

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

Order Instituting Investigation on the
Commission's Own Motion into the Operations
and Practices of Pacific Gas and Electric
Company With Respect to Facilities Records for
Its Natural Gas Transmission System Pipelines.

I.11-02-016
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REPLY BRIEF OF THE UTILITY REFORM NETWORK



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The Utility Reform Network (“TURN”) submits this reply brief in this Investigation into the conduct and practices of Pacific Gas and Electric Company (“PG&E”) related to records of its underground natural gas transmission pipelines.

I. INTRODUCTION AND SUMMARY

At the beginning of its opening brief, PG&E claims to accept that it is “morally and legally responsible” for its actions that led to the deadly explosion on Line 132 in San Bruno.¹ However, the rest of its brief strikingly conflicts with this rhetoric. PG&E admits (in a footnote) to only one minor violation related to recordkeeping,² notwithstanding the overwhelming evidence in this case that demonstrated, among other violations:

- PG&E failed to create – or even have a policy to require - any documentation of the reconditioning work and inspections that needed to be performed before Segment 180 could be deemed safe for service, a serious violation of Public Utilities Code Section 451³ that permitted the dangerously defective pipe to be installed;
- PG&E failed to document the pre-service pressure test of Segment 180 that accepted industry standards in 1956 required, in violation of Section 451;
- PG&E lacks accessible pressure test records for more than 50,000 pipeline segments installed since industry standards and California rules began requiring the performance of such tests and the preservation of pressure test records for the life of the pipeline, in violation of Section 451, General Order (“GO”) 112

¹ PG&E Opening Brief (“Op. Br.”), p. 1.

² PG&E Op. Br., p. 2, fn. 7 (admitting a single violation with respect to its September 9, 2010 clearance form for work at the Milpitas Terminal).

³ Statutory references are to the Public Utilities Code unless otherwise indicated.

through GO 112-E (collectively “the GO 112 series”), and federal pipeline safety regulations;

- Throughout its gas transmission system, PG&E failed to track the use of reconditioned pipe and failed to document that the necessary reconditioning work was properly performed and inspected, in violation of Section 451 and the GO 112 series;
- PG&E failed to take reasonable quality control steps to verify the accuracy of the data in its critical Geographic Information System (“GIS”) database, a violation of Section 451;
- PG&E’s use of GIS data the accuracy of which was not subjected to reasonable quality control processes corrupted PG&E’s integrity management threat identifications, in violation of federal integrity management regulations.

In an effort to evade legal responsibility for these violations, PG&E resorts to hyper-technical legal arguments that defy the clear letter and spirit of pipeline safety regulation. In contrast to PG&E’s cramped view of regulatory authority, the California legislature and the Commission have long recognized that utilities engage in hazardous activities – none more hazardous than the transport of flammable and explosive natural gas – and that the Commission has broad authority under Section 451 to ensure that gas utilities fulfill their “primary obligation” to operate their pipelines safely.⁴ The Commission made abundantly clear when it first adopted General Order GO 112 that no code of safety rules could reasonably address all safety issues that may arise and that the CPUC was continuing to require utilities to “be ever conscious of the

⁴ Ex. PG&E-4, D.61629 (1960 Order adopting GO 112), p. 12, Finding 8.

importance of safe operating practices and facilities and of their obligation to the public in that respect.”⁵

PG&E’s opening brief treats these words as meaningless. In PG&E’s view, its legal responsibilities begin and end with minimal compliance only with specific and detailed regulations, as exemplified by its attempt to neuter Section 451. Even when specific rules are clearly applicable, PG&E will carefully parse the rules to find an interpretation – no matter how extreme - to exonerate itself from any allegation of any import. For example, PG&E absurdly contends that the Commission cannot find that PG&E violated clear laws requiring it to keep pressure test records for the life of the pipeline, because, even after an over two-year search, PG&E is still looking for them. In so arguing, PG&E fails to even acknowledge the longstanding GO 112 series requirements to keep records to show compliance with applicable laws “available at all times” for review by Commission staff. In a similar vein, PG&E argues that missing records cannot be the basis for continuing violations, ignoring that, in most cases, PG&E could and should have cured the violation by conducting a new test or inspection.

In short, PG&E’s opening brief exhibits a disdain for the safety and recordkeeping requirements that have long been part of California law. TURN is confident that the Commission will recognize that California law has never left the CPUC as powerless to enforce safety obligations as PG&E claims.

Consistent with PG&E’s abdication of responsibility for its violations of applicable law, PG&E also attempts to sidestep its responsibility to ratepayers not to impose costs that result from PG&E’s legal violations and imprudent behavior. As TURN discussed in its opening brief⁶

⁵ *Id.* In that same Order, Finding 7, the Commission stated: “Public utilities serving or transferring gas bear a great responsibility to the public respecting the safety of their facilities and operating practices.”

⁶ TURN Op. Br., pp. 7-9.

and in Section III.D below, this proceeding and the other enforcement proceedings have developed an important record of PG&E's past conduct, and these proceedings are therefore highly relevant to the high stakes issue of whether ratepayers or shareholders are responsible for the billions of dollars of costs PG&E will need to incur to make its pipeline system safe.

In the remainder of this brief, TURN responds in more detail to certain arguments in PG&E's opening brief, consistent with TURN's supplementary role in this case. TURN's lack of a response to PG&E on a particular issue should in no way be construed as either an agreement or concession with respect to such issue.

II. BACKGROUND (PROCEDURE/FACTS)

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III. LEGAL ISSUES OF GENERAL APPLICABILITY

A. PG&E's Arguments Regarding Section 451 Are Completely Without Merit

In an effort to avoid an important part of its legal responsibility for its recordkeeping violations, PG&E offers unsustainable and previously rejected legal arguments regarding Section 451. TURN anticipates that CPSD will thoroughly rebut PG&E's meritless arguments on both issues. To supplement CPSD's analysis, TURN highlights some of the key fallacies in PG&E's Section 451 arguments.

1. PG&E's Self-Serving Contention that Section 451 Does Not Impose Safety Requirements Is Baseless

PG&E claims that Section 451 is neither a safety provision nor “a source of pipeline safety requirements.”⁷ In PG&E's view, Section 451 is focused on rates, and “safety” is just one word “buried in one dependent clause” to which the statute makes only “passing reference”.⁸

PG&E's view defies a host of Commission decisions – including the order opening this proceeding -- making clear that Section 451 directly imposes on utilities the obligation to maintain safe facilities and to carry out good engineering practices necessary to promote safety. In recent years, the Commission has emphasized this point in numerous decisions, including:

- OII 11-02-016, p. 10: Section 451 requires California utilities to “operate safely” and to “employ good safety engineering practices”, including the recordkeeping necessary to have “accurate and up-to-date knowledge of critical aspects of its transmission pipeline system”
- OII 12-01-007, p. 8: “Public Utilities Code Section 451 requires Commission-regulated utilities to operate safely.”
- D.12-12-030, pp. 91-92: After quoting the second paragraph of Section 451, explaining that Section 451 imposes a “duty to furnish and maintain safe equipment and facilities” that is “paramount for all California public utilities, including natural gas transmission operators.”
- D.11-06-017, p.16: Similar language to D.12-12-030.
- D.11-09-006, p. 6: The Section 451 “duty to furnish and maintain safe equipment and facilities falls squarely on California public utilities, including PG&E.”

⁷ PG&E Op. Br., pp. 24-25.

⁸ PG&E Op. Br., pp. 24-25, 29.

To the best of TURN’s knowledge, PG&E had never previously challenged any of these statements in previous Commission decisions indicating that Section 451 imposes enforceable safety obligations. PG&E’s newfound, self-serving interpretation is directly contrary to the consistent and longstanding interpretation of Section 451 by the agency charged with enforcing the statute.

Nevertheless, in Section III.B of its brief, PG&E contends, contrary to the plain words of the second paragraph of Section 451, that the statute intends to balance the goal of safety against other goals, particularly reasonable rates. This reading finds no support in the plain words of Section 451 and, in fact, would render the second paragraph meaningless. PG&E does not, and cannot explain, how the clear and absolute language of that paragraph (every public utility “shall” furnish such facilities as are necessary to promote safety) can be converted into a balancing test. Nor can PG&E explain what, if any, utility conduct or deficiencies would be prohibited under its interpretation. In fact, when utilities have attempted to argue that they should be able to curtail service when they perceive their revenues as insufficient, the Commission has made clear that such service curtailment would violate Section 451 and is impermissible.⁹

Tellingly, on page 142 of its opening brief in I.12-01-007, PG&E abandons the specious Section 451 argument it made earlier in that brief and repeated in its opening brief in this case, and acknowledges that, in fact, Section 451 does impose safety obligations. Specifically, in the “safety culture” discussion comparing PG&E’s actual gas spending to imputed adopted amounts, PG&E’s I.12-01-007 opening brief plainly and accurately states that “PG&E was obligated to

⁹ D.01-03-029, slip. op., pp. 31-38 (in the Energy Crisis, ordering PG&E and Southern California Edison to halt layoffs that would degrade service, notwithstanding financial difficulties of the utilities)

spend what is necessary to maintain a safe and reliable system . . .”¹⁰ The clear source of this “obligation” has to be Section 451.

2. PG&E’s Argument That Section 451 Is Too Vague to Create Enforceable Obligations Has Been Rejected by The CPUC and Reviewing Courts and Leads to Absurd Results

PG&E claims that Section 451 is too vague to form the basis of any violations, a contention that the Commission and a reviewing court have clearly and specifically rejected, as shown in the opening briefs of TURN and CPSD.¹¹ PG&E’s argument would lead to the absurd result that, prior to the effective date of GO 112 in 1961, California had no laws mandating the safe operation of gas (and electric) facilities – meaning that for the prior 50 years that PG&E operated gas facilities, it could engage in unsafe practices with impunity. It would further mean that, since the adoption of GO 112 to the present time, if PG&E engaged in a dangerous practice in the operation of its gas system that was not specifically proscribed by GO 112 or federal regulations, the Commission would be powerless to find a violation. So, for example, if PG&E condoned the igniting of matches in the presence of suspected gas leaks, in the absence of a particular regulation barring such a dangerous practice, the Commission could not impose any fines on PG&E for allowing such a serious threat to public and worker safety. PG&E cannot credibly claim that it has lacked notice that such unsafe practices constitute violations under Section 451.

¹⁰ PG&E I.12-01-007 Op. Br., p. 142 (emphasis added).

¹¹ TURN Op. Br., pp. 4-7; CPSD Op. Br., pp. 9-12.

3. Section 451 and the GO 112 Series of Regulations Serve Complementary Roles in Ensuring Pipeline Safety

PG&E argues that GO 112 was superfluous and unnecessary if Section 451 already obligated gas utilities to meet the standards in ASME B31.8.¹² This argument is completely without merit.

First, PG&E's argument presumes that GO 112 and the prevailing version of ASME B31.8 were identical. In fact, GO 112, Sections 101-107, 201-215, 301-303 and 401-402 all established additional or stricter requirements than ASME B31.1.8-1958.¹³

In addition, PG&E fails to recognize that specific safety regulations serve an important purpose even when there is a more general, backstop safety obligation imposed by statute. GO 112 and its successors were efforts by the Commission to establish clear "minimum requirements" for transmission pipeline safety,¹⁴ as much as could reasonably be expressed in a code of safety rules.¹⁵ Furthermore, GO 112 explicitly did not address requirements for "abnormal or unusual conditions" and did not prescribe "all details of engineering and construction."¹⁶ In this regard, the decision adopting GO 112 articulated the point that no code of safety rules could address all safety issues that may arise and that utilities retained the "primary obligation" to "provide safe service and facilities."¹⁷ Section 451 embodied (and continues to embody) the backstop, primary obligation of which the Commission spoke, and the

¹² PG&E Op. Br., pp. 38-39.

¹³ This is readily apparent from Ex. PG&E-4, Attachment A, the original text of GO 112, which essentially itemizes the many respects in which the GO imposes different and additional requirements than the ASME code.

¹⁴ GO 112 (Ex. CCSF-1), Section 102.1.

¹⁵ Ex. PG&E-4, D.61269 (order adopting GO 112), p. 12, Finding 8.

¹⁶ GO 112 (Ex. CCSF-1), Section 104.1.

¹⁷ Ex. PG&E-4, D.61269 (order adopting GO 112), p. 12, Finding 8.

CPUC made explicit that GO 112 did not relieve utilities of such statutory obligations.¹⁸ In sum, Section 451 and the GO 112 series of regulations are complementary efforts designed to ensure that utilities promote safety in every aspect of their gas operations.¹⁹

B. PG&E's Attempt to Dodge Responsibility for Continuing Violations Is Without Merit

PG&E contends that it cannot be found to have committed continuing violations with respect to missing records because any such violations were not curable.²⁰ PG&E is wrong because, for most of the alleged violations, PG&E could have cured the violation.

For most records at issue in this case, once PG&E discovered that the record was missing, the company could and should have performed the procedure that was supposed to be documented in the required record. For example, with respect to records of pressure tests, leak inspections, or any other kind of inspection, PG&E could readily have conducted and properly documented the required pressure test or inspection. On the date that the required record was created, PG&E would have cured the violation and, from that day forward, would no longer be subject to fines for a continuing violation.

PG&E further suggests that its record violations were not curable because it did not know about them.²¹ However, as even the decision cited by PG&E, D.04-04-065, makes clear, utilities should be fined not just for knowing violations, but also for violations about which they *should*

¹⁸ GO 112 (Ex. CCSF-1), Section 104.4.

¹⁹ PG&E (pp. 38-39) unsuccessfully attempts to deny the relevance of the Commission's rejection of a similar argument by PG&E in D.12-12-030. There, PG&E also contended that the 1955 ASME provisions were only voluntary and of no significance under Section 451. The Commission rejected that argument, finding that, based on industry practice (including PG&E's own professed practices) and prudent operations, PG&E should have followed the 1955 ASME B31.1.8 provisions regarding pressure tests. (D.12-12-030, p. 60).

²⁰ PG&E Op. Br., pp. 40-41.

²¹ PG&E Op. Br., pp. 41-42.

have known. As shown in TURN’s opening brief,²² the verification requirements of Section 301.1 of GO 112 and its successor provisions in all other versions of GO 112 have required PG&E to keep available *at all times* the records necessary to show compliance with the rules. This requirement placed a continuing duty upon PG&E to assess whether it possessed the requisite records. Thus, if PG&E did not know that it lacked required records, it was because it failed to uphold its obligation to check whether its records were adequate.

Segment 180 illustrates why PG&E should be subject to continuing violations for its failure to possess required records. Had PG&E checked to see whether it had pressure test records for Segment 180, it would have found that it possessed no such records. To correct this violation, PG&E should have performed a pressure test for a Class 3 location. Such a pressure test could have detected the defective pipe and prevented the San Bruno explosion.²³

C. The Legal Bases for Violations Are Not Limited to Those Identified By CPSD Witnesses in Their Testimony

Two remarks in PG&E’s opening brief suggest that PG&E will take the position in this case that it is only subject to violations that are based on a legal provision that was specifically articulated in CPSD’s testimony. This argument has already been rejected in I.12-01-007 and it must also be rejected here.

On page 18, PG&E’s opening brief correctly notes that the original and successive iterations of GO 112 included recordkeeping provisions – originally Sections 301, 302, and 303 — that are “unique to California.”²⁴ TURN’s opening brief discussed these provisions at some length, pointing out that they have imposed stricter requirements than federal law from GO 112’s

²² TURN Op. Br., pp. 10-13.

²³ NTSB Report, p. 95.

²⁴ PG&E Op. Br., p. 18.

inception in 1961.²⁵ PG&E’s brief goes on to state that, although TURN cross-examined extensively regarding these provisions, they are not listed as a legal basis for violations in the testimony of CPSD’s witnesses.²⁶ In the same vein, PG&E later states that GO 112 incorporated the 1958 ASME standards, but also added “unique provisions.” Again, PG&E takes pains to note that CPSD did not rely on these unique provisions.²⁷ Based on these statements, it is clear that PG&E will argue that the Commission may not find violations based on any legal theory other than those articulated in CPSD’s testimony.

PG&E unsuccessfully made the same argument in I.12-01-007. There, CPSD’s written testimony included a Section X that summarized the factual bases for its alleged violations and identified certain legal provisions that the described conduct violated. In its opening brief, CPSD included an Appendix C that identified additional legal bases for the violations described in Section X. PG&E moved to strike Appendix C on the grounds that CPSD’s testimony constituted the “charging document” for the case and that CPSD should not be allowed to allege legal violations that were not listed in its testimony. In an e-mail ruling dated April 2, 2013, ALJ Wetzell rejected PG&E’s argument, holding that it was not necessary for CPSD’s testimony to set forth the legal basis for its alleged violations. ALJ Wetzell explained that “opening briefs are the time for CPSD *and intervenors* to make their legal arguments” (emphasis added) and that PG&E has an opportunity to respond to legal arguments in its reply brief. The only qualification to ALJ Wetzell’s ruling was that PG&E was entitled to timely and adequate notice of the *factual* bases for the alleged violations.

²⁵ TURN Op. Br., pp. 10-13.

²⁶ PG&E Op. Br., p. 18.

²⁷ PG&E Op. Br., p. 28, fn. 126.

The same principles should apply in this case. As long as PG&E had adequate notice of the factual bases for alleged violations, CPSD and the other parties should not be prevented from identifying additional legal bases for violations, such as the “unique” recordkeeping provisions in GO 112 and its successors.²⁸ TURN has fully met this standard. In its opening brief, TURN demonstrated that the facts shown by CPSD with respect to various alleged violations, including Violations 18 (Design and Pressure Test Records) and Violation 23 (Records to Track Salvaged and Reused Pipe), violated the requirements of Sections 301, 302 and 303 of GO 112 (and its successor provisions).²⁹ Accordingly, PG&E should be subject to violations of those rules.

PG&E cannot credibly claim that it had no notice that its recordkeeping would be measured against the requirements of Sections 301-303 of GO 112, and successor provisions. Both the OII³⁰ and the Scoping Ruling³¹ for this case made clear that the scope of this case includes whether PG&E’s past recordkeeping practices violated any Commission General Orders. The first two issues identified in the Scoping Ruling state:

1. Was PG&E’s gas transmission pipeline recordkeeping and its knowledge of its own transmission gas system, in particular the San Bruno pipeline, deficient and unsafe?
2. Did PG&E’s recordkeeping practices violate any provisions of the Public Utilities Code, General orders, or Commission decisions?³²

Thus, from the outset, the announced scope of this case made clear that the Commission would determine whether any identified deficiencies in PG&E’s recordkeeping violated applicable provisions of Commission General Orders. PG&E has had ample notice that it would be

²⁸ TURN notes that, for many of the violations listed in CPSD’s supplemental testimony, CPSD’s witnesses included GO 112 and its successors. Ex. CPSD-15 (Felts Supplemental); Ex. CPSD-16 (Duller/North Supplemental).

²⁹ TURN Op. Br., pp. 22-25, 27.

³⁰ OII 11-02-016, pp. 1, 11, 12.

³¹ Assigned Commissioners’ Scoping Memo and Ruling, Nov. 21, 2011, pp. 1, 2.

³² *Id.*, p. 2.

required to demonstrate that its actions or omissions did not violate the recordkeeping requirements of GO 112 and its successors.

D. To the Extent that Particular PG&E Conduct Is Found Not to Violate a Legal Requirement, the Commission Should Determine Whether the Conduct Was Prudent

PG&E claims that the Commission’s sole focus in this and the other enforcement proceedings should be adjudicating violations – and not assessing the prudence of PG&E’s conduct for ratemaking purposes.³³ PG&E fails to recognize that the Commission has made it clear that the scope of this proceeding is not so limited. In fact, the first issue in the Scoping Ruling for this case – quoted in Section III.C above – states that the Commission will determine whether PG&E’s recordkeeping was “deficient and unsafe.” This is a different and broader inquiry than simply whether PG&E violated laws or regulations. In this respect, the Scoping Ruling is consistent with the OII in this case, which makes clear that deficiencies and violations are two separate issues, both of which will be addressed in this proceeding.³⁴ Moreover, as TURN and DRA pointed out in their opening briefs, the Commission has recently made clear that it may order additional ratemaking adjustments based on the findings and conclusions of this case.³⁵

These enforcement proceedings may be the only cases in which the Commission examines the nature of PG&E’s past pipeline safety practices; certainly, TURN expects PG&E to

³³ PG&E Op. Br., p. 2 (arguing that the sole purpose of this case is to determine if PG&E violated laws, and not to otherwise determine the prudence of PG&E’s conduct).

³⁴ OII 11-02-016, p. 12 (stating that first phase of case will address (1) whether PG&E’s recordkeeping was deficient and unsafe, and (2) whether PG&E violated the violated “the law and safety standards to which California regulated public utilities are subject”)

³⁵ D.12-12-030, p. 4; cited in TURN Op. Br., pp. 7-8 and DRA Op. Br., pp. 19-20.

strongly resist any further examination of its past safety practices in future proceedings.³⁶ From the standpoint of efficient use of Commission resources, it would make sense for the Commission to use the record developed in this and the other enforcement cases as much as possible to reach conclusions about whether PG&E errors or imprudence are responsible for costs that PG&E seeks to impose on ratepayers.

IV. OTHER ISSUES OF GENERAL APPLICABILITY

A. PG&E Witness Zurcher’s Opinions Were Biased and Unreliable and Are Not Entitled to Any Weight

PG&E relies heavily on the supposedly expert opinions of its witness, John Zurcher. In its opening brief, TURN showed that Mr. Zurcher lacked the necessary expertise in California regulations and accepted practices.³⁷ In addition, the record clearly shows that Mr. Zurcher’s opinions were so patently biased toward PG&E as to be completely unreliable.

The opening briefs of DRA³⁸ and the City and County of San Francisco (“CCSF”),³⁹ as well as testimony by Mr. Zurcher in response to TURN’s cross examination, present numerous reasons to distrust the opinions of Mr. Zurcher, including:

- Mr. Zurcher rendered opinions that show no regard for the accuracy of records in integrity management, including disagreeing with the NTSB that an effective integrity management program needs accurate data;⁴⁰

³⁶ However, TURN is not ruling out the potential need in future cost recovery proceedings for other examinations of PG&E’s past conduct for purposes of determining of whether disallowances are warranted, particularly if such conduct has not been examined in these proceeding and has a bearing on cost recovery related to activities for which PG&E seeks cost recovery.

³⁷ TURN Op. Br., pp. 14-16.

³⁸ DRA Op. Br., p.p. 34-37.

³⁹ CCSF Op. Br., pp. 20-21.

⁴⁰ Tr., Jt. Vol. 7, pp. 658-659 (Zurcher/PG&E).

- He based his testimony on PG&E’s professed policies and procedures rather than a review of PG&E’s actual practices;⁴¹
- Even though Mr. Zurcher had been the lead on an eight-month outside audit of PG&E’s integrity management practices in 2011, Mr. Zurcher refused to (or was directed not to) bring any of the information from that audit to bear on his testimony in these CPUC cases;⁴²
- He expressed patently incorrect views that manifest a hostility to regulatory authority – namely that, notwithstanding Section 301.1 of GO 112 (and successor provisions), California utilities had no obligation to produce to CPUC staff records showing how utilities calculated design pressure and that CPUC staff were required to trust the representations of utility employees;⁴³
- Mr. Zurcher has close ties to the gas pipeline industry and is dependent on gas pipeline operators as his clients;⁴⁴ and
- PG&E handsomely compensated Mr. Zurcher for his testimony, paying him \$390 per hour and total compensation in the three enforcement cases exceeding \$135,000.⁴⁵

For all these reasons, the Commission should not give any weight to the extremely biased and unreliable opinions of Mr. Zurcher.

⁴¹ DRA Op. Br., pp. 34-36.

⁴² DRA Op. Br., pp. 36-37.

⁴³ Tr., Vol. 12 (I.11-02-016), pp. 1828-1829 (Zurcher/PG&E).

⁴⁴ Tr., Jt. Vol. 8, p. 798 (Zurcher/PG&E).

⁴⁵ Tr., Jt. Vol. 7, p. 651 (Zurcher/PG&E).

V. ALLEGED VIOLATIONS PREDICATED ON THE REPORTS AND TESTIMONY OF MARGARET FELTS

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

1. Violation 1 (Salvaged Pipe Records): PG&E Attempts to Evade Responsibility for Its Failure to Have Accurate Records Showing the Source and Specifications of the Failed Pipe in Segment 180

In an effort to exculpate itself, PG&E attempts to frame CPSD's alleged violation so narrowly as to make it virtually impossible to prove given the absence of records showing the source of the failed pipe in Segment 180. Specifically, PG&E argues that, absent a demonstration that the pup segments were salvaged (i.e., previously used) pipe, CPSD's allegation fails.⁴⁶

However, CPSD's allegation was not so limited. Instead, as summarized in its opening brief (citing to its testimony and the NTSB Report), CPSD more broadly alleged:

PG&E has been unable to identify records that clearly document the source of the piece of pipe that failed.

If PG&E had kept orderly and accurate records reflecting the purchase, installation, salvage, reconditioning, inspection, and reuse of pipe installed in its transmission system, PG&E would not have selected for use in Segment 180 the section of pipe that failed on September 9, 2010. If PG&E had maintained proper records and data, PG&E would have had sufficient information to determine that the pipe did not meet PG&E's own specifications for high-pressure transmission pipe.

Further, if PG&E had visually inspected the pipe at any time prior to installation, it would have rejected the section of pipe fabricated from several pups based on the obvious poor quality of welds. At the least, informative data and records pertaining to the pipe would have triggered an inspection of the pipe. Thus, PG&E's poor recordkeeping practices made it possible for a piece of junk pipe that did not meet minimum safety standards to be installed in a high pressure transmission line in the ground under a soon to be constructed housing tract.⁴⁷

⁴⁶ PG&E Op. Br., pp. 63-65.

⁴⁷ CPSD Op. Br., pp. 24-25 (citations omitted).

Thus, the crux of CPSD’s allegation was that PG&E failed to create or retain records showing where the pipe used in Segment 180 came from, what its specifications were, and how it was inspected and otherwise made safe for use. The absence of such records was grossly deficient recordkeeping that constituted an unsafe practice in violation of Section 451.

PG&E’s overly narrow interpretation of the alleged violation would improperly require CPSD and the intervenors to prove that the pipe segments were previously used, something that cannot be shown *precisely because of PG&E’s failure to produce records that it should have created and retained*. Moreover, as shown in TURN’s opening brief, whether or not the pipe was previously used, PG&E admitted that Segment 180 needed to be reconditioned prior to installation.⁴⁸ Had PG&E documented the reconditioning and inspection steps that PG&E itself claims it followed when reconditioning pipe, Segment 180 never would have passed muster and the San Bruno explosion never would have happened.⁴⁹

PG&E claims that CPSD is unfairly insisting that PG&E “maintain a ‘perfect’ chain of custody,” a standard that did not exist in 1956.⁵⁰ This is a blatant exaggeration of the allegation. To avoid a violation, all that PG&E’s employees in 1956 needed to do was to document the source and specifications of the pipe and to prepare a record showing that the pipe was properly inspected and prepared for installation. It strains credulity for PG&E to contend that no one in 1956 would have thought that such recordkeeping was a good practice before burying pipe that would be carrying highly pressurized natural gas.

⁴⁸ TURN Op. Br., p. 18.

⁴⁹ TURN Op. Br., pp. 18-19.

⁵⁰ PG&E Op. Br., p. 66.

2. Violation 3 (Pressure Test Records): PG&E's Inability to Document a Pre-Service Pressure Test of Segment 180 Violates Section 451

PG&E's opening brief does not dispute that the company viewed the ASME B31.1.8 standards – including those relating to post-installation pressure tests -- as establishing reasonable safety practices in 1956. Accordingly, the Commission should not hesitate to find that the ASME standards established minimum standards that PG&E was required to meet in order to operate safe gas pipeline facilities as required by Section 451.

Nevertheless, PG&E argues that, until the Commission implemented GO 112 in 1961, the ASME standards were not legally enforceable under Section 451. This argument is another desperate attempt by PG&E to neuter Section 451. The statute obligated PG&E to furnish and maintain safe gas facilities in 1956, and PG&E acknowledges that ASME set accepted standards for safety. It follows that PG&E was obligated to meet those standards, as the minimum safety requirements of the time. The fact that, in GO 112, the Commission adopted much of the 1958 ASME standards – albeit with modifications that imposed additional and stricter requirements⁵¹ - does not make the ASME standards legally irrelevant prior to 1961. As shown in Section III.A.3 above, Section 451 and GO 112 have always been complementary efforts to safeguard pipeline safety in California.

PG&E relies on Section 104.3 of GO 112 -- indicating that in certain specified respects the rules do not apply retroactively – to argue that the pressure test and recordkeeping requirements of GO 112 did not apply prior to 1961. This argument completely misses the point. Under Section 451, which obligated PG&E to follow the ASME B31.1.8 accepted industry

⁵¹ As previously noted, GO 112, Sections 101-107, 201-215, 301-303 and 401-402 all established additional or stricter requirements than ASME B31.1.8-1958. Thus, contrary to PG&E's claim (p. 38), GO 112 did not simply incorporate the prevailing ASME standards.

practices, PG&E was already required to perform and document pressure tests in 1956. Section 104.4 of GO 112 (ignored by PG&E) made clear that the GO had no effect on existing *statutory* requirements, which would include Section 451.⁵²

Accordingly, in 1956, by virtue of the 1955 ASME safety standards enforced by Section 451, PG&E was obligated to perform a post-installation pressure test⁵³ and to document such test for the life of the pipeline.⁵⁴

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

1. Violation 18 (Design and Pressure Test Records): PG&E Has No Credible Defense to the Tens of Thousands of Violations Manifested By Its Failure to Possess Pressure Test Records for Post-1955 Pipeline Segments

TURN's opening brief showed that PG&E's own data request response, memorialized in Exhibit TURN-4, demonstrates that PG&E is unable to document a pressure test record for more than 50,000 post-1955 pipeline segments.⁵⁵ PG&E only makes passing reference to this evidence in a single footnote, in which it ventures the astonishing argument that, because PG&E is still looking for these records "and still hopes to find them," the record does not prove that PG&E lacks the required records.⁵⁶

This is an absurd argument that turns the law on its head. PG&E has been searching for pressure test records since January 2011, more than two years at the time of preparing this

⁵² GO 112 (Ex. CCSF-1), Section 104.4 states: "Compliance with these rules is not intended to relieve a utility from any statutory requirements."

⁵³ ASME B31.1.8-1955, Section 841.41.

⁵⁴ ASME B31.1.8-1955, Section 841.417.

⁵⁵ TURN Op. Br., pp. 22-23.

⁵⁶ PG&E Op. Br., p. 2, fn. 7.

brief.⁵⁷ Under this thinking, 50 years from now, PG&E would still be insulated from violations as long as PG&E has not called off the search and holds out hope that it will still find the records. The record of this case afforded PG&E ample time to locate documentation,⁵⁸ and the Commission can and should find that, if PG&E could not substantiate the necessary documents in this record, then, for purposes of assessing violations, it does not have the necessary documentation. Moreover, PG&E ignores its obligation under Section 301.1 of GO 112, and its successor provisions, to have such records available “at all times” for inspection by the Commission. Documents that take weeks or months to locate – let alone years – clearly do not meet the available-at-all-times requirement.

PG&E’s claim that other pipeline operators are missing records⁵⁹ is no defense to its clear violations of Section 451 and the rules in the GO 112 series. PG&E has been aware of the clear and ongoing requirement to create and maintain pressure test records since ASME B31.1.8 in 1955. Whether or not other operators met their obligations is not relevant to PG&E’s culpability.

2. Violation 24 (Data in Pipeline Survey Sheets and the Geographic Information System): PG&E Failed to Take Reasonable Steps to Verify the Accuracy of Its GIS Data

PG&E claims that it was standard operating procedure in the pipeline industry to rely on data transferred from pipeline survey sheets to populate GIS databases.⁶⁰ However, this claim is irrelevant. The key issue is not whether GIS databases were an appropriate source for GIS data, but whether PG&E undertook reasonable quality control efforts to ensure that the data that ended

⁵⁷ Ex. PG&E-61 (Singh/PG&E), pp. 1-23 to 1-24.

⁵⁸ PG&E provided its response to the data request in Exhibit TURN-4 on August 30, 2012, more than 18 months after it began its search for pressure test records.

⁵⁹ PG&E Op. Br., p. 108. For the reasons stated in TURN’s opening brief (pp. 13-16) and above in Section IV.A, the testimony of Msrs. Zurcher and Howe regarding “industry” recordkeeping deficiencies is neither relevant regarding California practices, nor credible.

⁶⁰ PG&E Op. Br., pp. 122-123.

up in GIS was accurate. The record clearly shows that PG&E did not undertake such efforts. TURN demonstrated in its opening brief that PG&E's transfer of data to GIS was a two-step process – (1) transferring data from job files to pipeline survey sheets and (2) transferring data from the survey sheets to GIS – and that PG&E cannot document *any* quality control process in either step. PG&E's willingness to blindly accept the accuracy of data that lacked the requisite quality control shows a disregard both for data quality and for the importance of reliable data to a sound integrity management program.

PG&E relies heavily on the opinion of Mr. Zurcher to the effect that it was common industry practice to accept the accuracy of preexisting data.⁶¹ Mr. Zurcher completely undermined the probative value of this opinion when he acknowledged three important facts: (1) the accuracy of PG&E's two-step data transfer from its job files to its GIS database depended on whatever quality control processes PG&E used;⁶² (2) he made no effort to ascertain whether PG&E used any quality control process for either step;⁶³ and (3) lacking such efforts, he had formed no opinion of how PG&E's quality control efforts compared to industry norms.⁶⁴ Thus, Mr. Zurcher lacked the necessary information to render an informed opinion whether PG&E had a reasonable basis to conclude that its GIS data were accurate and whether PG&E had followed accepted industry practice regarding quality control for transfer of data. In other words, Mr. Zurcher was offering a strongly pro-PG&E opinion without having sought or considered highly

⁶¹ PG&E Op. Br., p. 123

⁶² Tr. Jt. Vol. 7, p. 658 (Zurcher/P&G&E)

⁶³ Ex. Jt. 29 (TURN cross exhibit – PG&E response to TURN Data Request 2-21, admitting that Mr. Zurcher had not reviewed PG&E's operating practices regarding quality control for either step of the data transfer and had formed no opinion of how PG&E's quality control efforts compared to industry norms). Before Mr. Zurcher was reminded about this data request response, he gave oral testimony that directly conflicted with it, in which Mr. Zurcher claimed that he had indeed asked whether PG&E engaged a quality control process for the transfer of data in step two from pipeline survey sheets to GIS. (Tr., Jt. Vol. 7, p. 674.) He later admitted that his data request response was correct. (Tr., Jt. Vol. 7, p. 675.)

⁶⁴ Ex. Joint 29 (PG&E response to TURN Data Request 2-21); Tr. Jt. Vol. 7, p. 675 (Zurcher/P&G&E).

relevant facts. In this regard, Mr. Zurcher's testimony on GIS errors was consistent with the rest of his biased and unreliable testimony, as shown in Section IV.A above.⁶⁵

On the issue of PG&E's claimed, but completely undocumented, "form of" quality control process that was supposedly used for the second-step transfer from survey sheets to GIS,⁶⁶ PG&E does not even cite the written testimony of Ms. Cowsert-Chapman that TURN fully discredited in its opening brief.⁶⁷ Instead, PG&E only references oral testimony of its supplemental witness, Mr. Daubin, who did not even present any written testimony on the subject.⁶⁸ Mr. Daubin's hearsay testimony suffers from the same fatal infirmities as Ms. Cowsert-Chapman's testimony, including the fact that he had no first-hand knowledge of the processes he was describing and was not even an employee of the company at the time in question.⁶⁹ In any event, as explained in TURN's opening brief, PG&E completely undermined its hearsay-based claim by resisting efforts to divulge the names of three current PG&E employees who were supposed sources of the first-hand information and by failing to present any of those employees for cross-examination.⁷⁰

⁶⁵ PG&E's witness Ms. Dunn showed a similar willingness to accept that PG&E had used acceptable practices without inquiring regarding quality control processes in the two-step transfer of data from original source documents to GIS. Tr., vol. 9, pp. 1386-1390 (Dunn/PG&E).

⁶⁶ Ex. PG&E-61 (Cowsert-Chapman), p. 3-66.

⁶⁷ TURN Op. Br., pp. 29-31.

⁶⁸ PG&E Op. Br., p. 124.

⁶⁹ The supposed "form of" quality control processes were used in the mid-1990s, but Mr. Daubin has only been a PG&E employee for 11 years, placing the start of his employment in 2002. Ex. PG&E-81 (Daubin qualifications), p BD-1.

⁷⁰ TURN Op. Br., p. 30.

3. Violation 25 (Data Used in Integrity Management Risk Model): PG&E’s Erroneous GIS Data Led to Errors in Threat Identification

Through distortion of the record, PG&E attempts to suggest that its failure to verify the accuracy of its GIS data had no impact on its integrity management analysis. In particular, PG&E suggests that it would correct any initial integrity management errors resulting from inaccurate GIS data when it reviewed other non-GIS data in subsequent steps of the integrity management analysis.⁷¹ The record does not support this contention.

PG&E acknowledged that it used GIS data for the first step of the integrity management process, threat identification. At hearing, when PG&E’s witness Ms. Keas was asked whether inaccurate GIS data could cause PG&E to fail to identify threats that would be identified if the data were accurate, she responded, “Honestly, I would have to answer yes . . .”⁷² She further admitted that, if no threat were identified for a particular segment, then PG&E would take no action on that segment in that integrity management cycle.⁷³ In other words, a GIS error that prevented a threat (say a manufacturing threat) from being identified on a particular segment would also prevent that threat from being assessed or otherwise addressed.

Even if such a segment were identified with another threat (say an external corrosion threat), the additional non-GIS records that might be consulted in order to assess that corrosion threat would be focused on corrosion and not the unidentified (because of the GIS error) manufacturing threat.⁷⁴ As a result, there is no guarantee that, even in this situation, PG&E

⁷¹ PG&E Op. Br., pp. 127-128.

⁷² Tr. Jt. Vol. 11, p. 1167 (Keas/PG&E)

⁷³ Tr. Jt. Vol. 11, pp. 1161, 1230 (Keas/PG&E)

⁷⁴ Ms. Keas testified that the data gathering from other sources in the “pre-assessment” step would be focused on confirming the information that was used to identify the threat and determining the proper assessment tool. (Tr. Jt. Vol. 11, p. 1177 (Keas/PG&E)). As shown in ASME B31.8S (Ex. Joint 28), Appendix A, the data that would be gathered and reviewed differs according to the identified threat. For

would catch its GIS error and properly assess the manufacturing threat on the segment.

Segment 180 is a good case in point. Even though Segment 180, like all segments in PG&E's system, was identified as having an external corrosion threat,⁷⁵ PG&E's records search and assessment for that threat did not disclose the serious GIS errors that failed to reflect the existence of the pup segments⁷⁶ or even the erroneous GIS record showing that Segment 180 used seamless pipe.⁷⁷

In sum, while PG&E may like to think that its GIS errors did not compromise its integrity management analysis, the record shows that, in fact, GIS errors fundamentally undermined the reliability of PG&E's integrity management results.

VI. ALLEGED VIOLATIONS PREDICATED ON THE REPORTS AND TESTIMONY OF DR. PAUL DULLER AND ALISON NORTH

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VII. OTHER ISSUES RAISED BY TESTIMONY OF CCSF

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VIII. OTHER ALLEGATIONS RAISED BY TESTIMONY OF TURN

PG&E chose not to address TURN's testimony either in its written testimony or opening brief. Accordingly, TURN's testimony is uncontested and should be accepted in full by the Commission.

IX. OTHER ALLEGATIONS RAISED BY TESTIMONY OF CITY OF SAN BRUNO

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example, the data required to assess an external corrosion threat (Section A1.2) does not include data about manufacturing process, seam type, joint factor, and operating history, as would be required to assess an identified manufacturing threat (Section A4.2).

⁷⁵ Tr. Jt. Vol. 11, p. 1178 (Keas/PG&E).

⁷⁶ Tr. Jt. Vol. 11, pp. 1233-1234 (Keas/PG&E); NTSB Report, p. 61.

⁷⁷ NTSB Report, p. 61.

