSD supports this statement with a citation to a line and a footnote from Ms. Felts' initial written report and testimony. [432] But the cited te xt and footnote references the entirety of Dr. Duller's testimony. [433] A reference to all of Dr. Duller and Mrs. North's testimony is not helpful, especially, where, as here, Ms. Felts did not even review Dr. Duller and Mrs. North's written reports and testi mony when preparing her own testimony. [434] In another instance, CPSD asserts that "PG&E also has many job files that are incomplete." [435] To support this statement CPSD cites text from Ms. Felts' written rebuttal testimony. [436] The cited text references incomplete records, but the text's supporting footnote bases the statement on Ms. Felts' review of "thousands of records" in ECTS. [437] The hearings established that Ms. Felts' review of the ECTS database was less than complete and took place during a time when recor ds were being continuously added to the database. [438] No other information is specified. Elsewhere CPSD maintains that PG&E's job files are "frequently missing leak and pressure test results, x -ray results for field welds, field inspection logs and notes, a nd specific information about how the pipe was constructed."[439] To support the assertion, CPSD references a sentence from Ms. Felts' initial written report and testimony. [440] But the cited sentence addresses only what a job file "typically" includes.[441] It does not provide any evidence that PG&E's job files were missing the kinds of information Ms. Felts identifies in her written testimony.

Continuing to press its claim that PG&E is missing job files, CPSD argues "PG&E's files sometimes lack any clear and unamb iguous record or notation regarding the source of piping." [442]

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[431] CPSD OB at 90.

[432] CPSD OB at 90 n.256.

[433] Ex. CPSD-2 at 32 n.128 (CPSD/Felts) (citing "Testimony of Paul Duller").

[434] R.T. 362-66 (CPSD/Felts).

[435] CPSD OB at 91.

[436] CPSD OB at 91 n.258.

[437] Ex. CPSD-4 at 23 n.121 (CPSD/Felts).

[438] R.T. 317-19, 371-72 (CPSD/Felts).

[439] CPSD OB at 89.

[440] CPSD OB at 89 n.251 (citing Ex. CPSD-4 at 23:8-11 (CPSD/Felts)).

[441] Ex. CPSD-4 at 23:8 -11 (CPSD/Felts) ("A Job File typically includes design records, material specification and source records, cost accounting, journal vouchers, transfer tags that identify the so urce of pipe, several types of construction drawings from detailed to transmission plats, post installation pressure test and x -ray reports and other records relevant to that job.").

[442] CPSD OB at 89.

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Putting aside the fact that the assertion assumes a duty – to "clearly and unambiguously document the source of pipe" – that did not exist in earlier eras, the argument is not addressed to missing records. It instead points to a disagreement between PG&E's experts and company witnesses on one side, and Ms. Felts on the other, about the quality of data we should expect to see in older job files relating to reconditioned pipe. This argument goes to a different CPSD violation (Felts Violation 23). To the extent relevant here, PG&E incorporates its response to Felts Violation 23.[443]

CPSD also renews the argument that "PG&E has also lost track of some job file record numbers issued over time. [444] As Mr. Harrison's testimony shows, however, PG&E issued job numbers across the enterprise; this includes jobs for Gas Distribution, Hydro, Electric Distribution and Transmission, vehicle purchases, as well as other lines of business. [445] Gaps between one gas transmission job number and another may reflect intervening gas distribution, electric, hydro and other projects – not missing gas transmission job numbers. [446] CPSD has not introduced any evidence to support its allegation that PG&E is missing job files.[447]

CPSD next contends that "PG&E has a history of destroying or discarding important records."[448] This argument, however, rests entirely on PG&E's statements that explain key developments in its maintenance of gas records across many decades of the company's existence.[449] PG&E's statements describe events, *e.g.*, a flood that damaged records many years ago.[450] But saying that events have intervened to make records management challenging across the many decades of PG&E's existence does nothing to distinguish PG&E from other gas utilities. "The natural gas industry is no different from other industries that face a challenge in maintaining its records of assets that are over 40 years old." [451] As Mr. Zurcher's testimony established, statements of this kind do not show that PG&E's experiences deviated from those of

[443] PG&E OB at 118-21; *infra* at 99-102
[444] CPSD OB at 91.
[445] Ex. PG&E-61 at 3-37 (PG&E/Harrison).
[446] Ex. PG&E-61 at 3-37 (PG&E/Harrison).
[447] PG&E OB at 102-05.
[448] CPSD OB at 89.
[449] CPSD OB at 89 (citing PG&E's June 20, 2011 filing at Table 2A-2).
[450] PG&E's June 20, 2011 Response at Table 2A-2.
[451] Ex. PG&E-61 at 1-13 (PG&E/Howe); PG&E-63 (Tab 1-15)

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others in the gas industry or any other industry. [452] CPSD's general assertions about lost records do not establish, in any event, the assertion behind Violation 16: that PG&E lost or discarded job files.

Finally, CPSD criticizes PG&E because prior to 2010, "job files were spread over 40 PG&E document locations."[453] Rather than support a violation of law, the record shows that this reflects sensible historical practices given the geographic scope of PG&E's system. As expert witness Maura Dunn testified, throughout the history of records management, there has always been an advantage to storing information near where it is created and used. [454] Thus, for approximately 50 years PG&E decentralized records, assigning rec ordkeeping responsibility to the personnel who make use of the documents. [455] CPSD also observes that "[m]any jobs have multiple job files in multiple locations."[456] Indeed, the record demonstrates that some measure of duplication of records has historically been necessary to manage PG&E's extensive natural gas system.[457] Because hardcopy records had to be physically transferred from one location to another, distributing several sets of key records was an efficient and effective solution to the problem of sharing critical information across the company's large geographic footprint.[458]

This decentralized approach made particular sense in an era of paper -based records. As PG&E engineer Brian Daubin testified, "a multitude" of individuals within PG&E may consult job files in the course of their duties. [459] These individuals include project managers, project engineers, field and maintenance personnel, design, drafting and estimating personnel, and mapping personnel.[460] Each individual may reside in a different physical location across PG&E's 70,000 square mile service territory. [461] It is therefore not only understandable but logical that PG&E's job files were dispersed and at least partially duplicated given limited technology, emerging needs, functional distinctions between divisions and districts, and the size of PG&E's

[452] Joint R.T. 21-22 (PG&E/Zurcher); Joint R.T. 707-13 (PG&E/Zurcher).
[453] CPSD OB at 87.
[454] Ex. PG&E-62 at MD-24 (PG&E/Dunn).
[455] Ex. PG&E-62 at MD-16 (PG&E/Dunn).
[456] CPSD OB at 87.
[457] Ex. PG&E-62 at MD-22 (PG&E/Dunn).
[458] Ex. PG&E-62 at MD-22 (PG&E/Dunn).
[459] R.T. 2222 (PG&E/Daubin).
[460] R.T. 2222 (PG&E/Daubin).
[461] Ex. PG&E-61 at 3-38 (PG&E/Harrison).

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service territory. Drawings and other documents from job files were co pied and distributed to the personnel who needed to make use of them.[462]

Some pipeline projects – and thus the job files associated with them – spanned years or even decades.[463] Thus, as Ms. Dunn concluded, "[m]aking and distributing copies was really the only feasible option at the time."[464] Moreover, CPSD has failed to identify any individual within PG&E who supports the allegation that PG&E's job files are organized in an unsafe or inaccessible fashion.[465] PG&E engineer Todd Arnett, called as a witness by CPS D, testified that he fully understood the numbering system for PG&E's job files and that he is able to locate necessary items within a job file "pretty quickly from my experience."[466] Similarly, David Harrison testified that "job files in my experience are quite well organized, the paper job files in the system. They've been there for 50 years. The systems are well established."[467] Mr. Harrison elaborated that PG&E's organizational system for job files is consistent and that the process of accessing job files is straightforward and well understood among PG&E employees.[468]

In summary, CPSD failed to meet its burden of proving that PG&E is missing job files or that the organizational structure of PG&E's job files constitutes a violation of law. Even if CPSD had met its evidentiary burden of establishing a violation relating to PG&E's job files, CPSD's assertion that Violation 16 constitutes a continuing violation suffers from the defects discussed at length in PG&E's opening brief. CPSD alleges a continuing vi olation from 1987.[469] Ms. Felts acknowledged on cross-examination that she has no proof of the purported start date of this violation:

> Q: Is the 1987 start date here – is that for missing job files or disorganized job files or both?
>
> A: I think it's both, an d I've picked the 1987 date because that's the only date that we have in the recordkeeping history where we can see that PG&E purposely

[462] Ex. PG&E-62 at MD-23 (PG&E/Dunn).
[463] Ex. PG&E-62 at MD-23 (PG&E/Dunn).
[464] Ex. PG&E-62 at MD-21 (PG&E/Dunn).
[465] R.T. 318 (CPSD/Felts).
[466] R.T. 1863 (PG&E/Arnett).
[467] Joint R.T. 282 (PG&E/Harrison).
[468] Joint R.T. 283-84 (PG&E/Harrison); *see also* PG&E OB at 104.
[469] CPSD OB at 91-92.

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> discontinued keeping records of this type, which was the pipeline history files. And in my review of the records, it appeared that it's the mid to late '80s when files started to sort of become disorganized and disappear. ***But I don't have any proof of that.***[470]

This concession by Ms. Felts demonstrates CPSD cannot meet its burden of proving the start date of this purported continuing violation. Moreover, CPSD's allegations here lack any principled basis by which to allege a continuing violation. CPSD argues in its opening brief that this purported violation would continue until PG&E locates complete records or replaces th e relevant portions of pipe.[471] Given that CPSD is unable to articulate which records are missing, PG&E has no reasonable opportunity to cure this purported violation by either means advocated by CPSD.

17. Violation 17: Pipeline History Records

CPSD asserts t hat PG&E's inability to locate "Pipeline History Files" violates Section 451, ASME B31.8, GO 112 B through E, and PG&E's internal guidance requiring retention of engineering records.[472] However, CPSD has not shown any legal requirement that PG&E maintain these files.

CPSD introduces its discussion of this alleged violation with a series of inaccurate premises regarding the nature and potential uses of PG&E's Pipeline History Files. CPSD asserts that the Pipeline History Records were the source of the data used to develop PG&E's Pipeline Survey Sheets, which in turn contained the data that populated PG&E's GIS system.[473] CPSD then argues that because PG&E's GIS was initially populated with data from the Pipeline Survey Sheets, the company could have "verified the quality" of data in its GIS system by reference to the Pipeline History Files.[474] CPSD provides no evidentiary support for these erroneous assertions. While it is true that PG&E's Pipeline Survey Sheets were created under

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[470] R.T. 320 (CPSD/Felts) (emphasis added).

[471] CPSD OB at 87.

[472] CPSD OB at 92-93.

[473] CPSD OB at 92.

[474] CPSD OB at 92. CPSD also asserts that PG&E personnel relied on incorrect GIS data in day to day operations of its transmission system. PG&E addresses this argument in connection with Violations 24 and 25, *infra.*

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the same SP 463.7 standard as the Pipeline History Files, [475] nothing in the record supports CPSD's inaccurate premise that PG&E's Pipeline Survey Sheets were *derived* from its Pipeline History Files.

CPSD's claims that when PG&E disposed of the Pipeline History Files it discarded "the only copy of some records" [476], that the Pipeline History Files were "an invaluable asset for PG&E to use to promote safety" [477] and that the Pipeline History Files were essential for integrity management and to validate the quality of data in GIS [478] are similarly without support. These assertions appear to be based exclusively on PG&E's purported loss of job files. [479] However, as discussed in connection with Violation 16, *supra,* CPSD has failed to establish that PG&E actually lost or discarded any job files.

CPSD's arguments regarding the "negative effect on safety" fail for the same reason. CPSD has not proven any discernible safety impact from discarding duplicative, secondary records. PG&E's Pipeline Survey Sheets contained a summary of data about the pipeline reduced to a single sheet of paper and were retained even after SP 463.7 was rescinded. [480] SP 463.7 also required the Divisions to keep in the Pipeline History Files selected documents relating to the numbered transmission lines, but these documents were themselves copies of underlying documents, as SP 463.7 makes clear. [481] SP 463.7 speaks in terms of those document files as being cross-referenced to "other permanent files, such as GM or Work Order Files." [482] Once SP 463.7 was rescinded, the Divisions, Departments, and Manager of Gas System Design still would have been in possession of original source records found elsewhere, such as in job files.[483] Accordingly, CPSD failed to meet its burden of proving that PG&E's discarding of the Pipeline History Files resulted in the loss of any data that PG&E was required to maintain by force of any applicable law or internal standard.

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[475] Ex. PG&E-61 at 2-20 (PG&E/Phillips).
[476] CPSD OB at 95.
[477] CPSD OB at 92.
[478] CPSD OB at 92.
[479] CPSD OB at 95.
[480] Ex. PG&E-61 at 2-21 to 2-22 (PG&E/Phillips).
[481] Ex. PG&E-61 at 2-21 (PG&E/Phillips).
[482] Ex. PG&E-61 at 2-21 (PG&E/Phillips).
[483] R.T. 1115-16 (PG&E/Phillips).

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CPSD accurately states that SP 463.7 originally required that the Pipeline History Files be maintained for the "life of the facility." [484] However, that requirement arose by operation of SP 463.7, not by operation of law – and CPSD does not claim otherwise. Former SP 463.7 appears to have taken effect in 1969 and been operative until no later than October 1987. [485] When PG&E rescinded SP 463.7, PG&E repealed its "life of the facility" requirement along with it.[486] At that point, SP 463.7 documents would have been subject to disposal under the company's records retention standards. [487] CPSD also relies on the "life of the pipeline" requirements of General Order 112-C as a basis for this violation. However, as discussed above, the Pipeline History Files were secondary sources of information and there is no evidence that underlying information was lost when PG&E discarded the Pipeline History Files. CPSD cannot credibly contend that GO 112-C, Section 451 or any other general safety or recordkeeping statute required operators to maintain all duplicative, secondary sources of information already reflected elsewhere.

18. Violation 18: Design And Pressure Test Records Missing

CPSD alleges design and pressure test records are missing in a continuing violation of Section 451 (and its predecessor provision) beginning in 1956 as well as violation of ASME B31.8, GO 112, 112 -A, 112-B, and PG&E's records retention poli ces.[488] CPSD recommends that the Commission find that "thousands" of strength test records are missing from the period 1956 through 2010. [489] TURN similarly contends that "the only issue is how many violations PG&E committed."[490] CPSD failed to meet its burden of proving this alleged violation of law.

CPSD proffers no meaningful evidence in support of either the time period or number of violations it wants the Commission to find. CPSD acknowledges that it cannot prove which, if

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[484] Ex. PG&E-61 at 2-21 (PG&E/Phillips).

[485] Ex. PG&E-61 at 2-21 (PG&E/Phillips).

[486] Ex. PG&E -61 at 2 -21 (PG&E/Phillips). CPSD argues at length that PG&E has claimed the Commission authorized destruction of the Pipeline History Files, and that "no support exists" for t his proposition. *See* CPSD OB at 102. However, during his re -direct examination PG&E engineer Steve Phillips specifically testified that PG&E made no such argument. *See* R.T. 1196-97 (PG&E/Phillips).

[487] Ex. PG&E-61 at 2-22 (PG&E/Phillips).

[488] CPSD OB at 101; Ex. CPSD-3 at 12 (CPSD/Felts).

[489] CPSD OB at 108.

[490] TURN OB at 22.

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any, reports PG&E no longer possesses and which reports it still retains "among millions of PG&E documents."[491] Similarly, while TURN argues that "the record shows" PG&E is missing more than 50,000 pressure test records, its own brief simultaneously acknowledges that this allegation is based on inference and speculation rather than facts.[492] Despite CPSD and TURN's inappropriate attempt to shift the evidentiary burden to PG&E in this proceeding (as discussed above) it is CPSD who bears the burden of proving the existence and number of violations it alleges, rather than PG&E's burden to prove that it is not missing "thousands" of documents spanning five decades in response to CPSD's admittedly unsupported allegations.

CPSD and TURN rely on Ex. TURN-4 for the claim that "PG&E is missing more than 20,000 test records of hydrotesting that were either created or should [sic] been created since 1956."[493] The reference to "20,000 test records" appears to reflect CPSD's rough estimate of the number of pipeline segments (20,000) for which PG&E has not located a written pressure test record.[494] The claim mistakenly assumes that a separate pressure test record should exist for each segment. "Segment" as used in Ex. TURN-4 reflects the application of the term in PG&E's integrity management program, not the way the term is defined for purposes of pressure testing under 49 C.F.R. § 192.505.[495] Accordingly, a single strength test record would generally cover the testing of multiple pipe segments reflected in Ex. TURN-4.[496] As Mr. Singh testified with reference to a segment identified in Ex. TURN-4:

> A. So if we were pressure testing this, we would likely not pressure test a segment that's .0003 miles. We would likely test a group of segments which could be the interpretation of 192.505 because it doesn't define a segment. It's having a record for a section of pipe that's tested.

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[491] CPSD OB at 107.

[492] TURN OB at 23.

[493] CPSD OB at 103-05; TURN OB at 23.

[494] CPSD OB at 104 ("The attachment identifies each of 23,761 segments or lengths of pipe by segment, milepost, and by date of installation, for which PG&E has not located records of a pressure test as of the end of August 2012.").

[495] R.T. at 1004-05 (PG&E/Singh). Neither 49 C.F.R. § 192.505, which requires strength testing "each segment of steel pipe that is to operate at a hoop stress of 30 percent or more of SMYS," nor any other provision of the Part 192 regulations defines "segment." For integrity management purposes, ASME B31.8S defines "segment" as a "length of pipeline or part of the system that has unique characteristics in a specific geographic location."

[496] R.T. at 1004-05 (PG&E/Singh).

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Q: So if you had a strength test pressure report for that section of pipe, that would cover, that one report would cover several segments that's reflected in [Ex. TURN -4]; is that right?

A: Correct.[497]

49 C.F.R. § 192.517(a) requires operators to make and retain "a record of each test performed," not a separate record for each segment tested. Counting segments provides no evidence of how many tests may have been performed. Th ere is thus no support for CPSD and TURN's reliance on the number of pipe segments identified in Ex. TURN -4 to establish the number of purportedly missing strength test records.

Moreover, CPSD has not proven that records of pressure tests that were conduct ed are in fact missing. As David Harrison testified, PG&E has not given up looking for these records and still hopes to find them. [498] CPSD, in reliance on the Duller/North report, argues that PG&E's extensive MAOP validation effort (and specifically PG&E's review of materials at the Cow Palace in San Francisco) demonstrates that PG&E "could not locate strength pressure data promptly and efficiently." [499] However, "promptly and efficiently" as defined by CPSD consultants Duller and North is not a cognizable st andard on which to base a purported violation of law. TURN's argument that PG&E violated the law because the company "needed to undertake a lengthy and extensive search" for design and pressure test records fails for similar reasons.[500] TURN provides no statutory basis for the "available at all times" standard it contends PG&E violated.[501]

Further, CPSD and TURN fail to consider the relevant historical and industry context necessary to determine whether PG&E's collection of tens of thousands of records going back decades into the past meets any reasonable application of that standard. [502] As PG&E previously established through the testimony of witnesses Howe and Zurcher, the problem of missing or incomplete pipeline records, particularly for vintage pipe, is an industry-wide phenomenon by no

[497] R.T. 1004-05 (PG&E/Singh).
[498] Joint R.T. 256 (PG&E/Harrison).
[499] CPSD OB at 103.
[500] TURN OB at 23-24.
[501] TURN OB at 23-24.
[502] TURN OB at 23-24.

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means confined to PG&E. [503] CPSD now asserts "anecdotal references to recordkeeping problems in other companies, or in the industry in general, do not constitute relevant evidence."[504] CCSF similarly contends that industry practices are "irrelevant" to a determination of whether PG&E complied with applicable laws. [505] However, CPSD's policy witness Julie Halligan has already conceded that historical industry practices with respect to maintenance of design and pressure test records (and the conduct of pressure tests themselves) are relevant to a determination of whether PG&E is guilty of this violation. [506] Moreover, logic dictates that any attempt to impose liability for violation of "good engineering standards" must consider the actual standards and practices widely employed across the industry. Mr. Zurcher, who testified to personal experience with "probably approaching a hundred different operators across the U.S." summarized the industry reality as follows: "It is a known fact that records get lost. I know of no one that's ever been cited for a lost record . . . . I can tell you a thousand stories about lost records. It is very, very common." [507] Mr. Howe presented correspondence and commentary from industry participants (including other California gas transmission operators) discussing various challenges with gas transmission records, particularly for older pipelines. [508] Consideration of the time required to collect PG&E's historical pressure test records in light of this industry context reveals that TURN cannot legitimately make out a violation of law for failure to make such records "available at all times."

Finally, CPSD attempts to establish a 1956 start date for this alleged violation by asserting that "even without ASME or any specific law" engineers in the 1950s would seek to promote safety by conducting pressure tests. [509] However – even accepting this unsupported statement as true – nowhere does CPSD allege or demonstrate that any law or statute dating from 1956 required operators to maintain in perpetuity records of those pressure tests that they did

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[503] Ex. PG&E-61 at 3-6 to 3-8 (PG&E/Zurcher); Ex. PG&E-61 at 1-12 to 1-15 (PG&E/Howe) ("As operators have begun their search for records in order to comply with the concept of 'traceable, verifiable, and complete,' more and more have found that they may not have complete historical or verifiable records.").

[504] CPSD OB at 106.

[505] CCSF OB at 18.

[506] R.T. 100-01 (CPSD/Halligan).

[507] Joint R.T. 707-11 (PG&E/Zurcher). Mr. Zurcher further narrated several examples from his own professional experience.

[508] Ex. PG&E-61 at 1-12 to 1-14 (PG&E/Howe).

[509] CPSD OB at 107.

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conduct. TURN and CPSD's allegations, unsupported by any specific evidence in the record, provide a legally insufficient basis to find any violation of law, much less a continu ing violation dating decades into the past. *See* Pub. Util. Code § 1757(a)(4) (Commission findings must be supported by substantial evidence in light of the whole record). CPSD's failure to introduce credible evidence of this purported violation and the i mpossibility of curing or otherwise ending such a violation further demonstrate the impropriety of CPSD's assertion that Violation 18 constitutes a continuing violation.

19. Violation 19: Weld Maps And Weld Inspection Records

CPSD alleges that since 1930 PG& E failed to maintain weld maps and weld inspection records in violation of 49 C.F.R. §§ 192.241 and 192.243, Section 451, Article II Section 13(b), GO 112, 112-A, 112-B, ASME B31.8, and PG&E's own "standard practice." [510] For the reasons explained below, this allegation fails.

CPSD has not identified any specific legal or regulatory requirement that operators maintain weld maps, nor is industry expert Mr. Zurcher aware of any such requirement based on his extensive experience. [511] CPSD concedes that prior to 19 61 there was no explicit regulatory requirement even to conduct girth weld inspections, much less to retain records of such inspections in perpetuity. [512] CPSD instead alleges that by following ASME B31.1.8 (which contained guidance on weld inspections) PG&E "committed" to retain weld inspection records. [513] However, in making this assertion CPSD points to no actual guidance in ASME B31.1.8 relating to the creation or maintenance of weld inspection records. Moreover, CPSD's discussion of the purported engineer ing significance of weld inspection reports and weld maps is either unsupported or relies on citations to Ms. Felts' unsupported assertions. [514] CPSD alleges that weld inspection records are "an important source of information about the quality of welds" and "would provide invaluable information to PG&E in its current efforts to locate and evaluate

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[510] CPSD OB at 110.

[511] Ex. PG&E-61 at 3 -11 (PG&E/Zurcher). In its opening brief, PG&E asserted that there is no requirement to maintain weld inspection reports. PG&E OB at 110. That statement was in error. *See* 49 C.F.R. § 192.243 (addressing a requirement to retain records for certain nondestructive testing welds).

[512] CPSD OB at 110.

[513] CPSD OB at 110.

[514] CPSD OB at 111.

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welds" but provides no evidentiary support for these statements other than similarly unsupported assumptions by Ms. Felts. [515] Ms. Felts includes in her report a sam ple weld map, but fails to provide any description or indication of how PG&E would use such a document in its integrity management program. [516] Indeed, during cross -examination, Ms. Felts was generally unable to demonstrate the utility of her own sample weld map.[517]

It is perhaps because of their limited value that weld maps are not identified in 49 C.F.R. Part 192 as a record type that must be created, reviewed or retained as part of any construction, maintenance, or integrity management process. CPSD's argum ents instead rely upon retroactively applying the Integrity Management process to time periods long before they were implemented. CPSD asserts that "weld information on a joint -by-joint basis" would provide a basis for assumptions in PG&E's integrity mana gement model. [518] However, CPSD does not explain under what statute (or any reasonable non -statutory expectation) PG&E was required to anticipate as early as 1930 the future needs of an integrity management program that would not be conceived, much less enac ted or implemented, until multiple decades in the future. CPSD's attempt to use Mr. Zurcher's testimony is similarly misplaced. Mr. Zurcher's statement that operators often derive knowledge or conservative assumptions about the welding method employed "f rom records relating to construction of the pipeline" does not refer to weld inspection reports or maps. [519] CPSD's assertion that PG&E was unable to derive this information from job files (and thus, presumably, was required to do so from weld maps) because "this type of information is often missing" is without factual support. [520] Moreover, while CPSD argues that John Zurcher's testimony "confirms the necessity of retaining weld records,"[521] Mr. Zurcher's actual testimony was that he is unaware of any requiremen t that operators subject all girth welds to an x -ray inspection or retain film of those girth weld x -rays that they do conduct.[522]

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[515] CPSD OB at 111.

[516] Ex. CPSD-2 at 35 fig.4 (CPSD/Felts).

[517] R.T. 402-04 (CPSD/Felts).

[518] CPSD OB at 111-12.

[519] CPSD OB at 111 (quoting Ex. PG&E-61 at 3-12 (PG&E/Zurcher)).

[520] *See supra* PG&E's discussion of alleged Violation 16.

[521] CPSD OB at 111 (citing Ex. PG&E-61 at 3-12 (PG&E/Zurcher)).

[522] Ex. PG&E-61 at 3-12 (PG&E/Zurcher).

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In any case, CPSD has not proven its allegations regarding PG&E's purported failure to retain weld inspection records. CPSD po licy witness Julie Halligan deferred to Ms. Felts on all substantive questions relating to this purported violation. [523] Ms. Felts, in turn, acknowledged during cross-examination that she may in fact have mistakenly concluded that inspection records were "missing" when in fact the inspection in question was cancelled or postponed:

> Q: Now, you also as part of this say Weld Maps and Weld Inspection Reports Incomplete. What does that mean?
>
> A: There are – primarily it is weld inspection reports that were found in the – in PG&E's records that look like they were the reports that were created for a field, or doing a field inspection where the list of welds was identified on a form, but the form was not completed with the results of the inspection.
>
> Q: And in t he case of these forms that you found that looked like they were prepared for an inspection but not completed, do you know whether that inspection may have been canceled or postponed?
>
> A: No.[524]

Ms. Felts further conceded that she could not identify any spe cific weld records that were missing or incomplete:

> And I can also tell you that today the files that I had viewed that were incomplete were in what was called non -pipeline feature list categories in the ECTS database. And it was at a time I was just noting that they were incomplete, and not keeping track of what projects they were on, or where they were in the database since it was non -PFL documents. I've since gone back and tried, in a couple of instances, to find them. But due to additional scanning on the projects, the number of non -PFL pages in those projects has become so large that I don't have the time to find them again.[525]

These concessions by Ms. Felts demonstrate that there is no credible basis for finding a violation concerning weld maps and we ld inspection records. In fact, PG&E reviewed and produced several thousand weld inspection reports in response to Paragraph 7 of the

[523] R.T. 103-04, 137 (CPSD/Halligan).

[524] R.T. 331-32 (CPSD/Felts).

[525] R.T. 331-32 (CPSD/Felts).

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Commission's OII directives. [526] Thus, contrary to CPSD's conclusion that "PG&E has not retained most of these records," [527] PG&E has shown that the company's practice has been to retain these types of records. Absent specific evidence to the contrary – of which CPSD has introduced none – there is no basis on which to find a violation of law arising from PG&E's maintenance of weld inspection records.

In an attempt to quantify its allegation, CPSD argues that each of the roughly 10,000 PG&E job files associated with transmission pipe should contain "a weld inspection report that summarizes the results of an inspection conducted when the pipe was installed." [528] CPSD provides no support for this assertion, the logic of which is undermined by its own brief. CPSD acknowledges that operators have long had discretion in the number and location of welds examined in connection with any given installation, and that the percentage of welds operators were required to inspect was as low as 20%-30% since the original GO 112 was enacted. [529] Given these concessions, there is simply no credible basis for CPSD's assertion that each of PG&E's job files should contain a weld inspection report – even if CPSD had proven (which it has not) that PG&E was required to maintain a report for each inspection that it conducted. CPSD has not proven that the nearly 7,000 pages of weld inspection reports it acknowledges PG&E produced do not constitute the entirety of all such documents that it was required to maintain.[530]

Finally, even if CPSD could muster facts to prove there are "missing" weld maps and weld inspection records, CPSD's allegations fail to establish a continuing violation. CPSD alleges that this violation "applies to all weld inspection reports missing from as early as 1930" and thus continues from 1930 through 2010.[531] As with its other purported continuing violations, CPSD has introduced no evidence that PG&E is, in fact, missing weld inspection reports or weld maps dating from 1930. In fact, Ms. Felts conceded during cross-examination that, despite

[526] Ex. PG&E-61 at 3-56 (PG&E/Keas).
[527] CPSD OB at 111.
[528] CPSD OB at 112.
[529] CPSD OB at 110, 112.
[530] CPSD OB at 112.
[531] CPSD OB at 114.

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having alleged a continuing violation from 1930, she had no information as to when, if ever, it became an industry practice to create weld maps, much less retain them in perpetuity.[532]

20. Violation 20: Operating Pressure Records

CPSD alleges a continuing violation of Section 451 (and its predecessor provision) beginning in 1930 as well as violations of ASME B3 1.8, GO 112, 112 -A, 112-B, and PG&E's record retention polices based on PG&E's purported failure to retain complete and accessible operating pressure records.[533] CPSD makes two identifiable claims regarding PG& E's operating history data. First, CPSD claims that because PG&E does not maintain operating pressure history for the life of the facility, it cannot give an accurate accounting of pressure excursions above MAOP for any pipeline in the system.[534] Second, CPSD claims that PG&E at some point in the past lost or discarded operating pressure records that would be required beginning in 2004 for integrity management purposes.[535] As discussed below, CPSD does not provide an adequate legal or factual basis to support these allegations.

In its opening brief CPSD acknowledges that PG&E maintains records of pressure excursions, but asserts that they are "not integrated" into a historical record of operating pressures.[536] CPSD's suggestion that the lack of complete operat ional pressure history for all pipelines in PG&E's system (even those built decades before the 2004 implementation of the integrity management rules) constitutes a violation of law finds no support in the regulations. During cross -examination, CPSD witnes s Ms. Felts said she would expect to "see logs that summarize the history, the maximums and minimums, over periods of time," but did not identify any regulation or statute that requires operators to maintain such records.[537] Ms. Felts further conceded on cross-examination that she is unaware of any operator in the industry that maintains operating pressure records dating to 1930, the purported start date of this violation.[538] Industry expert Mr. Zurcher testified that in his extensive experience he is unaware of any general

[532] R.T. 402 (CPSD/Felts).
[533] CPSD OB at 115.
[534] CPSD OB at 116.
[535] CPSD OB at 116.
[536] CPSD OB at 116.
[537] R.T. 339 (CPSD/Felts).
[538] R.T. 343-44 (CPSD/Felts).

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requirement that operators maintain such records.[539] As Mr. Zurcher explained, operators are not required to maintain records of overpressure events on transmission lines unless such events exceeded 110% of MAOP or 75% of SMYS.[540] In fact, to the extent specific records retention guidance has existed, it has generally treated pressure recording instrument charts as subject to finite retention periods.[541]

In its brief, CPSD relies on consideration of corrosion risk and cyclic fatigue under the integrity management regulations as a reason that PG&E should possess operating pressure history and as a basis for this purported violation.[542] Ms. Felts similarly could not identify any use of pressure history records other than for integrity management pur poses.[543] However, for the reasons discussed *supra,* integrity management regulations implemented in 2004 cannot form a legitimate basis for a purported violation of law dating to 1930. CPSD has introduced no evidence indicating that PG&E lacked operating p ressure records from the time period contemplated in the integrity management regulations. 49 C.F.R. §§192.917(e)(3) and (e)(4) require operators to prioritize for assessment pipe segments with certain specified characteristics whose operating pressure in creases above the maximum operating pressure experienced in the five years preceding the date the segment was identified as an HCA segment.[544] As the rules relating to HCA identification required operators to identify all high consequence areas by December 17, 2004, this means that the five -year period of relevant operating pressure history extends back to December 17, 1999.[545]

As PG&E has previously acknowledged, the company inadvertently and irretrievably lost operating pressure data for 1999.[546] However, as Mr. Zurcher explained, this missing data would not have a material impact on PG&E's determination and assessment of a manufacturing threat under this rule. If a pipeline reached its highest historical operating pressure in 1999, and PG&E lacks documentation of such an event, the consequence is that PG&E has subsequently operated

[539] Ex. PG&E-61 at 3-11 (PG&E/Zurcher).

[540] Ex. PG&E-61 at 3-11 (PG&E/Zurcher).

[541] *E.g.*, 18 C.F.R. § 225.3 (specifying the retention period for gas transmission and distribution Recording Instrument Charts, such as pressure).

[542] CPSD OB at 116-17.

[543] R.T. 339-40 (CPSD/Felts).

[544] 49 C.F.R. § 192.917.

[545] Ex. PG&E-61 at 3-59 (PG&E/Keas).

[546] Ex. PG&E-61 at 3-58 (PG&E/Keas).

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the pipeline at a maximum pressure *lower* than that to which the pipe has previously been subjected.[547] If a pipeline operated throughout 1999 at a pressure *below* its highest histori cal operating pressure, then data to that effect would not inform PG&E's establishment of the maximum operating pressure for that pipe.[548] CPSD's only other purported basis for this violation is that "good engineering practices" required PG&E to maintain op erating pressure records for the life of the facility.[549] Its resort to a "good engineering practices" standard suffers, however, from the defects PG&E discussed in its opening brief and in Section III.C of this brief.[550]

In summary, CPSD has not introduced e vidence of a factual or statutory basis for its claim that PG&E lacks operating pressure data that it was required to maintain.

21. Violation 21: Pre-1970 Leak Records

CPSD asserts that since 1930 PG&E's pre -1970 leak records were "inadequate" in violation of Section 451, Article II Section 13(b), ASME B31.8, and General Orders 112, 112 -A, and 112-B.[551] CPSD has introduced no factual support for its allegation regarding missing leak records, has conceded that it lacks adequate basis to conclude that PG&E's leak records are inaccessible and has introduced no factual or statutory basis for a finding that PG&E's leak records are incomplete. As discussed below, CPSD's own witness' testimony establishes that there is no credible evidentiary basis for this purported violation.

CPSD alleges that this is a continuing violation dating from 1930 because "PG&E still maintains pipe in the ground that was installed in the 1930s."[552] However, CPSD has failed to prove that PG&E is missing leak records dating from this time. In fact, on cross -examination Ms. Felts conceded that the purported violation for "missing" leak records dating from 1930 to 1970 was based exclusively on her personal experience in being unable to locate leak records in a yet-unidentified PG&E file:

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[547] Ex. PG&E-61 at 3-11, 3-12 (PG&E/Zurcher).
[548] Ex. PG&E-61 at 3-11, 3-12 (PG&E/Zurcher).
[549] CPSD OB at 115.
[550] PG&E OB at 24-37.
[551] CPSD OB at 118.
[552] CPSD OB at 120.

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A: I actually tried to find a job file related to that specific piece of pipe, and I can't tell you which pipeline it is in right now. But I do recall trying to find it, and did not find any pressure records.

Q: And is that the same basis on which you picked 1930 as the start date for the pre-1970 leak records?

A: Yes.

Q: And it is that same job file that you were trying to find that you couldn't find that led you to pick that date?

A: Probably.[553]

CPSD's opening brief asserts that PG&E is missing A -Forms because Ms. Felts was unable to locate them in PG&E's job files.[554] However, on cross -examination Ms. Felts conceded that she does not have a basis to conclude that any of PG&E's pre -1970 leak records are, in fact, missing:

Q: And based on not finding tho se records, can you say with a certainty that those records are not in fact in PG&E's files?

A: No. Because I haven't looked at a hundred percent of PG&E's files.[555]

Ms. Felts similarly conceded during cross -examination that she assumed PG&E's leak records were missing because she was unable to locate certain A -Forms in the company's job files, even though PG&E's prepared testimony showed that A -Forms are retained either in job files *or* in separate so -called "leak library" files located at approximately 70 of the company's local offices.[556] As part of responding to Commission directives in this OII, PG&E undertook a review of all leak records maintained in these local offices, encompassing tens of thousands of documents.[557] PG&E produced weld -related leak rec ords stored in local offices on September 30, 2011 as part of its Third Amendment to the June 20, 2011 Response.[558] By contrast, CPSD

[553] R.T. 346 (CPSD/Felts).

[554] CPSD OB at 120.

[555] R.T. 349 (CPSD/Felts).

[556] R.T. 374, 506-07 (CPSD/Felts); Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).

[557] Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).

[558] *See* PG&E's Third Amendment to PG&E's June 20, 2011 Response, Attachment P7-7010.

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has proven unable to substantiate its claim that PG&E is missing leak records dating back to 1930. CPSD similarly provides no support for its assertion that PG&E lost original A-Forms when it discarded its Pipeline History Files.[559] As discussed at length in connection with Violation 17, *supra*, and in PG&E's opening brief, and as acknowledged by CPSD witnesses Duller and North, the Pipeline History Files were a secondary source of material rather than a source of original information.

Ms. Felts further acknowledged that she was uncertain of the basis for her own allegation regarding "inaccessible" leak records and conceded that records she assumed to be inaccessible may, in fact, be fully available for use by PG&E personnel:

> Q: What do you mean by inaccessible?
>
> A: Inaccessible is where we know there is a data set of leak information, but it is not accessible to your engineers at PG&E, Because . . . it is on an old mainframe computer or not been translated into your current databases.
>
> Q: And if it is on an old mainframe computer then it is not readily accessible or it is never accessible?
>
> A: *It has not been clear over time*, but I understand that recently that information may have been, or have given it to us to look at. I haven't seen it, but it is possible that it may be downloaded from the mainframe. *I'm not sure.*[560]

CPSD also asserts that PG&E's leak records are deficient because PG&E cannot count the "total number of leaks that it has had on each transmission line since installation."[561] But CPSD cites to no statutory authority – much less any authority in place since 1930 – that required operators to maintain records showing a precise count of leaks on their systems from the date of installation. Absent such, an alleged violation of law on this basis is based on nothing more than hindsight judgment.

Finally, CPSD failed to provide specific examples of "incomplete" records of pre-1970 leaks on PG&E's system and further failed to demonstrate a regulatory or statutory requirement that PG&E's pre-1970 leak records include information that Ms. Felts, in her personal judgment,

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[559] CPSD OB at 120.

[560] R.T. 345 (CPSD/Felts) (emphasis added).

[561] CPSD OB at 119.

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believes should be present. [562] CPSD alleges that "A -Forms are frequently only partially completed."[563] Similarly, Ms. Felts asserts that PG&E's leak records are deficient because "[t]here are leak records, in one type of form, leak records in another type of form, and not a good way to track them down." [564] But Ms. Felts concedes that she has no basis on which to compare PG&E's historical leak records to other operators in the industry. [565] If she had such experience, Ms. Felts would recognize that rather than identifying a violation of law, she simply observed the reality that a utility that has operated for decades across a service territory spanning hundreds of miles may have forms of re cords that evolve over time to meet the needs of the business. The evolution of the A -Form has been spurred both by the industry's recognition of the need for more detailed leak information and by changes in regulatory reporting requirements. For example, PG&E has historically used A -Forms as a source of data from which to complete annual reports, such as those required in PHMSA 7100.2 -1, which asks operators to provide (among other items) the number of leaks in specified categories that have occurred on natural gas transmission and gathering lines during a given reporting year. [566] Over time, these reporting requirements have required increased granularity. Accordingly, the A -Form has evolved to call for field employees to gather increasing amounts of data , including pipe specifications, soil type, cathodic protection, and external pipe condition. [567] Far from signaling some kind of violation, this evolution demonstrates an appropriate adaptation to a changing industry.

CPSD failed to meet its burden of proof.

22. Violation 22: Leak Records From 1970 Forward

CPSD argues that since 1970 PG&E's post -1970 leak records were incomplete and inaccessible in violation of Section 451, ASME B31.8, and internal PG&E records retention policies.[568] Like alleged Violation 21, t his purported violation is based on conjecture and CPSD

[562] R.T. 344-45 (CPSD/Felts).
[563] CPSD OB at 119.
[564] R.T. 347 (CPSD/Felts).
[565] R.T. 347 (CPSD/Felts).
[566] Ex. PG&E-61 at 3-62 to 3-63 (PG&E/Cowsert-Chapman).
[567] Ex. PG&E-61 at 3-60 (PG&E/Cowsert-Chapman).
[568] CPSD OB at 122.

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witness Felts' unsupported personal impressions rather than evidence. Accordingly, CPSD has not met its burden of proving this purported violation.

CPSD alleges that PG&E's post-1970 leak records are "difficult to access" and that some leak records "that may technically exist" are not readily available for purposes of integrity management because of decades -old decisions about which records to include in PG&E's IGIS system.[569] However, as discussed in PG&E's opening brief, CPSD witness Ms. Felts has acknowledged that she is uncertain whether PG&E's historical leak data are, in fact, accessible when needed by the company's engineers. [570] Moreover, the decisions around the migration of data and functionalit y among PG&E's electronic leak records systems predated ASME B31.8S -2004 and the federal integrity management regulations. [571] Prior to these rules, there was no compliance-related reason to integrate large volumes of historic leak data into a new database.[572]

CPSD and DRA allege that a 1984 Bechtel report suggested that some leaks on PG&E pipelines may be under-recorded.[573] Even if this were true, this in no way relates to the question of whether PG&E is in possession of all records of reported leaks that it wa s required to maintain. Similarly, CPSD's assertion that differences in the weighting accorded to leak data between models used for PG&E's 1984 Gas Pipeline Replacement Plan ("GPRP") and those used for compliance with the integrity management regulations "appear[] to reflect PG&E's inability to locate valid leak data" is entirely baseless and unsupported. [574] As CPSD is of course aware, GPRP and the integrity management rules were two distinct programs, separated by two decades and subject to different purpo ses, rules, and considerations. CPSD has not provided the Commission with any legitimate evidentiary basis on which to draw conclusions regarding the different weightings accorded to leak data in these two programs.

CPSD also briefly lists a series of "ex amples" which purportedly illustrate PG&E's failure to maintain a complete set of leak records. [575] However, these examples are unaccompanied by any substantive discussion. Instead, CPSD simply refers to its discussion of

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[569] CPSD OB at 121.
[570] R.T. 345 (CPSD/Felts).
[571] Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman).
[572] Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman).
[573] CPSD OB at 122; DRA OB at 27.
[574] CPSD OB at 124.
[575] CPSD OB at 122.

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Duller/North C.3.[576] Accordingly, to the extent these allegations merit responses they are set forth in connection with PG&E's discussion of CPSD Violation Duller/North C.3, and will not be repeated here. CPSD has not provided any legitimate evidence that PG&E's post -1970 leak records were maintained in a manner inconsistent with any regulation or statute, and thus has not met its burden of proving its Violation 22.

23. Violation 23: Records To Track Salvaged And Reused Pipe

CPSD alleges PG&E failed to maintain records to track the use of recon ditioned pipe in violation of Section 451 (dating from 1954) and PG&E's internal retention policies (dating from 1994).[577] CPSD's theories in support of the alleged violation appear to be: (a) PG&E failed to properly inspect, test, and recondition pipe bef ore reuse; and (b) PG&E has not kept track of where pipe has been reinstalled in its transmission system.[578] CPSD's assertions are wrong.

a. CPSD Presents No Evidence To Support Its Allegation That Reconditioned Pipe In PG&E's System Is Unsatisfactory For Continued Use

CPSD alleges that in "the process of reviewing PG&E records it has become apparent that PG&E has salvaged and reused transmission pipe now operating in its system that may not be satisfactory for continued service."[579] CPSD has not introduced evid ence substantiating this claim. CPSD asserts that this conclusion is based on "weld radiography reports that show acceptance of marginal and bad welds on pipe that was subsequently salvaged."[580] However, CPSD's brief cites only to Ms. Felts' written testim ony, which in turn makes this same argument with no supporting citation or reference to the documents, if any, on which she relies.[581] In fact, on cross-examination CPSD witness Ms. Felts conceded that she has no affirmative evidence that PG&E reconditioned pipe without inspection.[582]

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[576] CPSD OB at 123.

[577] CPSD OB at 124.

[578] CPSD OB at 125.

[579] CPSD OB at 126.

[580] CPSD OB at 126.

[581] Ex. CPSD-2 at 43 (CPSD/Felts).

[582] R.T. 462 (CPSD/Felts) ("Q: So to be perfectly clear, you have no affirmative evidence that pipe was reconditioned and never inspected, correct? A: That's correct.").

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CPSD also indicates that its allegation that PG&E reused pipe without proper inspection is "based on PG&E's inability to locate any standards for the reconditioning of used pipe" predating 1988.[583] CPSD implies the Commission shou ld conclude that PG&E never had such standards simply because they are unavailable today. CPSD, however, references no statute, regulation or industry practice that would have led PG&E to retain over several decades its written standards for reconditioning pipe. Similarly, TURN asserts that PG&E failed to maintain records showing the reconditioning process undertaken "for a given piece of reconditioned pipe," but makes no attempt to demonstrate under what statute or industry practice PG&E should have created and maintained such records.[584] TURN's reliance on Section 301.1 of the GO 112 series is misplaced, as TURN does not prove that PG&E was ever required to create – much less maintain and make available at all times – records showing the reconditioning pr ocess for each segment of pipe.[585] In fact, it is unsurprising that PG&E no longer possesses standards for reconditioning pipe predating 1988, because as CPSD itself concedes the practice of installing reconditioned pipe ceased long before this time.[586] Moreover, as Mr. Harrison testified, the process of inspecting and reinstalling reconditioned pipe was sufficiently routine that he would not expect to find documentation that the process was completed.[587] Mr. Harrison explained:

> pipe that's reconditioned, the steel doesn't really deteriorate on its own unless there's cathodic protection or some other issue going on with it. And so old pipe that's reconditioned is equivalent to that [kind of] pipe. And so by not tracking it, I don't see that as a major concern . It's equivalent to new pipe. The steel is still good.[588]

In summary, CPSD's assertion that reconditioned pipe in PG&E's gas transmission system is unsatisfactory or in an unsafe condition finds no support in the evidentiary record.

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[583] CPSD OB at 126.
[584] TURN OB at 27.
[585] TURN OB at 27.
[586] CPSD OB at 126.
[587] Joint R.T. 466 (PG&E/Harrison).
[588] Joint R.T. 248 (PG&E/Harrison).

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b. CPSD Failed To Prove Its Allegation That PG&E Lost Records Of Salvaged Pipe

CPSD relies on a June 5, 1944 letter to the Railroad Commission as purported evidence that PG&E previously created (and subsequently lost) records "to determine where salvaged pipe was reused within its pipeline system."[589] However, on its very face the quoted language relates to records relating to the accounting for "overdrawn or salvage material" among various cost accounts and makes no reference to the locations of salvaged and reused pipe in PG&E's system.[590] Similarly, CPSD relies on references to salvaged pipe in PG&E job file GM 119689 for the premise that PG&E is missing "records that could have been used to track salvaged pipe."[591] As CPSD concedes, however, this record was an accounting inventory file maintained during the 1950s and 1960s.[592] Nothing in the record CPSD cites indicates that it was created for the purpose of tracking the location of reconditioned pipe in PG&E's system. PG&E has not, as best it is aware, lost records about reconditioned and reused pipe. In fact, many of the company's job files include records that demonstrate the use of reconditioned pipe.[593] These records include job estimates, shipping notices, and journal entries or vouchers.[594] PG&E began collecting information reflecting reconditioned or salvaged pipe from these job files as part of its MAOP validation effort in April 2011, and several months earlier in connection with Line 101.[595] Where older records of this kind are lacking, it more likely is because they were never created.[596] As David Harrison testified:

> Q: The fact that you cannot find a single document showing that reports of this were prepared, doesn't that suggest they were never done?
>
> A: No, I would not say that. I mean, again, it is very routine to do what is described here. So this is not a long

[589] CPSD OB at 128.

[590] CPSD OB at 128.

[591] CPSD OB at 129.

[592] CPSD OB at 129.

[593] Ex. PG&E-61 at 3-33 (PG&E/Harrison).

[594] Ex. PG&E-61 at 3-33 (PG&E/Harrison).

[595] Ex. CPSD-2 at 46 n.187 (CPSD/Felts) (PG&E Response to CPSD Data Request No. 16, Question 5).

[596] Industry expert Mr. Zurcher testified he is unaware of any regulation requiring operators to track the age of reconditioned pipe installed prior to 1970, nor has CPSD identified such a requirement. Ex. PG&E-61 at 3-12 (PG&E/Zurcher).

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> process, long drawn -out process that would – that somebody would want to report on. It would be these are typically relatively small steps that they take out. Essentially they've got to inspect the pipe, they 've got to make sure it doesn't have any dents and dings. These are simple steps. I just don't see somebody writing a report up to do that. At most it might be couple of sentences that says hey, George, I did these steps. So that is why I'm not surprised not to see them but – in the job file.[597]

CPSD has provided no contrary evidence.

c. CPSD Cannot Meet Its Burden To Prove A Continuing Violation

In addition to its failure to establish a factual or legal basis for a violation relating to PG&E's records of s alvaged or reconditioned pipe, CPSD's attempt to allege a continuing violation suffers from the same deficiencies detailed at length in Section III.C of PG&E's opening brief. CPSD argues in its opening brief that this violation will not be cured until "PG&E has inspected all of its lines and documented traceable, verifiable and complete records for every pipe in its system" and states, without elaboration, that "[t]he duration of this violation is from 1954-2010."[598] However, during cross -examination Ms. Fe lts conceded that she "arbitrarily" selected 1954 as the start date of this purported violation. [599] Arbitrary allegations based on no particular evidence fail to meet CPSD's burden of proof. Because CPSD alleges an admittedly arbitrary start date, CPSD cannot sustain its allegation of a continuing violation.

24. Violation 24: Data In Pipeline Survey Sheets And The Geographic Information System

CPSD alleges that PG&E's GIS data is "erroneous and incomplete" resulting in violations of Section 451 as well as PG&E 's internal policies. [600] As a basis for this violation, CPSD alleges that PG&E "failed to quality check GIS data and continued the use of a GIS system that contained errors." [601] CPSD states, without elaboration, that "the duration of this

[597] Joint R.T. at 466-67 (PG&E/Harrison).
[598] CPSD OB at 129-30.
[599] R.T. 350 (CPSD/Felts).
[600] CPSD OB at 130.
[601] CPSD OB at 130.

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violation is 1974 t o 2010" despite the fact that PG&E's GIS system was initially developed in the mid-1990s.[602] As discussed below, CPSD cannot meet its burden of proving that the data in GIS constitutes a violation of any law.

a. CPSD Failed To Prove Its Allegation Regarding PG &E's Transfer Of Data From Hardcopy Sources To GIS

CPSD argues in its opening brief that PG&E has no record of the QA/QC program for its transfer of data from hardcopy records into GIS, and that accordingly "errors in records have been carried forward from one system to the next without checks for accuracy, or in some cases even reasonableness."[603] PG&E has acknowledged that data discrepancies exist within its GIS.[604] However, this fact alone does not support a conclusion that PG& E's initial population of GIS lacked sufficient quality control efforts. In fact, the record supports only a conclusion that PG&E's original population of its GIS database was consistent with industry norms. PG&E initially populated its GIS in the 1990s.[605] As PG&E witnesses have testified, a large portion of the data in GIS was populated from the company's pipeline survey sheets.[606] Geographical components of the pipe were digitized from the pipeline survey sheets, and tabular information was transferred f rom the pipeline survey sheets into spreadsheet format.[607] These data sources were then linked to populate GIS.[608] Once this initial population was completed, PG&E mappers would enter subsequent as -built information directly into GIS rather than paper record s.[609] Industry expert John Zurcher explained that his experience with populating GIS systems paralleled PG&E's in this regard:

> But I will tell you in personal experience in all the companies I have worked with and the two GIS systems I built, we never once went beyond what you would have called these survey sheets. Every company had them. We just took the data that we had

[602] CPSD OB at 133; Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman).
[603] CPSD OB at 132. *See also* Ex. CPSD-2 at 48 (CPSD/Felts).
[604] Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman).
[605] Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman).
[606] R.T. 2234-35 (PG&E/Daubin).
[607] R.T. 2238 (PG&E/Cowsert-Chapman).
[608] R.T. 2238 (PG&E/Cowsert-Chapman).
[609] R.T. 2235 (PG&E/Cowsert-Chapman).

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> available. We did not go back ever and research any other type of data.
>
> Again, as we would find errors in the data, those would get corrected. But I don't know of a single company that went back to try to resurrect original type data for anything. It was just a movement from one record system to another.[610]

Ms. Dunn confirmed that from a data management point of view it was an acceptable practice for PG&E to use the pipeline survey sheets to initially populate GIS without returning to the source documents.[611]

CPSD has offered no evidence to establish a different industry standard than the one Mr. Zurcher and Ms. Dunn described. Moreover, CPSD has introduced no evidence supporting its assertion that PG&E's transfer of data into GIS lacked appropriate checks for accuracy. Nor has TURN substantiated its claim that PG&E "simply assumed" that the transfer of data was accurate.[612] To the contrary, P G&E engineer Brian Daubin testified that during the creation of GIS, PG&E personnel conducted quality control checks against randomly selected pipeline survey sheets (or "plat sheets").[613] Each plat sheet was selected at random, after which personnel cross checked each data point in the selected plat sheet against the data entered into GIS.[614] TURN maintains that PG&E engineer Christine Cowsert -Chapman's testimony on this subject should be accorded little weight because she lacked personal knowledge. But thi s contention ignores the efforts Ms. Cowsert -Chapman undertook to verify her written testimony.[615] It also ignores that Mr. Daubin, who is familiar with the conversion of the Pipeline Survey Sheets into GIS, corroborated her testimony at the hearing. TURN and CPSD have introduced no evidence proving that PG&E lacked a quality control process, and cannot meet their burden by ignoring the relevant testimony that refutes their theory. Having failed to introduce evidence

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[610] Joint R.T. 663 (PG&E/Zurcher).

[611] R.T. 1389-90 (PG&E/Dunn).

[612] TURN OB at 29. TURN cites R.T. 1969 (PG&E/Cowsert -Chapman) in support of this contention. However, at most the cited testimony shows that PG&E has not located written documentation of the quality control process undertaken during the initial creation of GIS.

[613] R.T. 2232-35, 2240-41 (PG&E/Daubin).

[614] R.T. 2240-41 (PG&E/Daubin).

[615] R.T. 1974-76 (PG&E/Cowsert-Chapman).

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contradicting the testimony of industry experts and PG&E witnesses, CPSD cannot prove a violation relating to the original population of PG&E's GIS system.

b. CPSD Has Not Proven A Violation Of Law Regarding PG&E's Use Of GIS Data

CPSD asserts that GIS replaced most of PG&E's paper records "for documenting facility data"[616] and that PG&E relied on data from GIS for Integrity Management purposes, such that if "the data in GIS is erroneous the data in the Integrity Management model is also erroneous."[617] CCSF makes a similar argument, stating that GIS "is the primary source of information" for PG&E's integrity management program.[618] TURN makes parallel contentions in connection with its discussion of Violation 25, which PG&E addresses here.[619]

Contrary to the allegations of CPSD, CCSF, and TURN, the record evidence is that GIS data are generally not PG&E's primary source of data for most day-to-day pipeline operations and are just one component of a much broader data gathering and integration process for integrity management.[620] PG&E uses GIS as a tool to assist with data collection and integration.[621] A second step of data gathering occurs during the pre-assessment phase of each integrity assessment.[622] During the pre-assessment phase, PG&E's integrity management engineers gather additional data from job files and information sources.[623]

DRA contends that Bechtel's 1984 observation that "the results of any risk analysis" are impacted by unknown and suspect data put PG&E on notice that it "needed to be proactive and systematic" in updating data in connection with its integrity management program, but PG&E never took meaningful steps to correct errors or fill gaps in its pipeline data.[624] This argument, as well as TURN's position that PG&E "took no meaningful actions" to fill gaps, correct errors,

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[616] CPSD OB at 131.
[617] CPSD OB at 133.
[618] CCSF OB at 31.
[619] TURN OB at 32-33.
[620] R.T. 2212-13 (PG&E/Keas).
[621] Joint R.T. 1156 (PG&E/Keas).
[622] Joint R.T. 1176 (PG&E/Keas).
[623] Joint R.T. 1075 (PG&E/Keas).
[624] DRA OB at 26-27, 33.

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and revise assumpt ions in GIS, is contradicted by the record. [625] As PG&E witnesses have testified, one of the purposes of the integrity management data gathering process is to confirm the accuracy of the data gathered in the prior step. [626] If information from PG&E's hardcopy records or physical assessments indicates a potential threat not identified in GIS, PG&E updates GIS and identifies the threat going forward. [627] Information learned in the course of pipeline assessments and pre -assessments thus serves as a "continuous feedb ack loop" to help confirm and/or improve the data sets in GIS. [628] As PG&E integrity management engineer Kris Keas testified, this process ensures that PG&E's integrity management program "uses constantly improving data sets."[629] CPSD's argument that PG&E has "conflicting views" on the use of GIS is baseless. [630] There is nothing conflicting or inconsistent about using GIS as a centralized source of information while relying on underlying engineering records for specific data and as a means of constantly improving the data within GIS itself.

Finally, Intervenors' claims relating to PG&E's ongoing upgrade of its GIS system similarly fail. TURN argues that PG&E's focus on upgrading to GIS 3.0 rather than retroactively quantifying the errors in its prior GIS syst em is "disturbing."[631] CCSF argues that because PG&E is currently upgrading its GIS system, "it is reasonable to conclude" that PG&E's prior GIS was "not reliable for use in PG&E's day -to-day operations."[632] In fact, this conclusion advanced by CCSF and the related arguments by TURN ignore the fact that the integrity management regulations specifically contemplate that operators will constantly validate, upgrade, and refine their pipeline data through the integrity management process itself. [633] CCSF presents n o statutory basis – and no sound policy basis – on which to conclude that PG&E's engaging in just such a process constitutes evidence that its prior data sets were legally insufficient, nor does TURN proffer any legitimate argument as to why PG&E should fo cus

[625] TURN OB at 33.
[626] Joint R.T. 1176-77 (PG&E/Keas).
[627] Joint R.T. 1180-81 (PG&E/Keas).
[628] Joint R.T. 1172 (PG&E/Keas).
[629] Joint R.T. 1168 (PG&E/Keas).
[630] CPSD OB at 132.
[631] TURN OB at 31.
[632] CCSF OB at 30.
[633] Ex. PG&E-61 at 3-9 to 3-10 (PG&E/Zurcher).

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resources on quantifying errors in its prior GIS rather than on completing its upgraded GIS 3.0 system.

c. CPSD Has Not Proven A Violation Of Law Regarding Assumed Or Missing Values In GIS

CPSD is correct that PG&E's GIS in some instances is populated wit h assumed values. However, CPSD presents no evidence that the use of conservative assumed values in populating an operator's GIS system violates any law or industry standard. In fact, expert witness Mr. Zurcher explained on cross -examination that he work ed on GIS systems for other pipeline operators and often used conservative assumed values:

> In 1989 I built my first GIS system. It was one of my jobs when I was with Panhandle Energy. Then in '97 I went to the Tenneco Energy and I built their first GIS system there. The process of GIS that we would go through often times was in order to get the data populated as quickly as possible, we would take often times numbers that were conservative . . . . They were just conservative assumptions that we made in t he interest of time in getting the project done so that we could be able to use the tool the way it was supposed to be used.[634]

DRA alleges that in providing this testimony Mr. Zurcher failed to acknowledge that PG&E "took no meaningful actions" to revise it s original assumptions over time. However, as discussed at length by Kris Keas, PG&E in fact constantly improved its data sets through incorporation of new information identified in its integrity management program. This is exactly the process described by Mr. Zurcher in the testimony on which DRA relies.[635]

Moreover, and as discussed in greater detail in connection with purported Violation 25, below, the use of assumed values is accepted in the integrity management context. ASME B31.8S specifically provid es for the use of assumed values where the operator lacks data.[636] Through integrity assessments operators gather more information about the system, and use that information to address data gaps.[637] Given Mr. Zurcher's experience and expertise in the natural gas industry, compared with Ms. Felts' lack of such experience and expertise, CPSD has

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[634] Joint R.T. 661 (PG&E/Zurcher).

[635] DRA OB at 32-33.

[636] Joint R.T. 669 (PG&E/Zurcher).

[637] Joint R.T. 669-70 (PG&E/Zurcher).

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provided no substantial evidence to support a conclusion that PG&E's use of assumed values constitutes a violation of any law, regulation or industry standard.

Having failed to prove that the use of conservative values as a general matter violates the law, CPSD similarly fails to prove a violation of law relating to the specific assumed (and in some instances unknown) values in PG&E's GIS. CPSD asserts in its opening br ief that a spreadsheet produced by PG&E in discovery shows that GIS contains "assumed and blank values" "for every segment of each pipeline" and implies that PG&E is thus missing vital information about the physical attributes of its pipes. [638] During cross -examination, however, CPSD witness Ms. Felts conceded that of the 22,856 pipe segments represented on the spreadsheet, 22,480 were listed entirely or in part due to assumed or unknown data about the name of the pipe's manufacturer. [639] 14,591 such segments w ere listed entirely or in part due to assumed or blank values relating to depth of cover. [640] PG&E addresses the relevance of data in GIS relating to pipe manufacturer in connection with purported Violation 25, below. CPSD has made no attempt to demonstrate why assumed or unknown fields in GIS relating to cover depth constitute a violation of any law. GIS is not PG&E's primary source of data for most day -to-day pipeline operations, and PG&E maintenance personnel would generally use the actual system of record in connection with daily operations.[641]

Moreover, these conservative assumptions about a given pipe's characteristics are based upon known attributes such as the pipe's year of installation and PG&E's pipe purchasing specifications from the relevant time period.[642] Christine Cowsert -Chapman elaborated on PG&E's practice as follows:

> The default or assumed values are not necessarily going to be the same for every segment. So if you're making an assumption, you are going to look at the data fields that are po pulated, right, and make an assumed value based on if you understand the year the pipe was installed or the diameter of the pipe or some of the other pipe specifications, you can kind of figure out what type of pipe was installed during that period of time. You can do some analysis so that you're not just applying the same value peanut butter across

[638] CPSD OB at 131.

[639] R.T. 483 (CPSD/Felts).

[640] R.T. 483 (CPSD/Felts).

[641] R.T. 2212-13, 2223 (PG&E/Keas).

[642] Joint R.T. 1169 (PG&E/Keas).

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> all of those segments. You would put some logic into it so that it gives you a conservative value that's relevant to that specific segment of pipe. And it would give you enough information that it could be relevant for an analysis . . . So it's not when we say it is an assumed value that it is necessarily the same assumed value for every single segment of pipe. It is an assumed value based on the context of the information we do know about that piece of pipe.[643]

CPSD has provided no legitimate basis for a violation of law relating to the data in PG&E's GIS system.

25. Violation 25: Data Used In Integrity Management Risk Model

CPSD alleges that PG&E's integrity management program made use of inaccurate data in violation of Section 451.[644] DRA also contends that PG&E "lacks the basic records" necessary to conduct a successful integrity management program. [645] CPSD alleges in its opening brief that this purported violation encompasses the entirety of Sections 3 and 4 of the Revised Felts Report – a full 30 pages of allegations on a variety of subjects which already form the basis for multiple standalone purported violations of law alleged by CPSD in this proceeding. [646] PG&E addresses in detail the factual and legal errors underpinning each of these allegations elsewhere in this reply brief, and will not endeavor to reiterate the entirety of those discussions her e. However, as set forth in connection with PG&E's discussion of alleged Felts Violations 1, 2, and 16 through 24, alleged Duller/North Violations A.1, B.4, and C.3, and for the additional reasons set forth below in response to the specific categories art iculated by CPSD, CPSD has not proven that PG&E failed to maintain an integrity management program that was functional and in compliance with the law.

a. Data Regarding Pipe Age

CPSD asserts that records relating to the age of PG&E's pipe cannot support the company's integrity management program because PG&E's job files "have been a mess" and

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[643] R.T. 1952-53 (PG&E/Cowsert-Chapman).
[644] CPSD OB at 134.
[645] DRA OB at 30.
[646] CPSD OB at 136.

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because the company has reconditioned pipe in its system. [647] TURN similarly argues that the absence of "readily accessible records" of reconditioned pipe makes PG&E unable to determine the age of its pipelines.[648]

As discussed in connection with Felts Violation 16, *supra,* and Duller/North Violation A.1, CPSD has provided no legitimate support for its allegation that PG&E's job files are in fact missing or inaccessible in a way that impedes PG&E's ability to discern the age of its pipes. CPSD has also failed to prove its assertion that reconditioned pipe in PG&E's gas transmission system is unsatisfactory or in an unsafe condition. Ms. Felts conceded on cross-examination that she has no affirmative evidence that PG&E reconditioned pipe without inspection. [649] As PG&E engineer David Harrison explained: "pipe that's reconditioned, the steel doesn't really deteriorate on its own unless there's cathodic protection or some other issue going on with it. And so old pipe that's reconditioned is equivalent to that [kind of] pipe. And so by not tracking it, I don't see that as a major concern. It's equivalent to new pipe. The steel is still good."[650]

b. Manufacturer Data

PG&E has acknowledged that GIS does not contain the identity of the manufacturer of many pipe segments in its system. [651] However, for purposes of integrity management, the longitudinal seam type and/or joint efficiency, date of installation, and whether or not the segment was subjected to a qualifying pressure test are the relevant data points for threat identification.[652] If PG&E does not have information identifying the longitudinal seam, it assumes the most conservative value for purposes of threat identification. [653] The identity of the manufacturer is irrelevant to this consideration. And, the federal regulations do not suggest otherwise.

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[647] CPSD OB at 138-39.

[648] TURN OB at 26.

[649] R.T. 462 (CPSD/Felts) ("Q: So to be perfectly clear, you have no affirmative evidence that pipe was reconditioned and never inspected, correct? A: That's correct.").

[650] Joint R.T. 248 (PG&E/Harrison).

[651] R.T. 483 (CPSD/Felts).

[652] R.T. 1469-72, 1693-94 (PG&E/Keas).

[653] R.T. 1469-72 (PG&E/Keas).

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c. Pressure Test Records

PG&E discusses CPSD's errors of fact and law underlying its allegations relating to pressure test records in connection with Felts Violations 3 and 18, *supra,* as well as Duller/North Violation B.4. Among other matters, CPSD ignores the admittedly relevant industry perspective necessary to determine whether the absence of certain vintage records should be considered a violation of law rather than a widespread historical reality.[654]

d. Leak Data

CPSD makes reference to "how important leaks are to integrity risk management" but does not discuss how the integrity management regulations actually contemplate that leak records should be used.[655] Under ASME B31.8S, Appendix A, section 4.2, gas transmission pipeline operators are not required to review leak records for purposes of determining the potential for a manufacturing threat.[656] Leak data are relevant to (and are a data element specified in ASME B31.8S, Appendix A) time-dependent threats such as internal and external corrosion.[657] CPSD makes no attempt to articulate how leak records from prior to 1999, rather than contemporary leak records, would inform PG&E's determination of time-dependent threats on its pipelines.[658] Moreover, as discussed in connection with Felts Violations 21 and 22, *supra,* PG&E has historically maintained leak records in hard copy form,[659] so it is neither surprising nor probative that not all leaks are represented in GIS. The hard copy records are kept in job files or in "leak libraries" at approximately 70 local field offices.[660] Prior to San Bruno, PG&E had transferred some leak data into its GIS.[661] This data set included leaks recorded on historic pipeline survey sheets and leaks in the Integrated Gas Information System (IGIS) leak repair

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[654] R.T. 100-01 (CPSD/Halligan); Joint R.T. 707-11 (PG&E/Zurcher); Ex. PG&E-61 at 1-12 to 1-14 (PG&E/Howe).

[655] CPSD OB at 142. To the extent CPSD attacks the general sufficiency of PG&E's documentation of leaks on its system, rather than the utilization of records in its integrity management program, those matters are addressed in connection with purported Duller/North Violation C.3, *infra.*

[656] Ex. Joint-28 (ASME B31.8S), § A4.2 (2004).

[657] R.T. 1492-95 (PG&E/Keas).

[658] CPSD OB at 142.

[659] Ex. PG&E-61 at 3-60 (PG&E/Cowsert-Chapman).

[660] Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).

[661] Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman).

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tracking database,[662] but was not intended to make GIS the complete repository of all hardcopy leak records. Having failed to consider PG&E's incorporation of hardcopy data, and having introduced no independent evidence to support its allegations, CPSD cannot establish a violation of law relating to PG&E's gathering of leak data.

e. Pipe Specifications

CPSD sets out a claimed "list of poor practices relating to pipe specificatio n records and data" relating to Segment 180 and/or Line 132 more broadly.[663] PG&E has addressed each of these at length elsewhere in this proceeding or in the San Bruno proceeding.[664] To provide a complete discussion while avoiding excessive redundancy, PG&E briefly addresses a few such allegations here:

CPSD asserts that "PG&E's GIS recorded the pipe that failed as 'seamless' 30 -inch diameter pipe" rather than DSAW pipe.[665] The designation in GIS indicating that Segment 180 was seamless pipe, rather than DSAW, would not have changed PG&E's assessment of potential threats to the pipe.[666] As PG&E engineer Chih-Hung Lee, called by CPSD, testified here: "[F]or seamless pipe and DSAW, they both are joint efficiency 1.0. So there would be no difference if it is seamless or it is a DSAW pipe . . . they are both characterized as no manufacture threat."[667]

CPSD asserts that PG&E's GIS did not reflect that Segment 180 contained "six short pups welded together."[668] PG&E addresses this topic at length in connection with Felt s Violation 2, *supra.* Briefly, if PG&E had been aware of the substandard pipe, or the presence of six short pups welded together, it would have removed the pipe from the ground rather than documented these facts in GIS.[669]

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[662] Ex. PG&E-61 at 3 -61 (PG&E/Cowsert-Chapman). Following San Bruno, PG&E has undertaken to gather all leak records from local offices and create a central data set of transmission leaks to assist Integrity Management personnel during data gathering. Joint R.T. 1203 (PG&E/Keas).

[663] CPSD OB at 144.

[664] *See* PG&E OB, Section V.A; SB OII PG&E OB, Section V.C.

[665] CPSD OB at 144.

[666] R.T. 1491 -92 (PG&E/Keas); R.T. 1701 -03 (PG&E/Keas); R.T. 1892 (PG&E/Lee); Joint R.T. 992 -93 (PG&E/Keas); *see also* PG&E's Initial Response, Chapter 4, April 18, 2011.

[667] R.T. 1892-93 (PG&E/Lee); *see also* SB OII PG&E OB at 42-43, 92-93, 95-96.

[668] CPSD OB at 144.

[669] Joint R.T. 337-38, 368 (PG&E/Harrison).

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CPSD argues that GIS did not include information about a 1988 leak on Line 132.[670] As discussed in greater detail in connection with purported Felts Violation 26, the evidence shows that any documentation related to this leak would have minimal, if any, engineering significance. David Harrison testified that the 1988 pinhole leak was not unusual and would not generally have raised questions about the integrity of other parts of Line 132.[671] Similarly, Kris Keas testified that a pinhole leak that has not experienced in-service growth would not necessarily be considered an integrity threat.[672] PG&E pipeline engineer Chih-Hung Lee testified that while he would have considered the leak in his work, minor longitudinal weld cracks are "typical" and the documentation relating to the 1988 leak does not indicate any in-service defect growth.[673]

CPSD also criticizes PG&E for representing Segment 180 in GIS as X42 pipe rather than X52, the latter of which CPSD describes as "a stronger requirement."[674] CPSD makes no attempt to demonstrate how PG&E's use of the more conservative X42 pipe specification negatively impacted safety. In fact, CPSD argues elsewhere in its own brief that PG&E's assumed values in GIS were insufficiently conservative, rather than overly so as alleged here. Finally, CPSD asserts that PG&E's use in GIS of assumed SMYS values exceeding 24,000 psi was "in direct violation of the law." This is in error, as PG&E addresses at length in connection with Duller/North Violation A.1, *infra.*

f. Pipe Reuse

As discussed in connection with Felts Violation 23 and Duller/North Violation A.1, CPSD's assertion that reconditioned pipe in PG&E's gas transmission system is unsatisfactory or in an unsafe condition finds no support in the evidentiary record. Nor has CPSD presented any historical statutory requirement that operators track reconditioned pipe in their system.

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[670] CPSD OB at 144.

[671] Joint R.T. 262-64, 568 (PG&E/Harrison).

[672] R.T. 1495 (PG&E/Keas).

[673] R.T. 1893, 1905, 1913 (PG&E/Lee).

[674] CPSD OB at 145.

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g. Pipe Construction

CPSD alleges that PG&E's job files were "virtually unusable" and therefore locating construction records in the company's job files "was a daunting challenge for anyone."[675] As discussed in connection with Felts Violation 16, *supra*, and Duller/North Violation A.1, CPSD has not supported its allegation that PG&E's job files are missing or inaccessible. Indeed, the record demonstrates that information in PG&E's job files was readily accessible to the company's employees. PG&E engineer Todd Arnett, called as a witness by CPSD, testified that he fully understood the numbering system for PG&E's job files and that he is able to locate necessary items within a job file "pretty quickly from my experience."[676] Similarly, David Harrison testified that "job files in my experience are quite well organized, the paper job files in the system. They've been there for 50 years. The systems are well established."[677] Mr. Harrison elaborated that PG&E's organizational system for job files is consistent and that the process of accessing job files is straightforward and well understood among PG&E employees.[678] There is simply no evidentiary basis by which to conclude that the construction records located in PG&E's job files were not accessible to those who used them.

CPSD also alleges that PG&E's records "do not reflect the reasons why" girth welds on the defective pups in Segment 180 were substandard.[679] First, there is no evidence that the imperfections the 2011 NTSB metallurgical examination identified in the girth welds fell below the acceptance standards applicable in 1956.[680] Further, as discussed above, had PG&E been aware of the substandard pups, or the presence of six short pups welded together, it would have removed the pipe from the ground rather than documented these facts in job files or GIS.[681]

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[675] CPSD OB at 147.

[676] R.T. 1863 (PG&E/Arnett).

[677] Joint R.T. 282 (PG&E/Harrison).

[678] Joint R.T. 283-84 (PG&E/Harrison); *see also* PG&E OB at 104.

[679] CPSD OB at 148.

[680] Ex. CPSD-6, footnote 1, file 001.pdf (CPSD/Duller and North) (NTSB August 30, 2011 Accident Report).

[681] Joint R.T. 337-38, 368 (PG&E/Harrison).

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h. Operations

CPSD asserts that PG&E lacks operating pressure records necessary to evaluate the threat posed by cyclic fatigue, as required by the integrity management rules.[682] This claim is erroneous. As discussed at length in connection with Felts Violation 20, *supra*, CPSD has introduced no evidence indicating that PG &E lacked operating pressure records required by the integrity management regulations. It is true, as PG&E has previously acknowledged, the company inadvertently and irretrievably lost operating pressure data for 1999.[683] However, as Mr. Zurcher explained, this missing data would not have a discernible negative impact on PG&E's determination and assessment of a manufacturing threat under this rule.[684]

26. Violation 26: Missing Report For 1988 Weld Failure

CPSD alleges that PG&E prepared a "failure report" relati ng to a 1988 leak on Line 132, and assumes that the report went immediately missing.[685] CPSD further alleges that this purported violation is a continuing one from 1988 until such time in the future as the report is found.[686]

As a preliminary matter, CPSD is looking for a T&ES (later ATS) metallurgical report that in all likelihood never existed. On cross -examination, Ms. Felts conceded she has no information regarding when the T&ES metallurgical report went missing (if it went missing at all) and could only observe that the report was not available when she searched for it in 2011.[687] In fact, in all likelihood a metallurgical report (as contrasted with a Material Failure Report) was never created.[688] CPSD asserts that the March 1989 letter "shows that it had a n attachment."[689] Indeed, the March 1, 1989 T&ES memo refers to an "attached material failure report." As PG&E witness David Harrison explained, however, that appears to be a reference to the material

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[682] CPSD OB at 148-49.

[683] Ex. PG&E-61 at 3-58 (PG&E/Keas).

[684] Ex. PG&E-61 at 3-11, 3-12 (PG&E/Zurcher).

[685] CPSD OB at 161.

[686] CPSD OB at 161. CPSD appears to base the start date of this alleged violation on the 1988 date of the leak itself.

[687] R.T. 356 (CPSD/Felts).

[688] Ex. PG&E-61 at 3-41 to 3-48 (PG&E/Harrison).

[689] CPSD OB at 160.

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failure report initially prepared by the Golden Gate Re gion in December 1988.[690] That material failure report reflects that it went to Gas System Design.[691] It makes sense that T&ES returned that report as an attachment to its March 1, 1989 memo.[692] CPSD cannot meet its burden of proving a violation of law for pu rportedly losing a document that it has not established ever existed.

In addition, CPSD has not proven that PG&E was required to maintain the allegedly missing report in perpetuity. CPSD argues that PG&E needed to retain the report for the life of the fac ility because it was "an engineering record directly relevant to the integrity of PG&E's transmission pipelines," but CPSD provides no statutory or engineering basis for this assertion.[693] CPSD alleges that PG&E's Standard Practice 1605 requiring retention of weld inspection reports "presumably" extended to the 1989 report.[694] CPSD provides no evidentiary support for this presumption, and PG&E's testimony makes clear that SP 1605 applies to post -installation inspections of "at least the minimum number of girth welds set forth by GO 112."[695]

CPSD also asserts that statements in the 1989 T&ES memo should have led PG&E to inspect pipe of the same vintage for "non -leaking cracks that could eventually propagate."[696] CCSF makes a similar argument, stating that in respo nse to the memo PG&E should have reviewed its records for other similar pipe segments.[697] The evidence shows that any documentation related to this leak would have had minimal, if any, engineering significance. As discussed above, PG&E gas transmission engineer David Harrison testified that the 1988 pinhole leak was not unusual and would not generally have raised questions about the integrity of other parts of Line 132.[698] Similarly, PG&E integrity management engineer Kris Keas testified that a pinhole leak that has not experienced in -service growth would not necessarily be considered an integrity threat.[699] PG&E pipeline engineer Chih-Hung Lee, who oversaw the preparation of the

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[690] Ex. PG&E-61 at 3-47 to 3-48 (PG&E/Harrison).
[691] Ex. PG&E-61 at 3-47 to 3-48 (PG&E/Harrison).
[692] Ex. PG&E-61 at 3-47 to 3-48 (PG&E/Harrison).
[693] CPSD OB at 157.
[694] CPSD OB at 158.
[695] Ex. PG&E-61 at 3-55 (PG&E/Keas).
[696] CPSD OB at 160.
[697] CCSF OB at 33.
[698] Joint R.T. 262-64, 568 (PG&E/Harrison).
[699] R.T. 1495 (PG&E/Keas).

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2009 Long Term Integrity Management Plan that included Segment 180, testified tha t while he would have considered the leak in his work, minor longitudinal weld cracks are "typical" and the documentation relating to the 1988 leak does not indicate any in-service defect growth.[700]

Finally, when cross -examining Mr. Zurcher, CCSF tried to ma ke the point that 6 of 17 PHMSA reportable incidents between 2002 and 2009 involved seam defects on DSAW pipe. [701] Mr. Zurcher explained, however, that the number of reportable incidents involving pinhole leaks is very small compared to the number of pinhole leak repairs in the industry, and the number of pinhole leaks has itself declined substantially over time: "Last year in the United States on transmission pipe there were 1500 pinhole leaks that were repaired . . . [a]nd 40 years ago, back to the first a nnual report, there were close to 20,000 pinhole leaks repaired per year. Each year that pinhole leaks get repaired, there's a lesser number the following year as appropriate." [702] Thus, from an integrity point of view, pinhole leaks are not relevant to the system.[703] Because CPSD has not proved a 1989 "failure report" ever existed or that PG&E was required to retain any such report if it did exist, CPSD has not met its burden of proof with respect to alleged Violation 26.

27. Violation 27: Missing Report For 1963 Weld Failure

CPSD alleges PG&E violated Section 451 by failing to retain a metallurgical report relating to a 1963 pipe failure near Alemany Boulevard. [704] Unlike the 1989 failure report discussed in the last section, there is good reason to believe that this report was in fact created, as PG&E still has correspondence with the Commission from this era that refers to sending the Commission a copy of the report.[705]

CPSD is right that PG&E cannot locate a copy of the 1963 report. [706] However, PG&E does not agree – and CPSD has not proven – that PG&E was ever required to maintain the report. As with the 1989 report discussed above, CPSD alleges that PG&E's SP 1605 requiring

[700] R.T. 1893, 1905, 1913 (PG&E/Lee).
[701] Joint R.T. 761-65 (PG&E/Zurcher).
[702] Joint R.T. 871 (PG&E/Zurcher).
[703] Joint R.T. 870-71 (PG&E/Zurcher).
[704] CPSD OB at 161.
[705] Ex. PG&E-61 at 3-40 (PG&E/Harrison).
[706] CPSD OB at 161.

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retention of weld inspection reports "presumably" extended to the 1963 failure report.[707] CPSD again provides no evidentiary support for this presumption, and, as discussed above, PG&E's testimony makes clear that SP 1605 applies to post-installation inspections of "at least the minimum number of girth welds set forth by GO 112, not weld or material failure reports."[708] With the exception of its unsupported reliance on SP 1605, CPSD does not identify any specific rule, regulation or even industry standard (much less one in effect in 1963 when the report supposedly went missing) that required the record to be maintained.

CPSD dates the start of the violation to 1963 "because there is no evidence that PG&E retained the 1963 report" and alleges that the violation is a continuing one from that date through 2010.[709] CPSD, however, provides no evidentiary basis for a determination of when this report went missing, nor is it PG&E's burden to do so.[710] For the reasons discussed in PG&E's opening brief, as a matter of law this cannot be a continuing violation.

VI. ALLEGED VIOLATIONS PREDICATED ON THE REPORTS AND TESTIMONY OF DR. PAUL DULLER AND ALISON NORTH

A. Alleged General Records Management Violations

1. Violation A.1: Gas Transmission Division Records Management Practices

In arguing for its Violation A.1, CPSD's opening brief fails to articulate and apply a legal standard for determining if PG&E should be punished for past records practices. Where previously CPSD alleged PG&E maintained sub-standard records as measured against GARP principles,[711] it now maintains that PG&E records were sub-standard by any measure (which, in the context of a penalty proceeding, effectively means no measure at all).[712] Absent reference to its records consultants' prior GARP evaluation, CPSD's discussion of Violation A.1 has become indistinguishable from the Felts general records violations (Violations 16-27). Its substantive allegations repeat, with varying shifts in emphasis, the same allegations that CPSD's engineering

[707] CPSD OB at 161.

[708] Ex. PG&E-61 at 3-55 (PG&E/Keas).

[709] CPSD OB at 162.

[710] PG&E OB at 39-42; *see also supra* Section III.A-B.

[711] Ex. CPSD-6 (CPSD/Duller and North); Ex. CPSD-8 (CPSD/Duller and North).

[712] CPSD OB at 184-85.

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consultant made. In fact many of the allegations underlying Violation A.1 now repeat allegations that Dr. Duller and Mrs. North themselves make elsewhere.

Even taken on its merits, Violation A.1 lacks evidentiary support. CPSD continues to insist on inverting the burden of proof. "[T]he Cedars -Sinai principle supports CPSD's reasonable inference that an assessment of PG&E's current practices reflect PG&E's past records management deficiencies since its inception."[713] But CPSD's failure of proof arises from a more basic problem. CPSD continues to advance its records -for-records sake hindsight view of how PG&E could hav e managed its records better. That approach does not take into account how PG&E personnel actually used records in early eras, how technological changes have impacted records management, and how regulatory standards and expectations have changed.

a. CPSD Has Failed To Articulate A Legal Standard Against Which To Judge PG&E's Past Recordkeeping Practices

In its initial written report and testimony, CPSD maintained that PG&E's records practices were "Sub -Standard" when measured against ARMA's 2009 Generally Acc epted Recordkeeping Principles (GARP).[714] Its consultants wrote: "On the basis of the GARP criteria [we found] that records management within PG&E's Gas Transmission Division prior to the San Bruno pipeline rupture and fire were 'Sub -Standard' (Average Mat urity Score = 1.2)."[715] The bulk of CPSD's consultants' initial written report and testimony (Sections 6 and 7) consisted of an extended discourse on how, in Dr. Duller and Mrs. North's view, PG&E's historic records practices fell short of the 2009 GARP cri teria.[716] CPSD's revised Table of Violations predicated Violation A.1 on the "Sub -Standard" determination its records consultants reached when purportedly applying the GARP criteria.[717]

In her prepared direct testimony, PG&E's records expert, Maura Dunn, demo nstrated why GARP principles were not the right yardstick against which to measure PG&E's historic

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[713] CPSD OB at 189 n.665.

[714] PG&E OB at 53 -54; *see also* Ex. CPSD-6 at 1 -8 (CPSD/Duller and North); E x. CPSD-16 (Violation A.1 n.1) (CPSD/Duller and North).

[715] Ex. CPSD-6 at 1-8 (CPSD/Duller and North).

[716] Ex. CPSD-6 at Sections 6 and 7 (CPSD/Duller and North).

[717] Ex. CPSD-6 at 6-25 to 7-107 (CPSD/Duller and North).

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records practices.[718] Dr. Duller and Mrs. North did not respond to Ms. Dunn's criticisms so much as they retreated in the face of them. Their rebuttal testimony re-cast GARP as merely a "framework and reporting tool" for presenting their findings.[719] CPSD's opening brief retreats further. In the 30 pages of briefing devoted to Violation A.1 (pp. 163-193), the GARP principles now rate only a brief mention, and only then to criticize PG&E for having raised questions about the efficacy of CPSD's GARP analysis.[720] Instead, CPSD maintains PG&E's records were poor based on any measure.[721] "Regardless of whether CPSD's experts used GARP or not, CPSD's experts would have still assessed that PG&E's records and recordkeeping practices were poor based upon the facts uncovered during their investigation, regardless of the framework used to assess PG&E's recordkeeping."[722] While CPSD may well think that, its witnesses did not so testify.

Having migrated Violation A.1 off of the 2009 GARP criteria and onto a standard-less theory of violation, CPSD's discussion of the violation fails to apply any standard (legal or otherwise) to CPSD's version of the facts. Under the topic heading in Section VI.A, Subheading B of its opening brief: "Many of PG&E's various types of records were missing, inaccurate, incomplete or duplicative records; and therefore not traceable, or verifiable," CPSD promises an analysis of whether PG&E's records were "traceable, verifiable and complete."[723] But that promise goes unfulfilled. In the 20 pages of discussion that follow (pp. 165-185), CPSD never applies the "traceable, verifiable and complete" standard to any of its factual allegations. In an early portion of Section of VI.A entitled "Statutes and Requirements PG&E has violated" CPSD seemingly would have referenced its good engineering practices standard.[724] It does not, perhaps because its records experts admit they are not engineers.[725]

So, in lieu of stating a legal standard, CPSD strings together legal citations:

> PG&E has violated 49 CFR, section 192.709; California Public Utilities Code section 451; California Public Utilities Commission

[718] Ex. PG&E-62 at MD-7 to MD-38 (PG&E/Dunn).

[719] PG&E OB at 53; *see also* Ex. CPSD-8 at 29 (CPSD/Duller and North).

[720] CPSD OB at 188-89.

[721] CPSD OB at 189.

[722] CPSD OB at 189.

[723] CPSD OB at 164.

[724] CPSD OB at 165.

[725] R.T. 673, 689 (CPSD/Duller and North).

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> General Orders 112, 112A, and 112 B, section 107; and ASME Code B31.8.[726]

The citations are something of a riddle. Section 192.709 does not address the kinds of records Violation A.1 emphasizes, *i.e.*, job files, strength test pressure records, weld records, GIS data, and pipeline history files. Instead, it addresses operation and maintenance records for activities prescribed in Subparts L and M of Part 192. CPSD's citation to Section 451 is equally puzzling. Elsewhere in its brief, CPSD had articulated (albeit in inconsistent terms) what it believes Section 451 required.[727] In its discussion of Violation A.1, however, CPSD offers no Section 451 definition. Similarly, after the brief reference in the Statement of Violations to General Orders 112, 112-A, and 112 -B, Section 107, [728] these General Orders are not mentioned a gain. The reference to Section 107 is too cryptic to give lift to CPSD's argument in any event. Section 107 incorporates the ASA B31.1.8 voluntary industry standards, including several standards addressed to specific categories of records, making it diff icult to identify which standard CPSD contends forms the basis for Violation A.1. In the more than 30 pages of briefing that follows CPSD's statement of violations, CPSD mentions standards only once – the ASME B31.8 voluntary industry standard addressing the preservation of leak and strength test pressure records.[729] The rest of CPSD's discussion moves about from one type of perceived gas record deficiency to another (16 categories in all) with sweeping assertions about missing, incomplete, inaccurate or duplicative pipeline records.[730] But there is no further reference to a legal standard.

Thus, CPSD's present view of Violation A.1 has taken on a new dimension: The Commission should find PG&E violated the law "regardless" of what law applies. [731] It does not matter what records criteria CPSD's experts apply; they will conclude PG&E's records are poor. As PG&E showed through Ms. Dunn's testimony and arguments in its opening brief, the Commission would commit constitutional error if it judged PG&E's recordkeepi ng practices according to the 2009 GARP criteria because the Commission never gave prior notice that it

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[726] CPSD OB at 165.

[727] *Compare* CPSD OB at 9-12 (describing the Section 451 duty as a duty to act reasonably) *with* CPSD OB at 24-162 (where in the context of discussing specific Felts Violations CPSD repeatedly links Section 451 to a "good engineering practices" standard).

[728] CPSD OB at 165.

[729] CPSD OB at 165-66.

[730] CPSD OB at 165-83.

[731] CPSD OB at 189.

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would hold any utility to that standard.[732] To go further, as CPSD does, and seek to punish PG&E for what it perceives as poor recordkeeping "regardless of the framework used to assess PG&E's recordkeeping"[733] invites a decision without regard to rules or standards. The argument does not withstand scrutiny.

PG&E reiterates the argument developed fully in its opening brief: Section 451 cannot serve as a free-floating source of pipeline safety rules (much less recordkeeping rules).[734] No matter how enshrined 2009 GARP principles may be among records experts, they cannot provide the basis for finding legal violations without prior notice that the Commission would punish PG&E if it attained a failing GARP score. And, for CPSD to now invite the Commission to punish PG&E without regard to any standard violates the rule of law.

b. CPSD's Substantive Allegations Lack Merit

CPSD has maintained that it can infer that recent recordkeeping problems at PG&E existed far back in the past even in the absence of proof. Dr. Duller and Mrs. North initially justified this view by resorting to "Occam's Razor," a principle Dr. Duller and Mrs. North used to shift the burden to PG&E to prove its records were better in past eras than they have been in recent ones.[735] CPSD now offers a new justification: "Applying the Cedars-Sinai standard here, it is reasonable to infer that PG&E has practiced substandard records management presently, recently, and all the way back to inception."[736]

For the reasons discussed in Section III.B above, CPSD has misunderstood the doctrine of spoliation. Its use here – as a burden-shifting device – is particularly inappropriate because this is an enforcement proceeding subject to the strict requirements of due process. As explained below, CPSD's specific allegations supporting Violation A.1 have not been proven.

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[732] Ex. PG&E-62 at MD-7 to MD-10 (PG&E/Dunn); PG&E OB at 52-54.
[733] CPSD OB at 189.
[734] PG&E OB at 34-37.
[735] Ex. CPSD-6 at 2-13 (CPSD/Duller and North).
[736] CPSD OB at 184.

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(i) Strength Test Records Allegations

CPSD supports Violation A.1 by arguing that PG&E is missing stren gth test records.[737] As explained in Section III.E above, the assertion substantially overlaps with those CPSD makes in support of Felts Violation 18. In fact, CPSD's opening brief repeatedly refers to missing strength test records to support other violati ons as well: Felts Violation 25 (p. 141) and Duller/North Violation B.4 (pp. 199-200). PG&E incorporates by reference that part of this brief and its opening brief that respond to these violations, particularly its responses to Felts Violation 18.

CPSD's separate discussion of strength test pressure records in connection with Violation A.1 adds nothing substantive beyond what it previously asserted. CPSD asserts that "Commission precedent requires creating and preserving records before an operator can es tablish MAOP,"[738] but the "precedent" [739] it cites is a 2012 decision – a decision reached after the violative conduct is alleged to have occurred. [740] It repeats the allegation that PG&E is missing pressure records.[741] The allegation fails for the reasons PG&E ex plained in the discussion of Felts Violation 18 in Section V above. And, CPSD concludes its pressure record discussion with a non -sequitur: PG&E's failure to produce strength test records means its records are not traceable, verifiable, and complete as r equired by PHMSA's January 10, 2011 Advisory Bulletin.[742] If it had been shown that PG&E lacked strength test pressure records, the violation is not the failure to adhere to an Advisory Bulletin. As PHMSA explained, its advisory bulletins do not create enforceable rules.[743]

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[737] CPSD OB at 165-66.

[738] CPSD OB at 165.

[739] A "precedent" is something prior in time.

[740] D.12-12-030, 2012 Cal. PUC LEXIS 600.

[741] CPSD OB at 166.

[742] CPSD OB at 166.

[743] Ex. PG&E-19 at 67 (Joint Meeting of the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipeline Safety Standards Committee July 12, 2012).

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(ii) Weld Records Allegations

CPSD maintains that PG&E is missing weld records it should have retained. [744] CPSD reasons that weld records must be missing because only a fraction of the job files stored in PG&E's Emeryville storage facility had w eld records. [745] As PG&E explained when responding to Felts Violation 19, there is no regulatory requirement to maintain weld maps and weld inspection records. [746] CPSD's analysis of records contained in PG&E's Emeryville facility adds nothing more than a different approach to the same unsubstantiated claim. The allegation fails.

(iii) Job File/Number Allegations

CPSD raises three related allegations about PG&E's job files: files were incomplete; files were missing; and files were duplicated. [747] Each of these argume nts substantially overlaps with those put forward by Ms. Felts in support of her Violation 16. PG&E incorporates those parts of this brief and its opening brief that respond to Felts Violation 16.

The arguments CPSD makes here repeat familiar mistakes. T he fact that PG&E distributed job files across its service territory does not make them incomplete. [748] The fact that job files lacked weld records for which there is no recordkeeping requirement does not render them incomplete. [749] CPSD continues to argue PG& E is missing job files based on perceived gaps in PG&E's job numbers. But its testimony does not come to grips with PG&E's testimony explaining why those gaps exist. [750] Similarly, CPSD has not shown that PG&E is missing job files. Its efforts to do so res t on conclusions it drew from PG&E's then on -going MAOP validation effort. [751] As part of that effort records still had to be gathered, reviewed, and evaluated. CPSD's preference that PG&E have maintained a master index of all PG&E pipeline

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[744] CPSD OB at 166-67.

[745] CPSD OB at 167.

[746] PG&E OB at 110; Ex. PG&E-61 at 3-11 to 3-12 (PG&E/Zurcher).

[747] CPSD OB at 167-71.

[748] PG&E OB at 137-38; Ex. PG&E-62 at MD-20 to MD-22 (PG&E/Dunn); *see also* Ex. PG&E-61 at 3-38 to 3-39 (PG&E/Harrison); Ex. PG&E-61 at 3-14 to 3-27 (PG&E/Phillips).

[749] PG&E OB at 110; Ex. PG&E-61 at 3-11 to 3-12 (PG&E/Zurcher).

[750] Ex. PG&E-61 at 3-36 to 3-37 (PG&E/Harrison).

[751] CPSD OB at 168-69.

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job files is just that – a preference.[752] It is not a violation and does not evidence that job files are missing.

(iv) Missing Operating Pressure Records

CPSD asserts, as part of Violation A.1, that PG&E lacks operating pressure records.[753] The assertion is supported by two sentences of discussion, the content of which overlaps with the allegation made in Felts Violation 20 (Operating Pressure Records Missing, Incomplete or Inaccessible).[754] PG&E incorporates its responses to that violation from this brief and its opening brief.

In a single sentence in its opening brief, CPSD raises a new allegation: PG&E has not been able to locate many of the original operating pressure records used in the 1973 to 1975 time frame to establish the MAOP of transmission lines under the grandfather clause in 49 C.F.R. § 192.619(c).[755] It provides no evidentiary support for the allegation except PG&E's written testimony and report that responded to CCSF's allegations about a related issue.[756] CCSF similarly questioned the sufficiency of PG&E's operating pressure records used to establish MAOP under the grandfather clause.[757]

Mr. Phillips addressed the substance of allegations about pressure records used to establish MAOP during the hearing.[758] In the 1974-1975 period PG&E was able to validate the MAOP of 97 % of the affected line sections using actual operating pressure charts.[759] For 11 sections of pipe, and as a last resort, PG&E relied upon verifications from operators who could attest to the highest pressure the line was exposed to in the preceding five years.[760] At the time of its March 15, 2011 filing in the PSEP proceeding, PG&E's search for operating pressure records from the 1965-1970 period revealed that many of the underlying records that had been reviewed

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[752] CPSD OB at 169-70; Ex. PG&E-61 at 3-38 to 3-39 (PG&E/Harrison).
[753] CPSD OB at 171.
[754] CPSD OB at 171.
[755] CPSD OB at 171.
[756] CPSD OB at 171 n.559.
[757] Ex. CCSF-4 at 4-6, 8-10 (CCSF/Gawronski).
[758] R.T. 1170-79 (PG&E/Phillips).
[759] R.T. 1177 (PG&E/Phillips).
[760] R.T. 1177 (PG&E/Phillips).

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in that period were no longer available. [761] "In these instances, the MAOP validation effort looked to the entry on the 1973 -1975 spreadsheets for evidence of the highest pressure, characterizing the spreadsheet as a whole as a signed statement or affidavit." [762] Prior to the San Bruno accident, PG&E was not alone in the industry in relying on secondary sources of information to confirm the MAOP of grandfathered pipe. In past eras, PHMSA even allowed the use of signed affidavits to substitute for pressure charts. [763] On a going forward basis, this is no longer true. In California, questions about the proper way to substantiate historic operating pressure are moot because the Commission has eliminated the grandfathering of pipe. [764]

(v) GIS-Related Allegations

In support of Violation A.1, CPSD raises a number of allegations about the sufficiency of GIS related data: inaccurate and erroneous GIS data; missing data; GIS is a system of record for integrity management; changes to GIS after the San Bruno accident suggest deficiencies before it; PG&E does not assume t he most conservative values when populating GIS; and many of PG&E's assumed values in GIS do not comply with federal regulations. [765]

These allegations substantially overlap with those raised in Felts Violation 24. There, as here, CPSD faults GIS because it is populated with "erroneous information and, blank and assumed entries." [766] There as here CPSD faults PG&E's initial QA/QC program and raises questions about the GIS database's use in PG&E's Integrity Management Program. [767] PG&E incorporates in full its arg uments and evidence submitted in this brief and in its opening brief in response to Felts Violation 24.

At the outset, one point bears emphasis. Dr. Duller and Mrs. North repeatedly affirmed in the course of the hearing that they are not engineering exper ts. [768] Yet CPSD loads into Violation A.1 (a violation sponsored only by Dr. Duller and Mrs. North's testimony) a number of

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[761] Ex. PG&E-61 at 4-9 (PG&E/Phillips).
[762] Ex. PG&E-61 at 4-9 (PG&E/Phillips).
[763] PG&E June 20, 2011 Response at 1-36.
[764] Ex. PG&E-61 at 1-10 (PG&E/Howe).
[765] CPSD OB at 171-78.
[766] CPSD OB at 131.
[767] CPSD OB at 131-33.
[768] R.T. 673, 689 (CPSD/Duller and North).

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allegations that stray far into the area of assigning engineering value to records and information. For example, CPSD argues at length that GIS assumed values have not complied with federal regulations.[769] That is a question on which the Commission has received engineering testimony in both the San Bruno OII and Class Location OII. It is not a subject on which records experts can shed light in this records proceeding.[770]

PG&E acknowledges, and has acknowledged since the discovery of the 30-inch seamless designation for Segment 180, that its GIS database, like that of every other pipeline operator, contains errors. The presence of errors in such a large database (tens of thousands of pipeline segments, with several hundred pipeline attribute data points for each segment) is unavoidable. However, PG&E's personnel are aware of the limitations of the GIS database, and use GIS as a quick reference or index to locate the source records that are used to inform the work being performed. CPSD's opening brief ignores the purpose and function of GIS, and instead seeks to transform each error into an emergency safety-related condition.

(a) The Study Cited By CPSD Did Not Involve GIS

CPSD's first substantive criticism of the accuracy of GIS mistakenly claims that a study of PG&E's MAOP Validation effort found a significant percentage of inaccurate records in GIS that relate to "key safety attributes."[771] The study[772] explicitly states it does not include a review of GIS: "This study did not examine specifications contained in PG&E's Geographic Information System (GIS)."[773] CPSD does not explain how this study is relevant to the accuracy of GIS data, nor does CPSD explain how the attributes examined by the study relate to safety.

In reality, the study compared the wall thickness and long seam pipe attribute data taken from the source documents identified and used by the MAOP Validation effort with pipe attributes gathered during pipe excavations.[774] The study concluded (as would be expected) that

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[769] CPSD OB at 174-76.

[770] In the event the Commission intends to address the assumed SMYS issue here as well as in the other two OIIs, PG&E attaches as Appendix C the relevant pages of the briefs in those cases. Section V.B of PG&E's reply brief in the San Bruno OII, to be filed April 25, 2013, also addresses this issue.

[771] CPSD OB at 172.

[772] CPSD OB at 172 n.568 (citing PG&E Response to Data Request No. 25, Question 2(i) Supplement 05, Attachment 1, at 1, which is in the record as Ex. CPSD-49).

[773] Ex. CPSD-49 at 2.

[774] Ex. CPSD-49.

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paper records created at the time of installation, traceable to the installation location, representing the final installation (*e.g.*, as-built records), and that account for an appropriate quantity of materials installed were the most accurate, while paper records that were transcribed from original documents at a later time, could not be traced to the installation location, did not reflect as-built conditions, and did not account for all materials installed were less accurate. [775] The study does not include any assessment of GIS.

(b) PG&E's Use Of Age Of Pipe Based On Date Of Installation Does Not Raise A Safety Concern

CPSD's second substantive criticism faults PG&E's GIS for using the date of installation as a proxy for the age of the pipeline.[776] PG&E agrees with CPSD that, out of the 31 instances on PG&E's entire transmission system where PG&E has identified the presence of reconditioned pipe, this may cause information in PG&E's GIS database to incorrectly state the age of the pipe for 10 installations. However, CPSD does not articulate any theory that ties this small number of disparities to a safety-related concern. PG&E assumes that CPSD would state that the age of the pipe is relevant to the integrity management manufacturing threat identification process, which identifies a potential long-seam threat in low-frequency electric resistance-welded (ERW) pipe manufactured prior to 1970, and a non-seam manufacturing threat in any pipe that is greater than fifty years old. These concerns are without merit, and are more properly addressed in the San Bruno OII.

Considering the first potential safety concern (that low-frequency ERW manufactured prior to 1970 would be incorrectly identified as post-1970 ERW, and therefore not subject to a manufacturing threat), the age of manufacture for ERW pipe is not the only consideration that determines whether the segment is subject to a potentially unstable manufacturing threat, and therefore must be assessed using a method capable of assessing the integrity of the long seam. An operator must also determine whether the segment has been subjected to a pre-service hydro test sufficient to remove any manufacturing defect that could grow to failure during operation. As described in the document cited by CPSD in support of its argument, PG&E conducted a

[775] Ex. CPSD-49 at 2-3.
[776] CPSD OB at 172.

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hydro test in every instance involving pipe that was reinstalled after 1970.[777] Thus, even if the pipe was low-frequency ERW manufactured prior to 1970, it would not necessarily be subject to an unstable manufacturing threat because of the post-reinstallation hydro test.[778]

Regarding CPSD's second potential concern (that reinstalled pipe might be older than 50 years), ASME B31.8S Section A4.3 identifies a **non-seam related manufacturing threat** for pipe that is greater than fifty years old.[779] This threat is related to outdated girth weld construction techniques that expose the pipeline to potential ground movement-related failure.[780] As acknowledged by CPSD witness Margaret Felts, PG&E's practice for reconditioning pipe typically included removing the substandard girth welds.[781] Thus, when the pipe was reinstalled, it would be constructed using the girth weld fabrication technique at the time of reinstallation. As a result, the operator does not need to know the date of manufacture of the line to analyze for this threat, but only the date of reinstallation.

(c) CPSD Fails To Prove That PG&E's GIS Is Deficient As A Matter Of Law

CPSD's third substantive criticism relates to PG&E's supposed failure to "ensure the accuracy of its data, such as validating and running quality control of the sources of information used to populate its original GIS."[782] CPSD's criticism ignores the fact that the transfer of data from pipeline to survey sheets was "just a movement from one record system to another"[783] and that, from a data management perspective, accepting the accuracy of the pipeline survey sheets without validating data entries from source documents (*e.g.*, job files) was a reasonable and acceptable practice for PG&E to use.[784]

While CPSD uses these isolated arguments to paint PG&E's GIS data in a vague and negative light, CPSD offers no real support for the premise that "each and every attribute of

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[777] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 24, Question 2, Attachment 1).
[778] R.T. 1654 (PG&E/Keas).
[779] Ex. Joint-28 (ASME B31.8S) § A4.3.
[780] Joint R.T. 1149-50 (PG&E/Keas).
[781] R.T. 405 (CPSD/Felts).
[782] CPSD OB at 172.
[783] Joint R.T. 663 (PG&E/Zurcher).
[784] R.T. 1389-90 (PG&E/Dunn).

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PG&E's GIS data is inaccurate or erroneous[.]" [785] CPSD has therefore failed to prove that PG&E's GIS database contains an unreasonable amount of inaccurate data.

CPSD then mischaracterizes PG&E as unaware of missing information in its GIS. [786] CPSD states that, in unequivocal terms, it requested that PG&E identify missing GIS information, and that PG&E stated that it could not do so. [787] In fact, in January 2012, PG&E provided a spreadsheet to CPSD that detailed every pipe segment that contained a blank pipeline attribute data entry. [788] CPSD does not explain how this data response did not answer its request, nor does CPSD acknowledge receipt of this information, even though it was discussed and demonstrated on an overhead projector during evidentiary hearings. [789]

CPSD then claims that PG&E's GIS is a system of record for pipeline records and a primary source of information for PG&E's integrity management program. [790] CPSD is partially right. GIS is *not* PG&E's system of record for pipeline records and CPSD cites no evidence to support its statement. GIS does, however, serve as *a* primary source of information for PG&E's integrity management program. GIS is not *the* primary source, nor is GIS *the only* source of information for PG&E's integrity management program. As described by PG&E integrity management engineer Kris Keas, PG&E has a two-step data gathering process that satisfies regulatory requirements related to integrity management data gathering. [791] In the first step, PG&E uses GIS to make a preliminary judgment as to which threats are present on each pipeline segment. [792] Prior to conducting the actual integrity assessment, PG&E personnel review non-centralized records, such as job files, leak libraries, and interview maintenance personnel responsible for the segment in question to develop a qualitative understanding of the pipeline characteristics and history. [793] PG&E uses the GIS data to conduct initial threat identification as

[785] CPSD OB at 173.
[786] CPSD OB at 173.
[787] CPSD OB at 173 (citing PG&E Response to CPSD Data Request No. 67, Question 13).
[788] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 27, Question 12, Attachment 2).
[789] R.T. 480-90 (CPSD/Felts).
[790] CPSD OB at 173.
[791] *E.g.*, Joint R.T. 1176-77 (PG&E/Keas).
[792] *E.g.*, Joint R.T. 1176-77 (PG&E/Keas).
[793] *E.g.*, Joint R.T. 1176-77 (PG&E/Keas).

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part of its yearly baseline assessment plan.[794] PG&E, like other operators, uses GIS as one of the data sources, but not the only data source, in its integrity management program.

Finally, CPSD cites PG&E's audit change log as evidence of "changes necessary to address bad GIS records."[795] CPSD misunderstands the purpose and substance of the GIS HCA audit change log. As its name implies, the HCA audit change log is a tool to flag any change to pipeline attributes in GIS that is relevant to the determination of whether a pipe segment is located in a high consequence area.[796] This tool does not track all changes to the GIS database – changes to attributes that are not relevant to the HCA determination are not logged.[797] New construction or maintenance activities result in changes to the database.[798] Additionally, changes may be the result of data corrections. The HCA audit change log does not specify the reason the change was made.[799]

A significant percentage of the changes tracked in the HCA audit change log have been made in the two years following the San Bruno incident. This is due in part to the substantial increase in the amount of pipeline replacement and maintenance activities undertaken in the wake of San Bruno, such as the pipe replacement and hydro testing activity that resulted from the regulatory decisions in California to eliminate the grandfather clause and require strength tests to establish MAOP.[800]

There are entries in the audit change log that reflect a change in pipeline attributes showing a more conservative value (known or unknown) replacing a less conservative value. However, the evidence in the record does not support CPSD's conclusion that *each* change constitutes an error correction. While CPSD has identified a handful of occurrences in which values changed in this manner (out of more than 260,000 total changes captured in the log), CPSD has not independently investigated and proved the circumstances surrounding the few

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[794] *E.g.*, Joint R.T. 1075-76 (PG&E/Keas).

[795] CPSD OB at 174.

[796] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 87, Question 1 Attachment 1). The audit change log tracks attributes such as class location, coating type, joint efficiency, long seam type, diameter, SMYS, wall thickness, and year of installation. *Id.*

[797] R.T. 2092-94 (PG&E/Daubin); Ex. CPSD-67 (PG&E Response to CPSD Data Request No. 89, Question 1, 3, 7).

[798] Ex. CPSD-64 (PG&E Second Supplemental Response to Joint CPSD/TURN Data Request No. 1, Question 2).

[799] Ex. CPSD-64 (PG&E Second Supplemental Response to Joint CPSD/TURN Data Request No. 1, Question 2).

[800] R.T. 1612-13 (PG&E/Keas).

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changes it identifies – let alone all the entries in the audit change log – and ignores conflicting explanations for the changes.

CPSD cites to approximately 15 rows in PG&E's HCA audit chan ge log in support of its contention that PG&E's use of conservative, assumed values is fundamentally flawed. [801] Using these few examples, CPSD asks that the Commission infer that all entries in the HCA audit change log that reflect changes from an assumed v alue to a more conservative value (actual or assumed) are evidence of insufficiently conservative assumed values. [802] However, CPSD's opening brief ignores the purpose of the audit change log, the significance of the data in the HCA audit change log, and the multiple potential explanations that contradict CPSD's desired inference.

Contrary to CPSD's often-repeated characterization of the HCA audit change log as a list of errors in GIS,[803] there are multiple reasons that a pipe attribute in GIS changes. These i nclude new pipe installation, changes made to more precisely reflect the location of the pipeline, and changes to pipe attribute information. [804] Some number of the changes may be the result of corrections to pipe attributes revealed through records research .[805] However, there is insufficient information in the HCA audit change log to identify the reason that an attribute changed.[806]

The multiple explanations for changes in GIS pipeline attributes apply equally to changes to assumed values. An assumed value may be changed to a known, less-conservative value if the pipe segment in question is replaced. [807] CPSD desires an inference that this possibility be excluded "unless its audit change log explicitly said so." [808] In fact, and contrary to CPSD's incorrect stateme nt that PG&E "admitted" that all changes resulting from a 2012 Baseline Assessment data review are error corrections, [809] some of the changes that CPSD identifies may be the result of pipeline replacement, and accompanied by a comment in the log that suggests it

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[801] CPSD OB at 174-76.

[802] CPSD OB at 175-76.

[803] *E.g.*, R.T. 2093, 2096 (CPSD/Gruen).

[804] Ex. CPSD-64 (PG&E Response to Joint Data Request No. 1, Question 2, Supplement 2).

[805] Ex. CPSD-64 (PG&E Response to Joint Data Request No. 1, Question 2, Supplement 2).

[806] *E.g.*, R.T. 2093-94, 2134-35 (PG&E/Daubin); R.T. 2158-59 (PG&E/Keas).

[807] R.T. 2137 (PG&E/Keas).

[808] CPSD OB at 175.

[809] CPSD OB at 175 ("PG&E admitted that the letters QC in the comment co lumn [reflecting the Baseline Assessment data review] meant a correction of an inaccurate assumed value to a more conservative value.").

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was changed during the data review. As PG&E witness Kris Keas explained, the Baseline Assessment data review compared information from PG&E's GIS with data compiled in pipeline feature lists by the MAOP validation effort. [810] The pipeline features lists are created with data that reflect new installation and replacement work, as well as records validation. [811] Therefore, some of the changes to GIS data could be the result of replacing old, assumed values with known attributes from a post -San Bruno pipeline installation, and would have information in the comment field indicating that the change was made during the Baseline Assessment data review. CPSD's cross -examination, which was limited to a handful of changes involving assumed values, is not sufficient evidence to support the inference that all such changes are error corrections.

In short, CPSD's opening brief speculates about, but does not prove, a single pipeline segment in PG&E's database had an incorrect assumed value that was later changed, through records research, to a more conservative value. CPSD must prove its alleged violations, not build violations from inferences based on what PG&E engineers admit is possible (but not fact).[812] CPSD has not done so.[813]

(d) CPSD Fails To Prove That Assumed SMYS Entries In PG&E's GIS Violate The Law

CPSD's opening brief introduces the allegation that PG&E's GIS contains assumed SMYS values that exceed what is allowed by law. [814] This allegation is duplicative of violations alleged by CPSD in the Class Location OII (I.11-11-009) and San Bruno OII (I.12-01-007). The propriety of using assumed SMYS values greater than 24,000 psig is addressed in Section B.1.b of PG&E's opening brief in the San Bruno OII proceeding and Section II of PG&E's opening

[810] R.T. 2154-55 (PG&E/Keas).

[811] R.T. 2155 (PG&E/Keas).

[812] R.T. 2148 (PG&E/Daubin) ("I mean again, the engineer in me wants to say anything is possible, so [the presence of errors in PG&Es GIS relating to insufficiently conservative assumed values] is a possibility.").

[813] CPSD's showing does not even meet the preponderance of the evidence standard. To meet that standard it wou ld have had to show that the violation was more likely than not to have occurred.

[814] CPSD OB at 176. CPSD does not specify what law is violated, and mischaracterizes a statement by PG& E witness Kris Keas as an "admission" that any segment with an assumed SMYS value above 24,000 psig is a code violation.

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brief and Section IV o f PG&E's reply brief in the Class Location OII. [815] In short, CPSD fails to prove that PG&E has no information regarding the segments in question that would enable PG&E to identify a minimum assumed SMYS value greater than 24,000 psig. The use of assumed va lues based on other documentation, such as historic pipe purchasing minimums, is consistent with the regulations and common in the pipeline industry. [816] The use of 24,000 psig is only required where the operator lacks any identifying information regarding the segment.[817]

CPSD marries this allegation to a criticism of PG&E's responses to a series of data requests relating to errors in GIS data. [818] CPSD's allegation asserts that (1) PG&E refused to produce or even identify the existence of the HCA audit change lo g; and (2) the delay in producing a complete copy of the HCA audit change log hindered CPSD's ability to identify segments in PG&E's GIS with an assumed SMYS value greater than 24,000 psig. Contrary to these allegations, the HCA audit change log was discu ssed in the Independent Review Panel's June 8, 2011 report. [819] Disregarding this report, *CPSD knew of the existence and purpose of the HCA audit change log no later than September 16, 2011*, but never, prior to evidentiary hearings, requested data from the l og, or issued a data request that could be construed as requesting audit change log data. Additionally, PG&E provided a copy of the entire GIS database, including information sufficient to easily identify segments with an assumed SMYS value greater than 24,000 psig, on January 20, 2012. [820] CPSD did not need the HCA audit change log to identify these segments. CPSD's allegations mischaracterize PG&E's actions to fulfill discovery obligations during the course of this proceeding.

PG&E disclosed the existence and significance of the audit change log during a September 16, 2011 site visit attended by parties to this proceeding (including CPSD and its

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[815] In the event the Commission intends to address the assumed SMYS issue here as well as in the other two OIIs, PG&E attaches as Appendix C the relevant pages of the briefs in those cases. Section V.B of PG&E's reply brief in the San Bruno OII, to be filed April 25, 2013, also addresses this issue.

[816] Ex. PG&E-61 at 3-9 to 3-10 (PG&E/Zurcher).

[817] Joint R.T. 28-29 (PG&E/Zurcher).

[818] CPSD OB at 176-77. It is unclear how PG&E's responses to the data requests at issue relate to the presence of assumed SMYS values in PG&E's GIS database. PG&E provided a complete copy of all pipeline attributes in the GIS database as of the San Bruno incident i n response to CPSD Data Request 27, Question 12. CPSD received this response on January 20, 2012.

[819] June 8, 2011 Report of the Independent Review Panel at 59 (revised June 24, 2011).

[820] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 27, Question 12, Attachment 2).

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witnesses Margaret Felts, Alison North, and Dr. Paul Duller).[821] PG&E personnel identified the HCA audit change log, and described the function of the HCA audit change log as follows:

> So that is, is that my team has flagged certain data fields that are very key to our program such as diameter and pressure and if any changes on any of our thousands of segments are mad e to any of those keys, key data elements that we flagged they go into this audit change log and every one of those is reviewed by one of our engineers for impact on the program and for accuracy and there is quite a few changes, we have several, 3,000 mile s in thousands of segments so we get thousands of changes that we review in that log.[822]

In addition to the site visit description, PG&E provided a written description of the HCA audit change log and an excerpt of the log itself to CPSD on September 29, 2011 in response to CPSD Data Request 3, Question 16. PG&E provided another excerpt of log data relating to Line 132, Segment 180 on November 16, 2011 in response to CPSD Data Request 216, Question 2.[823] PG&E provided all data in the audit change log relating to pipelines originally installed prior to 1960 to the NTSB during its investigation (to which CPSD was a party participant) on October 8, 2010.[824] CPSD's statement that "on October 3, 2012, toward the end of the first round of hearings in this case, PG&E **for the first time** informed CPSD of 'An audit change log reflecting changes to the current GIS'"[825] misstates the facts.[826]

Even if PG&E had not informed CPSD of the existence of the audit change log, PG&E provided CPSD with sufficient data to easily identify a ny segment in PG&E's GIS that has an assumed SMYS value greater than 24,000 psig. On January 20, 2012, in response to a data request, PG&E provided CPSD with a complete copy of the GIS database in an Excel spreadsheet, reflecting all pipe attributes for e very segment in the system as it was on September 9, 2010.[827] This attachment contains a row that identifies the SMYS for each segment, including identification of segments where the value is assumed. As CPSD demonstrated during

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[821] *E.g.*, R.T. 2196-98 (PG&E/Daubin).

[822] R.T. 2197-98 (PG&E/Daubin). CPSD introduced the site visit transcript as Exhibit CPSD-65.

[823] Ex. CPSD-68 (PG&E Response to CPSD Data Request No. 90, Question 4).

[824] Ex. CPSD-68 (PG&E Response to CPSD Data Request No. 90, Question 4).

[825] CPSD OB at 177 (emphasis added).

[826] CPSD's claimed ignorance is surprising, given that it introduced the transcript of the site visit during evidentiary hearings. *See* Ex. CPSD-65 (PG&E Response to CPSD Oral Request, September 16, 2011).

[827] Ex. CPSD-18 (PG&E Response to CPSD Data Request No. 27, Question 12, Attachment 2).

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evidentiary hearings relati ng to GIS, it has no problem working with and manipulating data of this nature,[828] and even used this database in March 2012 to support of its claim that GIS contains many "blank and assumed values." [829] CPSD has therefore had, at a minimum, more than a year to sort the Excel spreadsheet and identify which segments had an assumed SMYS value greater than 24,000 psig. [830] It is unclear what the HCA audit change log adds to this task, as the HCA audit change log is not a complete list of all pipeline segments and al l pipeline attributes, but instead only identifies the segments and attributes that have been changed, and the date on which they were changed. The whole pipeline attribute database resides in GIS.

(vi) Leak Data Allegations

CPSD faults PG&E for not creati ng a comprehensive inventory of all gas leaks that have occurred on gas transmission lines. [831] The allegation substantially mirrors Felts Violations 21 and 22, which taken together similarly allege PG&E's leak records were incomplete and inaccessible. It a lso overlaps with Duller/North Violation C.3, which also finds fault with PG&E's failure to maintain a comprehensive leak database. PG&E incorporates by reference those portions of this brief and its opening brief that respond to Felts Violations 21 and 2 2 and Duller/North Violation C.3.

(vii) Pipeline History File Allegations

CPSD renews its criticism that PG&E discontinued the Standard Practice (SP 463.7) that required the maintenance of pipeline history files.[832] In fact, CPSD cites PG&E's failure to retain pipeline history files as supporting evidence for multiple other violations: Felts Violation 17 (p. 92), Duller/North Violation B.6 (p. 201), and Duller/North Violation C.1 (p. 212). The failure to

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[828] *E.g.*, R.T. 2121 (CPSD/Gruen) (manipulating audit change log Excel spreadsheet to sort by pipeline attribute).

[829] Ex. CPSD-2 at 47 & n.191 (CPSD/Felts).

[830] As PG&E explained in response to the immediately preceding violation, operators may use assumed SMYS values greater than 24,000 psig without violating federal regulations, provided additional information exists that justifies the higher SMYS value. Opera tors are only required to use the 24,000 psig value when no information is known about the segment. CPSD has introduced no evidence that any segment with a SMYS value greater than 24,000 psig is "unknown" within the meaning of the federal regulations.

[831] CPSD OB at 178.

[832] CPSD OB at 179.

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retain pipeline history files appears in CPSD's proposed Findings of Fact 111, 113-17, 120, 137, and 183-85.

PG&E incorporates by reference its responses to each of these other violations, particularly Felts Violation 17 and Duller/North Violation B.6. In short, no law required the maintenance of pipeline history files.[833] PG&E maintained them in accordance to a standard that was discontinued in 1987.[834] When the standard was discontinued, the reason for retaining the files ceased to exist. The evidence shows the standard was discontinued because Pipeline History Files were duplicative of records that existed in job files.[835]

The specific allegations CPSD raises here duplicate those raised in support of other violations, particularly Felts Violation 17 and Duller/North Violation B.6. CPSD offers a few new arguments, but none of them have merit. It tries to maintain that PG&E is "confused" about when Standard Practice 463.7 was discontinued.[836] There is no confusion. The evidence showed it was discontinued no later than October 1987.[837] It is true that a 1996 copy of PG&E's former History File Requirements Manual included a copy of Standard Practice 463.7.[838] CPSD never explains where that fact takes it other than to infer that the reference in the 1996 History Files Requirements Manual to Standard Practice 463.7 was an instance where one reference manual, belonging to one employee, continued to include a standard practice after it had been rescinded. The History Files Requirements Manual was intended to be a "guidebook." It did not create or supersede any standards.[839]

CPSD also articulates in its opening brief a new theory of violation: "as a PG&E procedure, SP 463.7 carries the weight of law, and PG&E was required to follow it by retaining its pipeline history files for the life of the facility, but did not."[840] If Standard Practice 463.7 carried the weight of law, then the law was discontinued in 1987 when Standard Practice 463.7 was discontinued.

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[833] PG&E OB at 106.

[834] Ex. PG&E-61 at 2-21 (PG&E/Phillips).

[835] PG&E OB at 153-54.

[836] CPSD OB at 180.

[837] R.T. 321-22 (CPSD/Felts); *see also* Ex. PG&E-61 at 2-21 (PG&E/Phillips).

[838] P2-1477 at 564-70.

[839] P2-1477 at 564-70.

[840] CPSD OB at 181.

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(viii) Reused Pipe Allegations

CPSD next asserts that PG&E is missing records showing reused pipe. [841] This allegation overlaps with several other violations: Felts Violation 1 (No records for salvaged pipe installed into Segment 180), Felts Violation 23 (Records to track salvaged and reused pipe missing), and Duller/North Violation C.2 (PG&E lacked records needed to identif y pipe prone to earthquake damage). Blurring the distinction with Felts Violation 1, CPSD asks the Commission to conclude as part of its ruling on Violation A.1 that "it is possible that the pipe that ruptured in San Bruno was used."[842]

For all of the reaso ns discussed in connection with Felts Violation 1, Felts Violation 23 and Duller/North Violation C.2, the reused pipe allegations lack merit. CPSD did not substantiate its allegation that reconditioned pipe was used in the construction of Segment 180. It did not substantiate its allegation that reconditioned pipe is somehow less fit for service than other pipe. It did not substantiate its allegation that PG&E lost records of reconditioned pipe.

(ix) Metallurgical Reports Allegations

CPSD maintains that PG&E's metallurgical reports were "missing and incomplete." Ms. Felts makes a similar allegation as to two reports in particular (Violations 26 and 27). Ms. Felts' allegations appear then to be subsumed within those raised here.

What is clear is that in the co ntext of Violation A.1 the complaint is not so much about "missing and incomplete" metallurgical reports as it is about the way they were organized. CPSD prefers: (a) that they be centralized at PG&E's ATS Library; and (b) that they be digitalized.[843] But these statements reflect the records -centric preferences of CPSD's records management consultants; they do not establish violations of law. [844] The further assertion that some of the metallurgical records are "missing" is unsubstantiated. CPSD's brief supp orts this point with reference to a statement contained in Dr. Duller and Mrs. North's report: "There is no policing of the completeness of the records held in the ATS library." [845] Moreover, even if true,

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[841] CPSD OB at 181-82.

[842] CPSD OB at 182.

[843] CPSD OB at 183.

[844] Ex. PG&E-62 at MD-16 to MD-17 (PG&E/Dunn).

[845] Ex. CPSD-6 at 6-81, lines 21-22 (CPSD/Duller and North).

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the statement in Dr. Duller and Mrs. North's report only establishes that PG&E has not inventoried its ATS records. That statement does not establish that records must therefore be missing. The contention fails.

c. Criticisms Of The Historic Role Of PG&E's Management In Records Are Not Substantiated

As part of its articulation of Violation A.1, CPSD makes a sweeping assertion: "All violations identified to date are proof of a systemic failure of PG&E's management to comprehensively address mandatory recordkeeping requirements across PG&E's gas transmission system."[846] CPSD cites no evidence to support the statement. Instead, CPSD seems to reason that because PwC recently recommended that PG&E "develop and execute a Gas RIM Program Communications plan," therefore PG&E's management has not been sufficiently involved in the "gas transmission recordkeeping process" for all time. CPSD does not even attempt an analysis that would allow the Commission to draw such a speculative conclusion. Its assertions lack factual support or a cognizable legal standard against which to measure PG&E's conduct.

Elaborating on this theme, CPSD asks the Commission to infer that because PG&E's recent records management practices could benefit from added RIM Governance controls, PG&E therefore has had insufficient RIM Governance contr ols for all time. We know that CPSD cannot prove this allegation because it explicitly asks the Commission to reverse the burden of proof: "Applying the Cedars -Sinai standard here, it is reasonable to infer that PG&E has practiced substandard records man agement presently, recently, and all the way back to its inception."[847]

The handful of anecdotes CPSD marshals in an attempt to support its broad statements are unfair and false. For example, CPSD asserts: "PG&E could not identify any staff with record-keeping responsibilities across the gas transmission part of the company between 1948 and 1967." [848] The statement is unfair because it refers to the allocation of recordkeeping responsibilities within PG&E 45 to 65 years ago. Laches bars such allegations. Ev en if the

[846] CPSD OB at 183.
[847] CPSD OB at 184.
[848] CPSD OB at 184.

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allegation survived PG&E's laches defense, it is untrue. CPSD itself "compiled an extensive collection of excerpts from PG&E's record retention Standard Practices from 1951 to 2010, which show the responsible PG&E employees for internal record k eeping and their required actions, *for example in 1951 General Office Department Heads and Division Managers were responsible for supervision of the preservation and indexing of records* [.]"[849] And, PG&E has identified correspondence with the Commission rela ting to records dating to 1915, copies of retention regulations and guidance documents that date to the 1920s and 1930s, and copies of records retention policies that date to the 1950s. [850] It created and staffed a Records Center to house records, including gas records, in the early 1960s.[851]

2. CPSD's Attempts To Rebut PG&E's Evidence Falls Short

CPSD's attempt to refute PG&E's "Defenses to Violation A.1" repeats mistakes from the Legal Arguments section of its opening brief. [852] CPSD maintains that "Industry Practice is Not A Valid Defense."[853] This statement is at tension with other statements in CPSD's opening brief. Elsewhere, CPSD maintains that PG&E is "required to comply with industry practice[.]" [854] Contrary to CPSD's conf licting contentions, the relevance of industry practices is especially great where, as here, CPSD proffers a free -floating standard for determining whether a violation has occurred.[855] Even CPSD's policy witness partially acknowledged the relevance of indus try practices in assessing CPSD's violations.[856]

CPSD's references to the ASME B31.8 Code having "carried the weight of law" appears to resurrect an argument CPSD's policy witness disavowed in her revised testimony. [857] If CPSD means instead that Section 451 i ncorporated the ASA B31.1.8 Code between 1955 and 1961,

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[849] Ex. CPSD-6 at 6-29, lines 7-11 (CPSD/Duller and North) (emphasis added).

[850] Ex. PG&E 61 at 2-4 to 2-5, 2-18 (PG&E/Phillips).

[851] Ex. PG&E 61 at 2-18 (PG&E/Phillips).

[852] CPSD OB at 185-89.

[853] CPSD OB at 185.

[854] CPSD OB at 12-13.

[855] *See Carey*, D.99-04-029, 1999 Cal. PUC LEXIS 215; *see also F.A. Gray, Inc. v. Occupational Safety & Health Review Comm'n*, 785 F.2d 23, 24-25 (1st Cir. 1986) (Breyer, J.) (open-ended requirement that "appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions" can only be applied to conduct "unacceptable in light of the common understanding and experience of those working in the industry").

[856] R.T. 100 (CPSD/Halligan).

[857] CPSD OB at 186; R.T. at 130 (CPSD/Halligan).

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then the argument renders the entire GO 112 rulemaking an unnecessary exercise.[858] CPSD's further statement that the Commission has "made it clear that a utility must promote safety" regardless of a specific rule only serves to further confuse the legal standard.[859] A general duty to "promote safety" is not constitutionally enforceable through penalties for the reasons PG&E explained in its opening brief.[860] Moreover, it is not the obligation that the Com mission recognized in *Carey* or the obligation CPSD now tries to state in the Legal Argument section of its opening brief.[861] CPSD makes extensive use of PG&E's forward-looking improvement efforts to infer the existence of past violations.[862] These forward looking efforts point to current records challenges, but they do not establish anything more than PG&E's seriousness in improving its records management environment.[863]

CPSD's efforts to defend the broad historical inferences its records consultants drew from their evaluation of PG&E's current -state records practices lacks merit. They defend their methodology on the unsubstantiated ground that PG&E's relocation and reorganization of its own records "after San Bruno and before CPSD's recordkeeping experts coul d assess them in place" rendered it impossible for the consultant to do a backwards -looking evaluation. Having made that assertion in one sentence, CPSD contradicts it in the next: "However, CPSD's experts assessed PG&E's records management at the time o f San Bruno incident."[864] If CPSD's records consultants could assess PG&E's records management at the time of the San Bruno accident, notwithstanding the PG&E's intervening relocation and reorganization of those records, then they could have assessed PG&E's records prior to the San Bruno accident.

B. Alleged Records Retention Violations

1. Violation B.1 : PG&E's minimal compliance with some of its own retention policies regarding leak survey maps violates other requirements.

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[858] *See* PG&E OB at 37-39.

[859] CPSD OB at 187.

[860] PG&E OB at 24-37.

[861] CPSD OB at 9-12 (where CPSD argues Section 451 imposes a duty to act reasonably).

[862] CPSD OB at 91 (discussing MAOP Validation effort), 103 (discussing the Cow Palace document review effort), 126-27 (discussing MAOP Validation effort), 167 -69 (discussing the MAOP Validation effort), 184 -85 (discussing PwC review), 190-91 (discussing PwC review), 202-04 (discussing PwC review), 207 (discussing PG&E's hiring of a Director of Information Management and Complaints), 221-22 (discussing PwC review).

[863] Ex. PG&E-62 at MD-38 (PG&E/Dunn).

[864] CPSD OB at 188.

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2. Violation B.2: PG&E's minimal co mpliance with some of its own line patrol report retention policies violates other requirements.

3. Violation B.3: PG&E's minimal compliance with some of its own line inspection report retention requirements violates other requirements.

4. Violation B.4: PG&E's minimal compliance with some of its gas high pressure test record retention policies violates other requirements.

5. Violation B.5: PG&E's minimal compliance with some of its record retention policies of transmission line inspections, including pa trol maintenance reports, trouble reports and line logs violates other requirements.

6. Violation B.6: At all times between 1955 and 2010, PG&E was aware of the requirement to retain and maintain certain documents for various lengths of time but failed to implement their practices fully.

CPSD's opening brief fails to rebut the single most important fact: PG&E's Gas Standards contain retention periods consistent with, or in excess of, those CPSD calls for in Violations B.1 through B.5. [865] As PG&E explains i n its opening brief, CPSD's records consultants overlooked key PG&E Gas Standards in advocating Violations B.1 through B.6. [866] CPSD continues to ignore the testimony of PG&E engineer Steven Phillips, who pointed to the numerous instances where in its June 2 0, 2011 filing, and in discovery responses, PG&E specifically directed Dr. Duller and Mrs. North to PG&E's Gas Transmission Standards for information about gas records retention requirements.[867]

CPSD also continues to place mistaken emphasis on PG&E's corpor ate retention schedules.[868] Its opening brief includes a table outlining CPSD's arguments in support of Violations B.1 through B.5.[869] The description of the table states CPSD "has only referenced one

[865] Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn).

[866] PG&E OB at 143-46.

[867] PG&E OB at 199; R.T. 1184-95 (PG&E/Phillips); *see also* Ex. PG&E-69 (PG&E Response to Data Request No. 5, Question 3). CPSD devoted a significant part of its cross -examination of Mr. Phillips to the question of whether PG&E referenced its Gas Standards in prior discovery responses. R.T. 1140-55 (CPSD/Gruen). That line of questioning backfired on CPSD. R.T. 1184-95 (PG&E/Phillips) (in which Mr. Phillips identified numerous prior data responses and submissions in which PG&E clearly references Gas Standards as among different sources of records retention requirements).

[868] CPSD OB at 195-96.

[869] CPSD OB at 195.

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of PG&E's corporate retention standards" as a basis for its alleged violations.[870] On the contrary, every document listed in its table column labeled "PG&E Source Document and Page Number" is in fact a corporate retention schedule. These schedules remain the mistaken focus of CPSD's alleged violations.

CPSD further claims that PG&E's depiction of its Standard Practices in Appendix D of Ms. Dunn's testimony does not show that these practices took precedence over the PG&E requirements that are the basis for Violations B.1 through B.5.[871] On the contrary, the testimony of Steve Phillips and PG&E's opening brief explained in great detail how the record provisions in the Gas Transmission Standards were actually used by the gas organization on a day-to-day basis.[872] Ms. Dunn's testimony also provided insight on PG&E's distributed use of records to meet operational needs.[873] Her testimony added much needed context to the assessment by CPSD's records consultants, not "an excuse" "to break the law in the name of 'best practices'" as CPSD would suggest.[874] It is CPSD, not PG&E, that "misses the point" with respect to these allegations.[875]

PG&E outlines its specific responses to Violation B.1 through B.6 below.

1. Violation B.1: Leak Survey Maps

CPSD argues that the nine-year retention period specified in PG&E's corporate retention schedules for Leak Survey Maps violated 49 C.F.R. § 192.709 and Section 451 from April 16, 2010 through September 2010.[876]

In advocating this violation, CPSD ignores the testimony of PG&E pipeline engineer Steve Phillips.[877] Mr. Phillips' direct testimony established that a nine-year retention period amply complies with Section 192.709(c)'s requirement to retain survey records "for at least five

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[870] CPSD OB at 195.

[871] CPSD OB at 196.

[872] Ex. PG&E 61 at 2-23 to 2-24 (PG&E/Phillips); R.T. 1113-14, 1183-84, 1186-87, 1191-92 (PG&E/Phillips); PG&E OB at 143-44.

[873] Ex. PG&E-62 at MD-19, MD-40 (PG&E/Dunn).

[874] CPSD OB at 197.

[875] CPSD OB at 196.

[876] CPSD OB at 198-99; Ex. CPSD-16 (Violation B.1) (CPSD/Duller and North).

[877] PG&E OB at 146-47; Ex. PG&E-61 at 2-16 to 2-17 (PG&E/Phillips); *see also* Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn).

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years or until the next . . . survey." [878] PG&E's interval for conducting leak surveys tracks the federal regulations . For pipe like PG&E's, "[l]eakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year." [879] The frequency of leak surveys required by regulation, coupled with PG&E standards, ensures t hat an existing leak survey map will be replaced with a new one multiple times within the nine -year retention period.

Mr. Phillips further testified that PG&E's corporate retention schedules from 1994, 2005, 2008, and 2010, all include entries for "Leak Su rvey Inspections" and/or "Leak Survey Logs." [880] Each mandates retention periods of life of the facility or in some cases longer. [881] With respect to those records, the retention schedules complied with 49 C.F.R. § 192.709(c), which requires that a record of e ach patrol, survey, inspection, and test be retained for the life of the facility (from 1970 to 1996) or for at least five years or until the next survey or inspection (but not map) is completed, whichever is longer (from 1996 to the present).[882]

As explaine d in PG&E's opening brief, its Gas Standards that address leak surveys specify retention periods for leak survey maps that comply with the Part 192 requirements. [883] For example, SP 460.21 -4, "Gas Leakage, Routine Inspection For," provides in part that recor ds of leaks discovered, repairs made, and routine leak survey tests shall be maintained for "as long as that section of main involved remains in service, plus 6 years" for numbered gas lines and secondary trunk mains.[884] Gas engineers followed these Gas Standards,[885] yet CPSD continues to emphasize PG&E's corporate retention as a basis for its alleged violations. CPSD has not met its burden of proof for the violations it alleges related to leak survey maps.

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[878] Ex. PG&E-61 at 2-16 to 2-17 (PG&E/Phillips).

[879] PG&E OB at 147; 49 C.F.R. § 192.706.

[880] Ex. PG&E-61 at 2-17 (PG&E/Phillips).

[881] PG&E OB at 147; Ex. PG&E-61 at 2 -17 (PG&E/Phillips) (citing P2 -212 at GTR0004316, P2 -225 at GTR0004420, P2 -227 at GTR0004479, P2 -3 at GTR0002478); *see also* Ex. PG&E -62 at MD -46 to MD -55, Appendix D, Appendix E (PG&E/Dunn).

[882] PG&E OB at 147; Ex. PG&E-61 at 2-16 to 2-17 (PG&E/Phillips).

[883] PG&E OB at 147-48.

[884] PG&E OB at 148; SP 460.21 -4 (P2 -1149); *see also* Ex. PG&E-62 at MD -48, Appendix D, Appendix E (PG&E/Dunn).

[885] Ex. PG&E-61 at 2-24 (PG&E/Phillips); *see also* R.T. 1113-14 (PG&E/Phillips).

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2. Violation B.2: Line Patrol Reports

CPSD contends PG &E retention policies regarding line patrol reports violated Section 451 and other provisions from 1964 through September 2010. [886] As detailed in PG&E's opening brief, Mr. Phillips testified that the Company's corporate retention guidance on line patrol reports complies with Part 192, contrary to alleged Violation B.2., and CPSD has even acknowledged this. [887]

CPSD still fails to rebut the evidence that PG&E's Gas Standards address patrol records.[888] The Gas Standards provide that patrol records are to be maint ained for the life of the facility.[889] CPSD has yet to address the substance of these Gas Standards and has not satisfied its burden of proof for the violation it alleges related to line patrol reports.

3. Violation B.3: Line Inspection Reports

Violation B.3 alleges that between April 6, 1994 and September 2010, PG&E only minimally complied with policies regarding the retention of Line Inspection Reports. [890] CPSD primarily maintains that PG&E violated Section 451 (1994 through September 2010). It also asserts "[t]he applicable statutes and requirements for violation B.3 . . . include each version of ASME Code B31.8 in effect between April 6 1994 and September 2010."[891]

PG&E explained in its opening brief that this violation seeks to enforce an ASME B31.8 industry standard in a time period during which Ms. Halligan testified CPSD would not seek to enforce it.[892] In addition, CPSD apparently continues to construe ASME B31.8 and Section 451 to require PG&E to maintain Line Inspection Reports for the life of the facili ty when federal regulations directly on point require that they be maintained for five years or until the next

[886] CPSD OB at 199; Ex. CPSD-16 (Violation B.2) (CPSD/Duller and North).

[887] PG&E OB at 148-49; Ex. PG&E-61 at 2-15 to 2-16 (PG&E/Phillips); Ex. PG&E-64 (Tab 2-32) (CPSD Response to PG&E Data Request No. 8, Question 4.).

[888] Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn).

[889] Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn); SP 460.2-1 (P2-1240).

[890] Ex. CPSD-16 (Violation B.3) (CPSD/Duller and North).

[891] CPSD OB at 199.

[892] PG&E OB at 149.

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patrol, whichever is longer.[893] PG&E witness Cesar De Leon testified that the federal regulations eliminated the "life of the facility" requirement in 1996 because it proved unnecessary.[894]

The allegation further lacks merit because PG&E's Gas Standards provided that Line Inspection Reports would be retained for the "life of the facility." SP 460.2 -2, "Physical Inspection: Pipelines, Mains, and Serv ices," provides in pertinent part that "[a] record of each inspection shall be filed in the Division or Pipe Line Operations Department for the life of the facility."[895] The gas engineers followed these Gas Standards. [896] CPSD's opening brief fails to respond to the substance of Mr. Phillips' testimony on this or other points, and CPSD therefore has no evidentiary basis for this alleged violation.

4. Violation B.4: Pressure Test Records

CPSD contends PG&E "prematurely disposed of hundreds of pressure test record s . . . and needed each one of those reports to safely operate its system[.]" [897] It bases Violation B.4 on ASME B31.8, 49 C.F.R. § 192.709, and Section 451 for the period of April 6, 1994 to September 2010.[898] As PG&E described in its opening brief, PG&E cor porate records retention schedules from 1994, 2005, and 2008 identify a "Gas High Pressure Test Record" as a category of record subject to a three-year retention requirement.[899] In asserting that these schedules violate a "life of the facility" record retention requirement, CPSD's records consultants assume that the term "Gas High Pressure Test Record" in the corporate records retention schedule refers to a strength test (hydro test) pressure record of the kind specified in 49 C.F.R. § 192.517. [900] However, Section 192.517 does not refer to pressure test records as "Gas High Pressure Test Records." [901] Moreover, PG&E's 1994, 2005, and 2008 corporate records retention schedules do not reference Section 192.517 as justification for the three -year retention period a nd do not link the retention

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[893] 49 C.F.R. § 192.709(c).

[894] PG&E OB at 150; Ex. PG&E-61 at 1-7 (PG&E/De Leon).

[895] Ex. PG&E-70 (P2-1325); *see also* Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn).

[896] Ex. PG&E-61 at 2-24 (PG&E/Phillips); *see also* R.T. 1113-14 (PG&E/Phillips).

[897] CPSD OB at 199.

[898] CPSD OB at 199.

[899] PG&E OB at 202 -03; Ex. PG&E-64 (Tab 2 -11) at GTR0004314, (Tab 2 -12) at GTR0004419, (Tab 2 -13) at GTR0004478.

[900] Ex. CPSD-6 at 6-36 (CPSD/Duller and North); R.T. 677-79 (CPSD/Duller and North).

[901] 49 C.F.R. § 192.517.

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requirement to any specific PG&E pressure test form. [902] They instead reference a former FERC provision (FERC 23M) that addressed a category of records called "gas pressure." [903] The reference in PG&E's retention schedules to FERC 23M indicate that as used in the retention schedules the "Gas High Pressure Test Record" category referred to a different kind of record than the one CPSD assumes.[904]

As Ms. Dunn testified, PG&E's Gas Standards correctly stated a "life of the facility" retention period for strength test records of the kind required to be maintained by 49 C.F.R. § 192.517.[905] CPSD fails to address the substance of this provision. Instead, it attempts to extend the timeframe for Violation B.4, asserting in its opening brief that PG&E's failure to retain pressure test records dates back to 1965. [906] The allegation fails for the reasons PG&E explained *supra* in response to Felts Violations 18 and 25 and Duller/North Violation A.1.

5. Violation B.5: Transmission Line Inspections

CPSD contends that between April 1, 1964 and September 2010 PG&E complied only minimally with retention policies for records it groups together as "patrol maintenance reports, trouble reports, and line logs." [907] As previously discussed in PG&E's opening brief and in the testimony of Cesar De Leon, the "life of the facility" requirement was eliminated from 49 C.F.R. § 192.709 in 1996 because it was deemed unnecessary. [908] In any event, PG&E's Gas Standards specified that line records should be maintained for the life of the facility. [909] CPSD does not explain why it seeks to vindicate an obsolete regulatory retention requirement and does not address the substance of these Gas Standards. There is no violation.

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[902] Ex. PG&E-64 (Tab 2-11) at GTR0004314, (Tab 2-12) at GTR0004419, (Tab 2-13) at GTR0004478.

[903] Ex. PG&E-64 (Tab 2-11) at GTR0004314, (Tab 2-12) at GTR0004419, (Tab 2-13) at GTR0004478.

[904] Ex. PG&E-64 (Tab 2-11) at GTR0004314, (Tab 2-12) at GTR0004419, (Tab 2-13) at GTR0004478. The Part 225 records retention schedule included at paragraph (m) "gas pressure" records and specified a three-year retention period. However, that category of record was deleted from the Part 225 regulations in 1983. *See* PG&E's Initial Response, April 18, 2011, at 1-51 to 1-52.

[905] Ex. PG&E-62 at MD-46 to MD-55, Appendix D, Appendix E (PG&E/Dunn).

[906] CPSD OB at 200.

[907] CPSD OB at 200; Ex. CPSD-16 (Violation B.5) (CPSD/Duller and North).

[908] PG&E OB at 151-52; Ex. PG&E-61 at 1-7 (PG&E/De Leon).

[909] Ex. PG&E-62 at MD-46 to MD-55 (PG&E/Dunn); *see also* Ex. PG&E-70 (SP 460.2-2 (P2-1325)).

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6. Violation B.6: Failure To Comply With Specific Record Retent ion Requirements

CPSD claims that PG&E's purported failure to follow "multitudes of its own record retention requirements from 1955 to 2010 may well have exposed PG&E to unsafe working practices and inaccurate pipeline data." [910] In its opening brief, it dev elops the argument with references to only two document categories: Pipeline History Files[911] and pressure test records.[912]

These arguments replicate others made in support of Felts Violation 3, Felts Violation 17, Felts Violation 18 and Duller/North Violatio n A.1, above. [913] When discussing Felts Violation 17, CPSD argued that PG&E violated, among other things, its "internal policies requiring retention of engineering records for the life of the facility." [914] CPSD's discussion of Pipeline History Files as part of Duller/North Violation A.1 similarly asserts that "PG&E violated the law by destroying each of these files." [915] In the context of Violation B.6, CPSD asserts that PG&E "did not follow its own requirement to retain pipeline history files." [916] CPSD has made the same allegation twice (once as part of Felts Violation 17 and once as part of Duller/North Violation A.1), and has now alleged the substance of the same violation as part of Duller/North Violation B.6.

The same holds for CPSD's treatment of pressure re cords. As part of Felts Violations 3 and 18, CPSD asserted that PG&E violated the law in failing to conduct, record, and maintain pressure records (in the case of Segment 180 by failing to retain that particular pressure record).[917] CPSD argued as part of Duller/North Violation A.1 that applying the *Cedars-Sinai* case the Commission should infer in the absence of CPSD's proof that PG&E is "missing" pressure records.[918] Now as part of Violation B.6 CPSD maintains that PG&E failed to "follow

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[910] CPSD OB at 200.

[911] This aspect of Violation B.6 substantially overlaps with Felts Violation 17 (Pipeline History Records Missi ng). PG&E incorporates by reference its discussion of Felts Violation 17.

[912] CPSD OB at 201.

[913] CPSD also asserts with respect to pressure test records that PG&E represented to the Commission that it followed the ASA code. This statement is discussed in Section III.E.1.

[914] CPSD OB at 92-93.

[915] CPSD OB at 181.

[916] CPSD OB at 38, 201.

[917] CPSD OB at 102.

[918] CPSD OB at 166.

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its own requirement" to retain pressure records. Again, CPSD has repeated the substance of the same violation over and over again.

Thus, if Violation B.6 sounds familiar it is because CPSD has repeated it again and again. Violation B.6 rehashes CPSD's criticism of PG&E's d ecision to discontinue SP 463.7, adding new arguments to those already made.[919] In arguing Violation B.6, CPSD adds the argument that SP 463.7 may have been rescinded, but that part of the standard requiring PG&E to retain Pipeline History Files survived.[920] All of SP 463.7 was rescinded, not part of it.[921] CPSD goes on to assert that it would be bad public policy to let PG&E dispose of records by simply rescinding the policy because then "law enforcement and the general public would be unable to ascertain whether PG&E disposed of records before or after it rescinded the policy."[922] CPSD's professed uncertainty about whether Pipeline History Files had been disposed of before SP 463.7 was rescinded is defeated by CPSD's own belief that "PG&E had comprehensive rec ords until about 1987" when SP 463.7 was rescinded.[923] In any case, Pipeline History Files were in fact secondary sources of information in several respects.[924] While the Pipeline History Files were organized according to an alternative filing system, this does not mean that the law mandated their retention over the job file system, nor does it mean that the law mandated PG&E to maintain and update duplicates of the same records in the same office.[925]

CPSD's argument about pressure records fails for the same reasons as it did before. In Felts Violations 3 and 18, and as part of Duller/North Violation A.1, CPSD says that PG&E violated a law that required the pressu re records to be retained. Here, as part of Violation B.6, CPSD says PG&E violated an internal policy and thereby violated a law that required the pressure records to be retained. To support either assertion, CPSD has to prove the same fact: PG&E failed to retain the underlying records. For the reasons explained above in the discussion of Felts Violation 3, Felts Violation 18, and Duller/North Violation A.1, CPSD has not proven this fact.

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[919] CPSD OB at 205-06.

[920] CPSD OB at 206.

[921] Ex. PG&E-61 at 2-23 (PG&E/Phillips).

[922] CPSD OB at 205.

[923] CPSD OB at 100.

[924] PG&E OB at 153-54; Ex. PG&E-61 at 2-21 (PG&E/Phillips).

[925] Joint R.T. 286-87 (PG&E/Harrison).

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CPSD attempts to bolster its arguments by claiming that PG&E's al leged failure to follow its own retention requirements is also a failure to follow 49 C.F.R. § 192.13. To support this claim it provides a bulleted list of points from the review performed by PwC in late 2011. [926] As Ms. Dunn explained, the final PwC report presents findings of the current state of records and information management in the Gas Operations organization. [927] The report was created to provide high-level findings, and does not provide a sufficient basis to support a violation, much less one that sp ans back decades. [928] The general findings listed by CPSD are unrelated to the requirements of 49 C.F.R. § 192.13. PG&E's Gas Operations organization followed its Gas Standards in accordance with the federal requirements.

In a further attempt to support Vio lation B.6, CPSD offers alternative justifications for either barring PG&E's evidence, inverting the burden of proof, or drawing an unsupported inference[929]: **Argument 1**: "Because PG&E failed to produce any records audits when asked, the Commission should fi nd that PG&E had, in fact, not performed any of them." [930] **Argument 2**: If the Commission nonetheless considers evidence of the past audits, it should draw the inference that "PG&E did not act to address any problems with its records retention program." [931] **Argument 3**: PG&E recently hired a Director of Information Management and Compliance to address enterprise records retention; therefore it is "reasonable to infer from this statement that the confusion that currently exists has also existed since the inception of the company."[932]

These arguments succeed only in disclosing the weaknesses in CPSD's showing with respect to Violation B.6. **Response to Argument 1**: PG&E shared the substance of the 2008 audit findings in discovery and addressed those findings and the actions PG&E took in response to them in testimony. [933] CPSD asked for nothing further in response, and made no discovery motion complaining about the sufficiency of the response. **Response to Argument 2:** CPSD

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[926] CPSD OB at 202-05.

[927] Ex. PG&E-62 at MD-38 (PG&E/Dunn).

[928] Ex. PG&E-62 at MD-38 (PG&E/Dunn); CPSD OB at 202.

[929] CPSD OB at 207.

[930] CPSD OB at 207.

[931] CPSD OB at 207.

[932] CPSD OB 207. Having pointed to a going-forward effort to improve records retention (the hiring of a Director of Information Management and Compliance), CPSD is quick to try to limit its relevance: "PG&E's future endeavors in records retention are irrelevant to this proceeding."

[933] Ex. PG&E-61 at 2-13; Ex. PG&E-64 (Tab 2-28).

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has not articulated a reason to shift the burd en of proof.[934] **Response to Argument 3:** The fact that PG&E has hired a Director of Information Management and Compliance reflects an effort to improve. It does not support the inference that current records challenges have "existed since the inception of the company" – in 1905 – any more than it supports the countervailing inference that PG&E's records from this point forward will be 100% perfect for the rest of the life of the company.

C. Other Alleged Safety/Pipeline Integrity Violations

1. Violation C.1: Wro ng Year Used As Upper Limit In Gas Pipeline Replacement Program

CPSD alleges that PG&E violated Section 451 from 1995 to 2010 in carrying out its Gas Pipeline Replacement Program (GPRP).[935] As discussed in PG&E's opening brief, the girth welds on Segment 180 were constructed using the beveled-edge configuration, and the weld was made using the shielded metal arc welding process.[936] This configuration and welding method do not exhibit the same susceptibility to ground movement -related failure as oxyacetylene (Oxy-butt), bell -bell chill ring (BBCR), and bell and spigot (BLSP) girth welds and joint configurations designated for replacement in GPRP.[937] Therefore, even if the scope of the GPRP program included pipelines constructed after 1947 or if GPRP used the dat e of completion of work as its threshold, Segment 180 would not have been considered for replacement.[938] CPSD's assertion that "[i]f PG&E had included Line 132 in its 1995 GPRP . . . it could have avoided the San Bruno rupture and fire on September 9, 2010" lacks a factual basis.[939]

Similarly, the 30-inch diameter portion of Line 132 built in 1948 was constructed using the same beveled-edge shielded metal arc welding technique and would not have been included in the program.[940] The 2007 memo cited by CPSD confi rms this fact.[941] CPSD's opening brief

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[934] *See supra* Section III.

[935] CPSD OB at 208, 212; Ex. CPSD-16 (Violation C.1) (CPSD/Duller and North).

[936] PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).

[937] PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).

[938] PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).

[939] CPSD OB at 208.

[940] PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).

[941] CPSD OB at 211 (citing PG&E Response to CPSD Data Request No. 44, Question 1(a), Attachment 32).

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also incorrectly presumes that PG&E excluded the entirety of Line 132 from its GPRP. [942] While the program did not include those segments of Line 132 welded using the superior shielded metal arc welding process, the GPRP program did contemplate replacing the portion of Line 132 that contained suspect girth welds.[943]

CPSD asserts it is not a "defense" for PG&E to maintain that it constructed Segment 180 in 1956, using the beveled-edge configuration and the shielded metal arc welding process. [944] According to CPSD, PG&E's "uncertainties" about whether Segment 180 included reconditioned pipe precludes that "defense." CPSD's argument fails at several levels. CPSD failed to establish that the pups or any other Segment 180 pipe were, in fact, salvaged pipe. [945] Even if it had provided such proof, CPSD's own testimony establishes that the girth welds in the existing pipe would have been removed and replaced, meaning they would have had modern girth welds installed at the time of construction in 1956.[946]

CPSD also asserts that Segment 180 was situated near dwellings and thus met other criteria for GPRP prioritization. [947] But this argument begs the question whether Segment 180 had the targeted girth weld types. CPSD's argument about Segment 180's proximity to dwellings thus ignores the fact that Line 132, Segment 180 did not contain pipe welded using the Oxy-butt technique, or pipe constructed using BBCR or BLSP girth joint configurations.[948]

CPSD asserts that PG&E's Pipeline History Files might have provided the basis for a pipeline-by-pipeline review in aid of the GPRP. [949] The argument lacks foundation. The GPRP began in an era when CPSD acknowledges PG&E still had the Pipeline History Files. [950] Nor does CPSD's position account for the fact that Pipeline History Files were secondary sources of

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[942] CPSD OB at 208-13.

[943] Ex. PG&E-65 (Tab 3-19) at 3, 24.

[944] CPSD OB at 211.

[945] PG&E OB at 63-66.

[946] R.T. 405-06 (CPSD/Felts).

[947] CPSD OB at 211-12.

[948] PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).

[949] CPSD OB at 212.

[950] PG&E started its GPRP in 1985, at a time when there was no regulatory requirement to have a formal risk management program for gas transmission pipe. *Application of Pac. Gas and Elec. Co.*, D.86-12-095, 1986 Cal. PUC LEXIS 886. CPSD acknowledged that PG&E's Pipeline History files were still in existence until at least two years later. R.T. 320 (CPSD/Felts).

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information. The record demonstrates that PG&E has retained the underlying pipeline data contained in these files.[951]

2. Violation C.2: Impact Of Inferior Records On Predicting Earthquake Damage

CPSD asserts that from 1992 to 2010, PG&E violated ASME B31.8 and Section 451 because it "has not been able to precisely identify which pipelines are prone to earthquake damage and take the necessary corrective action to replace them."[952] CPSD's contention that PG&E did not track information about the location of reconditioned pipe needed for predicting earthquake risk ignores basic engineering concepts.

CPSD dates the start of Violation C.2 to 1992, the year FEMA published a study related to earthquake risks.[953] CPSD's opening brief, like its testimony, includes several block quotations from the FEMA report.[954] As discussed in PG&E's opening brief, the FEMA report provides no evidence regarding PG&E's program addressing ground movement risks.[955]

PG&E's June 20, 2011 response to the OII discussed how PG&E addresses risks from ground movement, including earthquakes.[956] CPSD has not mentioned PG&E's ground movement program. Instead, CPSD continues to focus on its concerns regarding the weld quality of girth welds in reconditioned pipe.[957] For all of the reasons discussed in connection with Felts Violation 1 and Felts Violation 23, the reused pipe allegations lack merit. As explained in PG&E's opening brief, even where reconditioned pipe has been reused its girth welds have generally been removed.[958]

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[951] PG&E OB at 153-54.

[952] CPSD OB at 213; Ex. CPSD-16 (Violation C.2) (CPSD/Duller and North).

[953] PG&E OB at 157; R.T. 687-88 (CPSD/Duller and North); *see also* Ex. CPSD-6 at 6-91 (CPSD/Duller and North).

[954] CPSD OB at 214; Ex. CPSD-6 at 6-91 to 6-92 (CPSD/Duller and North).

[955] PG&E OB 157-60.

[956] Ex. PG&E-61 at 3-49 to 3-52 (PG&E/Roth) (incorporating PG&E's June 20, 2011 Response, Chapter 6C at 6C-22 to 6C-24).

[957] CPSD OB at 215; Ex. CPSD-8 at 22 (CPSD/Duller and North).

[958] PG&E OB at 158-59.

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3. Violation C.3: Leak Records

In Violation C.3, CPSD asserts that from 1957 to September 9, 2010, PG&E failed to maintain a "definitive, complete and readily accessible database of all gas leaks,"[959] and concludes that "PG&E has compromised pipeline safety" in violation of 49 C.F.R. § 192.709, Section 451, GO 112, GO 112-A, GO 112-B, and ASME B31.8.[960] This allegation substantially overlaps with those raised in Felts Violations 21 and 22 and Duller/North Violation A.1. PG&E incorporates by reference its arguments and evidence submitted in this brief and it opening brief in response to those violations.

CPSD's argument is largely a recitation of the development of PG&E's leak databases.[961] Its opening brief makes the generalization that "pipeline and pipeline segments exhibiting leaks may have more issues and require closer attention to those that do not."[962] This argument assumes that the systematic review of leak data was prevalent in past eras, and that leak data of all types had a uniformly high value to an operator.[963] As PG&E explained in its opening brief, prior to the integrity management rules, operators generally did not have systematic programs in place to evaluate pipe repair data.[964] Even when integrity management rules took effect, ASME B31.8S instructed operators that in the case of time dependent threats older data "may not be relevant if it was collected many years before the integrity management program was developed."[965] Information about a corrosion leak in one place does not provide useful information about the threat of corrosion in another place.[966] Similarly, information about a pinhole leak on the long seam of DSAW pipe that occurred 20 years ago is of limited value because it tends to reflect a localized threat that has already been addressed.[967] PG&E's IGIS

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[959] CPSD OB at 218; Ex. CPSD-6 at 6-88 to 6-89 (CPSD/Duller and North); Ex. CPSD-16 (Violation C.3) (CPSD/Duller and North) (Duller/North Revised Table of Violations).

[960] CPSD OB at 220; Ex. CPSD-6 at 6-89 (CPSD/Duller and North).

[961] CPSD OB at 220.

[962] CPSD OB at 219.

[963] PG&E OB at 160.

[964] PG&E OB at 160; Joint R.T. 731-32 (PG&E/Zurcher).

[965] PG&E OB at 160-61; Ex. Joint-28 (ASME B31.8S), § 4.4 at 10 (2004).

[966] PG&E OB at 161; Joint R.T. 733-34 (PG&E/Zurcher).

[967] PG&E OB at 161; Joint R.T. 262-64, 274-75, 568 (PG&E/Harrison); R.T. 1926-31 (PG&E/Cowsert-Chapman) ("For more stable threats, such as a manufacturing threat, a leak doesn't necessarily tell you you have a problem."); R.T. 1936 (PG&E/Cowsert-Chapman) (explaining that leak data became progressively less important in the GPRP program from Bechtel's perspective); R.T. 1998 (PG&E/Cowsert-Chapman); R.T. 870-71 (PG&E/Zurcher).

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database contains approximately 15 years of leak data, which in the past was generally ad equate for the kinds of leak data analyses that PG&E performed.[968]

CPSD alleges that PG&E "omits" from its testimony that it did not migrate all leaks from the Mainframe Leaks system into IGIS, and that it did not retrieve leak data from its locally archived "PC Leaks" secondary storage system. [969] The testimony of PG&E witness Christine Cowsert-Chapman clearly states that PG&E migrated leak data for *open leaks* from PC Leaks to IGIS.[970] It did not transfer those leaks that had already been repaired. [971] Furthermore, to the extent engineers need to access data outside of IGIS, they can do so by request to the IT Department (in the case of electronic data) or local field offices (in the case of paper A-Forms).[972]

CPSD's opening brief also introduces an entirely new cri ticism of PG&E's leak surveys in relation to job mapping. [973] CPSD argues that "as a result of PG&E's failure to map tens of thousands if not a hundred thousand jobs, PG&E failed to perform timely leak surveys." [974] This allegation expands the scope beyond wha t CPSD had alleged in the report and testimony of Dr. Duller and Mrs. North, and should be disregarded for lack of notice. As indicated in the table of violations prepared by CPSD's consultants (Ex. CPSD -7), violation C.3 related to PG&E's decision to pop ulate IGIS with open leaks, rather than all gas leak data recorded in predecessor databases.[975] This violation cited Section 6.6.8 of the Duller and North Testimony and Report (Ex. CPSD-6 at 6 -88 to 6 -89).[976] Nowhere in the Duller and North Testimony was the re any reference to the adequacy of mapping or leak surveys. In addition to failing to provide notice of this allegation, CPSD fails to prove that its "evidence" is related to gas transmission pipelines. CPSD's only support for this sweeping accusation i s an email from a PG&E mapper in the Yosemite Division. [977] This email was not previously referenced in any of CPSD's reports or

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[968] PG&E OB at 161; R.T. 1958-59 (PG&E/Cowsert-Chapman); Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).
[969] CPSD OB at 220.
[970] Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).
[971] Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).
[972] PG&E OB at 161; R.T. 1959 (PG&E/Cowsert-Chapman).
[973] CPSD OB at 221.
[974] CPSD OB at 221.
[975] Ex. CPSD-7 at 5 (CPSD/Duller and North).
[976] Ex. CPSD-7 at 5 (CPSD/Duller and North).
[977] CPSD OB at 221 (citing PG&E's Second Supplemental Response to CPSD Data Request No. 25, Question 2(i), Attachment 17). This attachment was not previously identified in any of CPSD's reports or testimonies.

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testimony, although CPSD received it in February 2012. Moreover, contrary to assumptions in CPSD's opening brief, the email discusses gas distribution facilities and mapping jobs managed by Division mapping personnel. The email does not address transmission facilities. This document is outside the scope of this gas transmission recordkeeping investigation, and irrelevant to the consideration of whether PG&E's centralized transmission leak database complied with the law.

Finally, PG&E is taking steps to improve the quality of its recordkeeping following the San Bruno incident, including gathering all the hardcopy leak records from the local offices and loading these documents into a centralized database that will be linked to pipeline components in the new GIS (Intrepid) system. [978] Recognizing the value of centralizing leak data, however, is not the same thing as acknowledging that PG&E violated the law. CPSD has failed to prove any violation of law related to leak records.

VII. INTERVENORS LACK AUTHORITY TO ALLEGE INDEPENDENT VIOLATIONS IN AN ENFORCEMENT PROCEEDING

Based on the same evidentiary record addressed by CPSD, CCSF appears to assert violations independent of those asserted by CPSD. [979] TURN asks the Commission to conduct a prudence review in the event it does not find violations. [980] DRA asks the Commission to make ratemaking findings as part of this enforcement proceeding. [981] And, while DRA does not allege independent violations as such, it proposes a new remedy: appointment of an independent monitor.[982]

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[978] PG&E OB at 161; Ex. PG&E-61 at 3-67 (PG&E/Cowsert-Chapman); *see also* R.T. 1959 (PG&E/Cowsert-Chapman).

[979] CCSF OB at 23-36. Though it is difficult to ascertain if CCSF's allegations are meant to support CPSD's existing violations or raise independent ones, at least some appear to state independent theories of violation. *See* CCSF OB at 36-37 (arguing that PG&E failed to comply with the management of change provisions of 49 C.F.R. § 192.909(a)).

[980] TURN OB at 7.

[981] DRA OB at 19 ("The Commission should consider making findings here regarding PG&E's unreasonable errors and omissions for application in that rulemaking.").

[982] DRA OB at 23. DRA's proposed remedy is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.

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As discussed below, Intervenors lack the authority to independently assert violations in this enforcement proceeding. [983] Additionally, the assertion of new violations after the close of evidence – whether by Intervenors or CPSD – violates PG&E's due process right to notice of the charges and the opportunity to defend against them. Cal. Const. art. I, § 7(a).

A. Only CPSD Can Allege Violations

PG&E has welcomed the participation of Intervenors 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 p roceedings 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, no Intervenor stated that it alleged any violation independent of and in addition to those alleged by CPSD. Nor had any Intervenor set forth any independent violation it claimed t o allege. PG&E 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." [984] 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 prov e 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

[983] On February 4, 2013, the ALJs issued a ruling permitting Intervenors to separately state 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).

[984] Joint R.T. 1272.

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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 Intervenors.[985]

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." Gov't Code § 11180; Pub. Util. Code § 7; *see also Application of Union Pacific Railroad Co.*, D.09-05-020, 2009 Cal. PUC LEXIS 250, at *13-14 (explaining that the Commiss ion may delegate its investigatory authority to its staff pursuant to Pub. Util. Code § 7). 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."[986] The Commission did not and could not delegate its investigatory and enforcement authority to Intervenors.

The Commission has stressed the importance of ensuring the prosecutorial independence of its enforcement staff. The U.S. Supreme Court ag rees. In concluding that "an agency's 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.[987]

[985] I.12-01-007 at 9.

[986] I.12-01-007 at 9-10.

[987] *Heckler*, 470 U.S. at 831-32.

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CPSD's prosecutorial independence and d iscretion would be usurped if Intervenors were permitted to prosecute and assert their own violations.[988]

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 crimin al 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 sta ff 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 Pacific Gas & Electric Co.*, D.97-08-055, 1997 Cal. 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 Intervenors to allege independent 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. *See* Rules of Practice and Procedure, Rule 5.1; *see also Order Instituting Rulemaking*, D.06-03-013,

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[988] 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 in itiate 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 third parties.

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2006 Cal. PUC LEXIS 86, at *193 -94 (the Commission must vote to issue an OII and initiate a formal investigation). This restrictive procedure is in contrast with the procedure for bringing complaints, which may be filed by "any corporation or person."[989] Enforcement proceedings must always be classified as "adjudicatory,"[990] and respondents are therefore entitled to the procedural rights that apply in such proceedings. *See, e.g.*, Rules of Practice and Procedure, Rule 10.1 (discovery); Rules of Practice and Procedure, 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"). A scheme in which Intervenors could independently assert violations exposes the respondent (in this case PG&E) to procedural uncertainty and potential abuse of prosecutorial discretion.

B. Intervenors' Post-Hearing Assertion Of Violations Violates Due Process

As demonstrated above, Intervenors 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.[991] 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.

The respondent is entitled to "notice of the charges" against it.[992] Notice of the charges and a reasonable opportunity to respond are among the "basic" requirements of due process.[993] 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

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[989] Rules of Practice and Procedure, Rule 4.1(a)(1).

[990] *See* Rules of Practice and Procedure, Rule 1.3(a).

[991] *See, e.g.*, *Fuentes v. Shevin*, 407 U.S. 67, 80 (1972).

[992] *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. 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").

[993] *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)).

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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.'"[994]

California courts have condemned the late assertion of new charges in administrative enforcement proceedings. In *Rosenblit v. Superior Court*, 231 Cal. App. 3d 1434 (1991), 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."[995] 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.[996] "[F]undamental fairness," the court concluded, "requires ***notice of the statutory theory in the accusation***."[997] 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."[998] In so holding, the Court relied on *In re Ruffalo*, 390 U.S. 544 (1968), which found a due process violation where a county bar association added a new charge midway through a disbarment proceeding.[999] The *Ruffalo* 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."[1000] *See also Rosenblit*, 231 Cal. App. 3d at 1446 ("It is impossible to

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[994] *Mathews v. Eldridge*, 424 U.S. 319, 333 (1976) (quoting *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965)).

[995] *Rosenblit*, 231 Cal. App. 3d at 1447-48.

[996] *Smith*, 37 Cal. App. 4th at 242.

[997] *Smith*, 37 Cal. App. 4th at 243 (emphasis added).

[998] *Cannon*, 14 Cal. 3d at 695-96.

[999] *In re Ruffalo*, 390 U.S. at 552.

[1000] *In re Ruffalo*, 390 U.S. at 551-52 & n.4 (emphasis added).

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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 evide nce, even CPSD, with which Intervenors are allied, did not know whether Intervenors would allege new violations or what those violations would be:

> I don't know that we know exactly how [Intervenors] 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.[1001]

PG&E as the respondent cannot be required to d ivine from Intervenors' 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 . . . t o uncover the basis and scope of the allegations"). Even assuming Intervenors 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. *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 t he statutory theory in the accusation***" (emphasis added)).

VIII. CONCLUSION

PG&E accepts responsibility for the San Bruno pipeline accident and has made many changes to ensure that such an accident never happens again. As detailed in this proceeding, many of those changes will directly improve the quality of PG&E's pipeline recordkeeping.

The challenge facing the ALJ and the Commission is to weigh the evidence on the record of this proceeding, not to judge PG&E's moral responsibility for this terrible accident. In weighing the evidence, the Commission must apply the law. CPSD's reliance on Section 451 to try to create legally -binding recordkeeping requirements where none previously existed cannot be sanctioned. When the evidence is looked at objectively, not wi th the benefit of hindsight, but

[1001] Joint R.T. at 1277.

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as practices and technologies existed at the time, the Commission should conclude that, whether PG&E's records were a "mess," as CPSD's consultants claim, or not, PG&E's recordkeeping was consistent with industry practices and the laws of the time. CPSD has failed to prove otherwise.

Respectfully submitted,

/s/ Lise H. Jordan
LISE H. JORDAN
Law Department
Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-6965
Facsimile: (415) 973-0516
Email: LHJ2@pge.com

/s/ Joseph M. Malkin
JOSEPH M. MALKIN
COURTNEY J. LINN
Orrick, Herrington & Sutcliffe LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105
Telephone: (415) 773-5505
Facsimile: (415) 773-5759
Email: jmalkin@orrick.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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I.11-02-016 Order Instituting Investigation Re Facilities Records For PG&E Natural Gas Transmission System Pipelines

APPENDIX A

PG&E'S RESPONSES TO CPSD'S AND INTERVENORS' PROPOSED FINDINGS OF FACT

Preliminary Statement: PG&E responds below to Proposed Findings of Fact submitted by the Consumer Protection and Safety Division, and Intervenors the City and County of San Francisco and the Division of Ratepayer Advocates. Some Proposed Findings of Fact may include broad and generalized statements; others may be partly accurate but contain immaterial inaccuracies. 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 minor or 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.11-02-016, as a means to assist the assigned ALJ and the Commission.

Consumer Protection and Safety Division's Proposed Findings of Fact

No.	CPSD Proposed Finding of Fact	PG&E's Response
1.	Currently PG&E does not know the source of the section of pipe that failed.	Generally accurate. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). The pups did not meet these specifications.
2.	Without source information and specifications, PG&E lacked the necessary design factors to calculate the acceptable operating stress for this section of pipe during its life of service in Line 132.	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP. Even using the hindsight knowledge of the SMYS for the six pups that did not meet the requirements for pipe ordered for the job, the MAOP for Segment 180 would be at least 400 psig. Joint R.T. 395-96, 415-19 (PG&E/Harrison).
3.	Because PG&E lacked records about the pipe	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	installed in Line 132, it operated the line without knowing whether the operating pressure exceeded the limits set by code to ensure safe operations.	inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP. Even using the hindsight knowledge of the SMYS for the six pups that did not meet the requirements for pipe ordered for the job, the MAOP for Segment 180 would be at least 400 psig. Joint R.T. 395-96, 415-19 (PG&E/Harrison).
4.	PG&E's records do not establish whether the failed pipe section was reused pipe, salvaged from some other location in the PG&E transmission system.	PG&E's records do not definitively show what the pipe in the failed section was. However, all records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).
5.	Since PG&E has no records of the source of pipe that is Line 132 segment 180, it cannot prove that the pipe was new.	Generally accurate with clarifications, but it is not PG&E's burden to prove. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). There is no evidence that the pipe used in Segment 180, including the six pups, was reused pipe. R.T. 471 (CPSD/Felts).
6.	PG&E's records cannot establish the manufacturer or specifications of the failed pipe.	Misleading without clarification: PG&E does not have any record that shows specifically the origin of the pup that failed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).

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No.	CPSD Proposed Finding of Fact	PG&E's Response
7.	PG&E's records do not establish whether PG&E attempted to meet any of the 1955 ASME section 811.25 requirements to inspect and hydrostatically test before reusing pipe.	Disputed. There is no evidence that the pipe used in Segment 180, including the six pups, was reused pipe. R.T. 471 (CPSD/Felts). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).
8.	In the case of Segment 180, PG&E did not attempt to meet most of the ASME section 811.25 requirements to inspect and hydrostatically test before reusing pipe, because either a visual inspection or a hydrostatic test likely would have stopped the pipe installation.	Disputed. In addition to the speculation about what a visual inspection or hydro test "likely" would have done, there is no evidence that the pipe used in Segment 180, including the six pups, was reused pipe. R.T. 471 (CPSD/Felts). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).
9.	If the failed pipe was salvaged, PG&E has no records that show that it was cleaned, inspected, or hydrostatically tested to establish the appropriate maximum allowable operating pressure during service in Line 132.	Disputed. In addition to the speculation that "if" the pipe was salvaged, there is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).
10.	If the failed pipe was salvaged, PG&E failed to meet the inspection and other minimum requirements for the safe reuse of salvaged	Disputed. In addition ot the speculation that "if" the pipe was salvaged, there is no evidence that the pipe used in Segment 180, including the six pups, was reused pipe. R.T. 471 (CPSD/Felts). PG&E designed and requisitioned pipe for Segment 180 to consist of new

No.	CPSD Proposed Finding of Fact	PG&E's Response
	pipe.	30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison).
11.	90 feet of pipe from a portion of Line 132 was replaced and reused in 1956 on the Segment 180 installation.	Disputed. There is no evidence that the pipe used in Segment 180, including the six pups, was reused pipe. Joint R.T. 219-31 (PG&E/Harrison). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). The 90-foot span of pipe to which CPSD refers was abandoned in 1956, and is still in the ground. Joint R.T. 223 (PG&E/Harrison). It was not salvaged and reused. Joint R.T. 223 (PG&E/Harrison).
12.	A 90 foot span of Line 132 that initially extended across the creek canyon was subject to added stress from being unsupported and from a landslide.	Generally accurate with the following clarification. PG&E does not dispute that a 90-foot span of Line 132 initially extended across the San Bruno Creek canyon. However, CPSD presents no evidence, other than the unsupported testimony of its consultant Margaret Felts, that the pipe was actually subject to added stress, nor does CPSD even assert (much less offer evidence or prove) that the stress weakened the longitudinal seam. Moreover, the 90-foot span of pipe was abandoned in 1956, and is still in the ground. Joint R.T. 223 (PG&E/Harrison). It was not salvaged and reused. Joint R.T. 223 (PG&E/Harrison).
13.	The job file for the job that installed Line 132 from Crystal Springs to Martin Station in 1948-1949 is missing construction records that would have detailed the	Disputed. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). Moreover, the 90-foot span of pipe was abandoned in 1956, and is still in the ground. Joint R.T. 223 (PG&E/Harrison). It was not

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	design and construction of the 90 foot span of Line 132 across creek canyon.	salvaged and reused. Joint R.T. 223 (PG&E/Harrison).
14.	PG&E's records do not foreclose the possibility that the failed pipe was slated to be junked and was instead installed at San Bruno.	Disputed. There is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe, R.T. 471 (CPSD/Felts), let alone pipe "slated to be junked." Moreover, the 90-foot span of pipe was abandoned in 1956, and is still in the ground. Joint R.T. 223 (PG&E/Harrison). It was not salvaged and reused. Joint R.T. 223 (PG&E/Harrison). In any event, CPSD does not discharge its burden of proof when it refers to "possibilities."
15.	In 1955 PG&E's records at the Milpitas yard identify an approximately 30 foot long, 30 inch pipe made of pups and in a length consistent with the failed pipe.	Disputed. The proposed finding mischaracterizes the evidentiary record in several ways. The "record[] at the Milpitas yard" referenced by CPSD identifies 29.5 feet of "short pups and scrap" that was "junked." There is no support for CPSD's suggestion it was one piece of 30 foot pipe "made of pups." Moreover, the pups in Segment 180 totaled approximately 24 feet, which is not "a length consistent with" 30 feet of pipe. The referenced record also states, explicitly, that the pipe was "junked," i.e., sold as scrap. That is also consistent with the notation on the document that the pipe included "scrap" and the notation of the weight of the material, which is only relevant when material is being sold as "scrap." PG&E explained all of this to CPSD in a data response (CPSD_210-002), which Ms. Felts cites in her rebuttal testimony (Ex. CPSD-4 (CPSD/Felts) at 3 n.13).
16.	PG&E claims that that pipe was scrapped, but has no records which show anything about the pipe's destination, whether it was a junkyard, the San Bruno site, or elsewhere.	Disputed. The proposed finding mischaracterizes the evidentiary record in several ways. The "record[] at the Milpitas yard" referenced by CPSD identifies 29.5 feet of "short pups and scrap" that was "junked." There is no support for CPSD's suggestion it was one piece of 30 foot pipe "made of pups." Moreover, the pups in Segment 180 totaled approximately 24 feet, which is not "a length consistent with" 30 feet of pipe. The referenced record also states, explicitly, that the pipe was "junked," i.e., sold as scrap. That is also consistent

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No.	CPSD Proposed Finding of Fact	PG&E's Response
		with the notation on the document that the pipe included "scrap" and the notation of the weight of the material, which is only relevant when material is being sold as "scrap." PG&E explained all of this to CPSD in a data response (CPSD_210-002), which Ms. Felts cites in her rebuttal testimony (Ex. CPSD-4 (CPSD/Felts) at 3 n.13). The proposed finding represents an attempt by CPSD to shift the burden of proof to PG&E or be subject to a finding that this scrap was used on Segment 180.
17.	PG&E's defenses speculate, without evidentiary support, that the bad pieces of pipe containing several pups are not reused.	Disputed. PG&E's explanation of alternatives to CPSD's unsupported, speculative conclusions are not affirmative defenses and it is not speculation. The "record[] at the Milpitas yard" referenced by CPSD identifies 29.5 feet of "short pups and scrap" that was "junked." There is no support for CPSD's suggestion it was one piece of 30 foot pipe "made of pups." Moreover, the pups in Segment 180 totaled approximately 24 feet, which is not "a length consistent with" 30 feet of pipe. The referenced record also states, explicitly, that the pipe was "junked," i.e., sold as scrap. That is also consistent with the notation on the document that the pipe included "scrap" and the notation of the weight of the material, which is only relevant when material is being sold as "scrap." The proposed finding represents an attempt by CPSD to shift the burden of proof to PG&E or be subject to a finding that this scrap was used on Segment 180.
18.	The San Bruno pipe explosion is proof that PG&E engaged in inherently unsafe practices when it failed to create and retain orderly records of new, salvaged, reconditioned, reused, or junked pipe.	Disputed. This proposed "finding" is a CPSD assertion based on erroneous post hoc reasoning that would shift the burden of proof to PG&E to establish, in light of the accident, that it did not engage in whatever CPSD considers "inherently unsafe practices." There is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the

No.	CPSD Proposed Finding of Fact	PG&E's Response
		job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). This is not a proposed finding of fact, but instead reflects CPSD's unsupported opinion.
19.	The unavailability of construction records for line 132 undermined the safe operation of the line.	Disputed. The job file for Segment 180 contains records sufficient to support the MAOP of 400 psig and was consistent with industry practice at the time. Joint R.T. 395-96, 415-19 (PG&E/Harrison). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). CPSD cannot dispute that such pipe is qualified to operate at a 400 psig MAOP.
20.	Construction records are critical to the analysis of the causes of the San Bruno pipe failure.	Disputed. This proposed finding of fact is vague and unsupported. The cause of the San Bruno rupture is PG&E's unknowing installation of six short sections of pipe that did not meet PG&E's specifications for pipe ordered for the construction of Segment 180, and some of which were missing an interior longitudinal weld. Joint R.T. 332, 368, 386, 393-95, 424, 442 (PG&E/Harrison). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). CPSD cannot dispute that such pipe is qualified to operate at a 400 psig MAOP. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison).
21.	PG&E failed to create and/or	Disputed. The job file contains a number of design and

No.	CPSD Proposed Finding of Fact	PG&E's Response
	retain construction records for GM 136471, the project that installed segment 180 of line 132.	pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison). The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison).
22.	If PG&E had created and retained orderly records of the purchase, installation, salvage, reconditioning, inspection, and reuse of pipe installed in its transmission system, PG&E would not have selected that pipe for project GM 136471, because it did not meet PG&E's own standards for high pressure transmission pipe.	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). There is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts). Moreover, no regulation or voluntary industry practice required PG&E to document the procurement of pipe at the level required to identify the six pups. Ex. PG&E-61 at 4-5 (PG&E/Harrison).
23.	At the time of the San Bruno explosion, PG&E had no construction records in its Walnut Creek engineering facility or elsewhere for Job Number GM 136471.	Partially disputed. The job file stored at the Bayshore Records Center contains a number of design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison).
24.	After the pipeline explosion in September 2010, PG&E did locate a Job File for GM 136471 in historical accounting records kept at the Bayshore Records Center in San Francisco, a facility where PG&E kept inactive records.	Partially disputed. The job file stored at the Bayshore Records Center contains a number of design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison).

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No.	CPSD Proposed Finding of Fact	PG&E's Response
25.	The file contains accounting records that provide some information regarding requisitions for pipe, but no actual design or construction records.	Disputed. The job file contains design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison); Ex. PG&E-61 at 4-1 to 4-2 (PG&E/Harrison).
26.	The job file contains nothing to identify the source of the pipe used in the job, pipe specifications, previous pipe service (if any), or anything pertaining to its installation.	Disputed. The job file contains design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison). Moreover, there is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts).
27.	The job file information that exists does provide erroneous specifications of the pipe, such as its strength.	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). There is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts). The job file contains design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison). To the extent this proposed finding of fact regards the pups, it is inappropriate as it relies on hindsight knowledge. No operator in that era likely would have maintained records to the level of detail that showed the six pups.
28.	PG&E's lack of knowledge as to the specifications of the failed pipe is a direct result	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS)

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	of PG&E's poor records.	DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). There is no evidence that the pipe used in Segment 180, including the six pups, was salvaged pipe. R.T. 471 (CPSD/Felts). Moreover, the job file contains design and pipe specification records, including the original design drawing and other records that identify the diameter, grade, seam type, and wall thickness of the pipe to be installed. Joint R.T. 314-15 (PG&E/Harrison). To the extent this proposed finding of fact regards the pups, it is inappropriate as it relies on hindsight knowledge. No operator in that era likely would have maintained records to the level of detail that showed the six pups.
29.	A thorough review of both job files relevant to projects on Line 132 between 1952 and 1956 at creek canyon reveals no relevant records to explain how or when San Bruno Creek was filled.	Generally accurate. PG&E did not fill San Bruno Creek.
30.	None of the construction drawings for either of the projects showed in any reasonable detail the pipe configuration that actually failed on September 9, 2010.	Disputed. No regulation or industry practice required PG&E to document the construction project at the level required to identify the six pups. Ex. PG&E-61 at 4-5. Despite the lack of regulatory requirements, drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison). Any intentional use of short sections of pipe would have been documented on the drawings in the job file. Joint R.T. 324-25 (PG&E/Harrison).
31.	PG&E operated this segment of Line 132 for 55 years	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-

No.	CPSD Proposed Finding of Fact	PG&E's Response
	without construction drawings showing the details of installation.	inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison. CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP. Moreover, the job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). Drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison).
32.	PG&E's job files are virtually unusable for those requiring accurate information accessibly and promptly, as PG&E demonstrated at its Cow Palace MAOP validation project.	Disputed. Job files are readily accessible and are easily used by PG&E personnel. Joint R.T. 283-84 (PG&E/Harrison); R.T. 1861-62 (PG&E/Arnett).
33.	PG&E's MAOP validation project in response to the NTSB's urgent January 3, 2011 recommendation, and the Commission's order of the same day, required 1500 man hours of searching through PG&E 's job files.	Disputed. PG&E does not dispute that the NTSB's new traceable, verifiable, and complete MAOP validation standard requires considerable resources to meet. However, the time stated in the proposed finding of fact is not correct. This figure appears to come from CPSD's opening brief, which states that 1,500 **volunteers** were required to search records during the Cow Palace effort. CPSD OB at 103. Moreover, this effort was part of, but not the same thing as, the MAOP Validation effort, which spans several years. This proposed finding of fact is incorrect and should be disregarded.
34.	The absence of records detailing the construction of Segment 180 created an unsafe condition).	Disputed and duplicative of CPSD's Proposed Finding of Fact 19. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint

No.	CPSD Proposed Finding of Fact	PG&E's Response
		R.T. 309-10 (PG&E/Harrison). Drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison). PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP.
35.	PG&E endangered its employees and the public by operating Line 132 without knowing the details of the construction of Segment 180 and made no effort to find or recreate the original construction file from 1956 to 2010.	Disputed and duplicative of CPSD's Proposed Findings of Fact 19 and 34. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison. CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP. Moreover, the job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). Drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison).
36.	No evidence shows that PG&E ever reviewed the job file for 1956 construction of Segment 180 to ascertain what missing information would be necessary to obtain or reconstruct for safe operation of Segment 180.	Disputed. The job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). Drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison). CPSD cites no standard that would require additional records or additional review of the job file.
37.	PG&E operated Line 132 the	Disputed and duplicative of proposed findings of fact

No.	CPSD Proposed Finding of Fact	PG&E's Response
	high pressure pipeline in the absence of information about construction of Segment 180 of Line 132.	19, 34, and 35. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison. CPSD cannot dispute that such pipe would qualify for a 400 psig MAOP. Moreover, the job file contains a level of detail consistent with Company and industry practice in the 1950s. Ex. PG&E-61 at 4-5 (PG&E/Harrison); Joint R.T. 309-10 (PG&E/Harrison). Drawings in the job file document details of pipeline features, such as the individual pieces of pipe and the location of elbows at tie-in points. Joint R.T. 325 (PG&E/Harrison).
38.	The absence of pressure records for the pipe installed on Segment 180 of Line 132 placed PG&E's employees and the public at risk of exposure to a pipeline failure under normal operating conditions.	Disputed. It is not clear what CPSD intends by "pressure records" in its proposed finding. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). CPSD cannot dispute that the pipe ordered for Segment 180 (30-inch X-52 grade 0.375-inch wall thickness DSAW) would support a 400 psig MAOP. Even using the hindsight knowledge of the SMYS for the six pups that did not meet the requirements for pipe ordered for the job, the MAOP for Segment 180 would be at least 400 psig. Joint R.T. 395-96, 415-19 (PG&E/Harrison).
39.	In 1955 PG&E represented to this Commission that it followed the ASME B31.8 standard.	Generally accurate.
40.	PG&E again assured the	Misleading. It is more accurate to say that PG&E

No.	CPSD Proposed Finding of Fact	PG&E's Response
	Commission in 1959 and 1960 that it continued to comply with ASME engineering standards.	testified to the Commission that it followed the ASA B31.8 standard in 1959. Ex. CPSD-18 (Attachment 4 to PG&E Response to CPSD OII Data Request 15, Question 6).
41.	It is most likely that PG&E did not conduct a hydrostatic test on Segment 180, and that a proper hydrostatic test might have caused the defective pipe to fail at the time.	Disputed. The Segment 180 job file shows the purchase of materials that would only be used in conducting a hydro test. Ex. PG&E-61 at 4-1 (PG&E/Harrison). This issue is more properly addressed in the San Bruno OII where the records contains additional evidence that PG&E did conduct a hydro test on Segment 180 and that a hydro test was the likely cause of the ductile tear in the pup that failed.
42.	If there ever were records of a hydrostatic test on segment 180, PG&E has either discarded or lost them.	PG&E does not dispute that it has not located the pressure test record for Segment 180.
43.	From 1978 to 2004, PG&E operated Segment 180 of Line 132, at a Maximum Allowable Operating Pressures (MAOP) of 390 psi.	Disputed. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s. Ex. PG&E-61 at 4-8 (PG&E/Phillips). PG&E did not lower the MAOP for Line 132 in 1978. No pressure limiting equipment exists at milepost 35.84 that could regulate downstream pressure to 390 psig. R.T. 428-30 (CPSD/Felts). The record evidence shows that the San Francisco Division, upon which CPSD relies, mistakenly believed that the highest pressure recorded on Line 132 at Milpitas terminal from 1965-1970 was 390 psig. Ex. PG&E-43 (S.F. Division Memorandum**).** The pressure log showing a pressure of 400 psig in October 1968 is in evidence. Ex. PG&E-42 (October 1968 Milpitas Terminal Pressure Log).
44.	Starting in 2004, and continuing until September 2010, PG&E operated the line at an MAOP of 400 psi.	Disputed. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s.

No.	CPSD Proposed Finding of Fact	PG&E's Response
45.	PG&E operated Line 132 at an MAOP of 390 psi for 26 years and through at least nine engineering reviews.	Disputed. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). PG&E did not lower the MAOP for Line 132 in 1978. No pressure limiting equipment exists at milepost 35.84 that could downstream pressure to 390 psig. R.T. 428-30 (CPSD/Felts). The record evidence shows that the San Francisco Division, upon which CPSD relies, mistakenly believed that the highest pressure recorded on Line 132 at Milpitas terminal from 1965-1970 was 390 psig. Ex. PG&E-43 (S.F. Division Memorandum**).** The pressure log showing a pressure of 400 psig in October 1968 is in evidence. Ex. PG&E-42 (October 1968 Milpitas Terminal Pressure Log).
46.	PG&E has evidently lost or cannot locate the records which once existed and supported the 390 psi MAOPs for sections of Line 132.	Disputed. The San Francisco Division believed that the highest pressure measured on Line 132 from 1965-1970 was 390 psig, as measured at the Milpitas Terminal. Operating pressure logs from October 1968 measuring pressures of 400 psig at the same location prove 400 psig was the highest operating pressure on Line 132. R.T. 1130-31 (PG&E/Phillips). There were no misplaced records.
47.	In the absence of the underlying records for the 390 psi, PG&E decided in 2004 to uprate the MAOP of Line 132 to 400 psi.	Disputed. PG&E never uprated Line 132. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). As described by the Department of Transportation, "The uprating requirements in Subpart K apply when an operator wants to establish a maximum allowable operating pressure higher than the highest actual operating pressure to which the pipeline was subjected in these five years." Ex. CCSF-4 (35 Fed. Reg. 13248 (Aug. 19, 1970).
48.	Regulations require a hydrotest before uprating a segment .	Disputed and irrelevant. PG&E did not uprate Line 132. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400

No.	CPSD Proposed Finding of Fact	PG&E's Response
		psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). As described by the Department of Transportation, "The uprating requirements in Subpart K apply when an operator wants to establish a maximum allowable operating pressure higher than the highest actual operating pressure to which the pipeline was subjected in these five years." Ex. CCSF-4 (35 Fed. Reg. 13248 (Aug. 19, 1970). PG&E did not lower the MAOP for Line 132 in 1978. No pressure limiting equipment exists at milepost 35.84 that could regulate downstream pressure to 390 psig. R.T. 428-30 (CPSD/Felts).
49.	The 2004 MAOP increase on Line 132 from 390 to 400 psi was implemented without a hydrostatic test of the involved portion of Line 132. A hydrostatic test was required by regulations to ensure integrity of the pipeline at the higher pressure rating.	Disputed and duplicative of CPSD's Proposed Finding of Fact 48. PG&E never uprated Line 132. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). PG&E did not lower the MAOP for Line 132 in 1978. No pressure limiting equipment exists at milepost 35.84 that could regulate downstream, pressure to 390 psig. R.T. 428-30 (CPSD/Felts).
50.	The evidence does not support the claim that PG&E operated at 390 psi by error for 25 years.	Disputed. PG&E provided the testimony of the engineer who verified the MAOP of Line 132 in the 1970s. That percipient witness' testimony, combined with the October 1968 operating pressure log (Ex. PG&E-42), supports the fact that the MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). The pressure logs at Milpitas Terminal from 1968 corroborate his testimony. *See* Ex. PG&E-42.
51.	It appears that PG&E changed the MAOP on Line 132 from 390 to 400 psi for the entire Line 132 in 2004 by editing historical records.	Disputed. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). The record from the San Francisco

No.	CPSD Proposed Finding of Fact	PG&E's Response
		Division was an error. R.T. 1130-31 (PG&E/Phillips).
52.	The record of this proceeding contains no evidence to support PG&E's defense pertaining to industry practice.	Disputed. Evidence of "industry practice" is not a "defense." Under CPSD's current theory of the case, evidence of industry practice is relevant to whether a violation has been shown. *See* CPSD's Opening Brief at 12-17. PG&E has provided the testimony of Mr. Cesar De Leon (Ex. PG&E-61 at Chapter 1A), Mr. John Zurcher (Ex. PG&E-61, Chapter 3A), Mr. Jim Howe (Ex. PG&E-61 Ch. 1B), and Ms. Maura Dunn (Ex. PG&E-62). CPSD has presented no testimony from natural gas pipeline industry operators or former Office of Pipeline Safety officials.
53.	Even if others in the industry had disposed of legally required records, or otherwise violated records requirement, it would have no bearing on this investigation of PG&E's practices and records.	Disputed and inappropriate. This is a legal contention, not a proposed finding of fact. CPSD now acknowledges that its purported reliance on Section 451 makes industry practices relevant.
54.	When problems occurred in the electrical system on September 9, 2010, personnel at Milpitas and in the San Francisco Control Room lacked the records of the maintenance sequence of steps that could have helped them determine and resolve the cause of the problems.	Disputed. The pressure increase was caused by the failure of two power supplies not involved in the clearance work. The clearance was for transferring electrical connections to temporary UPSs, which was not related to the failed power supplies. Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
55.	An adequate Clearance Procedure might have prevented the electrical problem that led to the over pressuring of the Peninsula pipelines and, thus, might have averted the San Bruno	Disputed. This proposed finding is speculative. CPSD presented no evidence that anything that would have reasonably been on the clearance documentation "might have prevented the electrical problem." The pressure increase was caused by the failure of two power supplies not involved in the clearance work. Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky); San Bruno Ex.

No.	CPSD Proposed Finding of Fact	PG&E's Response
	explosion.	PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
56.	At the least, an adequate Clearance Procedure could have made recovery quicker because there would have been a traceable step-by-step record of each change that had been made to the electrical system.	Disputed. This proposed finding is speculative. CPSD presented no evidence that anything that would have reasonably been on the clearance documentation "could have made recovery quicker." The pressure increase was caused by the failure of two power supplies not involved in the clearance work. Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
57.	PG&E failed to follow its own safety procedures to create a clearance record for the electrical work performed at the Milpitas Terminal on September 9, 2010.	PG&E does not dispute that it failed to follow Company procedures relating to the completion of the clearance form. However, the pressure increase was caused by the failure of two power supplies not involved in the clearance work. Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky).
58.	PG&E failed to follow its records procedures, called the "clearance process," for planning the September 9, 2010 work at Milpitas Terminal.	PG&E does not dispute that it failed to follow Company procedures relating to the completion of the clearance form.
59.	If PG&E personnel had followed the clearance procedure, on September 9, 2010 drawings would have been readily available to the maintenance crew doing the work and to Gas Control personnel who were attempting to help once problems arose.	Disputed. There is no evidence that proper completion of the clearance form would have resulted in any different availability of "drawings" or that the availability of such "drawings" would have had an effect on the events of September 9, 2010. PG&E OB at 75; Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky). The pressure increase was caused by the failure of two power supplies not involved in the clearance work. Joint R.T. 92, 115, 150-51 (PG&E/Kazimirsky); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).

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No.	CPSD Proposed Finding of Fact	PG&E's Response
60.	PG&E's failure to require strict adherence to its safety procedure is an important record system failure.	Disputed. This proposed finding of fact is vague, subjective, and does not identify a legal recordkeeping standard.
61.	The Operating and Maintenance Instructions manual at the Milpitas Terminal was out of date on September 9, 2010, possibly by as much as 19 years.	Disputed. The manual at the Terminal was up to date on September 9, 2010. Ex. CPSD-18 (PG&E Response to CPSD Data Request 30, Question 9).
62.	The manual was a useless reference when the emergency occurred on that day and PG&E lost control of its electrical controls and its ability to control rising Segment 180 pressures.	Disputed. The manual at the Terminal was up to date on September 9, 2010. Ex. CPSD-18 (PG&E Response to CPSD Data Request 30, Question 9). PG&E did not lose control of pressures on Line 132 or Segment 180, as monitor valves limited pressure at the Terminal and on downstream lines to below MAOP. PG&E OB at 87.
63.	PG&E has never verified that the latest Operating and Maintenance Instructions manual was at the Milpitas Terminal on September 9, 2010.	Disputed. PG&E stated to CPSD that the manual at the Terminal was up to date on September 9, 2010. Ex. CPSD-18 (PG&E Response to CPSD Data Request 30, Question 9).
64.	PG&E personnel were unable to use the manual to cope with the emergency, because the pipe failed about an hour after PG&E lost control of Line 132 pressure.	Disputed. CPSD has provided no evidence that the Milpitas Terminal Operations and Maintenance Instructions manual was relevant to responding to the unplanned pressure increase. Moreover, the manual at the Terminal was up to date on September 9, 2010. Ex. CPSD-18 (PG&E Response to CSPD Data Request 30, Question 9). Additionally, pressure control was never lost on Line 132. San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
65.	On September 9, 2010, PG&E personnel at the Milpitas Terminal had access to an outdated map and	Disputed. The Milpitas Terminal engineering drawing accurately reflected the pipelines, valves, and other equipment involved in the unplanned pressure increase, and the response thereto. Ex. PG&E-61 at 4-19

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	control room personnel had access to an incomplete diagram of the Milpitas Terminal.	(PG&E/Slibsager and Kazimirsky). PG&E's SCADA diagram accurately and completely reflected piping and valves, including a station bypass, used in daily operations at the Milpitas Terminal. Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).
66.	When working to attempt to regain control of pipe pressure by manually opening or closing valves, PG&E personnel needed access to current and accurate drawings.	Disputed. CPSD establishes no facts suggesting that PG&E personnel viewed engineering diagrams to respond to the unplanned pressure increase. Moreover, the Milpitas Terminal engineering drawing accurately reflected the pipelines, valves, and other equipment involved in the unplanned pressure increase, and the response thereto. Ex. PG&E-61 at 4-19 (PG&E/Slibsager and Kazimirsky).
67.	Inaccurate representations of the system, either in hard copy, or electronic, can lead to inappropriate and unsafe operational decisions during regular operations as well as during emergencies.	Disputed. CPSD presented no evidence that PG&E personnel viewed engineering diagrams to respond to the unplanned pressure increase, let alone that they needed access to some drawing to which they did not have access. Moreover, the Milpitas Terminal engineering drawing accurately reflected the pipelines, valves, and other equipment involved in the unplanned pressure increase, and the response thereto. Ex. PG&E-61 at 4-19 (PG&E/Slibsager and Kazimirsky). PG&E's SCADA diagram accurately and completely reflected piping and valves, including a station bypass, used in daily operations at the Milpitas Terminal. Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).
68.	PG&E's record, i.e. its operating drawing, was inaccurate, creating an inherently unsafe operating situation.	Disputed. The Milpitas Terminal engineering drawing accurately reflected the pipelines, valves, and other equipment involved in the unplanned pressure increase, and the response thereto. Ex. PG&E-61 at 4-19 (PG&E/Slibsager and Kazimirsky). PG&E's SCADA diagram accurately and completely reflected piping and valves, including a station bypass, used in daily operations at the Milpitas Terminal. Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).
69.	Based on the records that PG&E did keep of the events	Disputed. This is not a finding of fact, but CPSD speculation. The 30-300 bypass system can only be

No.	CPSD Proposed Finding of Fact	PG&E's Response
	leading to the San Bruno rupture, it is possible that the Milpitas Terminal By-pass line was not valved closed at least part of the time leading up to the San Bruno pipe explosion.	operated manually by local personnel. There is no evidence in this proceeding, or in the related San Bruno OII, that suggests that PG&E personnel left the Milpitas Terminal, crossed the highway separating the Terminal from the bypass valves, and manually opened multiple valves on the bypass system to route gas around the Terminal and into outgoing lines. Ex. CPSD-18 (CPSD OII Data Request 67, Question 39).
70.	Due to PG&E's recordkeeping shortfalls, operators lacked the data essential for fully understanding what was happening in its gas transmission system when things went wrong at the Milpitas Terminal on September 9, 2010.	Disputed. PG&E's SCADA diagram accurately and completely reflected piping and valves, including a station bypass, used in daily operations at the Milpitas Terminal. Ex. PG&E-61 at 4-21 (PG&E/Slibsager and Kazimirsky).
71.	PG&E conducted electrical work at the Milpitas Terminal without appropriate back-up software available for valve controllers on Line 132 segment 180.	Disputed. CSPD presented no evidence, other than its own inexpert assertion, that backup software is essential or appropriate to maintain at the terminal.
72.	When electrical power was lost, the valve controllers no longer functioned properly to control line pressure.	Disputed. Pressure at Milpitas Terminal is controlled by a redundant pneumatically-controlled pressure limiting system that is not impacted by power issues, and was not impacted on September 9, 2010. The valve controllers CPSD is referencing in this proposed finding were not involved in the pressure increase on September 9, 2010. Ex. PG&E-61 at 4-23 to 4-25 (PG&E/Slibsager and Kazimirsky); San Bruno Ex. PG&E-1 at 8-4 to 8-8, 8-14 to 8-15 (PG&E/Slibsager and Kazimirsky) (cross-admitted into the Records OII).
73.	PG&E's policy and practice, as stated in its Operating & Maintenance Instructions	Disputed. The O&MI manual discussion of backup software relates to Programmable Logic Controllers, not valve controllers that CPSD alleges lacked back-up

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	Manual, is to store a copy of back-up software on site at the Milpitas Terminal.	software. R.T. 306 (CPSD/Felts).
74.	Loss of programming for any instrument or equipment, such as operating valves, creates an unsafe operational situation.	Disputed. The pressure limiting system at Milpitas Terminal functioned as designed to limit the pressure increase. Pressure at Milpitas Terminal is controlled by a redundant pneumatically-controlled pressure limiting system that is not impacted by power issues, and was not impacted on September 9, 2010. The valve controllers CPSD is referencing in this proposed finding were not involved in the pressure increase on September 9, 2010. Ex. PG&E-61 at 4-23 to 4-25 (PG&E/Slibsager and Kazimirsky); San Bruno Ex. PG&E-1 at 8-4 to 8-8, 8-14 to 8-15 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
75.	The inability to immediately correct the problem by reloading programming prolongs the equipment outage and the unsafe operating condition.	Disputed. The three valve controllers to which CPSD refers were not involved in the pressure increase. Their rebooting function was interrupted after power was interrupted during the troubleshooting, after the pressure increase. Restoring their programming immediately would not have changed conditions at Milpitas Terminal. PG&E-61 at 4-23 to 4-25 (PG&E/Slibsager and Kazimirsky); Joint R.T. 93-95 (PG&E/Kazimirsky); San Bruno Ex. PG&E-1 at 8-14 to 8-15 (PG&E/Slibsager and Kazimirsky) (cross-admitted into the Records OII).
76.	PG&E failed to keep back-up software at the Milpitas Terminal.	PG&E does not dispute that it did not maintain a hard copy of back-up software for the valve controllers at the Milpitas Terminal. The backup software was available on PG&E's intranet, which is the standard procedure PG&E follows and has followed for several years. Additionally, the software CPSD is referring to is for the Programmable Logic Controller, not the valve controllers. Ex. PG&E-61 at 4-23 to 4-25 (PG&E/Slibsager and Kazimirsky).
77.	In a late response to a data	PG&E does not dispute the identity of the valve

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	request, PG&E stated that the missing software was iconfig, which is a standard Microsoft module that allows configuration of a USB connection. This software is readily available over the internet.	controller software.
78.	Had the maintenance technician at Milpitas been able to restore the programming to the controllers immediately, Gas Control operators and the maintenance technician would have been able to focus on other causes.	Disputed. The three valve controllers to which CPSD refers were not involved in the pressure increase. San Bruno Ex. PG&E-1 at 8-14 to 8-15 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII). Even if the technician had been able to download the controller programming and connect his laptop to the three valve controllers at Milpitas Terminal, the malfunction would not have been resolved any sooner. The controllers experienced a rare malfunction that the technician could not resolve on his own, regardless of the software he possessed. To resolve the problem, PG&E had to contact the manufacturer and receive specialized instructions to reset the valve controllers via a physical interface on the front of the controllers. Joint R.T. 95-96 (PG&E/Kazimirsky).
79.	The data transmission collection and display system for PG&E's gas transmission system is referred to as Supervisory Control and Data Acquisition (SCADA).	Generally accurate.
80.	The SCADA system provides data to the control rooms.	Generally accurate.
81.	PG&E's SCADA did not provide to PG&E personnel the information needed in the control room and elsewhere to deal effectively with the	Disputed. Gas Control operators were aware of the pressure increase immediately after it began at 5:22 PM and were aware of the line break as of 6:29 PM. CPSD presented no evidence to substantiate the claim that SCADA was deficient in any way. Ex. PG&E-66 (Tab

No.	CPSD Proposed Finding of Fact	PG&E's Response
	gas emergency that began after 5PM on September 9, 2010.	4-3); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
82.	SCADA did not provide PG&E personnel with sufficient information to determine the best course of remedial action to take.	Disputed. CPSD's proposed finding is based on subjective opinion. The record evidence shows that PG&E's SCADA system detected the line break and accurately reported the necessary information to gas control operators. At the time of the rupture, gas control operators had been receiving and analyzing multiple SCADA alarms and data points for 50 minutes due to the power issue at Milpitas Terminal. Nonetheless, the operators confirmed the line break within 14 minutes of the first low-low SCADA alarm and within 2 minutes of first learning of the unattributed fire in San Bruno. Ex. PG&E-61 at 4-26 to 4-29 (PG&E/Slibsager and Kazimirsky); Ex. PG&E-66 (Tab 4-3)San Bruno Ex. PG&E-1 at 8-4 to 8-7 (PG&E/Slibsager and Kazimirsky) (cross-admitted into the Records OII).
83.	PG&E's electronic SCADA system, in use on September 9, 2010, did not display critical information in a way that was readily recognized by Gas Control Operators working under abnormal operating conditions.	Disputed. Gas Control operators were aware of the pressure increase immediately after it began at 5:22 PM and were aware of the line break as of 6:29 PM. CPSD presents no evidence to substantiate the claim that SCADA was deficient in any way. Ex. PG&E-66 (Tab 4-3); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
84.	The unsafe condition of the SCADA system and deficient SCADA information contributed to the inability of the Gas Control Operators to timely evaluate data related to the pipeline explosion in San Bruno.	Disputed. The record evidence shows that PG&E's SCADA system detected the line break and accurately reported the necessary information to gas control operators. At the time of the rupture, gas control operators had been receiving and analyzing multiple SCADA alarms and data points for 50 minutes due to the power issue at Milpitas Terminal. Nonetheless, Gas Control operators were aware of the line break as of 6:29 PM; which was within 14 minutes of the first low-low SCADA alarm and within 2 minutes of first learning of the unattributed fire in San Bruno. Ex. PG&E-61 at 4-26 to 4-29 (PG&E/Slibsager and

No.	CPSD Proposed Finding of Fact	PG&E's Response
		Kazimirsky); Ex. PG&E-66 (Tab 4-3); San Bruno Ex. PG&E-1 at 8-4 to 8-7 (PG&E/Slibsager and Kazimirsky) (cross-admitted into the Records OII).
85.	Control room operators failed to acknowledge the SCADA alarm that was an indication of the San Bruno pipe failure and did not recognize the drop in pressure until almost 30 minutes later, when someone from another location called in and asked them to look for the pressure drop on their SCADA screens.	Disputed. Gas Control operators were aware of the pressure increase immediately after it began at 5:22 PM and were aware of the line break as of 6:29 PM. CPSD presents no evidence to substantiate the claim that SCADA was deficient in any way. Ex. PG&E-66 (Tab 4-3); San Bruno Ex. PG&E-1 at 8-4 to 8-8 (PG&E/Slibsager/Kazimirsky) (cross-admitted into the Records OII).
86.	"The NTSB found PG&E's supervisory control and data acquisition system limitations contributed to the delay in recognizing that there had been a transmission line break and quickly pinpointing its location."	The proposed finding is not a direct quote from the NTSB Report, as attributed. PG&E does not dispute that this is an accurate paraphrase of what is stated in the NTSB report.
87.	PG&E's gas control room was able to first recognize, 34 minutes after the rupture, that Line 132 was experiencing a leak	Disputed. At 6:29 p.m., just 2 minutes after first becoming aware of the fire in San Bruno and 18 minutes after the rupture, 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. Ex. PG&E-61 (Tab 4-3) (607939000393931.wav (9.9.2010_6.27.22_PM_607939000393931_0001) to 607939000393935.wav (9.9.2010_6.27.22_PM_607939000393931_0001)).
88.	PG&E's Emergency Response Plans were difficult to use and were a source of confusion for the	Disputed. This is not an assertion of fact, but rather an inexpert and subjective opinion. The people who used the plans did not find them difficult to use. Ex. PG&E-61 at 4-37 to 4-38 (PG&E/Almario); Ex. PG&E-61 at 4-

No.	CPSD Proposed Finding of Fact	PG&E's Response
	Control Room operators.	51 to 4-54 (PG&E/Bull). CPSD audited PG&E's emergency response plans in 2009 and 2010, found they complied with the regulations and did not state that they were too difficult to use. Ex. PG&E-61 at Chapter 4, Appendix A at 5, Appendix B at 5. Ms. Felts testified that no one at PG&E ever told her that the plans were difficult to use. R.T. at 445 (CPSD/Felts). The plans were not a source of confusion for the Control Room operators. Ex. PG&E-61 at 4-37 to 4-38 (PG&E/Almario); Ex. PG&E-61 at 4-54 to 4-55 (PG&E/Bull).
89.	PG&E's emergency plan was ineffective, deficient, and unsafe.	Disputed. This is not an assertion of fact, but rather a subjective and inexpert opinion. The emergency plans were not ineffective, deficient or unsafe. Ex. PG&E-61 at 4-37 to 4-38 (PG&E/Almario); Ex. PG&E-61 at 4-51 to 4-54 (PG&E/Bull). CPSD audited PG&E's emergency response plans in 2009 and 2010, found they complied with the regulations and did not state that they were ineffective, deficient or unsafe. Ex. PG&E-61 at Chapter 4, Appendix A at 5, Appendix B at 5. The plans were not a source of confusion for the Control Room operators. Ex. PG&E-61 at 4-37 to 4-38 (PG&E/Almario); Ex. PG&E-61 at 4-54 to 4-55 (PG&E/Bull).
90.	The 95 minutes that PG&E took to stop the gas flowing from the rupture site might have been significantly less if PG&E had had better emergency planning and materials.	Disputed. This is not an assertion of fact, but rather a subjective opinion.
91.	As written, PG&E's emergency plan was not useful for responding to the catastrophic gas line break and fire.	Disputed. This is not an assertion of fact, but rather a subjective opinion. The plans were used effectively to respond to the rupture. The plans are written so that trained personnel can implement the procedures, using text, flowcharts and checklists. The plans set forth a functional organization that follows 49 C.F.R. § 192.615 and can be implemented by personnel. Ex. PG&E-61 at

No.	CPSD Proposed Finding of Fact	PG&E's Response
		4-54 to 4-55 (PG&E/Bull).
92.	Instead of following the applicable uprating rules federal regulations and GO 112, PG&E edited historical documents to change 390 to 400 psi for Line 132.	Disputed and duplicative of CPSD's Proposed Findings of Fact 47 and 51. The MAOP for Line 132 from Milpitas to Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). PG&E did not uprate the MAOP on Line 132 from 390 to 400 psig. No pressure limiting equipment exists at milepost 35.84 that could regulate downstream pressure to 390 psig. R.T. 428-30 (CPSD/Felts). The record evidence shows that the San Francisco Division, upon which CPSD relies, mistakenly believed that the highest pressure recorded on Line 132 at Milpitas terminal from 1965-1970 was 390 psig. Ex. PG&E-43 (San Francisco Memorandum). The pressure log showing a pressure of 400 psig in October 1968 is in evidence. Ex. PG&E-42 (October 1968 Milpitas Terminal Pressure Logs).
93.	Had PG&E hydrostatically tested Line 132 to uprate it in compliance with state regulations, Segment 180 would have been tested to a pressure above 400 psi, and it would have failed under controlled testing conditions, requiring replacement of the pipe.	Disputed and duplicative of CPSD's Proposed Finding of Fact 41. PG&E did not uprate Line 132. This proposed finding of fact is a hypothetical regarding the metallurgical properties of Segment 180, and the potential results in the event the segment was hydrotested. The metallurgical properties of Segment 180, including the pups, are fully addressed in the San Bruno OII, where the testimony shows that the most likely cause of the ductile tear in the pup that failed was a post-construction hydro test.
94.	Operating a high-pressure gas transmission line above the Maximum Allowable Operating Pressure (MAOP) is inherently unsafe because it may damage the integrity of the pipe and can result in pipe failure.	Disputed. Federal regulations allow temporary pressure excursions, and do not even require reporting of the event until pressure exceeds 110% of pipeline MAOP. 49 C.F.R. § 192.201(a)(2)(i); 49 C.F.R. § 191.23(a)(5). CPSD provides no legal, engineering or evidentiary basis for this proposed finding of fact.
95.	PG&E operated Line 132 in	Disputed. The MAOP for Line 132 from Milpitas to

No.	CPSD Proposed Finding of Fact	PG&E's Response
	excess of 390 psi MAOP on at least three occasions without following regulations that required hydrostatically testing the line before upgrading [sic] it to 400 psi MAOP.	Martin Station (mileposts 0.00 to 46.59) was established at 400 psig in the early 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). PG&E did not uprate Line 132. Moreover, as discussed fully in the San Bruno OII, pressures on Line 132 in the section that CPSD claims was subject to a 390 psig MAOP (mileposts 35.84 to 46.59) did not exceed 390 psig on any of the three days in question.
96.	On the third occasion of operating above 390 MAOP, Line 132 failed, resulting in the pipeline explosion in San Bruno.	Generally accurate with the following clarification: PG&E does not dispute that Line 132 ruptured on September 9, 2 010. However, the MAOP for Line 132 was established at 400 psig in the 1970s pursuant to the grandfather clause. Ex. PG&E-61 at 4-8 (PG&E/Phillips). On September 9, 2010, Line 132 at Milpitas Terminal experienced pressure in excess of 390 psig, but the pressure at the measuring station immediately upstream of Segment 180 only reached 386 psig. Ex. PG&E-61 at 4-27 (PG&E/Slibsager and Kazimirsky).
97.	The Commission and PG&E both directed that all evidence relevant to the San Bruno incident be preserved.	Executive Director Clanon's preservation order states in pertinent part: "Preserve all records related to the incident, including work at the Milpitas terminal during the month of September 2010." Ex. PG&E-26 at 1. Resolution L-403 stated, in part, "PG&E shall preserve all records related to the San Bruno explosion, including work at the Milpitas Terminal during the months of August and September 2010. Ex. PG&E-27 at 12. The first company-wide preservation notice PG&E sent stated, in part, "In order to ensure our ability to respond to appropriate requests for information and to fulfill our legal obligation to preserve potentially relevant information, we are asking every Company employee to read this e-mail carefully and follow the instructions below. In essence, these instructions inform you of your legal obligation to preserve in its present state any potentially relevant information and, in the case of any doubt, to preserve information." Ex. PG&E-28 at 1.

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No.	CPSD Proposed Finding of Fact	PG&E's Response
98.	PG&E likely destroyed highly relevant from Brentwood Control Room video camera six.	Disputed. There is no evidence that PG&E "destroyed" the Brentwood video recording. On the contrary, the record evidence proves that the recording never existed. Moreover, the evidence proves that the recording would not have been "highly relevant" but rather entirely irrelevant. The camera is for physical security only and does not show any information related to gas operations; only large physical movements are depicted, and there is no audio or zoom feature. The still photo introduced at the evidentiary hearing demonstrates that the video would have been irrelevant had it been recorded. R.T. 1509-33 (PG&E/Cochran); Ex. PG&E-25; Ex. PG&E-76; Ex. PG&E-61 at 5-3 (PG&E/Seager).
99.	PG&E's data response from October 10, 2011 stating that the Brentwood facility video recording for September 9 and 10 was overwritten after 60 days is contradicted by PG&E's own later data response from March 9, 2012 that no video was recorded onto its DVR.	Disputed. "Contradicted" is a mischaracterization. The second data response expressly corrected the first. The two data responses consistently stated that the Brentwood video recording did not exist, which is the only material fact. The inconsistency between the two data responses was the reason the recording did not exist. Ex. PG&E-61 at 5-3 (PG&E/Seager); R.T. 1509-33 (PG&E/Cochran); R.T. 232-33 (CPSD/Felts); PG&E RB at 69-73.
100.	Because PG&E's October 10, 2011 and the March 9, 2012 data responses are contradictory, one or both of them must be false.	Disputed. Neither data response is false; the first data response was mistaken, the second data response corrected the mistake. Ex. PG&E-61 at 5-3 (PG&E/Seager); R.T. 1509-33 (PG&E/Cochran).
101.	In several data responses to CPSD PG&E failed to identify all people present at the Milpitas terminal who were working on the pressure problem of September 9, 2010.	Disputed. As the proposed finding states, CPSD is pursuing a Rule 1 violation based on PG&E's alleged failure to "identify all people present at Milpitas Terminal who were working on the pressure problem." The person to whom CPSD is referring is the Milpitas Terminal temporary supervisor. The temporary supervisor ***was not present at Milpitas Terminal on September 9, 2010 from approximately 11:30 a.m. until approximately 8 p.m.,*** and thus, was not present at Milpitas Terminal during the pressure problem. This

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No.	CPSD Proposed Finding of Fact	PG&E's Response
		proposed finding is based on a misunderstanding of the facts and relevant events. Ex. PG&E-61 at 5-4; Ex. PG&E-67 (Tab 5-14); Ex. CPSD-18 (PG&E Response to CPSD Data Request 77, Question 1 (cited in Ex. CPSD-4 at 22, n. 116).
102.	Failure to identify all personnel that CPSD seeks can impede CPSD's investigation and compromise the Commission's ability to make a fully informed decision.	Disputed. The statement is ambiguous and lacks necessary context. Moreover, this is not an assertion of fact, but rather a subjective opinion. CPSD also misapprehends the facts related to the data responses underlying this subjective assertion. *See* PG&E RB at 74-76.
103.	Job Files are PG&E's primary source of information about the construction of PG&E's pipelines.	Generally accurate with the qualification that the contents of job files relating to gas transmission pipelines constitute a primary source of information, but not the sole source of information, about the construction of those pipelines.
104.	Missing PG&E job files, mean that PG&E is missing data, including virtually all information about a particular construction project, required for a successful risk assessment of its pipelines.	Disputed. CPSD has not proven that PG&E is missing any job files, or that loss of a job file would mean that virtually all information required for risk assessment would also be lost. *See* PG&E RB at 76-81.
105.	Missing job files, and missing information in job files that do exist, do not constitute anything close to the full measure of PG&E's job file deficiencies that severely hamper PG&E engineering of a safe gas system.	Disputed. CPSD has failed to prove that PG&E is missing job files or that the state of its records has "severely hamper[ed]" its "engineering of a safe gas system." On the contrary, PG&E engineers testified that job files and records are retrievable, useable, and helpful in running a safe system. R.T. 1863 (PG&E/Arnett); Joint R.T. 282-84 (PG&E/Harrison).
106.	PG&E has identified job files as its primary source of information about pipeline	Job files are a primary, but not exclusive, source of information about pipeline characteristics.

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	characteristics.	
107.	PG&E also has many job files that are incomplete.	Disputed. CPSD has introduced no evidence or testimony supporting this allegation beyond Ms. Felts' claimed "review of thousands of records in the ECTS database of job files." CPSD OB at 91, citing Ex. CPSD 4 at 23. CPSD has not offered into evidence purportedly incomplete job files – or even references to specific files viewed by Ms. Felts – to substantiate this claim. PG&E employee Todd Arnett, called by CPSD, testified that he fully understood the numbering system for PG&E's job files and that he is able to locate necessary items within a job file "pretty quickly from my experience." R.T. 1863 (PG&E/Arnett). Similarly, David Harrison testified that "job files in my experience are quite well organized, the paper job files in the system. They've been there for 50 years. The systems are well established." Joint R.T. 283-284 (PG&E/Harrison).
108.	PG&E has also lost track of some job file record numbers issued over time.	Disputed. CPSD has introduced no support for this allegation beyond Ms. Felts' "review of thousands of records in the ECTS database of job files." CPSD OB at 91, citing Ex. CPSD 4 at 23. PG&E issues job numbers across the enterprise; gaps between one gas transmission job number and another may reflect intervening gas distribution, electric, hydro and other projects – not missing gas transmission jobs. Ex. PG&E-61 at 3-37 (PG&E/Harrison). CPSD has not offered into evidence purportedly incomplete job files – or even references to specific files viewed by Ms. Felts – to substantiate this claim.
109.	Engineering and construction records are critical to the ongoing safe operation and maintenance of a gas transmission system because the operator must depend on these records when making operating and maintenance	Disputed. This statement is too broad to be accurate. Engineering and construction records are used primarily by pipeline engineers, maintenance and integrity management personnel, and, with the exception of station diagrams, only occasionally by operators. *See* June 20, 2011, Response to OII, Chapter 2A, Table 2A-3.

No.	CPSD Proposed Finding of Fact	PG&E's Response
	decisions during the life of the facility.	
110.	PG&E created a set of Pipeline History Records, which were the source of the data used to develop its Pipeline Survey Sheets, which in turn contained the data that populated PG&E's GIS system.	Disputed. The Pipeline History Files were not the sole source of data for the Pipeline Survey Sheets, and the Pipeline Survey Sheets were not the only data used to populate PG&E's GIS system. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman); PG&E-61 2-20 to 2-23 (PG&E/Phillips).
111.	PG&E lost or destroyed the underlying Pipeline History Files, making it impossible for PG&E to verify the quality of the GIS data.	Disputed. Pipeline History Files were not the source data for GIS. They were secondary sources of information and there is no evidence that underlying information is unavailable. Ex. PG&E-61 at 2-21 to 2-22 (PG&E/Phillips). *See also* Ex. CPSD-6 at 6-47 (CPSD/Duller and North) (Pipeline History Files were "really a secondary source of information.").
112.	PG&E personnel have relied on incorrect GIS data in the day to day operations of the Transmission System.	Disputed. As Mr. Zurcher explained, he created two GIS systems in the late 1980s and 1990s, both of which were populated with erroneous and or assumed values. Joint R.T. 661-662. While PG&E has acknowledged that GIS has data discrepancies in it, PG&E's engineers use and rely on GIS with that understanding. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman).
113.	PG&E lost or destroyed the underlying Pipeline History Files, perhaps as early as 1987.	Disputed. PG&E rescinded Standard Practice 463.7 in 1987, thereby ending the requirement to maintain the Pipeline History Files. Ex. PG&E-61 at 2-21 through 2-22 (PG&E/Phillips).
114.	In 1969, PG&E created Standard Practice 463.7 to create and maintain Pipeline History Files for the life of the facility.	Generally accurate.
115.	When asked to produce Pipeline History Files, PG&E responded that it	Disputed. The evidence showed that SP 463.7 was rescinded no later than 1987. Ex. PG&E-61 at 2-21

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	"believes" SP 463.7 became inoperative in the early 1990's when PG&E initiated the transition to its electronic Geographic information System (GIS).	through 2-22 (PG&E/Phillips).
116.	PG&E no longer maintains Pipeline History Files.	Generally accurate.
117.	Because PG&E had failed to retain a good and complete set of Job Files, when it disposed of the Pipeline History Files it was actually discarding the only copy of some records.	Disputed. Pipeline History Files were secondary sources of information. Ex. PG&E-61 at 2-21 to 2-22. *See also* Ex. CPSD-6 at 6-47 (CPSD/Duller and North) (Pipeline History Files were "really a secondary source of information."). Many of the records kept in Pipeline History Files were copies of documents from job files. R.T. 320-21 (CPSD/Felts); Ex. PG&E-64 (Tab 2-28); R.T. 1115-16 (PG&E/Phillips). CPSD has failed to prove that PG&E does not have a good and complete set of Job Files, being unable to prove any Job File is missing or incomplete.
118.	Commission Resolution No. FA-570, adopted in 1976, provided for a new document retention policy for ratemaking documents, and is totally irrelevant to pipeline safety record preservation requirements.	Disputed. The statement mischaracterizes FA-570. FA-570 was not "totally irrelevant" to pipeline safety regulations; it specifically addresses records of a kind that were required to be maintained by GO 112-C. *See,* R.T. 1196-1197 (PG&E/Phillips); Ex. PG&E-61 at 2-9 to 2-11 (PG&E/Phillips); Ex. PG&E-63 (Tab 2-21).
119.	The Commission never authorized PG&E's destruction of its historic pipeline safety records.	This statement is vague as to which "historic pipeline safety records" are at issue. The statement also is irrelevant because it answers a contention PG&E does not advance. R.T. 1196-1197 (PG&E/Phillips).
120.	By destroying the Pipeline History Files, PG&E eliminated one source of traceable and verifiable records that should have been retained to ensure the	Disputed. Pipeline History Files were secondary sources of information and there is no evidence that underlying information was lost when PG&E discarded them. Ex. PG&E-61 at 2-21 to 2-22 (PG&E/Phillips). The regulatory expectation that PG&E maintain traceable, verifiable and complete records was not

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	safety of pipeline operations.	articulated until more than 20 years after the standard governing Pipeline History Files was rescinded. See PG&E's Opening Brief at Section IV.D.
121.	As of August, 2012, PG&E was missing at pressure test records for strength tests on at least 23,761 segments or lengths of pipe.	Disputed. CPSD provides no support for the figure it cites. To the extent CPSD relies on TURN-4, the claim mistakenly assumes that a separate pressure test record should exist for each segment reflected in TURN-4. "Segment" as used in Ex. TURN-4 reflects the application of the term in PG&E's integrity management program, not the way the term is defined for purposes of pressure testing under 49 C.F.R. § 192.505. R.T. at 1004-05 (PG&E/Singh). Accordingly, a single strength test record would generally cover the testing of multiple pipe segments reflected in Ex. TURN-4. R.T. at 1004-05 (PG&E/Singh). 49 C.F.R. § 192.517(a) requires operators to make and retain "a record of each test performed," not a separate record for each segment tested. Counting segments provides no evidence of how many tests may have been performed. There is thus no support for CPSD and TURN's reliance on the number of pipe segments identified in Ex. TURN-4 to establish the number of purportedly missing strength test records. Moreover, CPSD has not proven that records of pressure tests that were conducted are in fact missing. PG&E has not given up looking for these records and still hopes to find them. Joint R.T. 256 (PG&E/Harrison).
122.	Thousands of strength test records are missing from the period 1956 through 2010.	Disputed. CPSD provides no support for the figure it cites. To the extent CPSD relies on TURN-4, the claim mistakenly assumes that a separate pressure test record should exist for each segment reflected in TURN-4. "Segment" as used in Ex. TURN-4 reflects the application of the term in PG&E's integrity management program, not the way the term is defined for purposes of pressure testing under 49 C.F.R. § 192.505. R.T. at 1004-05 (PG&E/Singh). Accordingly, a single strength test record would generally cover the testing of multiple pipe segments reflected in Ex. TURN-4. R.T. at 1004-

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No.	CPSD Proposed Finding of Fact	PG&E's Response
		05 (PG&E/Singh). 49 C.F.R. § 192.517(a) requires operators to make and retain "a record of each test performed," not a separate record for each segment tested. Counting segments provides no evidence of how many tests may have been performed. There is thus no support for CPSD and TURN's reliance on the number of pipe segments identified in Ex. TURN-4 to establish the number of purportedly missing strength test records. Moreover, CPSD has not proven that records of pressure tests that were conducted are in fact missing. PG&E has not given up looking for these records and still hopes to find them. Joint R.T. 256 (PG&E/Harrison).
123.	These strength tests for which PG&E is missing pressure test records should have been done between January 1, 1956 and January 1, 2011. These tests were required by ASME standards beginning in 1955; General Order 112, 112A and 112B from 1961 until 1970; and 49 CFR sections 192.503, 192.505, and 192.507 beginning on August 19, 1970.	Disputed. The ASA B31.1.8 standards did not "require" PG&E to maintain pressure test records in 1955 or thereafter. CPSD has not charged in either of its Revised Tables of Violations that PG&E failed to comply with Section 192.503, 192.505 or 192.507. The proposed finding of fact is not a fact at all but an erroneous legal conclusion.
124.	PG&E's failures to retain strength test records are violations that undermine and diminish the safety of its pipeline system that PG&E owes to the California public, its ratepayers, and to its own employees and contractors.	Disputed. This is not a factual assertion, but rather CPSD's opinion and conclusion. PG&E notes further that in the case of pipe installed prior to 1970, federal regulations did not retroactively apply the recordkeeping or pressure testing requirements. See PG&E RB at 84-88.
125.	Violation of strength testing and record maintenance	Disputed. The pipeline rupture in San Bruno was caused by a defective weld in a portion of pipe in

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	requirements was a factor in the San Bruno tragedy of September 9, 2010.	Segment 180. The ductile tear was itself likely caused by hydrotesting. No operator would likely have had records to the level of detail that would have prevented the accident. Had PG&E known about the pups it would have replaced the pipe. Ex. PG&E-61 at 0-2 (PG&E/Singh).
126.	PG&E's violations of missing pressure test records for strength tests are the most serious violations possible.	Disputed. This is not a factual assertion, but rather CPSD's hindsight opinion contravened by the 1955 and 1958 ASA B31.1.8 codes (which exempted existing facilities from pressure testing requirements); GO 112 (which exempted existing facilities from pressure testing; the Natural Gas Pipeline Safety Act of 1968 (which exempted existing facilities from pressure testing) the grandfather clause in Section 192.619 (c) (which exempted existing facilities from pressure testing).
127.	PG&E failed to retain many weld maps and weld inspection records.	Disputed. There is no regulatory requirement to maintain weld maps and inspection records. Ex. PG&E-61 at 3-11 to 3-12 (PG&E/Zurcher); Ex. Joint PG&E-37. Accordingly, PG&E did not "fail" to retain them. PG&E reviewed and produced nearly 7,000 pages of weld inspection reports in response to Paragraph Seven of the Commission's OII directives. Ex. PG&E-61 at 3-56 (PG&E/Keas); CPSD OB at 112, citing P7-0047 Index of documents produced with PG&E's June 20, 2011 filing.
128.	Historical records of the weld inspections and the weld maps are critical to the ongoing safe operation of the transmission pipelines.	Disputed. See Response to Proposed Finding 127 above. Moreover, weld inspection records are not necessary for an integrity management program. R.T. 1640-1642 (PG&E/Zurcher).
129.	Some surviving records of welds in PG&E's transmission lines show that substandard welds were	Disputed. CPSD has not substantiated this opinion with evidence. R.T. at 330-335 (CPSD/Felts).Under the applicable industry standards, welds with imperfections are acceptable. Ex. PG&E 39; Ex. PG&E 40. CPSD

No.	CPSD Proposed Finding of Fact	PG&E's Response
	accepted for service, suggesting there may be pipe in the present transmission system that do not meet criteria for safe, ongoing gas transmission service.	has not provided any evidence that the imperfections reported in the records to which it refers exceeded the acceptable level. R.T. 407-417 (CPSD/Felts).
130.	Line 132 was shown to have substandard welds accepted for service.	Disputed. CPSD does not identify the welds it references. To the extent CPSD references Segment 180, PG&E acknowledges that three of the pups installed on Segment 180 had defective longitudinal welds that were missing the interior seam. To the extent CPSD is referring to the girth welds, there is no evidence that the imperfections the 2011 NTSB metallurgical examination identified in the girth welds fell below the acceptance standards applicable in 1956.
131.	PG&E is missing years of operating pressure records required for safe operation of the pipes.	Disputed. PG&E is not missing any operating pressure records that it was required to maintain. Ex. PG&E-61 at 3-58 (PG&E/Keas).
132.	PG&E's operating pressure records the company has retained are so inaccessible that they are essentially unavailable.	Disputed. CPSD provides no support for this assertion nor does it define what it means by "so inaccessible that they are essentially unavailable." PG&E's operating pressure records are and have been accessible. R.T. 338-344 (CPSD/Felts); *see also* R.T 1463-1465 (PG&E/Keas); R.T. 1678 (PG&E/Keas).
133.	The impact PG&E's missing operating pressure records has on safety is that integrity management cannot be meaningfully evaluated, pressure cycling evaluations required by the law cannot be accurately conducted, and that it remains unknown whether PG&E has conducted required testing in compliance with the law.	Disputed. PG&E is not missing any operating pressure records that it was required to maintain. Ex. PG&E-61 at 3-58 (PG&E/Keas). 49 C.F.R. §§192.917(e)(3) and (e)(4) require operators to prioritize for assessment pipe segments with certain specified characteristics whose operating pressure increases above the maximum operating pressure experienced in the five years preceding the date the segment was identified as an HCA segment. 49 C.F.R. § 192.917. As the rules relating to HCA identification required operators to identify all high consequence areas by December 17, 2004, this means that the five-year period of relevant

No.	CPSD Proposed Finding of Fact	PG&E's Response
		operating pressure history extends back to December 17, 1999. Ex. PG&E-61 at 3-59 (PG&E/Keas).PG&E has acknowledged that it inadvertently and irretrievably lost operating pressure data for 1999. Ex. PG&E-61 at 3-58 (PG&E/Keas). However, this missing data would not have a material impact on PG&E's determination and assessment of a manufacturing threat under the integrity management rules. Ex. PG&E-61 at 3-11, 3-12 (PG&E/Zurcher).
134.	Even though it had a leak detection program in place since at least 1958, PG&E failed to document and save data from one of its earliest leak records systems, the A-Forms, in a way that made the data retrievable.	Disputed. Ms. Felts conceded that she does not have a basis to conclude that any of PG&E's pre-1970 leak records are, in fact, missing. R.T. 349 (CPSD/Felts). Ms. Felts similarly conceded during cross-examination that she assumed PG&E's leak records were missing because she was unable to locate certain A-Forms in the company's job files, even though PG&E's prepared testimony showed that A-Forms are retained either in job files *or* in separate so-called "leak library" files located at approximately 70 of the company's local offices. R.T. 374, 506-07 (CPSD/Felts); Ex PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).
135.	PG&E's A-Forms are frequently only partially completed.	Disputed. This statement is vague. CPSD has not cited any documentary evidence to support this statement. R.T. 344-345 & 349 (CPSD/Felts).
136.	The deficiency with PG&E's A-forms made it impossible for PG&E to use its leak detection program to properly care for its pipes and make them safe on an ongoing and long-term basis.	Disputed. CPSD provides no support for this assertion. The evolution of the form observed by CPSD has been spurred both by the industry's recognition of the need for more detailed leak information and by changes in regulatory reporting requirements. Ex. PG&E-61 at 3-60 to 3-63 (PG&E/Cowsert-Chapman). The proposed finding also seems to at least partly contradict the testimony of CPSD own witness who testified that PG&E's A Form records after 1970 were "fairly complete". R.T. 348 (CPSD/Felts).
137.	PG&E's A-Forms would have been kept in the Pipeline History Files that	Disputed. A copy, not the original, of PG&E's leak records would have been kept in the Pipeline History Files per Standard 467.3.

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	PG&E discarded.	
138.	PG&E has an incomplete and inaccessible set of post 1970 leak records.	Disputed. CPSD has not proven this assertion. PG&E OB at 117-18; PG&E RB at 94-97. CPSD witness Ms. Felts has acknowledged that she is uncertain whether PG&E's historical leak data are, in fact, accessible when needed by the company's engineers. R.T. 345 (CPSD/Felts). Ms. Felts assumed PG&E's leak records were missing because she was unable to locate certain A-Forms in the company's job files, even though PG&E's prepared testimony showed that A-Forms are retained either in job files *or* in separate so-called "leak library" files located at approximately 70 of the company's local offices. R.T. 374, 506-07 (CPSD/Felts); Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman). Moreover, the decisions around the migration of data and functionality among PG&E's electronic leak records systems predated ASME B31.8S-2004 and the federal integrity management regulations. Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman). Prior to these rules, there was no compliance-related reason to integrate large volumes of historic leak data into a new database. Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman).
139.	Many of PG&E's individual post-1970 leak records are inaccurate and incomplete.	Disputed. CPSD has not proven this assertion. PG&E OB at 117-18; PG&E RB at 97-99. CPSD witness Ms. Felts has acknowledged that she is uncertain whether PG&E's historical leak data are, in fact, accessible when needed by the company's engineers. R.T. 345 (CPSD/Felts). She assumed PG&E's leak records were missing because she was unable to locate certain A-Forms in the company's job files, even though PG&E's prepared testimony showed that A-Forms are retained either in job files *or* in separate so-called "leak library" files located at approximately 70 of the company's local offices. R.T. 374, 506-07 (CPSD/Felts); Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman). Moreover, the decisions around the migration of data and functionality among PG&E's electronic leak records systems predated ASME B31.8S-2004 and the federal integrity

No.	CPSD Proposed Finding of Fact	PG&E's Response
		management regulations. Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman). Prior to these rules, there was no compliance-related reason to integrate large volumes of historic leak data into a new database. Ex. PG&E-61 at 3-62 (PG&E/Cowsert-Chapman).
140.	Large numbers of leak records that may technically exist are completely unknown and unavailable for PG&E integrity management personnel to review and consider.	Disputed. CPSD has not proven this assertion. Leak data is relevant to (and is a data element specified in ASME B31.8S, Appendix A) time-dependent threats such as internal and external corrosion. R.T. 1492-95 (PG&E/Keas). PG&E has historically maintained leak records in hard copy form, so it is neither surprising nor probative that not all leaks are represented in GIS. Ex. PG&E-61 at 3-60 (PG&E/Cowsert-Chapman). The hard copy records are kept in job files or in "leak libraries" at approximately 70 local field offices. Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman).
141.	PG&E reduced the significance of leak data in the Integrity Management process from 1984 to present day.	Disputed. The Integrity Management regulations did not exist in 1984. The GPRP accounted for leak data based on the informed decisions of engineers after the weighing of competing considerations. Ex. CPSD-55 at 7-8. CPSD's sole witness on this topic lacked the subject matter expertise to question these judgments, much less characterize them as violations of law. R.T. 173 (no experience as pipeline engineer); R.T. 347 (no basis for comparing PG&E's pre-1970 leak records to those of other operators); R.T. 606 (CPSD/Felts); Ex. PG&E-63 (Tab Intro-1) (never previously evaluated an integrity management program).
142.	Leak records are important to the safe operation of PG&E's pipelines. The safety risks of allowing leaks to go unattended include exposing people to harmful gas, the potential for explosions where gas accumulates in closed areas, and total pipe failures resulting in	Disputed. CPSD's sole witness on this topic lacked the subject matter expertise to reach any ultimate conclusions about the importance of leak records to the safe operation of natural gas pipelines. R.T. 173 (no experience as pipeline engineer); R.T. 347 (no basis for comparing PG&E's pre-1970 leak records to those of other operators); R.T. 606 (CPSD/Felts); Ex. PG&E-63 (Tab Intro-1 (never previously evaluated an integrity management program). There is no record evidence that PG&E does not appropriately repair leaks. The San

No.	CPSD Proposed Finding of Fact	PG&E's Response
	catastrophic damage like the San Bruno pipe failure in September 2010.	Bruno rupture was not caused by an unattended leak.
143.	Before 1970, PG&E commonly reused pipe.	Disputed. The reconditioned pipe in PG&E's system is a tiny fraction of its total transmission pipe. Joint R.T. 436-38(PG&E/Harrison). A PG&E witness estimated that there is only about 30 to 100 miles of reconditioned pipe in PG&E's 5,800 miles of transmission pipe. Joint R.T. 437-438 (PG&E/Harrison). It is generally accurate to say that the use of reconditioned pipe was common in the industry into the late 1960s (meaning that many, if not most, operators used it). PG&E-61 at 3-12 (PG&E/Zurcher).
144.	After PG&E installed its reused pipe, PG&E could not identify the location of the pipe and its characteristics and specifications.	Disputed. Many of the company's job files include records that demonstrate the use of reconditioned pipe. Ex. PG&E-61 at 3-33 (PG&E/Harrison). PG&E did not capture this information centrally in GIS. PG&E began collecting information centrally reflecting reconditioned or salvaged pipe from these job files as part of its MAOP validation effort in April 2011, and several months earlier in connection with Line 101. Ex. CPSD-2 at 46, FN 187 (CPSD/Felts) (PG&E Response to DR 16 Q 5).
145.	PG&E believed it needed to properly inspect, repair and test pipe before reusing it, but reduced safety by failing to do these things before reuse.	Disputed. CPSD has introduced no evidence that PG&E did not follow its procedures for inspecting, repairing and testing pipe before reusing it. As PG&E witness David Harrison testified, the process of inspecting and reinstalling reconditioned pipe was sufficiently routine that he would not expect to find documentation that the process was completed. Joint R.T. 466 (PG&E/Harrison).
146.	PG&E's failure of records and data has created a system of pipelines that remains unsafe today, and will continue to be so until and unless PG&E identifies with	Disputed. This proposed finding reflects CPSD's speculation and uninformed opinion, and ignores evidence from industry experts to the contrary. The industry has not called out the risks associated with reused pipe. The integrity management regulations do not require that specific information to be used for threat

No.	CPSD Proposed Finding of Fact	PG&E's Response
	certainty the location of each piece of reused pipe in its system.	identification or analysis. PG&E's engineer witnesses, Mr. Harrison testified that reused pipe is safe pipe, and that PG&E has records of reused pipe in its job files. Joint R.T. 248 (PG&E/Harrison); Ex. PG&E-61 at 3-33 (PG&E/Harrison).
147.	Without records to provide critical information about reused pipe, it is impossible to be sure that another pipe failure will not occur on a line where a reused pipe, not suited for the new operating conditions, was installed.	Disputed. This proposed finding reflects CPSD's conclusion based on an uninformed opinion. CPSD has yet to introduce evidence substantiating its claim that PG&E has salvaged and reused transmission pipe now operating in its system that may not be satisfactory for continued service.
148.	PG&E cannot determine from its records whether pipe specifications data entered into its integrity management risk assessment model are accurate for every pipe segment.	Disputed. PG&E acknowledges that some data in its GIS system is inaccurate. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman). However, PG&E's integrity management personnel took account of the fact that the company's data was not always accurate by utilizing conservative assumptions where appropriate. Joint R.T. 1018 (PG&E/Keas). Moreover, the fact that PG&E's GIS contains some inaccuracies does not support a conclusion that PG&E's initial population of GIS lacked sufficient quality control efforts. In fact, PG&E's original population of its GIS database was consistent with industry norms. Joint R.T. 663 (PG&E/Zurcher). Industry practices regarding pipeline data have changed since the era when operators initially populated GIS, and continue to change to this day. PG&E maintains a process to constantly update and improve the data sets in GIS as better data becomes available. Joint R.T. 1168 (PG&E/Keas); R.T. 2231-2260 (PG&E/Daubin); Ex. PG&E-61 at 3-66 to 3-67 (PG&E/Cowsert-Chapman).
149.	Important pipeline data in PG&E's Geographic Information System ("GIS") is erroneous and incomplete.	Disputed. PG&E acknowledges that some data in its GIS system is inaccurate. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman). However, PG&E's integrity management personnel took account of the fact that the company's data was not always accurate by

No.	CPSD Proposed Finding of Fact	PG&E's Response
		utilizing conservative assumptions where appropriate. Joint R.T. 1018 (PG&E/Keas). Moreover, the fact that PG&E's GIS contains some inaccuracies does not support a conclusion that PG&E's initial population of GIS lacked sufficient quality control efforts. In fact, PG&E's original population of its GIS database was consistent with industry norms. Joint R.T. 663 (PG&E/Zurcher). Industry practices regarding pipeline data have changed since the era when operators initially populated GIS, and continue to change to this day. PG&E maintains a process to constantly update and improve the data sets in GIS as better data becomes available. Joint R.T. 1168 (PG&E/Keas); R.T. 2231-2260 (PG&E/Daubin); Ex. PG&E-61 at 3-66 to 3-67 (PG&E/Cowsert-Chapman).
150.	The erroneous and incomplete information in PG&E's GIS pertains to a myriad of characteristics, including pipe specifications, pipe manufacturer, reuse of pipe, weld characteristic or seamlessness, pipe location, MAOP, populations near the pipe, and others.	Disputed. CPSD fails to specify any particular segment or segments for which the listed characteristics are erroneous or missing. PG&E has acknowledged that data discrepancies exist within its GIS system. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman).
151.	PG&E indicated that its entire system of approximately 5,324 miles of pipeline in its transmission system has one or more assumed or unknown values in its GIS and pipeline survey sheets.	Generally accurate with the clarification that during cross-examination CPSD witness Ms. Felts conceded that of the 22,856 pipe segments represented on the spreadsheet, 22,480 were listed entirely or in part due to assumed or unknown data about the name of the pipe's manufacturer. R.T. 483 (CPSD/Felts). 14,591 such segments were listed entirely or in part due to assumed or blank values relating to depth of cover. R.T. 483 (CPSD/Felts).
152.	Errors in records have been carried forward from one system to the next without checks for accuracy or, in	Disputed. CPSD's statement is broad and over-generalized. PG&E acknowledges that the "seamless" error in GIS on Segment 180 carried over from an error on PG&E's Pipeline Survey Sheet. PG&E witness

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	some cases even reasonableness.	Brian Daubin testified that during the creation of GIS, PG&E personnel conducted quality control checks against randomly selected pipeline survey sheets (or "plat sheets"). Each plat sheet was selected at random, after which personnel cross checked each data point in the selected plat sheet against the data entered into GIS. R.T. 2240-41 (PG&E/Daubin).
153.	PG&E has no record of a specific Quality Assurance/Quality Control program for the transfer of data into the GIS.	The statement is misleading. PG&E does not possess written documentation of this process. PG&E witness Brian Daubin testified that during the creation of GIS, PG&E personnel conducted quality control checks against randomly selected pipeline survey sheets (or "plat sheets"). Each plat sheet was selected at random, after which personnel cross checked each data point in the selected plat sheet against the data entered into GIS. R.T. 2240-41 (PG&E/Daubin); Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman); Ex. TURN-12.). Mr. Zurcher testified that in the era in which PG&E initially populated its GIS other operators did not validate the data they used to populate GIS (R.T. 663) and there were no quality control standards in the industry at that time. R.T. 667-668.
154.	The absence of accurate and complete information in PG&E's GIS greatly impedes safe operation and maintenance of PG&E's gas transmission system because gas control operators, engineers, maintenance personnel, and emergency responders rely on this data in making their decisions.	Disputed. GIS is generally not PG&E's primary source of data for most day-to-day pipeline operations decisions. R.T. 2212-13 (PG&E/Keas).
155.	Integrity management (IM) is the process by which PG&E evaluates the safety risk to its gas pipes, and prioritizes the replacement of	This is not a statement of fact. This broad characterization of the integrity management rules is not accurate. In any event, the Integrity Management regulations set forth a process by which operators, including PG&E, evaluate risks to their gas transmission

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	pipe or other safety measures to most effectively reduce that risk and the danger to the public of gas pipe failure	pipelines and prioritize pipe segments for replacement or other safety measures.
156.	PG&E's integrity management decisions have been unsafe because they result from the incomplete, inaccurate, and inadequate data fed into its inadequate integrity management model.	Disputed. CPSD's sole witness on integrity management issues lacked subject matter expertise to reach any ultimate conclusions about PG&E's integrity management practices. R.T. 606 (CPSD/Felts);Ex. PG&E-63 (Tab Intro-1). CPSD failed to introduce evidence of any negative impact of purported errors or assumptions in GIS on PG&E's integrity management program.
157.	At the time of the San Bruno explosion, PG&E was unaware of a 1988 weld failure on another section of Line 132, even though a weld failure report from the same year indicated that PG&E had repaired a leak on Line 132 that resulted from a manufacturing defect in the longitudinal weld of the pipe.	Disputed. As stated, this proposed finding of fact mischaracterizes the evidence. PG&E maintained the 1988 weld failure report. It did not, however, incorporate certain information regarding a 1988 pinhole leak on Line 132 into its integrity management program. The 1988 report identified a pinhole leak that, from an integrity management point of view, was not relevant to the system. Joint R.T. 870-871 (PG&E/Zurcher); Joint R.T. 262-264, 568 (PG&E/Harrison); R.T. 1495 (PG&E/Keas). According to PG&E engineer Chih-Hung Lee, called by CPSD, had he been aware of this pinhole leak at the time he oversaw the preparation of the 2009 baseline assessment plan that included Segment 180, it would not have changed his analysis because such imperfections in DSAW pipe are not uncommon and there was no evidence that the imperfections grew over time in service. R.T. 1893, 1905, 1913 (PG&E/Lee).
158.	Instead of following the requirement to keep the report for the life of the facility, acting on this report, and inspecting similar pipe welds on Line 132, PG&E lost the report.	Disputed. CPSD has not proven that there ever was such a report. The proposed finding appears to refer to a metallurgical report that in all likelihood never existed. Ex. PG&E-61 at 3-41 to 3-48. CPSD does not identify any specific rule, regulation or even industry standard that required the record to be maintained. Nor does CPSD identify an industry practice suggesting that an operator in 1988 would have retained the report for over

No.	CPSD Proposed Finding of Fact	PG&E's Response
		20 years.
159.	PG&E did not include the information from the 1988 weld failure report in its Integrity management model.	Disputed as misleading, and immaterial. The 1988 report identified a pinhole leak that had no significance for integrity management.. Joint R.T. 870-871 (PG&E/Zurcher); Joint R.T. 262-264, 568 (PG&E/Harrison); R.T. 1495 (PG&E/Keas).
160.	PG&E failed to retain a 1963 weld failure report that could have provided information to its engineers and managers concerning the expected service life and potential integrity of pipe installed in its Bay Area transmission pipeline system.	Disputed. While PG&E does not have in its possession a metallurgical report relating to a 1963 pipe failure near Alemany Boulevard, it is disputed that PG&E "failed" to retain the report. CPSD does not identify any specific rule, regulation or even industry standard (much less one in effect in 1963 when the report supposedly went missing) that required the record to be maintained, particularly after the utility reported on the event and provided a copy of the report to its regulator. Ex. PG&E-61 at 3-40 (PG&E/Harrison). Nor does CPSD identify an industry practice suggesting that an operator in 1963 would have retained the report for 50 or more years.
161.	The lost 1963 weld failure report may have informed PG&E's Integrity Management engineers of potential manufacturing threats to be considered in the development of the IM program.	Disputed. CPSD's sole witness on integrity management issues lacked subject matter expertise to reach any ultimate conclusions about whether a 1963 report would have been relevant to PG&E's integrity management practices. R.T. 606 (PG&E/Felts);Ex. PG&E-63 (Tab Intro-1).
162.	Proper retention of the 1963 weld failure report and response to its findings may have led to inspections and repairs to pipe welds in the PG&E pipeline system where bad welds have so far remained undetected.	Disputed. This is not a fact; it is conjecture based on speculation.
163.	PG&E is missing strength test records for 23,760 gas	Disputed. PG&E engineer Sumeet Singh testified that due to variations in segment length a single strength test

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	transmission pipe segments for pressure tests in populated areas.	record would generally cover the testing of multiple pipe segments. R.T. at 1004-005 (PG&E/Singh). There is no support for CPSD's use of the number of pipe segments in TURN-4 to establish the number of purportedly missing strength test records. The most that Ex. TURN-4 establishes is the segments for which PG&E had not, as of the time the report was produced to TURN, located a strength test report. Joint R.T. 256-258 (PG&E/Harrison).
164.	No evidence exists to identify the number of segments that were pressure tested.	To the extent CPSD acknowledges it did not meet its burden of proof, PG&E agrees. CPSD never sought or introduced this evidence into the record. That does not, however, mean it does not exist. R.T. 325 (CPSD/Felts).
165.	No evidence exists to identify the number of segments that were pressure tested but for which PG&E created no records of the tests.	To the extent CPSD acknowledges it did not meet its burden of proof, PG&E agrees. CPSD has not introduced evidence to support its allegations that PG&E's pressure test records are missing. R.T. 325 (CPSD/Felts).
166.	No evidence exists to identify the number of segments for which records were created and later discarded, destroyed, or lost at an unknown later time.	To the extent CPSD acknowledges it did not meet its burden of proof, PG&E agrees. CPSD has not introduced evidence to support its allegations that PG&E's pressure test records are missing. That does not mean it does not exist. R.T. 325 (CPSD/Felts).
167.	PG&E failed to produce records that were traceable, verifiable, or complete to ensure that pressure tests or pressure strength records as required by law were conducted for any of the 23,760 missing strength test records that occurred after 1955.	Disputed. It is CPSD's burden to prove a lack of records PG&E is required by law to retain. This proposed finding of fact is an effort to shift the burden of proof to PG&E. For pipelines installed prior to 1970, like Line 132, the federal regulations allow MAOP to be established under the grandfather clause based on the highest operating pressure in the prior five years and without any pressure test. CPSD has not introduced evidence to support its allegations that PG&E's pressure test records are missing. R.T. 325 (CPSD/Felts). The "traceable, verifiable and complete" standard is a new

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		one first articulated by the NTSB on January 3, 2011. R.T. 120 (CPSD/Halligan); R.T. 900 (PG&E/Singh).
168.	Of the 23,760 missing strength test records, those reflecting strength tests performed, or required to be performed, during or after 1955 were necessary to establish MAOP, and to legally operate a pipeline.	Disputed. For pipelines installed prior to 1970, like Line 132, the federal regulations allow MAOP to be established under the grandfather clause based on the highest operating pressure in the prior five years and without any pressure test. CPSD bases this conclusion on a 2012 decision addressing ratemaking issues. *Order Instituting Rulemaking*, D.12-12-030, 2012 Cal. PUC LEXIS 600.
169.	PG&E found that more than 94% of its approximately 87,000 job files in its Emeryville were missing weld records. This percentage is based upon a representative sample of PG&E's total job files.	Disputed. CPSD does not define "weld records." It is important here to define terms because there are specific regulatory requirements regarding weld records. *See* GO 112, Section 824.25; *see also* 49 C.F.R. §§ 192.225 & 192.243. Not all records regarding welds are required to be retained. *See* 49 C.F.R § 192.243(f) (requiring records of non-destructive testing to be maintained). Federal regulations do not require maintenance of weld maps or x-ray film. PG&E reviewed and produced nearly 7,000 pages of weld inspection reports in response to Paragraph Seven of the Commission's OII directives. Ex. PG&E-61 at 3-56 (PG&E/Keas) (citing attachments P7-0048 through P7-6935, which are weld inspection reports for a subset of job files relating to HCA pipe).
170.	Most of PG&E's job files are missing weld records.	Disputed. CPSD has not introduced evidence to support its allegations regarding PG&E's failure to retain weld records. R.T. 325 (CPSD/Felts). CPSD does not define what it considers "weld records." It is important here to define terms because there are specific regulatory requirements regarding weld records. *See* GO 112, Section 824.25; *see also* 49 C.F.R. §§ 192.225 & 192.243. Not all records regarding welds are required to be retained. *See* 49 C.F.R § 192.243(f) (requiring records of non-destructive testing to be maintained); federal regulations do not require maintenance of weld maps or x-ray film. PG&E reviewed and produced nearly 7,000 pages of weld inspection reports in

No.	CPSD Proposed Finding of Fact	PG&E's Response
		response to Paragraph Seven of the Commission's OII directives. Ex. PG&E-61 at 3-56 (PG&E/Keas) (citing attachments P7-0048 through P7-6935, which are weld inspection reports for a subset of job files relating to HCA pipe).
171.	Because PG&E's job files are missing weld records, it is unknown whether PG&E's gas transmission pipe welding have met proper standards.	Disputed. CPSD does not define "weld records." It is important here to define terms because there are specific regulatory requirements regarding weld records. *See* GO 112, Section 824.25; *see also* 49 C.F.R. §§ 192.225 & 192.243. Not all records regarding welds are required to be retained. *See* 49 C.F.R § 192.243(f) (requiring records of non-destructive testing to be maintained); federal regulations do not require maintenance of weld maps or x-ray film. PG&E reviewed and produced nearly 7,000 pages of weld inspection reports in response to Paragraph Seven of the Commission's OII directives. Ex. PG&E-61 at 3-56 (PG&E/Keas) (citing attachments P7-0048 through P7-6935, which are weld inspection reports for a subset of job files relating to HCA pipe).
172.	Because most of PG&E's job files are missing weld records, it is unknown whether PG&E may have created weld records, but destroyed or discarded them at some time after creating them.	Disputed. CPSD does not define "weld records." It is important here to define terms because there are specific regulatory requirements regarding weld records. *See* GO 112, Section 824.25; *see also* 49 C.F.R. §§ 192.225 & 192.243. CPSD does not define "weld records". Not all records regarding welds are required to be retained. *See* 49 C.F.R § 192.243(f) (requiring records of non-destructive testing to be maintained). Federal regulations do not require maintenance of weld maps or x-ray film. PG&E reviewed and produced nearly 7,000 pages of weld inspection reports in response to Paragraph Seven of the Commission's OII directives. Ex. PG&E-61 at 3-56 (PG&E/Keas) (citing attachments P7-0048 through P7-6935, which are weld inspection reports for a subset of job files relating to HCA pipe).
173.	There are large numbers of job files missing from	Disputed. CPSD has not identified with specificity any missing job files from PG&E's records in Emeryville,

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	PG&E's current master collection in Emeryville.	and PG&E's evidence is to the contrary. PG&E issues job numbers across the enterprise, which includes jobs for Gas Distribution, Hydro, Electric Distribution and Transmission, vehicle purchases, as well as all lines of business. Gaps between one gas transmission job number and another may reflect intervening gas distribution, electric, hydro and other projects – not necessarily missing gas transmission jobs. Ex. PG&E-61 at 3-36 to 3-37 (PG&E/Harrison).
174.	PG&E is missing numerous job files for pipelines throughout its system.	Disputed. CPSD has not identified with specificity any missing job files. PG&E issues job numbers across the enterprise, which includes jobs for Gas Distribution, Hydro, Electric Distribution and Transmission, vehicle purchases, as well as all lines of business. Gaps between one gas transmission job number and another may reflect intervening gas distribution, electric, hydro and other projects – not necessarily missing gas transmission jobs. Ex. PG&E-61 at 3-36 to 3-37 (PG&E/Harrison).
175.	PG&E's missing job numbers or 'sequence gaps' correspond to missing job files.	Disputed. PG&E issues job numbers across the enterprise, which includes jobs for Gas Distribution, Hydro, Electric Distribution and Transmission, vehicle purchases, as well as all lines of business. Gaps between one gas transmission job number and another may reflect intervening gas distribution, electric, hydro and other projects – not necessarily missing gas transmission jobs. Ex. PG&E-61 at 3-36 to 3-37 (PG&E/Harrison).
176.	Many of PG&E's gas transmission job files were missing prior to the San Bruno explosion.	Disputed. CPSD has not identified with specificity any missing job files from PG&E's records prior to the San Bruno explosion. This reflects CPSD's speculation, not facts.
177.	Significant information about PG&E's pipeline attributes kept in PG&E's GIS data is inaccurate or erroneous, and has been so since the inception of PG&E's first GIS database.	Disputed. CPSD does not state what it means by "significant information," and it has not introduced any evidence that any inaccurate data in GIS "has been so since the inception." PG&E has acknowledged that data discrepancies exist within its GIS system. Ex. PG&E-61 at 3-66 (PG&E/Cowsert-Chapman). The presence of discrepancies in such a large database is unavoidable.

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		However, PG&E's personnel are aware of the limitations of the GIS database, and use GIS as a quick reference or index to locate the source records that are used to inform the work being performed. R.T. 2212-13 (PG&E/Keas).
178.	Multiple sources of information that migrated to PG&E's GIS system, including job files, pipeline density survey sheets, and pipeline survey sheets, are records with their own missing, erroneous, and inaccessible data associated with them.	Disputed. Other than the pipeline survey sheet for Segment 180, which contains the same seamless erroe as in GIS, CPSD has not proven that any of these "multiple sources of information" have "their own missing, erroneous, and inaccessible data." The transfer of data from pipeline survey sheets was a movement from one record system to another. From a data management perspective, accepting the accuracy of the pipeline survey sheets without validating data entries from source documents (e.g., job files) was an acceptable practice for PG&E to use. Joint R.T. 663 (PG&E/Zurcher); R.T. 1389-90 (PG&E/Dunn).
179.	A significant amount of PG&E's GIS data is missing, and has been so since the inception of PG&E's first GIS database. PG&E's GIS is a primary source of information in PG&E's integrity management program.	Disputed. CPSD does not state what it means by a "significant amount." As PG&E demonstrated, a large proportion of the blank or unknown data in GIS is in insignificant fields, such as pipe manufactuer and depth of cover. R.T. 482 (CPSD/Felts). GIS serve as *a* primary source of information for PG&E's integrity management program. However, GIS is not *the* primary source, nor is GIS *the only* source of information for PG&E's integrity management program. Other operators also populated or had missing or inaccessible data and thus populated their GIS systems with assumed values. Joint R.T. 661-662 (PG&E.Zurcher).
180.	Of the 112,959 entries in PG&E's audit change log since the San Bruno pipeline explosion, a large number reflect changes necessary to address inaccurate GIS records that existed before the San Bruno pipeline	Disputed. Other than a handful of entries covered in CPSD's cross-examination of the GIS panel, as to which it is "possible" they reflect changes to address inaccurate GIS records, CPSD has not offered any evidence to support this proposed finding of fact. A significant percentage of the changes tracked in the HCA audit change log have been made in the two years following the San Bruno incident. This is due in part to

No.	CPSD Proposed Finding of Fact	PG&E's Response
	explosion.	the substantial increase in the amount of pipeline replacement and maintenance activities undertaken in the wake of San Bruno, such as the pipe replacement and hydro testing necessary to meet new traceable, verifiable, and complete recordkeeping directives. Joint R.T. 1612-13 (PG&E/Keas).
181.	PG&E failed to forthrightly respond to a data request and to timely disclose its relevant GIS audit change log, with a significant number of data errors that CPSD had requested earlier.	Disputed. The audit change log was discussed in the IRP's June 2011 Report at page 59. PG&E disclosed the existence and significance of the audit change log during a September 16, 2011 site visit attended by parties to this proceeding. *E.g.*, R.T. 2196-98 (PG&E/Daubin). Ex. CPSD-65. PG&E provided a written description of the HCA audit change log and an excerpt of the log itself to CPSD on September 29, 2011 in response to CPSD Data Request 3, Question 16. PG&E provided another excerpt of log data relating to Line 132, Segment 180 on November 16, 2011 in response to CPSD Data Request 216, Question 2. PG&E provided all data in the audit change log relating to pipelines originally installed prior to 1960 to the NTSB during its investigation (to which CPSD was a party participant) on October 8, 2010. PG&E Response to CPSD Data Request No. 27, Question 12, Attachment 2.
182.	PG&E's leak records are incomplete and difficult to retrieve.	Disputed. CPSD has not introduced evidence that PG&E's leak records are incomplete or difficult to retrieve. R.T. 345 (CPSD/Felts). On the contrary, PG&E's A-forms are kept in either job files or local mapping offices. Leak databases contain leak data as needed at the time they were developed. PG&E's IGIS database contains approximately 15 years of leak data, which in the past was generally adequate for the kinds of leak data analyses that PG&E performed. R.T. 1958-59 (PG&E/Cowsert-Chapman); Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman). PG&E has a process by which engineers may access data in its legacy mainframe database. R.T. 1959 (PG&E/Cowsert-Chapman).

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No.	CPSD Proposed Finding of Fact	PG&E's Response
183.	PG&E has not established that it ever rescinded SP 463.7 (its requirement to keep pipeline history files).	Disputed. PG&E has no burden of proof. In any event , the evidence showed that PG&E's SP 463.7 was rescinded no later than October 1987. Ex. PG&E-61 at 2-21 (PG&E/Phillips); Ex. PG&E-64 (Tab 2-39).
184.	PG&E had an ongoing duty to keep each pipeline history file for the life of the facility.	Disputed. PG&E's duty to keep each pipeline history file, as CPSD refers to it, derived from an internal PG&E standard. That "duty" ceased in 1987 when Standard Practice 463.7 requiring the maintenance of Pipeline History Files was discontinued. R.T. 321-22 (CPSD/Felts) *see also* Ex. PG&E-61 at 2-21 (PG&E/Phillips).
185.	PG&E was required to follow its requirement to keep pipeline history files for the life of the facility, but did not.	Disputed. The requirement to maintain pipeline history files ceased in 1987 when Standard Practice 463.7 was discontinued. R.T. 321-22 (CPSD/Felts) *see also* Ex. PG&E-61 at 2-21 (PG&E/Phillips).
186.	PG&E's files are missing an undetermined number of records pertaining to an undetermined number of miles of reused pipe currently in operation, and the location and characteristics of those pipes remain unknown.	Disputed. CPSD has not proven that PG&E lost any records about reconditioned and reused pipe. Many of the company's job files include records that demonstrate the use of reconditioned pipe. Ex. PG&E-61 at 3-33 (PG&E/Harrison). A PG&E witness estimated that there is only about 30 to 100 miles of reconditioned pipe in PG&E's 5,800 miles of transmission pipe. Joint R.T. 437-438 (PG&E/Harrison).
187.	It is possible that the pipe that ruptured in San Bruno was reused.	Disputed. It is not a proper finding of fact to say something is "possible." That is speculation. CPSD did not substantiate its allegation that reconditioned pipe was used in the construction of Segment 180.
188.	Many of PG&E's pipeline failure metallurgical reports are missing and PG&E's Analytical Report Library, which contains its metallurgical reports, is	Disputed. This reflects CPSD's speculation. CPSD's assertion that some of the metallurgical records are "missing" is unsubstantiated. CPSD's proffered evidentiary support (Ex. CPSD-6 at 6-81, lines 21-22 (CPSD/Duller and North)) states only that there is no policing of the completeness of the records held in the

No.	CPSD Proposed Finding of Fact	PG&E's Response
	incomplete.	ATS library. That statement, even if true, does not establish that records are missing.
189.	PG&E management failed to comprehensively address mandatory recordkeeping requirements across PG&E's gas transmission system.	Disputed. CPSD cites no evidence to support this statement. PG&E introduced record retention policies from management dating to the 1950s. Also, PG&E's Gas Standards contain retention periods consistent with, or in excess of, mandatory recordkeeping requirements. Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn).); *see also* Ex. PG&E-61 at 2-4 through 2-7 (PG&E/Phillips).
190.	PG&E practiced substandard records management across its gas transmission system.	Disputed. This reflects CPSD's conclusion, not facts. PG&E used a decentralized approach to records management which was appropriate to PG&E's past business structure and utility operations. Ex. PG&E-62 at MD-16 to MD-17 (PG&E/Dunn); *see also* R.T. 2222 (PG&E/Daubin); *see also* Ex. CPSD-6 at Table 6-24 (CPSD/Duller and North).
191.	Given that PG&E is missing many historical gas transmission records, PG&E cannot operate its pipeline system safely.	Disputed. This is vague, overbroad and speculative. It is not a fact, but CPSD's unsupported conclusion.
192.	PG&E's lack of installation and reconditioning standards of re-conditioned pipes from the 1960's and earlier compromises the safety of re-conditioned pipes of that vintage.	Disputed. The best available evidence indicates PG&E did have a practice in earlier eras of inspecting reconditioned pipe. *See* Ex. PG&E-48. CPSD references no statute, regulation or industry practice that would have led PG&E to retain over several decades its written standards for reconditioning pipe.
193.	The ARMA generally accepted recordkeeping principles are accountability, compliance, transparency, availability, integrity, protection, retention, and disposition. Each of these principles have been	Disputed. CPSD is listing the GARP principles, not ARMA generally, and GARP is a relatively new model first published by ARMA International in March 2009. Ex. PG&E-62 at MD-5 (PG&E/Dunn); *see also* R.T. 649 (CPSD/Duller and North). ARMA published its GARP assessment tool on April 17, 2012. Prior to the San Bruno accident it had not been widely adopted in the gas industry. PG&E-61 at 1-9 to 1-10

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	accepted and recognized for decades as principles of good records management.	(PG&E/Howe); R.T. 1261-62 (PG&E/Howe); Ex. PG&E-61 at 1-5 (PG&E/De Leon). Neither CPSD nor Dr. Duller nor Mrs. North had ever previously used GARP as an assessment tool. Ex. PG&E-62 at MD-8 (PG&E/Dunn). The Commission provided no notice that it intended to enforcement GARP principles through the imposition of fines and penalties. The principles have been applied subjectively by CPSD's witnesses.
194.	The overall state of PG&E's gas pipeline records and information has been insufficient to promote safety.	Disputed. This reflects CPSD's conclusion, not facts. CPSD cites no evidence to support this statement. Its records experts acknowledged that they lack the engineering expertise to make engineering judgments. R.T. 637, 652, 689-90 (CPSD/Duller and North).
195.	PG&E's recordkeeping practices have been deficient and have diminished pipeline safety.	Disputed. This reflects CPSD's conclusion, not facts. CPSD cites no evidence to support this statement. Its records experts acknowledged that they lack the engineering expertise to make engineering judgments. R.T. 637, 652, 689-90 (CPSD/Duller and North).
196.	By following five of its own retention requirements, PG&E failed to keep five different types of records for a period necessary to comply with the law.	Disputed. PG&E's Gas Standards contain retention periods consistent with, or in excess of those called for in Violations B.1 through B.5. Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn).
197.	PG&E prematurely disposed of hundreds of leak survey maps beginning on April 16, and needed those maps to safely operate its system.	Disputed. PG&E's Gas Standards that address leak surveys specify retention periods for leak survey maps as the life of the facility, or in some cases longer, in compliance with the Part 192 requirements. Ex. PG&E-61 at 2-17 (PG&E/Phillips); Ex. PG&E-64 (Tabs 2-11, 2-12, 2-13, and 2-33).
198.	PG&E prematurely disposed of hundreds of line patrol reports beginning on September 1, 1964 and needed each of those reports to safely operate its system	Disputed. PG&E's Gas Standards address patrol records. Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn). PG&E's Gas Standards provided that patrol records were to be maintained for the life of the facility. Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn); SP 460.2-1 (P2-

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	each day until September 9, 2010.	1240).
199.	PG&E prematurely disposed of hundreds of line inspection reports beginning on April 6, 1994, and needed each of those reports to safely operate its system each day until September 9, 2010.	Disputed. PG&E's Gas Standards address line inspection reports. PG&E's Gas Standards applicable to line inspection reports provide retention periods that comply with Part 192's requirements. Ex. PG&E-70 (P2-1325); *see also* Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn).
200.	PG&E prematurely disposed of hundreds of pressure test records beginning on April 6, 1994, and needed each of those reports to safely operate its system each day until September 9, 2010.	Disputed. PG&E's Gas Standards correctly stated a "life of the facility" retention period for strength test records of the kind required to be maintained by 49 C.F.R. § 192.517. Ex. PG&E-62 at MD-46 to MD-55, App. D, App. E (PG&E/Dunn).
201.	PG&E's failure to retain pressure test records dates back to 1965.	Disputed. This sta tement is vague and unsupported by evidence.
202.	PG&E prematurely disposed of hundreds of transmission line inspection documents at some time before San Bruno, and needed each of those documents to safely operate its system each day until September 9, 2010.	Disputed. PG&E's Gas Standards provided that line inspection reports were to be maintained for the life of the facility. Ex. PG&E-62 at MD -46 to MD -55, App. D, App. E (PG&E/Dunn).
203.	PG&E failed to retain each of the strength test record reports relating to 23,760 pipe segments.	Disputed. *See* PG&E's responses to proposed findings 121 and 122. PG&E had not yet located strength test pressure reports as of the time it responded to TURN's data request. Due to variations in segment length a single strength test record would generally cover the testing of multiple pipe segments. R.T. at 1004-005 (PG&E/Singh). There is no evidentiary basis to equate the number of pipe segments in TURN-4 to the number

No.	CPSD Proposed Finding of Fact	PG&E's Response
		of purportedly missing strength test records.
204.	PG&E has not performed any records audits.	Disputed. This statement is vague as to the referenced time period. For example, PG&E performed an audit in 2008 that addressed records. PG&E shared the substance of its 2008 audit findings in discovery and addressed those findings and the actions PG&E took in response to them in testimony. Ex. PG&E-61 at 2:13; Ex. PG&E-64 (Tab 2-28) (PG&E Response to CPSD OII Data Request 25, Question 8).
205.	PG&E failed to properly use records to identify problematic joints on Lines 132 and 151 in its 1995 GPRP, which meant the 1995 GPRP failed to properly consider whether to replace Lines 132 and 151.	Disputed. The assertion is vague and unsupported. The decisions made in the course of GPRP about what records to use to identify pipe for inclusion in the program were based on engineering judgments made after the weighing of competing considerations. *See, e.g.*, Ex. CPSD-55. CPSD's engineering consultant lacks the subject matter expertise to second-guess those judgments. See, e.g., R.T. 173. Its records consultants rested their testimony largely on a misunderstanding of PG&E's 1990 GPRP report. *See* PG&E's OB at 155-157. The GPRP did not contemplate replacement of the entirety of Line 132, as it did not contemplate replacing modern transmission pipe with arc welds. Ex. PG&E-65 (Tab 3-19) at 23. PG&E's records accurately reflected that the girth welds on Segment 180 were constructed using the beveled-edge configuration, and the weld was made using the shielded metal arc welding process. PG&E OB at 156; Ex. PG&E-61 at 3-52 (PG&E/Roth).
206.	After 2010 PG&E failed to re-consider replacing Lines 132 and 151 although a 2007 memo to the company identified problematic joints in both lines.	Disputed. CPSD misreads the 2007 memo. The memo indicated that girth welds on Segment 180 were constructed using the beveled-edge configuration, and the weld was made using the shielded metal arc welding process. *See also* PG&E OB at 156; Ex. PG&E 61 at 3-52 (PG&E/Roth). The memo did not conclude that PG&E should replace all of Lines 132 and 151.
207.	Until 2007, PG&E's job file dating records caused it to incorrectly gauge the	Disputed. Pipeline replacement was primarily driven by the vintage of the girth welds, older girth welds being of lesser quality than modern girth welds. The age of girth

No.	CPSD Proposed Finding of Fact	PG&E's Response
	manufacturing date age of pipe for Lines 132 and 151, thereby misinforming its decisions about whether to replace portions of these lines prior to the San Bruno pipeline explosion.	welds is generally determined by the date of installation, not the date of manufacture of the pipe being welded together. Ex. PG&E-61 at 3-51 to 3-52 (PG&E/Roth).
208.	PG&E did not access the information in its own job estimate files to determine that Line 132 had problematic BBCR joints until it received a 2007 memo, 23 years after the 1984 Bechtel report that informed PG&E that problematic BBCR joints existed in pipes of the same vintage as Line 132.	Disputed. The 2007 memo indicates that sections of Line 132 constructed in 1948 using 30-inch diameter DSAW pipe did not have suspect welds. These sections of Line 132 were not constructed using BBCR joints. These sections of Line 132 would not be contemplated for replacement under GPRP. Ex. PG&E-61 at 3-51 to 3-52 (PG&E/Roth).
209.	The manufacture date of PG&E's reused pipe is often unknown, and significantly older than the installation date.	PG&E does not dispute that it does not know the age of manufacture for all of its reconditioned pipe in the system.
210.	GIS identifies the date of installation as the date of pipe manufacture.	It is more accurate to say that PG&E used the date of installation as a proxy for the date of pipe manufacture.
211.	The actual date of installation and the actual date of manufacturer can be 35 years or more apart.	Partially disputed. PG&E agrees that there are instances where the data of manufacture and the date of installation may be as many as 35 years apart.
212.	PG&E has an unknown number of reused pipes in service in its system.	Disputed. Information relating to the location and characteristics of reused pipe is present in its job files, and is being centralized by the MAOP Validation effort. Joint R.T. 436 (PG&E/Harrison). Reused pipe is a very small percentage of the pipe in PG&E's transmission system. A PG&E witness estimated that there is only

No.	CPSD Proposed Finding of Fact	PG&E's Response
		about 30 to 100 miles of reconditioned pipe in PG&E's 5,800 miles of transmission pipe. Joint R.T. 437-438 (PG&E/Harrison).
213.	The location and characteristics of an unknown portion PG&E's reused pipe is unknown.	Disputed. Information relating to the location and characteristics of reused pipe is present in its job files, and is being centralized by the MAOP Validation effort. Joint R.T. 436 (PG&E/Harrison). Reused pipe is a very small percentage of the pipe in PG&E's transmission system. A PG&E witness estimated that there is only about 30 to 100 miles of reconditioned pipe in PG&E's 5,800 miles of transmission pipe. Joint R.T. 437-438 (PG&E/Harrison).
214.	PG&E's records cannot track the location and characteristics of reused pipe.	Disputed. Information relating to the location and characteristics of reused pipe is present in its job files, and is being centralized by the MAOP Validation effort. Joint R.T. 436 (PG&E/Harrison). Reused pipe is a very small percentage of the pipe in PG&E's transmission system. Joint R.T. 437-438 (PG&E/Harrison).
215.	Pipeline characteristics are unknown or assumed for each mile of over 5000 miles of PG&E's transmission pipeline system.	Partially disputed. PG&E agrees that at least one pipeline attribute is unknown or assumed for pipe in PG&E's transmission system. This value is most often manufacturer or depth of cover. R.T. 483 (CPSD/Felts). Not all pipe attributes are missing for the 5,000 miles of pipe. In many cases, data are unknown because the attribute was added to the GIS database subsequent to creation of the database or entry of the segment, and PG&E has not gone back to the segments already in GIS to collect and enter that data. R.T. 1612-1613 (PG&E/Keas).
216.	Pipeline characteristics are identified, if available, in PG&E's job files and in GIS.	Partially disputed. Pipeline attributes are identified by records in PG&E's job files. PG&E's GIS is not a system of record for pipeline attributes.
217.	Unknown and assumed pipeline characteristics of pipe in service include manufacture dates, age of pipe, type of welds. joint	Partially disputed. CPSD presented no evidence of assumed or unknown MAOP. The MAOP is known for every one of PG&E's pipelines.

No.	CPSD Proposed Finding of Fact	PG&E's Response
	characteristics, leak history, pressure testing data, installation, MAOP, and operating history.	
218.	Line 132 is older pipe of the vintage that is within the scope of the FEMA earthquake study, and is therefore prone to damage and potential failure during large earthquakes.	Disputed in part. The FEMA study did not address Line 132. The risk of failure emphasized in the FEMA report associated with certain kinds of pipe installations, particularly pipe installed about 1930 using less stringent quality control measures and older welding techniques. Ex. CPSD-6 at 6-92. PG&E has a ground movement program (that CPSD does not address) aimed at mitigating these and other risks. *See* Ex. PG&E-61 at 3-49 to 3-51 (PG&E/Roth).
219.	PG&E's current leak database, IGIS, lacked at least 1,000,000 of PG&E's historic leak records.	Partially disputed. This figure included both transmission and distribution records of leaks and leak repairs. Ex. PG&E-61 at 3-61 (PG&E/Cowsert-Chapman). Leak data in IGIS overwhelmingly relates to distribution pipe.
220.	As a result of PG&E's failure to map tens of thousands if not a hundred thousand jobs, PG&E has failed to perform timely leak surveys.	Disputed. CPSD has not proven that PG&E failed to map any, let alone "tens of thousands if not a hundred thousand jobs" for transmission pipelines. The only piece of evidence cited by CPSD in support of this proposed finding of fact is an email relating to distribution mapping and leak survey activities.
221.	PG&E's failure to perform timely surveys is another reason for a large number of missing or uncompleted leak survey records.	Disputed. CPSD has not established that PG&E failed to perform timely surveys of its transmission lines or that they provide "another reason for a large number of missing or incomplete leak survey records. The only piece of evidence cited by CPSD in support of this proposed finding of fact is an email relating to distribution mapping and leak survey activities. In any event, since 1996, the retention period for leak survey records is limited. *See* 49 C.F.R. § 192.709. .
222.	PG&E knew from at least as early as 1984 that a significant portion of its total leak history data was	Disputed. In the mid-1980s, the Company considered integrating leak data as part of the GPRP. The decision was made not to do so. The conclusion was reached because the leak data was not sufficiently detailed to

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No.	CPSD Proposed Finding of Fact	PG&E's Response
	inaccurate.	allow for a statistically accurate correlations of the kind then contemplated. Ex. PG&E-61 at 3-64 (PG&E/Cowsert-Chapman) (citing P3-20038).
223.	PG&E believed by 1984 time that it had under-recorded leaks in its system.	Disputed. The Bechtel report reflects that Bechtel took input it received from PG&E area engineers about the perceived under-recording of leak history into account in assigning failure probability points and placed the ceiling value at 3 leaks. Bechtel stated further: "It was our experience that the number of leaks experienced by any given transmission line segment rarely exceeded two." Ex. CPSD-55 at p.8; R.T. 1944-1945 (PG&E/Cowsert-Chapman).
224.	PG&E has historically maintained many inaccurate and incomplete leak records.	Disputed. The number of leaks on transmission pipe is small. Ex. CPSD-55 at p.8. CPSD did not establish that leak data for transmission pipe have historically been inaccurate or incomplete. Changes in leak data information reflect changes in how the industry and regulators have valued different categories of data. PG&E-61 at 3-64 (PG&E/Cowsert-Chapman).
225.	Inactive leaks before 1999 were not transferred into PG&E's leak data base	PG&E does not dispute that leaks that were repaired or were not leaking on subsequent recheck were, for the most part, not transferred into IGIS in 1999.

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City and County of San Francisco's Proposed Findings of Fact

No.	CCSF Proposed Finding of Fact	PG&E's Response
1.	Gas is a highly combustible and volatile element, possessing explosive characteristics under certain conditions. (PGE-4 (D. 61269 Adopting General Order 112) at p. 5.)	Generally accurate.
2.	Members of the public and PG&E employees are "entitled to expect that PG&E will transport gas as safely as reasonably possible." OII at p. 10	Generally accurate.
3.	In addition to complying with all applicable safety laws and regulations, "the Commission expects PG&E to employ good safety engineering practices to its potentially dangerous natural gas pipelines." OII at p. 10	Generally accurate.
4.	This expectation applies to design, construction, operations, testing, maintenance, inspection, and risk assessment and pipeline replacement. OII at p. 10	Generally accurate.
5.	PG&E's witnesses agrees that as a natural gas pipeline operator, PG&E has an obligation to operate a safe system. (RT 1265:14-27 (Howe); RT 1018:11-12 (Phillips).)	Generally accurate.

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No.	CCSF Proposed Finding of Fact	PG&E's Response
6.	At least one PG&E witness agrees that recordkeeping is not an integral aspect of the safe operation and maintenance of natural gas pipelines. (RT 818:26-819:2 (DeLeon).)	Disputed. A more accurate description of the witness' testimony is that recordkeeping of the kind involved in the design, construction and testing of a pipeline is not integral to the operation and maintenance of the pipeline. R.T. at 819-820. The witness was explaining why certain recordkeeping requirements were not applied retroactively to existing lines.
	Segment 180	
7.	The explosion in San Bruno occurred in Segment 180 of Line 132.	Generally accurate.
8.	PG&E admits that it cannot find records for Segment 180 of Line 132. PG&E-61 at p. 41 ("PG&E acknowledges that it cannot conclusively document the origin of the pipe used in the construction of Segment 180.").	Disputed. PG&E has the job file for Segment 180. Ex. Joint-10. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). The pups did not meet these specifications.
9.	Following the pipeline rupture on September 9, 2010, PG&E represented that, according to its GIS system, Segment 180 was a piece of 30 inch seamless, X42 grade pipe with 0.375 wall thickness. (NTSB Report at p. 1.)	Generally accurate.
10.	After the accident, but before the NTSB's investigation was completed, the NTSB investigators determined that the information contained in PG&E's GIS database was incorrect. (NTSB Report at p. 1.)	Generally accurate that the Segment 180 pipe was X-52 DSAW.

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No.	CCSF Proposed Finding of Fact	PG&E's Response
11.	As the NTSB found, some PG&E records showed that Segment 180 was a 30 inch, DSAW, X 52 pipe with 0.375 wall thickness. (NTSB Report at p. 27.)	Generally accurate.
12.	PG&E still cannot confirm these pipeline characteristics because it has lost the inspection report for the pipe actually used on Line 132. (Joint RT 536:11-17 (Harrison).)	Disputed. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). All records in the job file for construction of Segment 180 reflect the requisition of new pipe. Ex. PG&E-61 at 4-1 (PG&E/Harrison). This proposed finding of fact assumes that PG&E was required to maintain records of pipe inspection in 1956. No such requirement existed at the time.
13.	The portion of Segment 180 was made of six approximately 3.5-4.7 feet long segments of pipe, and made of unknown pipe specification. (NTSB Report at p. 27.)	Generally accurate as to the portion of Segment 180 that ruptured. PG&E designed and requisitioned pipe for Segment 180 to consist of new 30-inch diameter, 0.375-inch wall thickness, X-52 grade (52,000 psig SMYS) DSAW pipe with a joint efficiency factor of 1.0. Joint R.T. 322, 368, 393-95, 424, 442 (PG&E/Harrison). The pups did not meet these specifications.
14.	The NTSB found that several of the pups had partially welded longitudinal seams that left part of the seam unwelded and that several also had girth welds containing multiple weld defects. (NTSB Report at p. 27.)	Generally accurate that the NTSB found three of the pups were missing the interior welds found on properly manufactured DSAW pipe. The NTSB did not determine whether the girth weld defects or imperfections exceeded what was allowed by API 1104 in 1956.
15.	PG&E agrees that these pups represented a dangerous condition, and asserts that "if PG&E had known about	Generally accurate. However, even applying the hindsight knowledge of the SMYS of the six pups, the pipe would qualify for an MAOP of at least 400 psig. Joint R.T. 395-96, 415-19 (PG&E/Harrison).

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	those pups, those would have been replaced in 1957." (Joint RT 830:17-19 (Zurcher).)	
	Records Necessary to Calculate MAOP	
16.	In 1955 the American Standard Code for Pressure Piping issued ASA B.31.1.8 standard. (PG&E-47.)	Generally accurate.
17.	Since then, PG&E has complied with ASA B.31.1.8. (RT 1019: 9-14 (Phillips).)	Generally accurate.
18.	PG&E's policy until 1996 was to retain every record identified in 192.517 and 192.709 of ASA B.31.1.8. (RT 1054:15-20 (Phillips).)	Generally accurate summary of Mr. Phillips' testimony.
19.	PG&E's witness agreed that prior to the time the federal regulations introduced the grandfather clause, "We were required to have the records under GO 112-A and B, yes, prior to GO 112-C." (RT 1071:16-18 (Phillips).)	Generally accurate, but imprecise. GO 112 did not require an operator to maintain all records. It contained specific recordkeeping provisions. CPSD asserts violations of GO 112, Section 107, a provision that incorporates specific recordkeeping provisions, i.e., pressure test records (841.417), Operating and Maintenance Records (850.3), Welding Records (824.25), Corrosion Records (851.4), Leak Records (851.5). See Ex. CPSD-15 (Felts Table of Violations); Ex. CPSD-16 (Duller/North Table of Violations); *see also* Ex. CCSF-1.
20.	PG&E witness Phillips stated that PG&E followed 192.619(a) to validate its pipelines MAOP, and that he performed the MAOP validation for all of PG&E's	Mr. Phillips testified that PG&E followed 192.619 to establish MAOP in the early 1970s. PG&E's practices included using the grandfather clause, 49 C.F.R. § 192.619(c). R.T. 1072 (PG&E/Phillips).

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	pipelines in 1974-1975. (RT 1166:6-9 (Phillips).)	
21.	In order to perform this validation, and calculate the design pressure of the pipelines, Mr. Phillips needed to refer to records such as pressure charts, existing pressure test records, and records of the physical design characteristics of these pipelines. (CCSF-3 (March 15, 2011 Declaration of Steven H. Phillips in R. 11-02-019); RT 1124:7-15 (Phillips) Records necessary to calculate the design pressure of a pipeline include pipe specification, purchase order, mill certifications. (RT 1762: 10-28 (Zurcher).)	Generally accurate with the clarification that **any** of these records, individually, could be used to establish pipeline MAOP under the newly-issued federal regulations, including the grandfather clause. R.T. 1072 (PG&E/Phillips).
22.	On cross-examination, PG&E's witness stated that 50-70% of the high consequence area pipelines with an MAOP established under the grandfather clause had their operating history set pursuant to an affidavit. (CCSF-4 (Testimony of John Gawronski at p. 8).)	Disputed. 11 out of 340 segments had their pipeline MAOP established by affidavit. R.T. 1120 (PG&E/Phillips).
23.	PG&E has admitted that it lost the pressure charts and terminal operating logs establishing the historical MAOP of these pipelines since they were established in 19741975. (PG&E-61 at p. 4-	Disputed. PG&E has not asserted that it established MAOP using mill test records.

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No.	CCSF Proposed Finding of Fact	PG&E's Response
	9 PG&E's difficulties in being able to validate the MAOP of its pipelines is likely due to the fact that it has not kept the records from its mill tests.	
24.	In a 1992 memoranda, a former PG&E employee describes how reorganizations at PG&E had led to pipeline records being undervalued and discarded. According to the memoranda, pipeline history files, strength test and pressure reports, mapping functions and pipeline plat sheets are being no longer kept current "due to the extensive backlog and the perceived lack of importance of the data reflected in the drawings." (AUJ June 20, 2011 Order Entering Memoranda from Former PG&E Employee into Record, Attachment A.)	Disputed. The "1992 memoranda" is a single page document dated December 1992. It does not describe how "reorganizations at PG&E had led to pipeline records being undervalued and discarded." It instead describes how more projects in that era were being handled by Operating Departments and how as a consequence certain "construction modifications" are not being reflected on existing facility drawings maintained on behalf of Gas Transmission & Storage (GT&S). The memo was written to advance a continuous improvement effort. *See* CPSD-6, footnote 76, file 013.pdf (June 27, 2011 Reporter's Transcript of NTSB Interview at 37-38 (admitted pursuant to ALJ's June 20, 2011 Order)).
25.	The 1992 memoranda warned that "failure to maintain the data formally on the Plat sheets and the decision not to general [sic] Plat sheets for new work may be costly to PG&E in the future and it may be difficult to defend the non-existence of the data." The as-built drawings would have contained "a compendium of	Disputed. **Response to first sentence**: The December 1992 memorandum contains no such statement about the "failure to maintain the data." CCSF appears to be selectively quoting from a 1993 memorandum and misattributing the quote to the December 1992 memorandum. *See* CPSD-6, footnote 76, file 013.pdf (Reporter's Transcript of Interview at 45 (explaining the distinction between the two memos)). **Response to second sentence**: This sentence misinterprets and thus misquotes the 1993 memorandum. The quoted statement in the

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	hydrotests, land ownership and right-of-way documents, construction details for crossing and plan and profile data." These as-built drawings would have contained much of the relevant information PG&E is now seeking to recreate through its MAOP validation efforts. (AUJ June 20, 2011 Order Entering Memoranda from Former PG&E Employee into Record, Attachment A.)	memorandum does not reference data on "as built drawings." It instead references data on plat sheets, which data, the memorandum explains, is based on final as built information. Elsewhere, the memorandum explains that responsibility for maintaining the plat sheets had not been terminated, but rather reassigned to Divisions and/or Regions. The memorandum also explains that the plat sheet data could be gathered in other independent documents. **Response to third sentence**: Again, CCSF misinterprets the 1993 memorandum. It is not referring to information contained on as-built drawings. And, it is a mischaracterization of the MAOP Validation effort to state that PG&E is trying to recreate as-built drawings.
	<u>How PG&E's Records Affect Its Transmission Integrity Management Program</u>	
26.	PG&E uses its GIS database as the primary source of information for its TIMP. This database, however, contains inaccuracies. (RT 1000:13-22 (Singh).)	Disputed. GIS data is but one component of a much broader data gathering and integration process. PG&E uses GIS as a tool to assist with data collection and integration. Joint R.T. 1156 (PG&E/Keas). However, a second step of the data gathering process occurs during the pre-assessment phase of each integrity assessment. Joint R.T. 1176 (PG&E/Keas). During the pre-assessment phase, PG&E's integrity management engineers gather additional data from job files and information sources. Joint R.T. 1075 (PG&E/Keas).
27.	The GIS 3.0 database is being created in response to the NTSB's recommendations and the Commission's directive that PG&E validate the MAOP for its pipelines using	Partially disputed. Undisputed that the NTSB's recommendations set in motion PG&E's MAOP validation effort. However, PG&E is developing GIS 3.0 as part of Project Mariner, a broader effort to enhance means of organizing and accessing its records. Ex. PG&E-61 at 1-27.

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	traceable, verifiable, and complete records. (RT 847:10-16 (Singh).)	
28.	In building this new database, PG&E will not use any of the information related to pipeline characteristics that is located in its GIS 2.0 database. (RT 999:23-1000:5 (Singh).)	Misleading as stated. PG&E will not rely on data from GIS 2.0 in construction of GIS 3.0.
29.	To comply with federal safety regulations, and evaluate the potential risks to the pipelines, PG&E needed to gather and integrate existing data and information on the entire pipeline that could be relevant to covered segments. Basic elements of proper data integration and evaluation include: storage, retrieval, granularity, collection, aggregation, and integration. Data integration consists of more than simply putting several types of information into a single location. The most important aspect of data integration is the analysis of aggregated data in order to discern integrity threats and risks that would not otherwise be observed from independently reviewing the various individual data elements. In other words, relevant records should be accessible.	Disputed. This purported finding of fact is CCSF's witness' interpretation of the federal Subpart O regulations and ASME B31.8S. In purporting to interpret those documents, CCSF's witness adds elements that are not found in the regulations. Subpart O and the ASME are the best evidence of their provisions.

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No.	CCSF Proposed Finding of Fact	PG&E's Response
	(CCSF-4 (Testimony of John Gawronski) at p. 12.)	
30.	Eight months after the NTSB requested all leak and repair information for Line 132, PG&E produced a 1988 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. (NTSB Report at p. 38 and fn 61.)	PG&E does not dispute that this is what is stated in the NTSB report.
31.	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." The memorandum states that "[o]verall, the x-ray inspection showed the weld to be of low quality, containing shrinkage cracks and voids, lack of fusion, and inclusions. Although the actual leak could not be found, it is likely that it was related to one of the weld defects." The memorandum also states that "the cracks are pre-service defects, i.e. they are from the original manufacturing of the pipe joint." (PG&E-65 (Ex 3-17:	Generally accurate that PG&E produced a March 1, 1989 memorandum regarding a pinhole leak on Line 132. However, the evidence shows that any documentation related to this leak would have had minimal, if any, engineering significance. The report concludes that, with the pinhole leak cut out, the pipe is fit for service. Mr. Zurcher testified that pinhole leaks of this type are common and are not relevant to integrity management of a pipeline system. Joint R.T. 870-871 (PG&E/Zurcher). David Harrison testified that the 1988 pinhole leak was not unusual and would not generally have raised questions about the integrity of other parts of Line 132. Joint R.T. 262-64, 568 (PG&E/Harrison). Kris Keas testified that a pinhole leak that has not experienced in-service growth would not necessarily be considered an integrity threat. R.T. 1495 (PG&E/Keas). PG&E pipeline engineer Chih-Hung Lee testified that minor longitudinal weld cracks are "typical" and the documentation relating to the 1988 leak does not indicate any in-service defect growth. R.T. 1893, 1905, 1913 (PG&E/Lee).

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	1989 TES Memorandum).)	
32.	The leak identified constitutes a failure under TIMP regulations. Moreover, the document shows that PG&E should have been aware of both potential manufacturing and construction defects present on Line 132. PG&E should have seen this document as a warning sign that it must evaluate all similar pipelines for potentially unstable manufacturing and construction defects. (CCSF-4 at p. 10.)	Disputed. ASME B31.8S defines both "leak" and "failure." A leak is an "unintentional escape of gas from the pipeline. The source of the leak may be holes, cracks (include propagating and non-propagating, longitudinal, and circumferential), separation or pullout, and loose connections." A failure is a "general term used to imply that a part in service has become completely inoperable; is still operable but is incapable of satisfactorily performing its intended function; or has deteriorated seriously, to the point that it has become unreliable or unsafe for continued use." The evidence shows that any documentation related to this leak would have had minimal, if any, engineering significance. Mr. Zurcher testified that pinhole leaks of this type are common and are not relevant to integrity management of a pipeline system. Joint R.T. 870-871 (PG&E/Zurcher). David Harrison testified that the 1988 pinhole leak was not unusual and would not generally have raised questions about the integrity of other parts of Line 132. Joint R.T. 262-64, 568 (PG&E/Harrison). Kris Keas testified that a pinhole leak that has not experienced in-service growth would not necessarily be considered an integrity threat. R.T. 1495 (PG&E/Keas). PG&E pipeline engineer Chih-Hung Lee testified that minor longitudinal weld cracks are "typical" and the documentation relating to the 1988 leak does not indicate any in-service defect growth. R.T. 1893, 1905, 1913 (PG&E/Lee).
33.	The segment with the identified longitudinal seam defect was 0.375 inch wall thickness, X52, 30" DSAW pipe. PG&E installed this segment in 1948. Because the cracks were noted as being pre-service defects, PG&E should have been concerned that its quality	Disputed. The evidence shows that any documentation related to this leak would have had minimal, if any, engineering significance. David Harrison testified that the 1988 pinhole leak was not unusual and would not generally have raised questions about the integrity of other parts of Line 132, as did John Zurcher. Joint R.T. 262-64, 568 (PG&E/Harrison); R.T. 870-871 (PG&E/Zurcher). Kris Keas testified that a pinhole leak that has not experienced in-service growth would not necessarily be considered an integrity threat. R.T. 1495

No.	CCSF Proposed Finding of Fact	PG&E's Response
	control was deficient at the time the segment was installed in 1948. Because PG&E knew about this defect, it 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. (CCSF-4 at p. 10.)	(PG&E/Keas). PG&E pipeline engineer Chih-Hung Lee testified that minor longitudinal weld cracks are "typical" and the documentation relating to the 1988 leak does not indicate any in-service defect growth. R.T. 1893, 1905, 1913 (PG&E/Lee).
34.	PG&E admits that the pipe characteristics of this segment are essentially identical to the pipe characteristics of Segment 180. (Joint RT 567:23-27 (Harrison).)	Undisputed that the referenced segment was almost identical to the pipe that PG&E believed was in place prior to the San Bruno explosion.
35.	PG&E witness Zurcher asserted that PG&E did not need to consider the 1988 weld report because it was irrelevant to PG&E's TIMP. (Joint RT 780:23-781:5 (Zurcher).)	Generally accurate. Mr. Zurcher testified that pinhole leaks of this type are common and are not relevant to integrity management of a pipeline system. Joint R.T. 870-817 (PG&E/Zurcher).
36.	As part of its investigation, the NTSB asked PG&E to "[p]lease provide a listing of all other pipelines, along with corresponding dates, SCADA printouts, and pressure charts, where PG&E has applied its practice of reestablishing MAOP every 5 years as PG&E has indicated it has done on Line 132. Please provide copies of	Generally accurate.

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	all policies, standards, procedures, etc. related to PG&E's practice of reestablishing MAOP on its pipelines." (CCSF-4 (Testimony of John Gawronski (Exhibit 3: PG&E's Amended Data Response, NTSB Exhibit 2-AI of the San Bruno Investigation (Docket No. SA-534)).)	
37.	In response, PG&E asserted that it spiked the pressures on its lines "to avoid [pressure testing] and any potential customer curtailments that may result," and therefore "PG&E has 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." PG&E also attached a copy of Risk Management Instruction, ("RMI-06") "which describes PG&E's process to increase pressure in certain transmission lines every five years for these operational purposes."That policy states "to keep from continually losing operating pressure on pipelines that	PG&E does not agree with the term "spiked" to characterize the planned pressure increases. Otherwise, the cited exhibit speaks for itself.

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	have a potential long seam manufacturing threat, PG&E has made a decision to only reprioritize those pipeline segments that exceeded the historic 5 year MOP plus 10% of the historic 5 year MOP." (CCSF-4 (Testimony of John Gawronski (Exhibit 3: PG&E's Amended Data Response, NTSB Exhibit 2-AI of the San Bruno Investigation (Docket No. SA-534)).)	
38.	Following the NTSB hearings in March 2011, PG&E submitted a letter to the NTSB and the Commission explaining that it had provided the Commission and the NTSB with an incorrect version of RMI-06. PG&E asserts that the version of RMI-06 which it submitted to the NTSB included the cover sheet approval RMI-06 revision 0, but included the body and text of an unauthorized version of RMI-06, revision 1 (referred to below as RMI-06 draft revision 1). PG&E asserts that "we have not identified a cover sheet approval for this RMI-06 revision 1, and we have no indication that it was ever approved." With the letter, PG&E submitted a new version of RMI-06 revision	Generally accurate.

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	1, which PG&E claims is the true version of this document. (CCSF-4: Testimony of John Gawronski (Exhibit 4: NTSB Revised Exhibit 2-AG Overpressurization Requirement RMI-06 Rev 00 and Rev 1).)	

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Division of Ratepayer Advocates' Proposed Findings of Fact

No.	DRA Proposed Finding of Fact	PG&E's Response
	I. FINDINGS OF FACT TO SUPPORT DISALLOWANCES FOR UNREASONABLE ERRORS AND OMISSIONS	
I-1.	The overwhelming weight of the evidence shows that PG&E has committed unreasonable errors and omissions with regard to its gas transmission records and integrity management program for which the remediation will cost far more than $50 million.	Disputed. This statement is DRA's conclusion which PG&E disputes. 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.
I-2.	Every report on the San Bruno explosion correctly concludes that PG&E's integrity management program was deficient.	Disputed, as DRA does not identify the referenced reports or the relevant portions thereof. "Every report" is overly-broad and does not assert a meaningful factual finding, nor is "deficient" appropriately specific. PG&E does not dispute that the NTSB Report 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. San Bruno Ex. PG&E-1, Chapter 4 (PG&E/Keas); Joint R.T. 1210 (PG&E/Keas); San Bruno Ex. PG&E-1, Chapter 5 (PG&E/Zurcher) (evidence cross-admitted into Records OII).
I-3.	The NTSB correctly found that PG&E's pipeline integrity management program, which should have ensured the safety of the system, was deficient and	Disputed. PG&E's data gathering was consistent with industry standards and regulatory requirements (as confirmed by CPSD in both its 2005 and 2010 audit of PG&E's integrity management program). Joint R.T. 797-98 (PG&E/Zurcher); San Bruno Ex. PG&E-1, Chapter 4 (PG&E/Keas); San Bruno Ex. PG&E-1,

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	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.	Chapter 5 (PG&E/Zurcher) (evidence cross-admitted into Records OII).
I-4.	The NTSB correctly concluded that PG&E's integrity management program led to internal assessments that were superficial and resulted in no improvements.	Disputed. No one with knowledge of the NTSB's basis for the referenced statement testified and was subjected to cross-examination in this proceeding. The evidence in the record 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. PG&E's data gathering was consistent with industry standards and regulatory requirements. 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. Joint R.T. 797-98 (PG&E/Zurcher); San Bruno Ex. PG&E-1, Chapter 4 (PG&E/Keas); San Bruno Ex. PG&E-1, Chapter 5 (PG&E/Zurcher) (evidence cross-admitted into Records OII).
I-5.	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.	Disputed. No one with knowledge of the IRP's basis for the referenced statement testified and was subjected to cross-examination in this proceeding. The evidence in the record 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. PG&E's data gathering was consistent with industry standards and regulatory requirements. 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. Joint R.T. 797-98 (PG&E/Zurcher); San

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		Bruno Ex. PG&E-1, Chapter 4 (PG&E/Keas); San Bruno Ex. PG&E-1, Chapter 5 (PG&E/Zurcher) (evidence cross-admitted into Records OII).
I-6.	A form of PG&E's gas transmission integrity management program has been in place for nearly 30 years.	Disputed. To the extent DRA references PG&E's Gas Pipeline Replacement Program (GPRP), GPRP and the integrity management rules were two entirely distinct programs, separated by two decades and subject to different purposes, rules and considerations.
I-7.	PG&E has not met its burden of proving its defenses.	Disputed. With one exception, PG&E has not asserted affirmative defenses. PG&E has no burden of proof; CPSD bears the burden of proof. PG&E RB, Section III.B.
I-8.	PG&E's integrity management program lacked reliable data from the beginning.	Disputed. This is not a fact; it is a conclusion that PG&E disputes.
I-9.	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.	Disputed. There is no evidentiary support for this statement. See PG&E's Reply Brief at Section III.C.2.
I-10.	PG&E's expert testimony that its integrity management program met regulatory requirements and industry standards is not credible and should be disregarded.	Disputed. Mr. Zurcher is not just an expert in federal pipeline safety regulations, he was the primary author of the initial ASME B31.8S standard incorporated into the Subpart O of the federal regulations. He served as Chair of the ASME B31.8S committee through 2005, and continues to serve as a member of the committee. He has numerous other impeccable credentials establishing his expertise in matters relating to gas pipeline safety. Joint R.T. at 833-837 (PG&E/Zurcher).
I-11.	The evidence shows that PG&E was not complying with integrity management	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

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	regulatory requirements or industry standards.	audits. PG&E's data gathering was consistent with industry standards and regulatory requirements. 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. Joint R.T. 797-98 (PG&E/Zurcher); San Bruno Ex. PG&E-1, Chapter 4 (PG&E/Keas); San Bruno Ex. PG&E-1, Chapter 5 (PG&E/Zurcher) (evidence cross-admitted into Records OII).
I-12.	PG&E's expert witnesses intentionally ignored well-documented evidence that PG&E's integrity management records have significant errors and omissions.	Disputed. This is not a fact; it is an unsupported assertion that PG&E disputes. PG&E's expert witnesses incorporated all information necessary to formulate their respective opinions and testimony provided in this proceeding.
I-13.	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.	Disputed. This is not a fact; it is a disputed characterization. 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-61 at 3-6 to 3-10 (PG&E/Zurcher). Inaccurate data would be identified through integrity management processes, such as assessments, and corrected. Joint R.T. 663 (PG&E/Zurcher).
I-14.	PG&E's expert witnesses correctly 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.	Generally accurate.
I-15.	The evidence shows that	Disputed. PG&E's two-step data gathering process

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	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.	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. R.T. 1168 - 1181 (PG&E/Keas).
I-16.	One of PG&E's integrity management witnesses joined PG&E after the San Bruno explosion and could not testify from personal experience 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.	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 originally prepared by PG&E's then integrity management manager, who had direct percipient knowledge of the facts. Ex. PG&E-61 at 6-6 (Statement of Qualifications re Chapter 3E).
	II. FINDINGS OF FACT SUPPORTING DENIAL OF PG&E'S DUE PROCESS CLAIMS	
II-1.	The San Bruno explosion was not the first time that PG&E was put on notice of its significant record keeping deficiencies.	Disputed. As explained in PG&E's Reply Brief at Section III.C.2, the evidence that DRA attempts to marshal does not establish notice in any way comparable to what existed in Cingular. *See also* PG&E's OB at 34-37.
II-2.	Many factors, including Commission decisions, Commission safety investigations, and internal PG&E documents put PG&E on notice that its gas	Disputed. As explained in PG&E's Reply Brief at Section III.C.2, the evidence that DRA attempts to marshal does not establish notice in any way comparable to what existed in Cingular. *See also* PG&E's OB at 34-37. Moreover, Ms. Halligan testified on cross-examination that she was not aware of an

No.	DRA Proposed Finding of Fact	PG&E's Response
	recordkeeping and integrity management practices were unsafe and in violation of § 451.	instance where CPSD or the Commission had communicated an expectation that gas utilities will use "best engineering practices." R.T. at 82-85 (CPSD/Halligan); Ex. PG&E-6. Moreover, Commission staff have been auditing PG&E's records for decades without raising the violations it now asserts in this proceeding. *See* Ex. PG&E-8 & 10-17.
II-3.	In 1981, the NTSB investigated a gas pipeline leak in San Francisco where PG&E took 9 hours and 10 minutes to stop the flow of gas because it could not locate one emergency valve due to inaccurate records.	Disputed. This is an incomplete account of the conclusions from the NTSB's accident investigation. A 1982 NTSB accident investigation (referenced in the NTSB's August 30, 2012 San Bruno Accident report) identified inaccurate recordkeeping as one contributing cause of delay in PG&E's response to that 1981 incident (which was the record of the specific location of a valve that had been paved over).
II-4.	Bechtel advised PG&E in 1984 of the risk to its integrity management program caused by missing pipeline data, and the need for additional research to resolve these "uncertainties."	Disputed. PG&E did not have a risk management or integrity management program in 1984. It was in the beginning stages of implementing GPRP. In any event, problems of missing pipeline data are not unique to PG&E. They have been observed throughout the natural gas pipeline industry and regulations and standards have specifically been drafted to take account of them.. *See* Ex. PG&E-61 at 1-12 through 1-15.
II-5.	As observed by the NTSB, incidents in San Francisco in 1981 and the 2008 Rancho Cordova explosion put PG&E on notice that many of its practices were deficient, unsafe, and needed to be modified.	Disputed. The proposed finding is too broad and conclusory. The NTSB's 1982 accident report identified a particular records inaccuracy (the record of a specific emergency valve location) and does not support the statement that "many" of PG&E's "practices were deficient, unsafe, and needed to be modified." Moreover, as summarized in the NTSB's 2011 San Bruno Accident Report, the NTSB did not assert that the cause of the 2008 Rancho Cordova accident was in any way related to records or the gas transmission system.
II-6.	A 2009 PG&E-commissioned audit of its integrity management risk	Disputed. As stated in the 2009 audit, "The current PG&E RA [Risk Assessment] methodology is in fact consistent with models in widespread use several years

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	algorithm put PG&E on notice that the its risk assessment methodology suffered from "significant weaknesses"	ago and still today by many pipeline operators." Ex. Joint-48 at 2. Moreover, the shortcomings discussed were described in the report as "possible weaknesses[.]" *Id*. at 3. The audit stated that there were no errors made in the methodology employed by PG&E to do risk assessment. Joint R.T. 1235-36 (PG&E/Keas). Moreover, PG&E has addressed the potential weaknesses identified in the audit. Joint R.T. 1200-04 (PG&E/Keas).
II-7.	D. 61269, the decision that adopted General Order 112 – the gas safety regulations – put the utilities on notice in Finding and Conclusion Number 8 that nothing in those "precautionary safety rules" removed or minimized their "primary obligation and responsibility ... to provide safe service and facilities in their gas operations." It concluded: "Officers and employees of the [gas utilities] must continue to be ever conscious of the importance of safe operating practices and facilities and of their obligation to the public in that respect."	Generally accurate with the clarification that nothing in D. 61269 put utilities on notice of any particular legal standards other than the specific standards set forth in GO 112. Nothing in D.61269 put utilities on notice that Section 451 would be used as pipeline safety law. Isolated statements contained in the Commission decision that adopted GO 112 in 1960 do not create enforceable standards or impart sufficient notice.
	III. FINDINGS OF FACT SUPPORTING ADOPTION OF AN INDEPENDENT THIRD PARTY MONITOR	
III-1.	The evidence shows that for at least the last 30 years PG&E has not had an effective and systematic	Disputed. In fact, the testimony showed that PG&E's IM group is constantly improving the data it relies upon in doing assessments and has a process by which field personnel can identify inaccuracy and update GIS. *See*

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No.	DRA Proposed Finding of Fact	PG&E's Response
	program for maintaining its gas pipeline records and that it has not engaged in the iterative process to update the records relied upon by its integrity management program.	PG&E's Opening Brief at 126. Allegations that PG&E lacked a program for maintaining its gas pipeline records was also rebutted by the testimony of Maura Dunn and David Harrison. *See* PG&E's Opening Brief at 137-142;
III-2.	The Commission's failure to detect the inadequacies of PG&E's pipeline integrity management program contributed to the San Bruno Explosion, but does not excuse PG&E's unreasonable conduct.	Disputed. This is not a fact; it is a conclusion that rests on an unproven fact. PG&E disputes both the unproven fact (that PG&E's integrity management program was inadequate) and its conclusion (that the Commission's failure to detect the inadequacies contributed to the accident, but did not excuse PG&E's unreasonable conduct).
III-3.	Independent third party monitors are often used on large scale public works projects where independent monitors are on site, inspecting the work being performed on a daily basis as an additional check to ensure that the work is being done properly and the public is getting what it is paying for.	Disputed. This issue is outside the scope of this phase of the proceedings and should not be considered until the fines and remedies phase.
III-4.	It is not uncommon for independent monitors to be employed in response to destructive oil and gas pipeline incidents.	Disputed. This issue is outside the scope of this phase of the proceedings and should not be considered until the fines and remedies phase.

I.11-02-016 Order Instituting Investigation Re Facilities Records For PG&E Natural Gas Transmission System Pipelines

APPENDIX B

PG&E'S RESPONSES TO INTERVENORS' PROPOSED CONCLUSIONS OF LAW

Preliminary Statement: PG& E responds below to the Proposed Conclusions of Law filed by Intervenors, the City and County of San Francisco and the Division of Ratepayer Advocates. CPSD did not file Proposed Conclusions of Law. Most of the Intervenors' Proposed Conclusions of Law are actually allegations of legal violations against PG&E. PG&E objects to each alleged violation CCSF and DRA assert. Only CPSD can lawfully allege violations against PG&E in an enforcement proceeding; Intervenors have no authority to do so. In respondin g to the Proposed Conclusions of Law below, PG&E provides citations to sections in its Opening Brief and Reply Brief that address the Proposed Conclusion of Law or the related legal issue. PG&E provides these responses only for purposes of this proceeding, I.11-02-016.

Responses To City And County Of San Francisco's Proposed Conclusions Of Law

No.	CCSF Proposed Conclusion of Law	PG&E's Response
1.	Gas is a highly combustible and volatile element, possessing explosive characteristics under certain conditions. (PGE-4 – D. 61269 Adopting General Order 112 at p. 5.)	This is not a conclusion of law.
2.	Section 451 requires every public utility to "furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities.....as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public." (PUC § 451).	What Section 451 requires is addressed in the section as a whole, not in selected excerpts. In any event, it is not appropriate to apply Section 451 in this enforcement proceeding, as explained in detail in PG&E's opening brief and this reply brief. *See* PG&E Opening Brief at 24-33.
3.	Adequate recordkeeping is a key component of any reasonable utility program to maintain gas pipelines in a manner that promotes the safety, health, comfort and convenience of its patrons, employees and the public. Adequate records are needed to identify the location, vintage and design of particular equipment in order to maintain and test them accordingly. Adequate records are needed to put into	This is not an appropriate conclusion of law. While PG&E does not dispute the reasons adequate records are desirable, the proposed conclusion of law does not state a legal standard so much as it justifies the need for records. As such, it does not provide a rule of decision or define "adequate recordkeeping." This proposed explanation of "adequate recordkeeping" has no citation reference either to legal authority or evidence adduced at the hearings. This proceeding

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
	place appropriate limits on pipeline pressure, and to provide for appropriate and timely tests. Adequate records are needed to ensure timely identification and correction of potential safety issues.	spanned over 50 years of recordkeeping practices that evolved over time, based on regulatory, technological, and industry changes. Defining adequate recordkeeping as proposed in these statements does not account for these changes, and is therefore inaccurate. *See* PG&E Opening Brief at 20-39; *See* PG&E Reply Brief at 15-27.
4.	Section 451 does not require "that there must be another statute or rule or order of the Commission that has been violated [in order] for the Commission to determine there has been a punishable violation." (*PacBell Wireless v. PUG* (2006) 140 Cal.App. 4th 718, 740.) In other words, Section 451 establishes a separate and distinct basis for the Commission to take action against a utility for safety violations.	Section 451 cannot serve as an independent source of law for determining gas safety violations. The industry standards PG&E is alleged to have violated were voluntary guidelines without the force of law. *See* PG&E Opening Brief at 24-33.
5.	"Utilities are held to a standard of reasonableness based upon the facts that are known or should be known at the time. While this reasonableness standard can be clarified through the adoption of guidelines the utilities should be aware that guidelines are only advisory in nature and do not relieve the utility of its burden to show that its actions were reasonable in light of circumstances existent at the time." (D.90-09-088 at p.22)	This cited language appears in a Commission decision that is inapplicable here because it did not involve an enforcement proceeding. This is not a proceeding in which the Commission may make prudence or other rate-making determinations. It is an enforcement proceeding. *See* PG&E Opening Brief at 24-33.
	<u>Applicable Natural Gas Safety Standards and Regulations</u>	
6.	ASA B.31.1.8 standard was intended to cover the design, fabrication, installation, inspection, testing, and the safety aspects of operation and	The 1955 and 1958 ASA B31.1.8 voluntary industry standard had limited retroactive application. Among other things, many of its provisions were not intended to apply to

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
	maintenance of gas transmission and distribution systems. (PG&E-47 (ASA B.31.1.8 §804.1.)	existing installations. Ex. PG&E-47 (ASA B31.1.8 § 804.6).
7.	Under ASA B.31.1.8, operators were required to pressure test newly installed transmission lines, and maintain records of those tests for the life of those pipelines. (PG&E-47 (ASA B.31.1.8 §§ 841.411; 841.412; and 841.417.)	The ASA B31.1.8 Code did not "require" operators to pressure test newly installed transmission lines, and maintain records of those tests for the life of the pipelines. ASA B31.1.8 was a collection of recommended industry practices, and compliance with ASA B31.1.8 was voluntary until it was incorporated, as modified, by GO 112 in 1961. Ex. PG&E-61 at 4-6 (PG&E/Harrison). *See* PG&E Opening Brief at 69; *See* PG&E Reply Brief at 48-49. In fact, at the time of ASA B31.1.8's adoption in 1955 pressure testing of newly installed transmission lines was not yet a common industry practice. R.T. at 1735 (PG&E/Zurcher). Further, this Conclusion of Law contradicts CCSF's Conclusion of Law 17 below.
8.	Under ASA B.31.1.8, operators were required to have necessary records to calculate the appropriate MAOP for each pipeline segment based on the lowest of the design pressure using Barlow's equation, or the highest pressure reached during pressure tests. (PG&E-47 (ASA B.31.1.8 § 841.412(d).)	The ASA B31.1.8 Code did not "require" operators to have necessary records to calculate the appropriate MAOP for each pipeline segment. The Commission understood that it was a voluntary industry standard generally followed by California gas utilities. *See* Ex. PG&E-4 at 6. (PG&E/Harrison), PG&E Opening Brief at 37-39; *See* PG&E Reply Brief at 33-34. Moreover, ASA B31.1.9 did not apply retroactively to existing installations. (PG&E-47 (ASA B.31.1.8 § 804.6)).
9.	In order to calculate the design pressure of a pipeline using Barlow's equation, an operator must know the SMYS of the pipeline, the nominal wall thickness of the pipeline, nominal outside diameter of the pipeline,	This is not a conclusion of law.

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
	construction type or class location factor for where the pipeline will be located, the longitudinal joint factor of the pipeline, and the temperature derating factor of the pipeline. (PG&E-47 (ASA B.31.1.8 § 841.1.)	
10.	In D.61269, the Commission adopted General Order ("G.O.") 112, because it determined that a general order relating to gas piping systems was necessary to promote and safeguard public health and safety and to promote the maintenance of adequate gas service to the public and is in the public interest. (PGE-4 – D. 61269 Adopting G.O.112 at p. 11.)	This is not a conclusion of law. The Commission's reasons for adopting GO 112 are stated in D.61269. The statement here identifies only one of many considerations the Commission articulated in that decision. *See* PG&E Reply Brief at 19-21.
11.	The Commission has an obligation under the Public Utilities Code to ensure the safe service of natural gas, which obligation is independent of a natural gas operator's compliance with ASA B.31.1.8. (PGE-4 – D. 61269 Adopting General Order 112 at p. 6.)	The page cited by CCSF does not support this statement. Moreover, the Commission that adopted GO 112 did not perceive its "obligations" to be "independent" of ASA B31.1.8. To the contrary, the Commission explicitly incorporated ASA B31.1.8 as modified into GO 112 and stated its intent that the requirements of GO 112 "are adequate for safety under conditions normally encountered in the gas industry." *See* PG&E Reply Brief at 33-39; Ex. PG&E-4 (GO 112, § 104.1).
12.	Public utilities serving or transmitting gas bear a great responsibility to the public respecting the safety of their facilities and operating practices. (PGE-4 – D. 61269 Adopting G.O.112 at p. 12, Finding 11.)	The correct citation is to Finding 7, not 11.
13.	No code of safety rules, no matter how carefully and well prepared, can be relied upon to guarantee complete freedom from accidents. Moreover, the	This is not a conclusion of law. It is paraphrased from a finding of fact in a prior Commission decision.

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
	promulgation of precautionary safety rules does not remove or minimize the primary obligation and responsibility of natural gas operators to provide safe service and facilities in their gas operations. Officers and employees of natural gas operators must continue to be ever conscious of their obligation to the public in regards to safety. (PGE-4 – D. 61269 Adopting G.O.112 at p. 12, Finding 8.)	
14.	G.O. 112 imposed minimum requirements for design, construction, quality of materials, location, testing, operation and maintenance of facilities used in the transmission and distribution of gas, to safeguard life or limb, health, property and public welfare and to provide that adequate service will be maintained by gas utilities. (PGE-4 – G.O. 112 § 102.1 at p. 1.)	Not disputed subject to the understanding that "minimum requirements" does not necessarily imply the existence of stricter requirements. To the contrary, the Commission's intent was that the "requirements of these rules are adequate for safety under conditions normally encountered in the gas industry." It stated further that "all work performed within the scope of these rules shall meet or exceed the safety standards expressed or implied herein. *See* PG&E Opening Brief at II(B), III(B), Ex. PG&E-4 (GO 112, § 104.1).
15.	Compliance with G.O. 112 does not relieve natural gas operators from complying with any statutory requirements. (PGE-4 – G.O. 112 § 104.4 at p. 1.)	Not disputed subject to the understanding that the term "any statutory requirements" was not meant to refer to any matters within the scope of GO 112. To the contrary, the Commission stated that requirements of GO 112 were themselves adequate for safety under normal operating conditions. Ex. PG&E-4 (GO 112, § 104.1). It required utilities to meet or exceed them for work performed "within the scope of these rules." *Id.*
16.	Under G.O. 112, utilities must maintain necessary records to establish compliance with the G.O. Utilities must make such records available for	Not disputed, but irrelevant. CPSD does not allege a violation of GO 112, § 301.1 in this proceeding. Its alleged violations of GO 112 are all expressly predicated on Section 107.

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	inspection by the Commission or the Commission staff at all times. (CCSF-1 Integrated GO 112 with ASA B.31.8 – 1958, § 301.1.)v	
17.	Beginning in 1961, natural gas operators in California were required to construct and operate gas transmission and distribution facilities in compliance with the ASA B.31.8. – 1958 standard. (PGE-4– G.O. 112 § 107.1 at p. 2.)	Not disputed.
18.	G.O. 112 required natural gas operators to pressure test newly installed transmission lines and maintain records of those tests for the life of those pipelines. (CCSF-1 – Integrated G.O.-112 with ASA B.31.8 –1958, § 209.1 (841.411, 841.417.)	Not disputed.
19.	G.O. 112 required operators to have necessary records to calculate the appropriate MAOP for each pipeline segment based on the lowest of the design pressure using Barlow's equation, or the pressure obtained by dividing pressures recorded during a pressure test by certain class location factors. (CCSF-1 – Integrated G.O.-112 with ASA B.31.1.8 – 1958, § 209 (Table 841.412(d).)	The cited provision addressed how a gas utility was to calculate MAOP. It did not specify any requirements concerning records. In the case of pipelines installed prior to July 1961, Table 841.412(d) could not have required operators to have necessary records to calculate the appropriate MAOP because GO 112 expressly did not apply to existing installations in so far as their "established operating pressure" was concerned. Ex. PG&E-4 (GO 112, § 104.3). Moreover, GO 112 did not impose any recordkeeping requirements with respect to the initial design, fabrication, installation, established operating pressure, and testing of facilities installed prior to July 1961. PG&E Opening Brief at II(B), III(B), Ex. PG&E-4.
20.	The Department of Transportation enacted federal safety regulations in 1970.	More specifically and more accurately, the Department of Transportation promulgated federal natural gas pipeline safety regulations

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		in 1970.
21.	In D.78513 the Commission adopted G.O. 112-C and incorporated by reference the new federal regulations. (D.78513 at p. 3.)	Not disputed.
22.	G.O. 112-C states "the responsibility for the maintenance of necessary records to establish that compliance with these rules has been accomplished rests with the utility. Such records shall be available for inspection at all times by the Commission or the Commission staff. (G.O. 112-C § 121.1.)	Not disputed.
23.	Pursuant to federal regulations, natural gas operators are required to pressure test all new transmission lines and keep records of those pressure tests for the useful life of the pipeline. (49 CFR § 192.517.)	Not disputed.
24.	Section 192.709 requires natural gas operators to keep records of the date, location, and description of each repair made to pipe (including pipe-to-pipe connections) and to retain those records for as long as the pipe remains in service.	The correct citation is 49 C.F.R. § 192.709(a).
25.	Section 192.619(a) also requires operators to calculate the MAOP of a pipeline using the lowest of design pressure using Barlow's formula, test pressure, or the pressure obtained by dividing pressures recorded during a pressure test by certain class location factors.	This proposed conclusion of law is incorrect to the extent that it suggests or implies that Section 192.619(a) applied to all pipe segments. Section 192.619(a) only applies where Section 192.619(c) does not. Section 192.619(c) makes clear that the "requirements on pressure restrictions in this section do not apply"' to certain categories of pipe, including pipe grandfathered under Section 192.619 (c)(3). PG&E Opening

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		Brief at II(B).
26.	Section 192.619(c) allows operators to set the MAOP of a pipeline based on highest actual operating pressure the pipe was subjected to from July 1, 1965 to July 1, 1970, if the pipeline is found to be in satisfactory condition considering its operating and maintenance history.	Not disputed.
27.	PG&E's arguments about the intent and purpose of the grandfather clause are unfounded.	The proposed conclusion of law has no supporting citations or references thus it is unclear what arguments it purports to refute or reject. The grandfather clause was implemented "to allow existing pipelines to stay in the ground" without retroactively applying recordkeeping requirements or requiring pressure tests. PG&E Opening Brief at II(B); R.T. 739 (PG&E/De Leon); *see also* Ex. PG&E-63 (Tab 1-1) (May 2012 PHMSA Advisory Bulletin).
28.	Setting a pipeline's MAOP and the record keeping obligations for those pipelines are two distinct issues. Operating a pipeline pursuant to the grandfather clause does not excuse the record keeping obligations associated with those pipelines. (RT 1072:12-15 (Phillips).).	The first statement lacks evidentiary support. Both statements are inconsistent with PHMSA May 2012 Advisory Bulletin discussing, among other things, the grandfather clause. *See* Ex. PG&E-63 (Tab 1-1) ("The third method, often referred to as the "grandfather clause," allows pipelines that had safely operated prior to the pipeline safety MAOP regulations to continue to operate under similar conditions without retroactively applying recordkeeping requirements or requiring pressure tests"); R.T. 1338 (PG&E/Howe).
29.	The Department of Transportation indicated when it adopted the regulations that it expected that operators would have detailed records	In the case of grandfathered pipe the statement is inaccurate. *See* Ex. PG&E-63 (Tab 1-1) ("The third method, often referred to as the "grandfather clause," allows

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
	of its pipe and components to be able to calculate MAOP based on the weakest element in the pipeline system, and that operators would have pressure test records to validate the MAOP. (CCSF-4, Exhibit 1 (35 Federal Register 13248 (August 19, 1970) (Exhibit 1).)	pipelines that had safely operated prior to the pipeline safety MAOP regulations to continue to operate under similar conditions without retroactively applying recordkeeping requirements or requiring pressure tests"); *see also* PG&E Opening Brief at II(B); R.T. 1338 (PG&E/Howe). As stated by the Federal Power Commission, "This Commission has reviewed the operating record of the interstate pipeline companies and has found no evidence that would indicate a material increase in safety would result from requiring wholesale reductions in the pressure of existing pipelines which have proven capable of withstanding present operating pressures through actual operation." Ex. CCSF-4, Exhibit 1 (35 Fed. Reg. 13,248 (Aug. 19, 1970)). In view of these statements, "a 'grandfather' clause has been included in the final rule to permit continued operation of pipelines at the highest pressure to which the pipeline had been subjected during the 5 years preceding July 1, 1970." *Id.* The Department of Transportation did not indicate that the grandfather clause required analysis or calculation of MAOP.
30.	The Department of Transportation allowed grandfathered pressures because it assumed the pipelines that grandfathered pipelines would primarily be those pipelines that: (a) had been installed from 1935 to 1951; and (b) either applied lower class location design factors than the industry applied since 1952 up until the 1968, or had only been tested to 50 psi above the MAOP. (*Id.*)	The statement is wrong. The final rule does not limit the grandfather clause's application to lines installed from 1935 to 1951. The statement fails to acknowledge that the Federal Power Commission found "no evidence that would indicate a material increase in safety would result from requiring wholesale reductions in the pressure of existing pipelines which have been proven capable of withstanding present operating pressures through actual operation." 35 Fed. Reg. 13248 (Federal Power Commission letter to the Office of Pipeline Safety). Prior to San Bruno, operators were authorized to

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		establish MAOP for existing lines based on the highest pressure experienced during the five year period between 1965 and 1970. *E.g.,* R.T. 432 (CPSD/Felts); R.T. 739 (PG&E/De Leon); R.T. 1338 (PG&E/Howe).
31.	If the operators lacked pressure test records and could not determine the MAOP based on the weakest element, the Department of Transportation would not have considered the historic operating pressure to be safe. (CCSF-4 (Testimony of John Gawronski at p. 8.)	This conclusion is not accurate. CCSF attempts to rewrite history. As stated in the Federal Register, in a letter to the Office of Pipeline Safety, the Federal Power Commission stated: "This Commission has reviewed the operating record of the interstate pipeline companies and has found no evidence that would indicate a material increase in safety would result from requiring wholesale reductions in the pressure of existing pipelines which have been proven capable of withstanding present operating pressures through actual operation. 35 Fed. Reg. 13248. Prior to San Bruno, operators were authorized to establish MAOP based on the highest pressure experienced during the five year period between 1965 and 1970. *E.g.,* R.T. 432 (CPSD/Felts); R.T. 739 (PG&E/De Leon); R.T. 1338 (PG&E/Howe).
32.	The Commission has already rejected PG&E's assertion that "until the NTSB recommendations it had no obligation to maintain accurate and accessible records of the components of its natural gas transmission system because the historical exemption provision of 49 C.F.R. § 192.619(c) did not require these records." (D12-12-30 at p. 95.)	Commission determinations in D.12-12-030 are the proper subject for that proceeding, which was addressing ratemaking issues. There is no evidentiary basis for such determinations in this enforcement proceeding.
33.	In order to validate the MAOP under of 49 C.F.R. § 192.619(c), PG&E was required to operate its pipelines at the lowest pressure based on: (1) the design pressure, (2) the pressure obtained by dividing pressure test	Prior to San Bruno, operators were authorized to establish MAOP based on the highest pressure experienced during the five year period between 1965 and 1970. *E.g.,* R.T. 432 (CPSD/Felts); R.T. 739 (PG&E/De Leon); R.T. 1338 (PG&E/Howe). The first

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	records by certain class location factors, or (3) the highest actual operating pressure to which the segments was operated from July 1, 1965 to July 1, 1970. (49 C.F.R. §192.619(a).)	two factors listed by CCSF play no role in the determination of MAOP under Section 192.619(c).
34.	If PG&E had calculated the MAOP of its pipelines pursuant to § 192.619(a), it would not have needed to use the grandfather clause (§192.619(c)).	This proposed conclusion of law is vague and an incorrect assertion of law. Prior to San Bruno, operators were authorized to establish MAOP based on the highest pressure experienced during the five year period between 1965 and 1970. *E.g.,* R.T. 432 (CPSD/Felts); R.T. 739 (PG&E/De Leon); R.T. 1338 (PG&E/Howe); PG&E Opening Brief at 71; *See* PG&E Reply Brief at 47.
	How PG&E's Record Affect Its Transmission Integrity Management Program	
35.	PG&E'S poor record keeping has negatively affected its transmission integrity management program.	This proposed conclusion of law is vague and unsubstantiated by evidence. PG&E's data gathering and quality are not deficient as a matter of law. Ex. PG&E-1c at 4-5 to 4-12 (PG&E/Keas). PG&E Opening Brief at Violations 24 and 25; *See* PG&E Reply Brief at Violations 24 and 25.
36.	Given that PG&E is endeavoring to entirely re-create its database of pipeline records, and is not using the information available in GIS 2.0 in its GIS 3.0 database, it is reasonable to conclude that PG&E's GIS 2.0 is not reliable for use in PG&E's day-to-day gas operations.	This proposed conclusion of law is vague and unsubstantiated. GIS data is generally not PG&E's primary source of data for most day-to-day pipeline operations and is just one component of a much broader data gathering and integration process. R.T. 2212-13 (PG&E/Keas); PG&E Opening Brief at Violations 24 and 25; *See* PG&E Reply Brief at Violations 24 and 25. The fact that, post accident, PG&E decided the appropriate way to update its GIS, given the new demand for traceable, verifiable and complete records of MAOP, was to create a new GIS 3.0 without

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No.	CCSF Proposed Conclusion of Law	PG&E's Response
		reference to GIS 2.0, proves nothing.
37.	If PG&E's GIS system had accurately reflected the pipeline specifications PG&E asserts were contained in its job file for Segment 180, and PG&E had faithfully complied with the Integrity Management rules, then it is likely that PG&E would have examined Segment 180 for similar longitudinal defects prior to September 2010.	This proposed conclusion of law is unsubstantiated. The error in GIS that referred to Segment 180 as "seamless" rather than DSAW did not affect how the pipe was assessed under Integrity Management rules. DSAW pipe has the same joint efficiency factor (1.0) as does seamless pipe. R.T. 1491-1492 (PG&E/Keas); R.T. 1701-1703 (PG&E/Keas); R.T. 1892 (CPSD/Chih-Hung Lee). Segment 180 would have received the same treatment had PG&E's GIS reflected the specifications contained in the job file (i.e. that it was constructed from DSAW pipe). PG&E Opening Brief at Violation 24; *See* PG&E Reply Brief at Violation 25. Neither DSAW nor seamless pipe is considered to be subject to a potential manufacturing threat. Joint R.T. 992-93 (PG&E/Keas); PG&E's Initial Response, Chapter 4, April 18, 2011.
38.	Operators are required to consider information on the operation, maintenance, patrolling design, operating history, and specific failures and concerns that are unique to each system and segment will be needed. (49 C.F.R. §192.917(b); See also Ex. Joint-28 (ASME B.31.8S section 2.3.2).)	This statement is inaccurate. Operators *must* gather and evaluate the set of data specified in Appendix A to ASME B31.8S, and *consider* 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).
39.	PG&E's admitted confusion surrounding draft procedures and misplaced cover sheets demonstrates that PG&E's control over important Integrity Management protocols has been lacking. The procedure at issue concerned PG&E's practice of raising the pressure on its pipelines. PG&E's difficulties in providing prompt and	This statement is inaccurate. The practice of raising pressure to MAOP was common in the natural gas pipeline industry from 2002-2010. Joint R.T. 782-86 (PG&E/Zurcher). PG&E discontinued the practice following San Bruno. San Bruno Ex. PG&E-1c at 4-25 (PG&E/Keas). The cover sheets are unrelated to PG&E's practice of raising MAOP, or changes thereto, and are therefore

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	accurate answers regarding its procedures demonstrates that PG&E has failed to comply with the TIMP management of change requirements. (49 C.F.R. § 192.909(a).)	irrelevant to the management of change requirement.

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Responses To Division Of Ratepayer Advocates' Proposed Conclusions of Law

No.	DRA Proposed Conclusion of Law	PG&E's Response
	I. CONCLUSIONS OF LAW TO SUPPORT DISALLOWANCES FOR UNREASONABLE ERRORS AND OMISSIONS	
I-1.	The hearsay testimony of PG&E's integrity management witness should be given very little weight.	DRA's hearsay objection is unfounded. The vast majority of the "evidence" on which DRA (and CPSD) relies – such as the NTSB Report, the IRP Report, and the Felts Report – constitutes multiple hearsay.
I-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 that result in added costs of more than $50 million.	Section 463 is inapplicable to this enforcement proceeding. Section 463 applies in certain cases of rate recovery and ratesetting, which is outside of the scope of the present enforcement proceeding. Pub. Util. Code §463 (discussing the Commission's authority to disallow expenses associated with unreasonable error in ratesetting context). The parties' 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. *See* PG&E's Reply Brief at Section III.B.4.
I-3.	The Commission has relied upon § 463 and on its general ratemaking authority on many occasions to disallow costs resulting from unreasonable utility errors and omissions, and should do so here.	Section 463 is inapplicable to this enforcement proceeding. Section 463 relates to the context of rate recovery and ratesetting, which is outside of the scope of the present enforcement proceeding. Pub. Util. Code §463 (discussing the Commission's authority to disallow expenses associated with unreasonable error in ratesetting context). The parties' attempt to use Section 463 to, in effect, impose duplicative and continuing penalties into the future against PG&E based

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No.	DRA Proposed Conclusion of Law	PG&E's Response
		on findings in an enforcement proceeding is not supported by the statute, Commission precedent or due process. *See* PG&E's Reply Brief at Section III.B.4.
I-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.	*Order Instituting Rulemaking*, D.12-12-030, 2012 Cal. PUC LEXIS 600, left open the possibility of further rate adjustments ***in that proceeding*** based on findings the Commission may make here. Nothing in that decision suggests that it is constitutional or that the Commission intended after the evidentiary hearings to convert this enforcement proceeding into another ratesetting case.
I-5.	D.12-12-030 expressly provided for the possibility of refunds based on findings in this proceeding.	*Order Instituting Rulemaking*, D.12-12-030, 2012 Cal. PUC LEXIS 600, left open the possibility of further rate adjustments ***in that proceeding*** based on findings the Commission may make here. Nothing in that decision suggests that it is constitutional or that the Commission intended after the evidentiary hearings to convert this enforcement proceeding into another ratesetting case.
I-6.	To the extent the parties to this proceeding have shown that PG&E has committed errors or omissions resulting in added costs of 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 ratesetting proceeding. There is no evidentiary basis for such determinations in this enforcement proceeding. This proceeding is not to determine if PG&E "committed errors or omissions resulting in added costs." It is to determine only if PG&E committed violations of law.
I-7.	Pursuant to D.12-12-030 and sections 451 and 463, the Commission should order disallowances based on PG&E's unreasonable errors and omissions in R.11-02-019.	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.

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No.	DRA Proposed Conclusion of Law	PG&E's Response
	II. CONCLUSIONS OF LAW SUPPORTING DENIAL OF PG&E'S DUE PROCESS CLAIMS	
II-1.	PG&E's constitutional due process claims that § 451 is void for vagueness or that it did not have appropriate notice that it could be fined for gas safety violations under § 451 have no merit.	Section 451 is a ratemaking provision. It cannot serve as a free-floating source of pipeline safety requirements. Section 451 does not by its terms give notice of any safety or recordkeeping standard. PG&E Opening Brief at 24-37.
II-2.	The Commission has held in Carey v. Pacific Gas & Elec., D.99-04-029, and the Appellate Court has affirmed in Pacific Bell Wireless, LLC v. Public Utilities Commission, 140 Cal. App. 4th 718, 741-742 (2006), that § 451 is not unreasonably vague and does not violate due process.	*Carey* and *Pacific Bell* determined that Section 451 was not unconstitutionally vague *as applied* to the facts and circumstances of those cases.
II-3.	This holding applies to both ratemaking and safety violations of § 451.	Section 451 is a ratemaking provision and is inapplicable to this enforcement proceeding. PG&E Opening Brief at 24-37.
II-4.	Whether something is "*necessary to promote* the *safety, health, comfort, and convenience* of ... the public" is easily understood both within the gas industry and common usage.	Section 451 is a ratemaking provision. It cannot serve as a free-floating source of pipeline safety requirements. Section 451 does not by its terms give notice of any safety standard. PG&E Opening Brief at 24-37. CPSD has not introduced any evidence of industry practices.
II-5.	Conduct does not need to be expressly prohibited by statute or regulation for the Commission to find that § 451 has been violated.	Section 451 is not an open-ended source of pipeline safety rules. The Commission deemed the rules set forth in GO 112 (and its successors) to be adequate for safety under normal operating conditions. It intended gas utilities to meet or exceed its requirements. PG&E Opening Brief at Section III(B).
II-6.	The Appellate Court, in Pacific Bell Wireless, LLC v. Public Utilities Commission, 140 Cal. App. 4th 718	In *Pacific Bell Wireless, LLC v. Public Utilities Commission*, 140 Cal. App. 4th 718 (2006), the court held ***on the facts of that***

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No.	DRA Proposed Conclusion of Law	PG&E's Response
	(2006) found that a violation of § 451 is a separate offense for which a fine may be imposed, regardless of whether or not the conduct in question also violates a more specific regulatory requirement.	***case*** that a violation of § 451 is a separate offense for which a fine may be imposed, regardless of whether or not the conduct in question also violates a more specific regulatory requirement. PG&E Opening Brief at Section III(B).
II-7.	The Commission has interpreted § 451 in the past to fine utilities for failures to safely maintain and operate their facilities.	The Commission has applied § 451 in one contested enforcement proceeding, *Carey v. Pacific Gas & Electric Co.*, D.99-04-029, to fine utilities for failure to safely maintain and operate their facilities. *Carey* is inapplicable here for reasons explained more fully in PG&E Opening Brief at Section III.B.1 and in its Reply Brief at Section III.C.1.
II-8.	Many factors, including Commission decisions, Commission safety investigations, and internal PG&E documents put PG&E on notice that its gas recordkeeping and integrity management practices were unsafe and in violation of § 451.	This proposed conclusion is devoid of factual or legal support, and is too vague to allow response.
	III. CONCLUSIONS OF LAW SUPPORTING ADOPTION OF AN INDEPENDENT THIRD PARTY MONITOR	
III-1.	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.	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.
III-2.	In light of the evidence that shows that for at least the last 30 years PG&E has not had an effective and systematic program for maintaining its gas	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and

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No.	DRA Proposed Conclusion of Law	PG&E's Response
	pipeline records and that it has not engaged in the iterative process to update the records relied upon by its integrity management program, it is unrealistic to expect PG&E to change overnight.	remedies phase.
III-3.	In light of this evidence, 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.	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.
III-4.	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.	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.
III-5.	The Commission, with the help of independent third parties, should adopt a qualitatively different type of oversight of PG&E at every level.	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.
III-6.	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.	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.
III-7.	The Commission should maintain this stepped-up oversight until PG&E has	This proposed conclusion is outside the scope of this phase of the proceedings and should

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	demonstrated that it can operate its gas transmission system safely.	not be considered, if at all, until the fines and remedies phase.
III-8.	To establish an independent monitor process, the decision in this matter should direct the parties to meet and confer and invite them to 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: • A hiring process for the independent monitors that ensures their independence; • PG&E will hire and pay for the independent monitors; • The independent monitors will conduct and present all analyses and recommendations independently of any suggestions or conclusions of PG&E, the Commission, or other interested parties; • Quarterly public reporting by the independent monitors to a joint meeting of PG&E, the Commission, and other interested parties; • The independent monitors will notify PG&E, the Commission, and other interested parties in writing within 10 days of discovery	This proposed conclusion is outside the scope of this phase of the proceedings and should not be considered, if at all, until the fines and remedies phase.

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No.	DRA Proposed Conclusion of Law	PG&E's Response
	of any potential non-compliance with the requirements of the PG&E's gas safety implement plan or that presents a potential, but not immediate, threat to public safety; • 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 • PG&E's contracts with independent monitors shall prohibit an independent monitor from accepting work from PG&E while performing the duties of an independent monitor.	

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APPENDIX C

EXCERPTS FROM PG&E BRIEFS: SAN BRUNO OII AND CLASS LOCATION OII

Section V.B.1.b. of PG&E's Opening Brief in the San Bruno OII

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b. CPSD Failed To Establish A Legal Or Factual Basis For Its Claim That The Quality Of PG&E's GIS Data Violated The Law

CPSD asserts PG&E's Integrity Management program failed to meet regulatory standards because the program made use of assumed values, because such values were allegedly insufficiently conservative, and for purported failure to review the quality and consistency of GIS data.[336] The evidence shows that each claim fails.

(i) CPSD Did Not Prove That PG&E's Use Of Assumed Values Violated Any Law

Contrary to CPSD's assertion, PG&E's use of conservative assumed values comports with integrity management regulations and common industry practice. PG&E, like nearly every gas pipeline operator, did not have confirmed pipeline specifications for every attribute of every

[336] Ex. CPSD-1 at 31 (CPSD/Stepanian).

segment in its operating system at the time it created its GIS.[337] Where PG&E lacked data that was relevant to integrity management decisions, PG&E made measured use of conservative assumed values in accordance with ASME B31.8S.[338] Mr. Zurcher articulated how operators used assumed values in compliance with the regulations:

> Conservative assumed values means that you are relying on other documentation for either vintage issues or other documentation about a specific project and using those values as conservative values rather where you may be missing specific mill test certifications or other material information.[339]

Prior to the San Bruno accident, PG&E researched historic pipe procurement and construction documentation to identify the minimum pipe specifications (e.g., SMYS values) PG&E used during various eras.[340] This research allowed PG&E to make conservative assumptions regarding the pipe characteristics based upon the year of installation and the diameter of pipe.[341] PG&E's practice has been to use the most conservative specifications (e.g., lowest SMYS value) from Company material procurement specifications for pipeline projects installed during the same time period as the pipe segment in question.[342] 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.[343] As Mr. Zurcher testified:

> [T]here are basically three different ways to get to the value of SMYS. One is to actually have mill certification records [that] would state it. That would be one method. There is a second series of methods which include the operator having the pipe specification or having the actual pipe purchase order or having the

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[337] *See, e.g.*, Joint R.T. 21-22 (PG&E/Zurcher) ("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."); *id.* at 662-63 (PG&E/Zurcher).

[338] Ex. PG&E-1c at 4-9 (PG&E/Keas).

[339] Joint R.T. 36 (PG&E/Zurcher).

[340] Ex. PG&E-1c at 4-10 (PG&E/Keas); Joint R.T. 979 (PG&E/Keas).

[341] Ex. PG&E-1c at 4-10 (PG&E/Keas); Joint R.T. 979 (PG&E/Keas).

[342] Ex. PG&E-1c at 4-9 (PG&E/Keas).

[343] *See, e.g.*, 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).

> actual as-built notes as they are received after construction. Those all then meet into one second category.
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> The third category is to look up through the history of line pipe, the Kiefner report, and actually look and see what was manufactured for a given year by a given manufacturer. All those to me are acceptable methods of assumptions of SMYS, conservative, fact-based assumptions on SMYS.[344]

Nonetheless, CPSD contends that PG&E's use of assumed SMYS values higher than 24,000 psig, under any circumstances, violated pipeline regulations. CPSD does not identify specific segments it claims are at issue, but asserts "Twosegments 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."[345] The evidence shows otherwise. As discussed above, and during the joint hearing with the Class Location OII, using assumed values based on other documentation where an operator lacks specific information regarding a pipe segment's SMYS is both consistent with the regulations and common across the pipeline industry.[346] Mr. Zurcher explained that the 24,000 psig SMYS value only applies where the operator has *no information* to support a more accurate SMYS value:

> If you have no information about that pipe [then you have to use 24,000 psig SMYS], but there's degrees of known information. I think that's why I keep going back to that word that they use in both the standard and in the regulations about unknown. What do you mean by unknown. And I know that most companies interpret the unknown as a very specific and very finite term.
>
> Known would be that I have similar specifications at a similar time or I have purchase orders or I have pipeline specifications or I have as-built drawings that have all of that information on it.[347]

CPSD has not produced evidence to substantiate its claim that PG&E's use of assumed SMYS values violated the law. Rather, though not its burden, PG&E presented evidence that proved PG&E's practice was appropriate and complied with the regulations.[348]

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[344] Joint R.T. 15-16 (PG&E/Zurcher).

[345] Ex. CPSD-1 at 31 (CPSD/Stepanian). CPSD's allegations are based entirely on statements in the NTSB Pipeline Accident Report, and contain no additional substantiation.

[346] Joint R.T. 9 (PG&E/Zurcher).

[347] Joint R.T. 28-29 (PG&E/Zurcher).

CPSD also faults PG&E for using three SMYS values for pipe segments identified as "Grade B" pipe. In support, CPSD reiterates an observation from the NTSB report that PG&E's GIS reflected SMYS values of 35,000 psig, 40,000 psig and 45,000 psig for Grade B pipe.[349] Again, CPSD's assertion fails for lack of evidence. Rather than examine PG&E's historic pipe purchasing practices, research historic pipe manufacturing processes, or otherwise demonstrate that Grade B pipe *cannot* have a SMYS value higher than 35,000 psig, CPSD merely states "as far as the CPSD can determine, all API Grade B pipe has a minimum yield strength of 35,000 psi."[350] The evidence proves CPSD's presumption is wrong. Mr. Zurcher testified that Grade B pipe commonly has a SMYS value of 35,000 psig, but was also available at intermediate grades above this value at the request of the pipeline operator.[351]

(ii) CPSD Did Not Prove A Violation Of Law In PG&E's Review Of GIS Data Accuracy

CPSD alleges that PG&E failed to adequately review the accuracy of its GIS data, as evidenced by: (1) the fact that PG&E did not recognize the erroneous 30-inch seamless pipe designation for Segment 180, and (2) the fact that GIS did not reflect the presence of six short lengths of pipe in Segment 180.[352] Neither claim establishes a violation of law, and CPSD's

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[348] Were PG&E to use lower SMYS values (as CPSD contends it should have) instead of the actual characteristics of the pipe the Company purchased in the relevant time period, these pipe segments would receive artificially inflated risk scores, and could be assessed before other higher-risk pipe segments. PG&E's use of conservative assumed values is consistent with the threat identification process. Where PG&E is lacking data on a certain pipeline attribute, PG&E has applied a conservative assumed value derived from historic pipe purchasing practices, or where such information is not available, assumes that the particular threat potentially exists. For example, in conducting data gathering for the manufacturing threat analysis, PG&E looks to the elements identified in ASME B31.8S, Appendix A (as required for operators who maintain a prescriptive integrity management program). The seam type is one of the elements that must be gathered and considered. Ex. Joint-28 (ASME B31.8S), Appendix A, § 4.2 (2004). Where PG&E does not have records sufficient to identify the seam type, its practice is to assume that a potential manufacturing seam threat exists, and to continue with a stability analysis to determine whether the segment must be assessed using in-line inspection or hydro testing. Joint R.T. 990, 1179-81 (PG&E/Keas). Thus, PG&E's measured use of conservative, assumed values informed by pipe procurement specifications increases the effectiveness of its risk assessments and the Company's Integrity Management program as a whole. Ex. PG&E-1c at 4-9 to 4-10 (PG&E/Keas).

[349] Ex. CPSD-1 at 31 (CPSD/Stepanian).

[350] Ex. CPSD-5 at 15 (CPSD/Stepanian).

[351] Joint R.T. 53 (PG&E/Zurcher).

[352] Ex. CPSD-1 at 32 (CPSD/Stepanian). CPSD also alleges violations based on GIS values for six segments on Line 132 with an erroneous depth of cover of 40 feet. PG&E believes that this is a simple data entry error (4.0 feet is a common depth of cover).

claim that PG&E did not adequately check its data for accuracy is contradicted by CPSD's 2010 audit finding:[353]

C.02.d. Verify that the operator has checked the data for accuracy. If the operator lacks sufficient data or where data quality is suspect, verify that the operator has followed the requirements in ASME B31.8S-2004, Section 4.2.1, ASME B31.8S-2004, Section 4.4, and ASME B31.8S-2004, Appendix A [ASME B31.8S-2004, Section 4.1, ASME B31.8S-2004, Section 4.2.1, ASME B31.8S-2004, Section 4.4, ASME B31.8S-2004, Section 5.7(e), and ASME B31.8S-2004, Appendix A]:

i. Each threat covered by the missing or suspect data is assumed to apply to the segment being evaluated. The unavailability of identified data elements is not a justification for exclusion of a threat.
ii. Conservative assumptions are used in the risk assessment for that threat and segment or the segment is given higher priority.
iii. Records are maintained that identify how unsubstantiated data are used, so that the impact on the variability and accuracy of assessment results can be considered.
iv. Depending on the importance of the data, additional inspection actions or field data collection efforts may be required.

C.02.d. Inspection Results *(Type an X in the applicable box below. Select only one.)*	
X	No Issues Identified
	Potential Issues Identified *(explain in Statement of Issue)*
	Not Applicable *(explain in Statement of Issue)*

As PG&E now knows, the information in GIS on September 9, 2010 that Segment 180 contained 30-inch seamless pipe was inaccurate; seamless pipe of that diameter was not available when Segment 180 was installed. However, CPSD's contention that PG&E's Integrity Management engineers should have identified a 1956 30-inch seamless pipe as a historical impossibility requiring additional research is not supported by the evidence.[354] As PG&E witness Kris Keas explained:

> At that time, there's such a variability in the diameters and there's such a variability in the type of pipeline manufacturers and pipe attributes that it wasn't considered a flag. This was kind of identified as after the fact after we have a better understanding of the history of line pipe manufacturing in North America. . . Like I said, we are using records from a very large period of time. We see quite a bit of variability in the diameters and quite a bit of variability in manufacturing methods employed in different era[s]. Because of that, we didn't recognize that 30-inch seamless was not a manufacturing methodology employed in the 1950s.[355]

[353] Ex. PG&E-7 (Tab 4-13) at 39.
[354] Joint R.T. 1028-31 (PG&E/Keas).
[355] Joint R.T. 1028-31 (PG&E/Keas).

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Given the proliferation of pipe diameter and seam type combinations over the past decades, there is no reasonable factual basis –and CPSD has not provided any –to assert that the Segment 180 seamless designation in PG&E's GIS should have singularly stood out from among the other thousands of GIS entries.

By this allegation, CPSD seeks to retroactively impose standards far exceeding pre-incident interpretations of the integrity management rules and common industry practice. As John Zurcher (who helped write the integrity management regulations) testified, operators did not interpret the integrity management rules to mandate that they recreate pipeline data from original construction records, many of which went back decades, and it was common industry practice to accept the accuracy of preexisting pipeline data collections, such as pipeline survey sheets and GIS.[356] Describing his personal experience implementing GIS systems for pipeline operators, Mr. Zurcher explained:

> I will tell you in personal experience in all the companies I have worked with and the two GIS systems I built, we never once went beyond what you would have called these survey sheets. Every company had them. We just took the data that we had available. We did not go back ever and research any other type of data.
>
> Again, as we would find errors in the data, those would get corrected. But I don't know of a single company that went back to try to resurrect original type data for anything. It was just a movement from one record system to another.[357]

PG&E's development and use of information from GIS for its integrity management data gathering was consistent with common industry practices and industry understanding that regulatory requirements allowed them to rely on their prior data gathering efforts, rather than starting anew.[358] CPSD has presented no evidence to support a conclusion that the identification of 30-inch seamless pipe manufactured in 1956 – now known to be erroneous – reflects a legally deficient effort by PG&E to ensure the accuracy of its GIS system. To accept CPSD's position is to conclude that *any single data error* among several millions of data entries constitutes a violation of law.

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[356] Ex. PG&E-1 at 5-7 (PG&E/Zurcher). Exhaustive research efforts going back decades and reviewing every document, like PG&E's post-accident MAOP validation project, are unprecedented.

[357] Joint R.T. 663 (PG&E/Zurcher).

[358] Ex. PG&E-1 at 5-4 to 5-8 (PG&E/Zurcher); Joint R.T. 663 (PG&E/Zurcher).

Similarly, the fact that PG&E's GIS system did not reflect the presence of six defective pipe sections (the pups) in Segment 180 is not a question of data gathering, data quality, or recordkeeping; it is the result of improperly-manufactured pipe unknowingly installed by PG&E half a century prior to implementation of the integrity management rules.[359] No construction document describing the condition and installation of the pups would ever have been created for the simple reason that defective pipe would not have been knowingly installed.[360]

The evidence also shows that the Segment 180 records provided no reason for PG&E to suspect the presence of the pups. Procurement records indicate that PG&E ordered from inventory X52, 0.375-inch DSAW pipe for Segment 180, the majority of which was likely delivered to the job site already wrapped.[361] PG&E's job file for Segment 180 contains specific information and drawings down to the level of detail of tie-in drawings showing pieces of pipe and the location of elbows.[362] Had PG&E intentionally installed short pipe sections (for example, to negotiate a change in direction or elevation), PG&E would expect to have reflected this fact in the Segment 180 construction documents.[363] However, no drawing in the job file contains any such depiction, and the evidence shows that the rupture location did not involve a change in direction or elevation requiring short pipe pieces.[364] The necessary conclusion from the evidence is that PG&E "had no idea [the pups] existed" from the date of their installation.[365] Moreover, recordkeeping provisions in industry standards from the time of the installation (ASA B.31.1.8-1955) did not address the creation and maintenance of records of pipeline installations, much less to the level of detail that would reflect the installation of six pups of the sort contained in Segment 180.[366] CPSD's claim that PG&E's GIS was legally deficient because it did not

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[359] Joint R.T. 421 (PG&E/Harrison).

[360] Joint R.T. 394 (PG&E/Harrison) ("Andwe don't believe the pipe ever would have been installed if they had actually seen the pipe."); *id.* at 337-38 (PG&E/Harrison).

[361] Joint R.T. 253 (PG&E/Harrison).

[362] Joint R.T. 253 (PG&E/Harrison); *see generally* Ex. Joint-10.

[363] Joint R.T. 368 (PG&E/Harrison).

[364] Joint R.T. 342-43 (PG&E/Harrison); Ex. CPSD-9 (NTSB Report) at 40; Ex. CPSD-16 at 15 (chord lengths of pups indicating only minor angles).

[365] Joint R.T. 368 (PG&E/Harrison).

[366] Ex. PG&E-1 at 7-1, n.1 (PG&E/Harrison). ASA B31.1.8-1955 addressed pressure test records (841.417), operation and maintenance procedures (850.3(c)), welding qualification records (824.25), corrosion records (851.4) and leak records (851.5), but not construction records.

identify the (unknown) pups in Segment 180 is not supported by the evidence or any applicable regulation or standard.[367]

[367] Maintaining joint-by-joint detail regarding pipeline installations is not a standard that even exists today in the industry. Joint R.T. 487 (PG&E/Harrison).

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II. PG&E'S USE OF CONSERVATIVE ASSUMED SMYS VALUES WAS APPROPRIATE

Based solely on counting the number of segments that increased in class designation and had assumed specified minimum yield strength (SMYS) values in GIS greater than 24,000 psi, CPSD alleges 133 violations (1,191,662 days) of 49 C.F.R. § 192.107(b).[7/] CPSD offers no individualized evidence as to these 133 segments,[8/] but simply asserts that any assumed SMYS

7/ Ex. CPSD-1 at 50-52, 58 & Attachment 11 (May 25, 2012 Report); September 24, 2012 Reporter's Transcript (R.T.) 61 (PG&E/Zurcher).

8/ *Id.* In fact, the one concrete example CPSD cites belies CPSD's claim. *See* Ex. CPSD-1 at 51-52. CPSD describes Segment 106 of Line 7208-01 as having an assumed SMYS of 35,000 psi. By CPSD's calculation, the MAOP for a Class 3 location at this SMYS is 1,213 psi, but the MAOP at a 24,000 psi SMYS is 832 psi. *Id.* at 52. Assuming this calculation is correct, CPSD's report itself shows that it is irrelevant. CPSD concedes that the maximum operating pressure for this line is only 400 psi, far below 832 psi, so it

value greater than the 24,000 psi set forth in 49 C.F.R. § 192.107(b)(2) constitutes a violation. CPSD has the burden of proving each of its asserted violations. *In Re Southern California Edison Co.*, D.04-04-065, p.2, 2004 WL 1150966 (Cal. P.U.C. 2004). CPSD's assertions fail to meet its burden of proof.

First, 49 C.F.R. § 192.107(b)(2) does not apply retroactively to pipe installed before November 1970 for which the MAOP was set under the grandfather clause of 49 C.F.R. § 192.619(c).[9/] Second, as the evidentiary hearing brought out, while CPSD is fixated on § 192.107(b), that section only applies to pipe not manufactured in accordance with one of the specifications listed in Appendix B to Part 192 or "whose specification or tensile properties are unknown."[10/]

Appendix B to Part 192 lists the major pipe specifications, including the API 5L under which PG&E procured most of its pipe.[11/] For such pipe, 49 C.F.R. § 192.107(a) provides:

> For pipe that is manufactured in accordance with a specification listed in section I of appendix B of this part, the yield strength to be used in the design formula in § 192.105 is the SMYS stated in the listed specification, if that value is known.

CPSD has presented no evidence that any of the 133 segments involves pipe not manufactured in accordance with one of the listed specifications or whose specification or tensile properties are unknown. Where an operator lacks specific documentation establishing the specified minimum yield strength (SMYS) for a section of pipe, it is common industry practice

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is obvious that the assumed SMYS value did not result in an inappropriate operating pressure. *Id.* at 51.

9/ Ex. PG&E-1 at 2-4 (Zurcher); R.T. 22 (PG&E/Zurcher); *see also* 49 C.F.R. § 192.13.

10/ R.T. 5-6, 65 (PG&E/Zurcher). On cross-examination of Mr. Zurcher, CPSD pointed to ASME B31.1.8-1955, § 811.27.H, which is similar to 49 C.F.R. § 192.107(b). R.T. 9-11 (PG&E/Zurcher). As Mr. Zurcher testified, § 811.1 of the ASME, like 49 C.F.R. § 192.107(a), differentiates pipe that conforms to standards or specifications listed in Appendix A of ASME B31.1.8-1955. R.T. 75-78 (PG&E/Zurcher).

11/ R.T. 63-67 (PG&E/Zurcher).

to infer a conservative SMYS value based on reasonable, conservative assumptions about the specifications under which the pipe in question was produced.[12/] The Commission itself endorsed PG&E's use of conservative assumptions in PG&E's MAOP validation project. *See* D.11-06-017 at 13, 18 at n.22 and Ordering Paragraph 1.

CPSD agrees that assigning an assumed SMYS value using the fully-researched and most conservative material procurement specification during the time in question would be appropriate.[13/] In the absence of specific documentation establishing SMYS for a section of pipeline, PG&E uses the material procurement specification from the time period in which the pipe segment was installed to assign a conservative assumed SMYS value. Where such records support the conservative assumption that a pipe was procured according to one of the specifications listed in Appendix B of Part 192, operators commonly use SMYS values derived from these known historical specifications for purposes of establishing SMYS under Section 192.107.[14/]

This approach has explicit support in the context of gas pipeline integrity management. Appendix A of ASME B31.8S, which was incorporated into Subpart O of 49 C.F.R. Part 192, allows operators to substitute the year of manufacture for unknown manufacturing process data and further allows operators to reference publications such as the *History of Line Pipe Manufacturing in North America* to substitute specifications based upon minimum pipe grades known to have been used at a particular time.[15/]

Where PG&E has lacked SMYS data, it has used the most conservative specifications (e.g., the lowest SMYS value) from Company material procurement specifications for pipeline

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12/ *See* Ex. PG&E-1 at 2-4 to 2-6 (Zurcher).

13/ *See* Ex. CPSD-4 at 2 (Supplemental Assumed SMYS Testimony).

14/ *See* Ex. PG&E-1 at 2-4 to 2-6 (Zurcher).

15/ *Id.*

projects installed during the same time period as the pipe segment in question.[16/] To support its contention that PG&E did not fully research all of its records of procurement specifications, CPSD cites to PG&E's use of three different assumed SMYS values for Grade B steel – 35,000 psi, 40,000 psi, and 45,000 psi.[17/] Grade B is a manufacturing specification, not a SMYS specification. As Mr. Zurcher testified, Grade B steel can have any SMYS of 35,000 psi or greater,[18/] although 35,000 psi is common. This is further supported by Table 8-1 in History of Line Pipe Manufacturing in North America which indicates three different SMYS values for Grade B steel.[19/] PG&E's use of several SMYS values for Grade B steel is not evidence of a flawed process.

CPSD has not met its burden of establishing any violation of § 192.107(b)(2).

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16/ *See* Ex. CPSD-4 at 2 (Supplemental Assumed SMYS Testimony).

17/ *Id.*

18/ R.T. 53 (PG&E/Zurcher).

19/ Ex. Joint-1 at Table 8-1 (Excerpt from History of Line Pipe Manufacturing in North America) .

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IV. CPSD HAS NOT CARRIED ITS BURDEN TO PROVE A VIOLATION OF 49 C.F.R. § 192.107(B) IN PG&E'S USE OF ASSUMED SMYS VALUES.

CPSD identified 133 instances in which PG&E used assumed SMYS values greater than 24,000 psig. It claims each of these is a violation of 49 C.F.R. § 192.107(b), amounting to 1,191,662 violation days.[25/] 49 C.F.R. § 192.107(a), however expressly authorizes use of other SMYS values.[26/] And Section 192.107(b) only applies to "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." To establish a violation, CPSD must individually prove that each of the 133 segments contains pipe meeting the description of Section 192.107(b), and that each instance of PG&E's use of higher assumed SMYS was not permitted under Section 192.107(a). CPSD does not even attempt to prove this. Thus, CPSD failed to carry its burden to prove each of its alleged 133 violations. *See In Re Southern California Edison Co.*, D.04-04-065, p. 2, 2004 WL 1150966 (Cal. P.U.C. 2004).

Rather than meet its burden for each individual alleged violation, CPSD relies on general statements and attempts to shift the burden of proof to PG&E to prove it has not violated Section 192.107(b). CPSD claims that PG&E has the "burden of establishing what records were used and on which pipe segments."[27/] The crux of CPSD's argument is that "PG&E has not

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25/ CPSD OB at 16. CCSF claims that PG&E also violated ASA B.31.1.8 from 1955-1970. CCSF OB at 6. Inasmuch as this is not one of the allegations of CPSD, the "prosecutor" in this enforcement proceeding, PG&E does not respond.

26/ *See* PG&E OB at 3-4.

27/ CPSD OB at 14.

demonstrated that the quality of its recordkeeping would permit it to safely use any assumed values above the regulations maximum."[28/] CPSD's rhetoric does not permit it to shift the burden of proof to PG&E or relieve CPSD of its obligation to prove every violation it alleges.

A. PG&E's Use of Conservative Assumed SMYS Values is Appropriate

Neither CPSD nor CCSF appears to contest that an operator may use assumed SMYS values greater than 24,000 psig under appropriate circumstances.[29/] In its prepared testimony, CPSD agreed that assigning an assumed SMYS value using the fully-researched and most conservative material procurement specification during the time in question would be appropriate.[30/]

CPSD and CCSF focus on Section 192.107(b). That section only applies to pipe not manufactured in accordance with one of the specifications listed in Appendix B to Part 192 or "whose specification or tensile properties are unknown."[31/] Appendix B to Part 192 lists the major pipe specifications, including the API 5L under which PG&E procured most of its pipe.[32/] For such pipe, 49 C.F.R. § 192.107(a) provides:

> For pipe that is manufactured in accordance with a specification listed in section I of appendix B of this part, the yield strength to be used in the design formula in § 192.105 is the SMYS stated in the listed specification, if that value is known.

CPSD has presented no evidence that any one of the 133 segments involves pipe not manufactured in accordance with one of the listed specifications or whose specification or tensile properties are unknown.

28/ CPSD OB at 15.

29/ *See* CPSD OB at 14-15; CCSF OB at 6-10; *see also* Ex. CPSD-4 at 2.

30/ *See* Ex. CPSD-4 at 2.

31/ September 24, 2012 R.T. 5-6, 65 (PG&E/Zurcher). On cross-examination of Mr. Zurcher, CPSD pointed to ASME B31.1.8-1955, § 811.27.H, which is similar to 49 C.F.R. § 192.107(b). September 24, 2012 R.T. 9-11 (PG&E/Zurcher). As Mr. Zurcher testified, § 811.1 of the ASME, like 49 C.F.R. § 192.107(a), differentiates pipe that conforms to standards or specifications listed in Appendix A of ASME B31.1.8-1955. September 24, 2012 R.T. 75-78 (PG&E/Zurcher).

32/ September 24, 2012 R.T. 63-67 (PG&E/Zurcher).

PG&E has not assigned an assumed SMYS value greater than 24,000 psig for pipe whose specification or tensile properties are unknown. Rather, as discussed in PG&E's opening brief and prepared testimony, when PG&E lacks specific documentation establishing the SMYS for a section of pipe, it has inferred a conservative SMYS value based on reasonable, conservative assumptions about the specifications under which the pipe in question was produced.[33/] Specifically, where PG&E has lacked SMYS data, it has used the most conservative specifications (e.g., the lowest SMYS value) from Company material procurement specifications for pipeline projects installed during the same time period as the pipe segment in question.[34/]

As Mr. Zurcher testified, this interpretation of Section 192.107 is consistent with the language of subpart (a) and widely accepted by the industry. Where records support the conservative assumption that a pipe was procured according to one of the specifications listed in Appendix B of Part 192, operators commonly use SMYS values derived from these known historical specifications for purposes of establishing SMYS under Section 192.107.[35/] CPSD's and CCSF's criticism of this interpretation does not change the fact that is rooted in a plain reading of Section 192.107, as evidenced by its broad acceptance.

CPSD maintains that it was impermissible for PG&E to use assumed SMYS values greater than 24,000 psig "when the pipe segment specifications [were] not accessible with traceable, verifiable and complete specification records or tensile test record."[36/] This contention pits a practice (using assumed values above 24,000) against criteria ("traceable, verifiable and complete" records) that did not exist during the period of alleged violation.

The "traceable, verifiable and complete" criteria for determining the sufficiency of records used to establish MAOP was first articulated by the NTSB on January 3, 2011. Although PHMSA suggested that its advisory issued in response to the NTSB's recommendations did not

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33/ *See* Ex. PG&E-1 at 2-4 to 2-6 (Zurcher).

34/ *See* Ex. CPSD-4 at 2.

35/ *See* Ex. PG&E-1 at 2-4 to 2-6 (Zurcher).

36/ *See* CPSD OB at 12-15.

create any new requirements, it acknowledged that the terms "traceable, verifiable and complete" came from the NTSB's recommendations.[37] PHMSA did not define the terms until it issued an Advisory Bulletin in May 2012.[38] PHMSA has also acknowledged that its definition of the terms (which continues to be refined) is not enforceable absent a further rulemaking.[39]

Even if "traceable, verifiable and complete" had always been the required standard, CPSD has not attempted to show that any one of the 133 uses of assumed SMYS greater than 24,000 psig – let alone all of them – was not based on records meeting this standard.[40]

B. D.11-06-017 Supports PG&E's Use of Assumed SMYS Values

Contrary to CSPD's assertion, D.11-06-017 supports PG&E's use of assumed SMYS values in excess of 24,000 psig based on reasonable, conservative assumptions about the specifications under which the pipe in question was produced. In D.11-06-017, the Commission quotes PG&E's description of its proposed MAOP validation project:

> [W]e are making assumptions about certain components, such as fittings and elbows, based on the material specifications at the time those materials were procured, sound engineering judgment, and conducting excavation and field testing of pipeline systems as appropriate. . . . The information from the document review, engineering analysis and field-testing gets compiled into a document known as a pipeline features list (PFL). . . . The

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37/ *See* Ex. PG&E-19 in I.11-02-016 (Joint Meeting of the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipeline Safety Standards Committee July 12, 2012), p.67 ("[The advisory] also clarified some terms that were first mention by the NTSB that we also picked up in our initial advisory bulletin").

38/ *See id.*

39/ *Id.* at 77 (referring to the May 2012 PHMSA Advisory Bulletin as "guidance as far as intent. It is not enforceable unless we were to incorporate it into our regulations. The terms were initially used by the NTSB. They said that the records must meet these criteria. And we realized quickly we had to tell people what we believe that criterion is."); *see also* Ex. PG&E-72 in I.11-02-016 (July 31, 2012 Letter from PHMSA to the American Gas Association).

40/ As part of their criticism of PG&E's use of assumed SMYS values greater than 24,000 psig, CCSF and CPSD address PG&E's recordkeeping practices. *See* CCSF OB at 7-8; CPSD OB at 14-15. Aside from the fact that this is the subject of a separate OII, I.11-02-016, such generalized allegations do not supply sufficient proof to establish that any of PG&E's 133 uses of an assumed SMYS value was based on inappropriate records.

> completed PFLs feed directly into the engineering calculation of the MAOP.

D.11-06-017 (June 9, 2011) 2011 Cal. PUC LEXIS 325 at p. **17-19 (emphasis added).

The Commission validated PG&E's proposed MAOP validation methodology in its first ordering paragraph. The Commission ordered:

> Pacific Gas and Electric Company must complete its Maximum Allowable Operating Pressure determination based on pipeline features and may use engineering-based assumptions for pipeline components where complete records are not available. Such assumptions must be clearly identified, based on sound engineering principles, and, where ambiguities arise, the assumption allowing the greatest safety margin must be adopted. The calculated values must be used for interim pressure reductions and to prioritize segments for subsequent pressure testing.

Id. at *45.

This use of engineering-based assumptions is the same type of analysis PG&E performed in its use of assumed SMYS values greater than 24,000 psig. CPSD's argument attempts to rewrite D.11-06-017 and would effectively delete Ordering Paragraph 1 by requiring PG&E's MAOP validation team to apply a SMYS of 24,000 psig to all pipelines without "traceable, verifiable, and complete" records. CPSD's argument that "'the greatest safety margin' does not permit the use of assumed SMYS values in excess of 24,000 psig without 'traceable, verifiable, and complete' hydro test records for pipeline segments 'in class 3 and class 4 locations and class I and class 2 high consequence areas'" (*sic*) is contrary to the Commission's order in D.11-06-017 and should be accorded no weight.

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