

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the
Commission's Own Motion to Adopt New
Safety and Reliability Regulations for Natural
Gas Transmission and Distribution Pipelines
and Related Ratemaking Mechanisms.

Rulemaking 11-02-019
(Filed February 24, 2011)

**REPLY BRIEF OF THE OFFICE OF RATEPAYER ADVOCATES
ON ORDER TO SHOW CAUSE REGARDING WHETHER ALL COMMISSION
DECISIONS AUTHORIZING INCREASED OPERATING PRESSURE SHOULD BE
STAYED PENDING DEMONSTRATION THAT RECORDS ARE RELIABLE**

We at the Commission need to watch our utilities' management and their legal and compliance advisors very, very carefully: it is clear to me that the legalistic, confrontational approach to regulation is alive and well. Their strategy is often: "we will give the Commission only what they explicitly order us to give them." This is cat and mouse, not partnership, so we have to be one smart and aggressive cat.

*Final Commissioner Report by Mark Ferron,
January 16, 2014, p. 2, Point 2.*

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I. INTRODUCTION

Pursuant to Rule 13.11 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure (Rules), and the oral ruling of the Assigned Administrative Law Judge (ALJ),¹ the Office of Ratepayer Advocates (ORA) files this Reply Brief on the issues raised in the August 19, 2013 Order to Show Cause (OSC), which directed Pacific Gas and Electric Company (PG&E) to demonstrate why the Commission's prior pressure restoration orders should not be stayed pending a demonstration by PG&E that its gas pipeline records are reliable.²

PG&E's Opening Brief is replete with rhetoric that should not distract the Commission from the primary issues at hand: Are PG&E's gas pipeline records reliable and if not, what should be done about it? The evidence in the record compels the conclusion that PG&E's records are not reliable, and that additional action by the Commission is needed to address this continuing problem. In the face of this record of PG&E's errors, PG&E argues that hydrotests are the only reliable way to determine a pipeline's safety and that pipeline records only serve to inform interim measures until a hydrotest is performed.³ However, the Commission knows this is not true. If it were, why would the Commission have devoted three years to the Recordkeeping Investigation, amassing a great deal of evidence on PG&E's recordkeeping violations, and why would the Order to Show Cause focus on PG&E's recordkeeping failures? Given evidence that PG&E's records continue to be unreliable, and that accurate records are necessary for PG&E to safely maintain and operate its gas transmission system, the question is *what* is the Commission going to do?

ORA offers the following reply comments to rebut PG&E's assertions that its records are adequate, to reiterate why accurate records are important to maintaining and operating a safe natural gas transmission system, and to propose solutions to assist the Commission in ensuring that PG&E develops and maintains a functional and reliable records management operation

¹ 20 RT 3186 and 3259 (ALJ).

² August 19, 2013 Ruling Of Assigned Commissioner And Assigned Administrative Law Judge Directing Pacific Gas And Electric Company To Appear And Show Cause Why All Commission Decisions Authorizing Increased Operating Pressure Should Not Be Stayed Pending Demonstration That Records Are Reliable (OSC).

³ *See, e.g.*, 20 RT 3132 (Johnson/PG&E): "Well, I'll speak to PSEP. PSEP is either hydro testing pipe that previously hasn't been tested or replacing pipe. All it's being used for is prioritization of that work. Ultimately every piece of pipe is going to be pressure tested or replaced. *So it's simply a prioritization mechanism on an interim basis as clearly articulated in the ALJ Decision.*" (*emphases added*).

adequate to the challenges that lay ahead. In sum, in addition to the recommendations ORA proposed in Section II of its Opening Brief to ensure a complete and accurate record to support Commission findings on Maximum Allowable Operating Pressure (MAOP), ORA fully supports all of The Utility Reform Network's (TURN) recommendations, and especially its call for independent third party review of PG&E's documented pipeline specifications.

II. DISCUSSION

A. The OSC Evidence Demonstrates That PG&E Continues To Struggle To Maintain Accurate Records And Does Not Acknowledge The Safety Value of Accurate Records

1. PG&E's Assertions That Its Records Are Accurate Are Not Credible In Light Of The Evidence

Notwithstanding PG&E's repeated assertions that its records are accurate and its pipelines are safe regardless,⁴ the evidence demonstrates otherwise. For example, PG&E has made much of its "less than one percent error rate" in both its Opening Brief and in the September 6, 2013 hearing before several Commissioners, the Chief Administrative Law Judge (ALJ), and the Assigned ALJ.⁵ However, as TURN explains, the record shows that the "less than one percent error rate" (actually 0.9%) that PG&E repeatedly referred to in its Opening Brief and September 9 testimony only applies to Type 5 errors – the most significant errors in PG&E's system and what PG&E refers to as "hits" that require a reduction in the MAOP of a line.⁶ Further, the 0.9% error rate was only based on a statistical sample, so that PG&E's witness was forced to acknowledge that there were many Type 5 errors *not yet identified* in PG&E's system.⁷ In fact, cross examination established that there is a 99% probability that there are 37 to

⁴ See, e.g., 16B RT 2438 (Johnson/PG&E) (PG&E has "some of the strongest records ... in the business."); PG&E OB, pp. 1 and 6.

⁵ PG&E OB, p. 1 ("...PG&E implemented enhanced quality control and quality assurance measures that reduced the potential for similar errors, resulting in an error rate of less than one percent." [RT 2466-67, 3124]) and p. 7 ("While PG&E acknowledges that the MAOP Validation process is a human-driven effort, and it therefore cannot eliminate the potential for error entirely, these measures serve to reduce and control the potential for error to the maximum degree possible. The engineering analysis quality assurance process identified an error rate of less than one percent, demonstrating the effectiveness of PG&E's records accuracy control measures." [RT 2466-67, 3124]).

⁶ TURN OB, pp. 11-13. See also 20 RT 3124-3128 (Singh/PG&E), 3127: 23-27 ("So when you talk about the 0.9 percent error rate, you're only talking about one of the five categories of errors, the Type 5 errors; right? A Yes.").

⁷ TURN OB, pp. 11-13. See also 20 RT 3124-3132 (Singh/PG&E).

185 more Type 5 errors (and thus lines operating above a safe MAOP) in PG&E's gas transmission system.⁸

And this is only the Type 5 errors. PG&E's witness put so little store in accurate records that he did not even know the Type 4 error rate for PG&E's data⁹ – errors which TURN explains can have meaningful impacts on PG&E's operation and maintenance of its system.¹⁰

The inaccuracy of PG&E's records is further demonstrated by the fact that PG&E made multiple corrections to its pipeline features list (PFL) after discovering the Line 147 error.¹¹ While PG&E's attorney characterized these ongoing corrections as a normal part of the process,¹² TURN appropriately pointed out that the Commission expected reliable results from the MAOP validation, and that the safety of PG&E's system is at risk:

... that's not what the MAOP validation process was about. The process was to figure out conservative values where we don't know and to make sure that we're operating our pipelines at the correct maximum allowable operating pressures. We know for Line 147 PG&E found errors. Those are errors they knew about for a long time. And those errors caused the MAOP to be too high. And we need to know whether that's going on with other pipelines. That's not safe when you're operating pipelines above what the law says their MAOP should be.¹³

The evidence of PG&E's continuing recordkeeping challenges, as described above, is compounded by the troubling recordkeeping errors and data management practices described in ORA's testimony.¹⁴

Given the data errors and lack of precision revealed every time a PG&E assertion is tested – such as the assertion of only a .9% error rate, which only included Type-5 errors, and did

⁸ *Id.*

⁹ 20 RT 3132 (Singh/PG&E).

¹⁰ *See, e.g.*, TURN OB, pp. 13-15.

¹¹ *See, e.g.*, Verified Statement Of Pacific Gas And Electric Company's Vice President Of Gas Transmission Maintenance And Construction In Response To Ruling Of Assigned Commissioner And Assigned Administrative Law Judge, August 30, 2013 (Verified Statement), ¶¶ 39-51; Declaration of Sumeet Singh Supplementing The Verified Statement, October 18, 2013, ¶¶ 4-8.

¹² PHC-3 RT 88-91 (Malkin/PG&E).

¹³ PHC-3 RT 91: 2-16 (Long/TURN).

¹⁴ ORA's testimony is in the record as Exhibits OSC-8, OSC-9 (testimony and exhibits regarding PG&E's data management systems) and Exhibits P and Q (testimony and exhibits regarding inaccuracies in the PG&E data provided in support of the MAOP for Line 147).

not actually identify all of even those errors – it would be exceedingly unwise for the Commission to take any PG&E representation at face value.

Yet PG&E is asking the Commission to take at face value its unverified claims that all of the other pressure restoration lines have been checked and have no errors. PG&E does not dispute that the OSC extends to all of the pressure restoration lines, which include not only Lines 147 and 101, but also Lines 132A, 131-30, and the suction side of 300A.¹⁵ In its Opening Brief, PG&E asserts that it “performed a thorough review of the PFLs for [those lines] to determine whether any similar errors were present. This review did not identify any records discrepancies on [those lines].”¹⁶ PG&E then states: “The parties did not identify additional records discrepancies on the other Pressure Restoration Lines.”¹⁷ In this artful phrasing, PG&E continues to hide the ball. As ORA observed in its Opening Brief, PG&E provided no documentation to demonstrate that the data for the other pressure restoration lines is accurate.¹⁸ The only “evidence” of PG&E’s “thorough review” of those records is Mr. Singh’s claim during the September 6, 2013 OSC hearing that the review was performed.¹⁹ PG&E is correct when it states that no party identified discrepancies in these records because *no such records were produced*.²⁰ It was PG&E’s burden to produce these records and show they were accurate, and it did not meet this burden. Now PG&E is asking the Commission to take PG&E’s word that PG&E performed this data review, and to trust its conclusion that there were no errors in the data.²¹ This does not come close to the showing the OSC required.

In light of the 25% error rate for the Line 147 PFLs,²² and the misrepresentations and half-truths noted above, PG&E’s claim that it has performed a “thorough review” of the other

¹⁵ See, e.g., PG&E OB, pp. 1-2, and 6.

¹⁶ PG&E OB, p. 6.

¹⁷ *Id.*

¹⁸ ORA OB, p. 2.

¹⁹ 16B RT 2467-24688 (Singh/PG&E).

²⁰ PG&E’s Opening Brief implies that the parties somehow had the obligation to request the data on these lines from PG&E and perform their own review of the data. The OSC required PG&E to show that it had reliable data to support the Commission- approved MAOP of the lines. The burden of producing evidence of reliable pipeline records was squarely (and appropriately) on PG&E.

²¹ As NTSB Chairman Deborah A.P. Hersman said in concurring statements on the NTSB Accident Report for the PG&E San Bruno Pipeline issued on Sept.12, 2011, p.135: “For government to do its job – safeguard the public – it cannot trust alone. It must verify through effective oversight.”

²² San Bruno OB, p. 4 and 17 RT 2648: 9-23 (Singh/PG&E).

pressure restoration lines' data is hardly credible. If probed, PG&E would likely backtrack and, at a minimum, clarify that there were no *Type 5* errors on those lines, rather than no errors in the PFLs at all. As Commissioner Ferron observed in his closing remarks to this Commission, certain utilities continue to play “cat and mouse” with the Commission, so the Commission needs to be “smart and aggressive”:

We at the Commission need to watch our utilities' management and their legal and compliance advisors very, very carefully: it is clear to me that the legalistic, confrontational approach to regulation is alive and well. Their strategy is often: “we will give the Commission only what they explicitly order us to give them”. This is cat and mouse, not partnership, so we have to be one smart and aggressive cat.²³

ORA stands by its recommendation that the Commission require PG&E to provide safety certifications for *all* of the pressure restoration lines, and perform a thorough review of that data. This is the only way to determine whether the previously approved MAOPs are valid. The review can also serve as a “case study” on the accuracy of PG&E's records, and how they can be improved.²⁴

2. PG&E Has Failed To Refute ORA's Observation That PG&E's Mapping Systems, Which Parties Reviewed, Do Not Represent A Modern Document Control System

With its Opening Brief, PG&E offers Mr. Rosenfeld's declaration in response to ORA's testimony regarding deficiencies in PG&E's document management systems. ORA's witness Mr. Roberts had observed in his testimony that PG&E's mapping systems “do not represent a modern drawing or document control system” and recommended that the Commission “review PG&E's overall pipeline mapping, recordkeeping, and document control systems for traceability, verifiability, completeness, robustness, and accuracy.”²⁵ ORA stands by this testimony.

Mr. Rosenfeld is a gas pipeline engineer with expertise in hydrotests. His expertise is in the gas industry. There is nothing in the record to suggest Mr. Rosenfeld is a data management expert, or that he has any experience with state of the art, or even relatively modern

²³ Final Commissioner Report by Mark Ferron, January 16, 2014, p. 2, Point 2.

²⁴ ORA OB, p. 15 (“Consistent with the original intent of the OSC, PG&E should be required to submit Safety Certifications for all of the lines approved in the pressure restoration orders, and the Commission should use that opportunity to focus on PG&E's recordkeeping practices as a form of ‘case study.’”).

²⁵ Ex. OSC-8, p. 1.

recordkeeping systems.²⁶ ORA's witness, on the other hand, has had extensive experience with modern data management systems – and offered his concerns from that perspective.²⁷ At the same time, he also expressed hope that PG&E would explain that what he saw was “interim” and that PG&E was committed to developing a more robust system than he witnessed in operation:

My sincerest hope is that PG&E will confirm that this is an interim phase in its document management system and that PG&E can demonstrate that its pending eGIS system, as currently planned, will meet and exceed commonsense standards for accuracy, transparency, archival value, and usability.²⁸

Unfortunately, PG&E provided no such assurances in its response. Instead, Mr. Rosenfeld explains that nothing requires PG&E to do anything more and that PG&E's systems are “adequate” to the task:

I have searched for requirements on pipeline drawings and documents systems in CPUC and PHMSA regulations, pipeline safety standards, and pipeline integrity management-related recommended practices. I am unaware of any guidance documents recognized by the pipeline industry, let alone a pipeline regulation, that specifies that pipeline drawings systems exhibit a particular hierarchy scheme, level of user convenience, be organized in a particular way, or be presented in specific formats. *I see no compliance or safety-related reason for PG&E to organize their drawings differently than their current practice.*²⁹

and

Mr. Roberts' concerns about the adequacy of the drawing system appear to be based on the difficulties he encountered in interpreting the drawings. He correctly pointed out that there was no single drawing showing all of Line 147, there was no consistent, continuous footage stationing system, and separate new drawings were completed for each new job instead of updating old drawings. However, I observed PG&E engineers demonstrate the use of the drawings to explain the tests on Line 147. *If the engineers and contractors can carry out their work using the drawings, then they are adequate irrespective of whether the system is complicated or even cumbersome.*³⁰

²⁶ See also 17 RT 2532-2535 and additional information regarding Mr. Rosenberg at <http://www.kiefner.com/staff.asp?StaffID=111>.

²⁷ See, e.g., Ex. OSC-8, pp. 3-4 (explanation of Mr. Robert's experience with modern records management systems and the common characteristics that they share which were missing in PG&E's systems).

²⁸ Ex. OSC-8, p. 2.

²⁹ PG&E OB, Exhibit A, Rosenfeld Declaration, p. 3, ¶ 7 (emphases added).

³⁰ PG&E OB, Exhibit A, Rosenfeld Declaration, p. 4, ¶ 8 (emphases added).

Thus, in response to ORA's concerns that PG&E's mapping system does not represent "a modern drawing or document control system" Mr. Rosenfeld argues that *the rules and regulations require nothing more,*³¹ and the system is "adequate" irrespective of whether it is "complicated or even cumbersome."³²

Mr. Rosenfeld's declaration does not rebut ORA's testimony – it proves ORA's point. PG&E has not set a higher recordkeeping standard for itself other than regulatory compliance, and PG&E is apparently *not* implementing a state of the art recordkeeping system that will carry it through the decades to come. The Commission should be concerned that there is no evidence that the recordkeeping systems that PG&E is spending hundreds of millions of dollars to implement will produce better results than we see today.

B. A Hydrotest Is Not A Substitute For Accurate Records – Both Are Required To Operate And Maintain A Safe System

PG&E's primary argument throughout these proceedings boils down to the defense that that a hydrotest is a substitute for accurate records:

PG&E's pressure tests establish safe operating pressures regardless of the potential for missing or inaccurate data in PG&E's records for vintage pipelines. As described by Mr. Rosenfeld, a hydro test is a "proof test" that proves the pipe is safe to operate. *This proof test is valid regardless of what the pipe specifications are, or whether the operator's records match what is in the ground.*³³

and

In short, the successful strength tests on the Pressure Restoration Lines *alone* establish safe operating pressures. These pressure tests are valid regardless of whether an operator possesses complete pipeline records.³⁴

PG&E overlooks the fact that pipeline feature errors undermine safety not only when they lead to excessive MAOPs, but also by leading to incorrect prioritization or outcomes in the PSEP and in PG&E's integrity management program, which it relies upon to prioritize maintenance, repair and replacement of the lines in its system.

³¹ PG&E OB, Exhibit A, Rosenfeld Declaration, p. 3, ¶ 7 (emphases added).

³² PG&E OB, Exhibit A, Rosenfeld Declaration, p. 4, ¶ 8 (emphases added).

³³ PG&E OB, p. 4 (emphases added; citations omitted).

³⁴ PG&E OB, p. 5.

TURN accurately summarizes the safety concerns raised by PG&E's fixation on hydrotests as a replacement for accurate records.³⁵ In sum, while PG&E may assert that a valid hydrotest can establish a safe MAOP,³⁶ as a matter of law (and presumably, safety too) the federal pipeline safety regulations require additional pipeline information to determine the MAOP of a line.³⁷

C. Only Independent Third Party Review And Clear Direction From The Commission Will Change PG&E's Attitude Toward Recordkeeping

TURN provides a "Summary of Recommendations" at the beginning of its Opening Brief, and ORA supports those recommendations in conjunction with its own recommendations to supplement PG&E's Safety Certifications made in Section II of its Opening Brief. Given the extensive evidence of recordkeeping errors revealed in this proceeding, and PG&E's refusal to acknowledge or address its recordkeeping challenges, the Commission cannot find that PG&E has made a competent demonstration that its records are reliable. As recommended by TURN, the Commission should order PG&E's shareholders to fund a thorough and independent third-party review of the reliability of PG&E's documented pipeline specifications. That review should include, among other things, a top-to-bottom assessment of where errors or unduly aggressive assumptions could have entered into PG&E's MAOP Validation process, and should recommend measures to identify, at a minimum, all "Type 4" and "Type 5" errors, and not solely Type 5 errors where the MAOP for an entire segment or line must be lowered. PG&E's myopic focus on Type 5 errors or "hits" does not accurately reflect the risk created by other errors – including Type 4 "near hit" errors - nor does it reveal how many times PG&E's assumed values were less conservative than they should have been, regardless of whether or not they would be binding for purposes of setting the MAOP of the line.

In ordering this third-party review, the Commission should also communicate clearly to PG&E that a hydrotest is not a substitute for accurate records, that accurate records are required to operate and maintain a gas transmission system safely over time, and that the Commission expects PG&E to develop a state of the art records management system to meet going forward

³⁵ TURN OB, pp. 13-15.

³⁶ PG&E OB, pp. 2-5.

³⁷ See, e.g., 49 CFR § 192.619 (requiring an operator to set the MAOP at the lesser of 4 factors: a hydrotest result, the design MAOP, the prior operating pressure of the line, the judgment of the operator).

needs and expectations. Only by clearly articulating these expectations and ordering a third-party review will PG&E's lax attitude toward recordkeeping begin to change.

III. CONCLUSION

For the reasons set forth above, in ORA's and TURN's related briefs in these proceedings, and in the record of these proceedings, the Commission should implement ORA's proposals as set forth in Section II of its Opening Brief and the recommendations set forth in TURN's Opening Brief and summarized at the beginning of that brief in a "Summary of Recommendations."

Respectfully submitted,

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