

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)

CITY OF SAN CARLOS' AND OFFICE OF RATEPAYER ADVOCATES' JOINT  
APPLICATION FOR REHEARING OF DECISION NO. 13-12-042 ESTABLISHING  
MAXIMUM OPERATING PRESSURE FOR PACIFIC GAS AND ELECTRIC COMPANY'S  
NATURAL GAS TRANSMISSION LINE 147

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## I. INTRODUCTION AND BACKGROUND

Pursuant to Rule 16.1 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure (Rules), and California Public Utilities Code § 309.5, the City of San Carlos (San Carlos) and the Office of Ratepayer Advocates (ORA) (together "Joint Parties") jointly file this application for rehearing of Commission Decision (D.) 13-12-042, the Decision Establishing Maximum Operating Pressure For Pacific Gas And Electric Company's Natural Gas Transmission Line 147 (Line 147 Decision).

The Line 147 Decision was issued in the wake of an Order to Show Cause (OSC) issued on August 19, 2013, by the Assigned Commissioner and Administrative Law Judge (ALJ) in this proceeding.<sup>1</sup> That OSC was issued in response to Pacific Gas and Electric Company's (PG&E) attempted filing of an "errata" on July 3, 2013, notifying the Commission that the Maximum Allowable Operating Pressures (MAOP) of two of its gas transmission lines, 101 and 147, should be corrected downward from 365 pounds per square inch gauge (psig) to 330 psig.<sup>2</sup> PG&E's "errata" cryptically explained that these MAOP reductions were necessary because PG&E had relied upon inaccurate pipeline information in requesting the MAOPs of 365 psig in 2011. The Commission had relied upon this inaccurate information in granting PG&E's requests in D.11-12-048.<sup>3</sup>

Hearings regarding the issues raised in the OSC were held on September 6, November 18 and 20, and December 16. The hearings on November 18 and 20, however, were characterized as "pressure restoration" hearings concerning Line 147, rather than hearings within the context of the OSC, and were therefore governed by a different set of rules as to scope, process, and categorization of proceeding. The Administrative Law Judge (ALJ) explained:

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<sup>1</sup> 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).

<sup>2</sup> Ex. OSC-1, Errata. Note that the record for the determination of the Line 147 MAOP includes the entire record from all proceedings in this Rulemaking, including, without limitation, the hearings held on September 6, and November 18 and 20, 2013. 18 RT 2972-2974: 18-4. As set forth herein, evidence of PG&E's ongoing recordkeeping challenges should have been considered in setting the MAOP for Line 147, but some of that evidence was not added to the record until the hearings held on December 16, 2013, days before the Commission voted on the Line 147 Decision on December 19, 2013.

<sup>3</sup> OSC, p. 2; Ex. OSC-1, Errata, p. 1 and passim.

The narrow issue in front of us today is Line 147 and whether PG&E has met the requirements of Decision 11-09-006. That's all.<sup>4</sup>

And

This is not an Order to Show Cause proceeding. This component is a pressure restoration proceeding.<sup>5</sup>

After the San Bruno explosion, the Commission had ordered PG&E to reduce the operating pressure on certain gas transmission lines to 20% less than MAOP. Decision 11-09-006 set forth substantive and procedural requirements for PG&E to obtain Commission permission to restore the pressure of those lines to the full MAOP.

Based on the record adduced at the "pressure restoration" hearings held on November 18 and 20, the Line 147 Decision purports to establish the "maximum operating pressure" for Line 147 at 330 psig pursuant to the standards and procedures adopted in D.11-09-006. The Line 147 Decision contains numerous errors of fact and law.

## **II. SUMMARY OF ARGUMENT**

As a result of the San Bruno explosion that occurred on September 9, 2010, this Commission has been intensely focused on gas safety issues and how both this Commission and the gas utilities can better protect public safety. As part of that focus, the Commission opened four major proceedings related to the San Bruno explosion: three enforcement actions (the Explosion, Recordkeeping, and Class Location Investigations<sup>6</sup>), and the Gas Safety Rulemaking (R.11-02-019). The Gas Safety Rulemaking is a forward-looking proceeding to clarify and, to the extent necessary, modify the rules applicable to gas utility operations, to determine what improvements to gas infrastructure and operations are needed, and to authorize and allocate costs associated with those projects.

The OSC expressed dismay upon discovering that despite the substantial efforts reflected in these proceedings, not only had PG&E submitted erroneous pipeline information to the

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<sup>4</sup> 18 RT 2761: 16-19 (ALJ).

<sup>5</sup> 18 RT 2763: 4-7 (ALJ). The ALJ also clarified, in response to questions from the parties, that the pressure restoration component of the proceeding is categorized as rulemaking, while the OSC proceeding is adjudicatory. 18 RT 2770: 4-12.

<sup>6</sup> These investigations are docketed as I.12-01-007, I.11-02-016, and I.11-11-009, respectively.

Commission in support of its October, 2011 pressure restoration request, but the errors were discovered two years later only because of a “fortuitous leak repair”:

Despite this intense level of interest and review, on October 31, 2011, PG&E filed a pipeline features analysis which it now acknowledges was based on erroneous pipeline records, and those errors included showing pipeline as being seamless or double-arc welded when the pipeline actually included components that used welds for which PG&E reduces the joint efficiency factor by 20%, and a reduction in the maximum allowable operating pressure, of the segment subject to the errata, of 35 psig.

More troubling is the means by which PG&E came to realize its error – a fortuitous leak repair. PG&E explains that “during the investigation and repair of a non-hazardous gas leak found during a scheduled leak survey” it determined that its records showing the pipeline as seamless or double-arc welded were wrong and that the pipeline was comprised of “early vintage A.O. Smith pipe and single submerged arc welded pipe.” Thus, but for the happenstance of a leak and astute observations by repair technicians, this error would not have come to light.<sup>7</sup>

The Commission concluded:

Nearly three years on San Bruno tragedy [sic] and the expenditure of hundreds of millions of dollars for record review and validation, the facts set forth in PG&E’s July filing are profoundly troubling.<sup>8</sup>

Indeed they are.

In addition to revealing troubling information regarding PG&E’s ongoing recordkeeping challenges, the Line 147 proceeding also revealed weaknesses in the Commission’s pressure restoration proceedings that can and should be rectified. The factual and legal errors in the Line 147 Decision, specifically, are not difficult to correct.

A significant error in the Decision is that it purports to establish the “maximum operating pressure” or “MOP” for PG&E’s Line 147. It is clear from the language used in PG&E’s errata, in the OSC, in the hearings, and from Commissioners during the hearings, that the point was to establish the “maximum *allowable* operating pressure” or “MAOP” of Line 147, not the MOP. This is not only a legal and factual error in the decision, but has significant safety implications

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<sup>7</sup> OSC, pp. 5-6.

<sup>8</sup> OSC, p. 6.

because, as discussed below, without a Commission-established MAOP, PG&E is arguably free to operate Line 147 at 400 psig, which PG&E has argued it is legally permitted to do.<sup>9</sup>

The Decision contains other factual and legal errors which should be corrected. Among other things, essential evidence was arbitrarily excluded from the record. The only evidence in the record of this proceeding supporting the Decision's determination that PG&E may operate Line 147 at a MAOP of 330 psig is testimony from the hearings, and the "Concurrence" of the Commission's Safety and Enforcement Division (SED). There is insufficient reliable data in the record, such as reliable hydrotest records and pipeline feature lists, to support a conclusion that 330 psig is the correct MAOP (or MOP, as the case may be). Instead of including actual hydrotest and other data in the record, all of which is readily available – and PG&E stipulated to its inclusion in the record – the Decision relies almost exclusively upon witness testimony representing what the data shows, and upon SED's "Concurrence," neither of which considered the testimony of San Carlos' expert, Dr. Glen Stevick,<sup>10</sup> or whether 330 psig is the correct MAOP pursuant to the federal regulations

While it may be appropriate in some circumstances to rely exclusively on the representations and assurances of witnesses without confirming data, it is not appropriate here where: (1) the data is readily available; (2) the analysis is driven almost exclusively by what the data shows; (3) the OSC specifically sought confirmation of the reliability of PG&E's records;<sup>11</sup> and (4) the Commission has been criticized for its failure to look behind the representations of PG&E witnesses and examine the bases for those representations.<sup>12</sup>

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<sup>9</sup> PG&E's witnesses repeatedly stated that PG&E could legally request an MAOP of 400 psig for Line 147. See 18 RT 2837: 1-7; 2839: 18-20; 2841: 8-13; 2861:1-5 (Johnson/PG&E). See also, Ex. OSC-6, PG&E Response to ORA 96, Question 6(f).

<sup>10</sup> Ex. S, Stevick Testimony.

<sup>11</sup> OSC, pp. 4-6. The title of the OSC emphasizes the requirement that PG&E must show that its records are reliable: "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." The heading on page 4 was entitled "Continuing Inaccuracy of PG&E's Natural Gas Transmission System Records." On page 6 the OSC concludes: "Due to the serious issues raised in the attempted July filing, PG&E is ordered to appear at the hearing scheduled below and show cause why all orders issued by this Commission authorizing increased operating pressures should not immediately suspended pending competent demonstration that PG&E's natural gas system records are reliable."

<sup>12</sup> See, e.g., National Transportation Safety Board, Pipeline Accident Report, Pacific Gas and Electric Company, Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, California, September 9,

Finally, the Decision fails to consider whether PG&E calculated its proposed MAOP of 330 psig consistent with federal regulations governing the establishment of MAOP.<sup>13</sup> This is a significant oversight given the Commission's responsibility under state and federal law to ensure PG&E's compliance with minimum federal safety standards.<sup>14</sup>

These errors are not harmless, and must be corrected. As explained above, the Commission's failure to establish a binding MAOP for Line 147 poses safety concerns regarding PG&E's operation of that line. The Commission's failure to include in the record all of the relevant data supporting its decision poses a special concern given the national attention paid to the Commission's regulation of its gas utilities. Consider, for example, if Line 147 were to explode two years from now and the National Transportation Safety Board (NTSB) were to investigate the explosion. The NTSB would examine how PG&E, under the Commission's oversight, established the MAOP for the line. Because there would be no data in the record for the NTSB to determine whether the required pressure tests had been performed, where, when and how PG&E represented in testimony, or what the features of the line were, it would once again have to conclude that the Commission relied upon PG&E's representations without reviewing any data to verify those representations<sup>15</sup> It would also need to obtain the original data from PG&E, because it is not in the record of the Commission proceeding -- even though there is a pending Commission investigation revealing PG&E's historic inability to manage its pipeline records,<sup>16</sup> and the Commission has raised questions regarding the progress of PG&E's current recordkeeping clean up in this proceeding as well.<sup>17</sup> Suffice it to say that the Commission would be justifiably criticized for trusting to PG&E retention of data relied upon by the Commission to issue a safety-related decision.

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2010, adopted August 30, 2011 (NTSB Report), pp. 120-126 where the NTSB concludes that both PHMSA and Commission oversight of PG&E was "ineffective".

<sup>13</sup> See 49 CFR Part 192, Subpart L, and specifically § 192.619.

<sup>14</sup> See, e.g., 49 USC §§ 60101 et seq., §§ 451 and 2101 of the California Public Utilities Code, and Commission General Order 112.

<sup>15</sup> See, e.g., NTSB Report, pp. 120-126.

<sup>16</sup> I.11-02-016, Recordkeeping Investigation.

<sup>17</sup> See Footnote 11 above.



With regard to the Decision establishing the MOP for Line 147, rather than the MAOP, the NTSB would have to wonder whether the Commission understands that one is legally binding and the other is not. And even if that oversight is corrected, the Commission has a responsibility to verify that PG&E's requested MAOP is consistent with the federal regulations. Absent this verification, the NTSB could conclude that though the issue was squarely raised by parties in the proceeding – the Commission has failed to meet its federal law obligation to ensure compliance with the minimum federal safety standards codified at 49 CFR Part 192. The NTSB might even wonder whether the Commission, charged with overseeing the safety of PG&E's gas transmission system under both state and federal law, knows the difference between MOP and MAOP, given the lack of clarity on this point. The title of the Decision refers to establishing the “maximum operating pressure” of Line 147, and not the MAOP, even though the Decision purports to follow the standards and procedure for restoring lines to full MAOP adopted in D.11-09-006.

The Decision lacks findings of fact, supported by evidence in the record, and conclusions of law on material issues. The law requires that Commission decisions be based on evidence in the record (and on findings of fact and conclusions of law on all material issues).<sup>18</sup> Thus, the record should include evidence (and findings and conclusions) supporting any MAOP approved by this Commission. The Line 147 Decision is deficient in this regard.

As noted earlier, the Decision should also include a determination on the key issue of whether PG&E has properly calculated the MAOP of Line 147 based on a correct interpretation of the federal regulations. This was a disputed issue in this case and the record shows that PG&E may be misinterpreting the regulations. Yet the Decision lacks any findings or conclusions on this issue.

These deficiencies can be corrected. The Commission should reopen and supplement the record with PG&E's Supporting Information for its “Safety Certification” of Line 147 (Confidential Exhibits A and B), after giving PG&E an opportunity to correct errors in that information that were identified in the course of the proceeding. It should also require PG&E to provide for the record the as-built drawings that demonstrate that every component of Line 147 was hydrotested (which were not included in the Supporting Information but which PG&E

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<sup>18</sup> California Public Utilities Code §§ 1705, 1706, and 1757.

showed the parties after the first day of hearings). Because some of these documents cannot be redacted and remain useful, they should be submitted under seal. PG&E should also be required to provide supplemental testimony or an affidavit that explains how it calculated the MAOP for Line 147, and how this calculation is consistent with the governing federal regulation, 49 CFR 192.619. The final decision should include findings and conclusions (based on the record and the applicable law) on what is the correct MAOP for Line 147 and whether PG&E determined the MAOP correctly. Finally, the Decision should determine the MAOP for Line 147, rather than the MOP, and all references to MOP or “maximum pressure” should be checked to ensure those terms are being used correctly.

Pursuant to Rule 14.3(b), ORA’s proposed changes to the proposed decision were attached as Appendix A to its December 13, 2013 comments on that decision, and may provide guidance to resolve the legal errors identified by this rehearing application.<sup>19</sup>

### III. DISCUSSION

#### A. The Line 147 Decision Commits Legal And Factual Error By Approving A Maximum Operating Pressure, Rather Than A Maximum Allowable Operating Pressure For Line 147

The Line 147 Decision refers to “maximum pressure,” “maximum operating pressure” (MOP), and “maximum allowable operating pressure” (MAOP) without defining the terms or explaining their legal significance.<sup>20</sup> It is unclear whether the Decision is using these terms interchangeably to refer to the same thing. Most of these references should be to MAOP, to be consistent with federal law and the Commission’s prior pressure restoration decisions. The plain language of the Decision, however, purports to set the “maximum operating pressure” or “MOP” for Line 147 at 330 psig, and fails to designate any MAOP for the line. The terms mean different things; they are not interchangeable. ORA identified this lack of clarity in its comments on the

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<sup>19</sup> Comments Of The Office Of Ratepayer Advocates On The Proposed Decision Setting The “Maximum Operating Pressure” For Pacific Gas And Electric Company’s Natural Gas Transmission Line 147, December 13, 2013, R.11-02-019 (ORA PD Comments).

<sup>20</sup> See Decision, p. 1, Title (“Decision Establishing Maximum Operating Pressure For Pacific Gas And Electric company’s Natural Gas Transmission Line 147”); pp. 4, 10-11, 13, 15 (Finding of Fact refers to PG&E’s “maximum pressure analysis” when the showing actually included PG&E’s “Maximum Allowable Operating Pressure (MAOP) Report” at page B-111 in Appendix B to its Safety Certification), 16-17, Findings of Fact 3 and 4, Conclusions of Law 3, Ordering Paragraphs 1 and 2).

proposed decision.<sup>21</sup> Because the language was not changed in response to those comments, the Joint Parties assume the final Decision’s failure to determine the MAOP of Line 147 was intentional. The Decision contains internal inconsistencies and several factual and legal errors related to the Decision’s detours around the issue of what is the correct MAOP.

MAOP is a legally defined term in the federal gas pipeline safety regulations,<sup>22</sup> and must be calculated pursuant to the federal regulations at 49 CFR § 192.619. It is the maximum *allowable* operating pressure for the line, and must not be exceeded unless otherwise specifically permitted under the federal regulations. Related federal regulations specify the equipment required to ensure a line operates consistent with the MAOP restrictions.<sup>23</sup> PG&E may be in violation of those regulations if it does not operate the line consistent with those MAOP restrictions.

The NTSB has explained that MOP, which is not defined in the federal minimum standards for transportation of natural gas,<sup>24</sup> is a term used by PG&E for the actual operating limit, *determined by the operator*, which may vary depending on conditions and operational needs, but which is sometimes lower than the MAOP, which is determined pursuant to federal regulations.<sup>25</sup> It is possible, though the Joint Parties are unaware of any evidence in support, that PG&E’s “MOP” is shorthand for “maximum actual operating pressure,” which is defined in the federal regulations as: “the maximum pressure that occurs during normal operations over a period of 1 year.”<sup>26</sup> “Maximum pressure” is not defined in the gas pipeline regulations. Consequently, references in the Decision to “maximum pressure” could be understood to refer to MAOP, MOP, “maximum actual operating pressure,” or something else entirely. As a result the Line 147 Decision is, among other problems, hopelessly unclear.

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<sup>21</sup> ORA PD Comments, pp. 3-5.

<sup>22</sup> 49 CFR § 192.3.

<sup>23</sup> See, e.g., 49 CFR §§ 192.195 and 192.201.

<sup>24</sup> “Maximum operating pressure” is defined at in Part 195 of the federal regulations (49 CFR § 195.2) which applies to the transportation of hazardous liquids, but it is not defined in the regulations governing transportation of natural gas.

<sup>25</sup> See NTSB Report, p. 1, footnotes 6 and 7.

<sup>26</sup> 49 CFR § 192.3.

The NTSB has made it quite clear that MAOP and MOP mean different things. The definition of MAOP is tied to the federal regulations. In its accident report on the San Bruno explosion the NTSB explains on the first page in footnotes 6 and 7:

<sup>6</sup> MAOP is defined by the Pipeline and Hazardous Materials Safety Administration (PHMSA) as the maximum pressure at which a pipeline or segment of a pipeline may be operated under Title 49 Code of Federal Regulations (CFR) Part 192. (Part 192 contains the minimum Federal safety standards for the transportation of natural gas by pipeline.)

<sup>7</sup> MOP is an operating limit defined by PG&E. As explained by PG&E, sometimes a line's MOP equals the MAOP. But when a line is cross-tied to (open to) a line with a lower MAOP, the higher rated line is limited by the MAOP of the lower rated line. In the case of Line 132, when it was open to Line 109 (which had a MAOP of 375 psig), as it was at the time of the accident, the MOP of Line 132 was 375 psig.<sup>27</sup>

Absent any definition of the terms MOP and MAOP in the Line 147 Decision, we must assume these definitions provided by the NTSB are correct. If they are, it is difficult to make sense of the Decision, and portions of the record become inexplicable and incomplete.

Among other things, PG&E requested a reduction in the MAOP, not the MOP, of Line 147. PG&E's Verified Statement proposed a revised MAOP, not MOP, of 330 psig.<sup>28</sup> The record does not tell us what MOP PG&E would propose for the line, if any, or whether a specific MOP was considered by SED, or any parties to the hearings. In any event, the MOP would likely be lower than the proposed MAOP of 330 psig, consistent with the NTSB's understanding of the term. PG&E's Errata states: "The operating pressure of Line 147 will remain limited to 300 psig until the sections are replaced."<sup>29</sup> Evidently PG&E knows that "operating pressure" does not mean "MAOP."

The Decision's approval of a 330 psig MOP raises legal issues as well. For example, Ordering Paragraph 2 requires that PG&E operate Line 147 in accord with applicable law, and states that if applicable law or regulations require a decreased MOP, PG&E shall provide written notice to the parties within 30 days. This Ordering Paragraph was presumably adopted in

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<sup>27</sup> See NTSB Report, p. 1, footnotes 6 and 7.

<sup>28</sup> Verified Statement, ¶ 5.

<sup>29</sup> Ex. OSC-1, Errata, p. 2.

response to the companion Rule 1.1 OSC in this proceeding, wherein the Chief ALJ made clear that PG&E may not change a Commission-established MAOP without notifying the Commission and parties of this fact.<sup>30</sup> However, if the Decision here is establishing a MOP for Line 147, rather than an MAOP, this Ordering Paragraph is meaningless and without effect because there are no laws or regulations that “require a decreased maximum operating pressure,” so PG&E would have no notice obligation.

The Decision’s failure to determine the MAOP for Line 147 constitutes legal error that implicates safety. If the MAOP for Line 147 is not limited by a Commission decision, PG&E is free to establish its own MAOP for Line 147 (consistent with the federal safety regulations) – which the record suggests would be much higher than the 330 psig requested at this time. In this proceeding, PG&E has repeatedly argued that although it was requesting a 330 psig MAOP, it *could* legally request a 400 psig MAOP for Line 147.<sup>31</sup> Nothing in the Decision prevents this outcome because the Decision is silent regarding the proper MAOP for Line 147 and nothing in the language of the Decision prevents PG&E from operating at either a MOP or MAOP of over 330 psig.<sup>32</sup> Ordering Paragraph I of the Decision simply states:

Pacific Gas and Electric Company may operate natural gas transmission Line 147, with associated shorts, with a maximum operating pressure of 330 pounds per square inch gauge.

Because MOP is “an operating limit defined by PG&E,” we have no certainty when or if PG&E will change that operating limit. Consequently, if the Commission intended to limit PG&E’s operations to a maximum of 330 psig – which the Joint Parties believe was the Commission’s intent – the Decision should have established the MAOP, rather than the MOP, at 330 psig.

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<sup>30</sup> 16A RT 2335-2336: 14-28 and especially 2336: 25-28 (Chief ALJ) (“we must have accurate and timely information from all parties that appear before us in order to accomplish this mission”). (Chief ALJ).

<sup>31</sup> PG&E’s witnesses repeatedly stated that PG&E could legally request an MAOP of 400 psig for Line 147. See 18 RT 2837: 1-7; 2839: 18-20; 2841: 8-13; 2861:1-5 (Johnson/PG&E). See also, Ex. OSC-6, PG&E Response to ORA 96, Question 6(f).

<sup>32</sup> It is possible that D.11-12-048 could be read to limit PG&E’s ability to operate over 365 psig. However, that decision contains the same errors described here. It sets the MOP for Lines 101, 132A, and 147, rather than the MAOPs.

Insofar as the Decision set the MOP, rather than the MAOP, for Line 147, it commits legal error because it is not consistent with D.11-09-006, the Pressure Restoration Decision that it purports to apply here.<sup>33</sup> In establishing PG&E's MOP for Line 147, Conclusion of Law 1 states: "PG&E has complied with the Supporting Information requirements of D.11-09-006." However, D.11-09-006 does not require any showing to establish the MOP for a line. That Pressure Restoration Decision was issued to address the fact that PG&E had been ordered to implement pressure reductions on certain lines 20% below MAOP.<sup>34</sup> It established a procedure whereby PG&E could apply to restore those pressures to a higher MAOP,<sup>35</sup> consistent with PG&E's safety obligations under Public Utilities Code § 451,<sup>36</sup> and other applicable law. MOP was not addressed in the Pressure Restoration Decision. Thus, the Decision's adoption of a MOP, in lieu of an MAOP, does not follow the Pressure Restoration Decision, as it purports to do. The scope of the proceeding as articulated at the OSC,<sup>37</sup> and the hearings, focused on

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<sup>33</sup> See, e.g., Decision, p. 2-3, 5-6, 9-13, 15, Finding of Fact 2, 16, Conclusion of Law 1. Pages 11-12 include a chart demonstrating PG&E's compliance with D.11-09-006. 18 RT 2761: 16-19 (ALJ): "The narrow issue in front of us today is Line 147 and whether PG&E has met the requirements of Decision 11-09-006. That's all." See also 2763: 4-7 (ALJ): "This is not an Order to Show Cause proceeding. This component is a pressure restoration proceeding." The ALJ also clarified, in response to questions from the parties, that the pressure restoration component of the proceeding is categorized as rulemaking, while the OSC proceeding is adjudicatory. 18 RT 2770: 4-12.

<sup>34</sup> D.11-09-006, pp. 2-3, 14, Finding of Fact 1.

<sup>35</sup> See the list of requirements in Ordering Paragraph 4 of D.11-09-006, pp. 17-18, as repeated in the Decision at pages 2-3. See also D.11-09-006, pp. 2-3, 4 ("To obtain authority to restore MAOP"), 7 ("Restoring MAOP in PG&E's transmission pipelines has significant implications for public safety" and "The public deserves to be informed about PG&E's proposed MAOP restoration and to have an opportunity to assess PG&E's evidence in support of the request"), 8 ("we require that PG&E submit a comprehensive timeline for all natural gas transmission lines subject to pressure restrictions for which PG&E expects to seek permission to restore MAOP"), 10 ("Turning now to the substantive requirements for the information PG&E must file in support of its request to restore MAOP"), 14 Finding of Fact 2 (After PG&E completes pressure tests, a public process is appropriate to review the adequacy of PG&E's demonstration before the Commission lifts the operating pressure limitation and allows MAOP to be restored."), et seq.

<sup>36</sup> D.11-09-006, p. 6.

<sup>37</sup> The OSC focused on PG&E's proposed MAOP of 330 psig. See, e.g., OSC, p. 3 ("Under typical circumstances, this MAOP reduction would not require Commission action but in D.11-12-048 the Commission set the MAOP at 365 psig."). However, note that the OSC also uses the terms MAOP and "maximum operating pressure" interchangeably.

revisiting the MAOP. If not corrected, these errors and inconsistencies could provide a basis for reversing the Line 147 Decision for failure to “proceed in the manner required by law.”<sup>38</sup>

It is possible that the Decision established the MOP, rather than the MAOP, for Line 147 to avoid a different legal error that ORA identified in its comments on the proposed decision. ORA pointed out that federal law requires the Commission to ensure PG&E’s compliance with the minimum federal safety standards and that the Commission had failed to require PG&E to show that its proposed MAOP was consistent with those minimum federal safety standards.<sup>39</sup> ORA proposed that PG&E make this showing, and that the Commission analyze it for compliance with the federal requirements. However, that inquiry would have required additional time, and it is evident from the prehearing conference that restoring the pressure of Line 147 was viewed as an urgent matter.<sup>40</sup> Further, such a showing may have established that PG&E has operated Line 147 above the MAOP. Commissioner Ferron articulated this possibility in the Rule 1.1 OSC:

I just wanted to make one point in answer to Mr. Stavropoulos' claim that the revised MAOP was 330 and we're operating at 300 so no harm, no foul. The issue is really, as I understand it on May 19, 2013, so after the decision was rendered, the line is operating at 355.4 pounds. So, well above the 330. That would have been established had we known about it. I mean, there is the potential here for considerable concern about what level of pressure that this pipe has been subjected to.<sup>41</sup>

Commissioner Ferron’s statement also demonstrates that at least one Commissioner – who was clearly very well informed regarding the specifics of these proceedings – was well aware that the MAOP of Line 147 (not the MOP) was at issue in this proceeding, and must be considered in connection with any safety issues related to operating pressure. Commissioner Ferron was absolutely correct. It is the Commission’s responsibility to make sure PG&E determines the MAOP of its pipelines correctly, according to federal safety requirements, and does not exceed MAOP in its operations. The Commission cannot meet that responsibility by issuing a pressure restoration decision that fails to determine the correct MAOP of the line.

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<sup>38</sup> See Public Utilities Code § 1757.

<sup>39</sup> ORA PD Comments, pp 5-8.

<sup>40</sup> See generally PHC-3 and the discussion in Section III.F below.

<sup>41</sup> 19 RT 3055-3056: 19-3 (Ferron). PG&E’s Errata (Ex. OSC-1) admitted that that Line 147 did operate at 355.4 psig at some point before its MAOP was reduced to 330 psig. Ex. OSC-1, Errata, p. 2.

The Commission should correct these legal and factual errors, and issue a revised decision that determines what the MAOP of Line 147 is based on the record and applicable law.<sup>42</sup>

**B. The Line 147 Decision Commits Legal Error By Concluding That The Federal Regulations Governing The Maximum Allowable Operating Pressure Of Lines Currently In Service Do Not Apply To Lines Installed Before 1970**

At various points during the hearings, parties observed and argued in their comments: (1) that PG&E did not appear to be calculating its MAOP consistent with the federal regulations, specifically 49 CFR § 192.619;<sup>43</sup> and (2) that D.11-09-006 was deficient to the extent that it did not call for any showing or inquiry into whether a proposed MAOP is consistent with the federal regulations.<sup>44</sup> First, as alluded to above, when approving the MAOP for a line, the Commission has a legal obligation to ensure that the MAOP is consistent with federal safety regulations, including specifically subpart L of the regulations governing the MAOP calculation. ORA learned during hearings that the Commission’s pressure restoration proceedings do not include that inquiry.<sup>45</sup> PG&E responded to the first concern by claiming that 49 CFR § 192.619 was not applicable to pipes installed before passage of the regulations in 1970.<sup>46</sup> The second concern was dismissed. The ALJ explained that the Commission did not consider PG&E’s compliance with § 192.619 in its pressure restoration proceedings: “Well, that is the process that the Commission has engaged in. This [D.11-09-006] is the Commission’s decision. And until it’s changed, it’s the decision that I need to apply in this proceeding.”<sup>47</sup>

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<sup>42</sup> The Joint Parties note that the errors identified in this section of the rehearing request regarding inappropriate use of the terms “maximum allowable operating pressure” and “maximum operating pressure” may also be present in other Commission decisions including D.11-12-048 (passim) and D.11-10-010, Ordering Paragraphs 4 and 5. However, errors in other decisions are outside the scope of this rehearing application.

<sup>43</sup> See footnote 66, below.

<sup>44</sup> See footnote 63, below.

<sup>45</sup> See 18 RT 2748-2750: 20 -16; 18 RT 2768- 2769: 3-8.

<sup>46</sup> See 17 RT 2567-2568; 2688: 1-6; 2701: 7-26; 18 RT 2726-2729: 22-15 (Malkin/PG&E); 2861-2862 (Johnson/PG&E). PG&E’s witnesses repeatedly stated that PG&E could legally request an MAOP of 400 psig for Line 147. See 18 RT 2837: 1-7; 2839: 18-20; 2841: 8-13; 2861:1-5 (Johnson/PG&E). See also, Ex. OSC-6, PG&E Response to ORA 96, Question 6(f).

<sup>47</sup> 18 RT 2768: 19-23. See also, 18 RT 2750: 13-16 and footnote 45, above.



Parties raised these concerns again in their comments on the proposed decision, explaining that these oversights constituted legal error.<sup>48</sup> These concerns were mischaracterized in the Decision:

Both the City and ORA advanced the proposition that that the Commission’s 2011 decision requiring that all natural gas transmission lines in California be pressure tested or replaced also mandated that these lines become subject to the federal requirements for post-1970 gas transmission lines addressed in 49 CFR, Part 192, Section 192.619(a). *Neither party, however, provided a citation to such a Commission directive in the 2011 decision, and the Commission’s subsequent decisions have not applied that subsection to California pipeline pressure tested pursuant to the 2011 decision. That subsection is applicable to pipelines installed beyond the effective date of these regulations since all pipelines are expected to be designed per these regulations.* The Commission adopted a specific pipeline features analysis methodology for PG&E to use in its Pipeline Safety Enhancement Program with the older in-service pipeline.<sup>49</sup>

This discussion is troubling on many levels – but mostly because it reveals a fundamental ignorance of the legal framework that the Commission operates under with regard to the federal gas safety regulations – even after this framework was repeatedly explained during hearings and in comments on the proposed decision.

First, this passage from the Line 147 Decision incorrectly states that the parties argued that D.11-09-006 required application of the federal regulations but were unable to provide a citation from that decision in support. The Joint Parties argued in both the hearings and their comments on the proposed decision that D.11-09-006 improperly failed to apply the federal regulations, but that the federal regulations nevertheless must be applied pursuant to federal law.<sup>50</sup> Next, the passage ignores the parties’ point that the Commission must ensure the utilities’ compliance with the federal regulations – regardless of what the Commission’s own decisions provide. The passage then determines that 49 CFR § 192.619 does not apply to lines installed before adoption of the regulations because “all pipelines are expected to be designed per these

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<sup>48</sup> ORA PD Comments, pp. 5-8; San Carlos PD Comments, pp. 4-5.

<sup>49</sup> Decision, pp. 13-14 (emphases added).

<sup>50</sup> See 18 RT 2748-2750: 20 -16; 18 RT 2768- 2769: 3-8; ORA PD Comments, pp. 5-8; and more generally San Carlos PD Comments, pp. 4-5.

regulations.”<sup>51</sup> The passage goes on to explain that the Commission has therefore adopted its own analysis for older pipelines.<sup>52</sup>

The Line 147 Decision concludes its discussion on these issues by affirming the PG&E and ALJ position during the hearings that a hydrotest resolves all issues:

Where complete knowledge of strength testing to subpart J standards is not available for each segment, available records supplemented with conservative estimates can be used to prioritize these untested segments for interim safety measures and strength testing. Even though complete records for each pipeline segment may not be available, passing a properly conducted hydrotest confirms a pipeline’s fitness for service “without doubt,” concluded the Rosenfeld report, as quoted in detail above.<sup>53</sup>

These excerpts from the Decision reveal two significant legal errors.

First, the Commission is not free to disregard the federal regulations and develop its own rules for determining MAOP, and the federal regulations do not permit operators to establish the MAOP of a gas transmission line based solely on a hydrotest (or to disregard the design MAOP if it is lower than the test MAOP).

The Commission is certified, pursuant to federal law, to enforce the “Minimum Federal Safety Standards”<sup>54</sup> and other federal gas safety regulations.<sup>55</sup> As part of enforcing those regulations, the Commission must enforce standards consistent with or more stringent than the safety standards in the federal safety regulations.<sup>56</sup> Federal law prohibits the Commission from adopting standards lower than the minimum federal standards,<sup>57</sup> and there is a private right of

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<sup>51</sup> Decision, p. 14.

<sup>52</sup> Decision, p. 14.

<sup>53</sup> Decision, p. 14.

<sup>54</sup> The “Minimum Federal Safety Standards” are codified at 49 CFR Part 192.

<sup>55</sup> See, e.g., 49 USC § 60105(a). This is reflected in the Commission’s General Order 112, and there is a state law enforcement obligation as well in Public Utilities Code § 2101.

<sup>56</sup> 49 USC § 60104(c): “Preemption. A State authority that has submitted a current certification under section 60105(a) of this title may adopt additional or more stringent safety standards for intrastate pipeline facilities and intrastate pipeline transportation only if those standards are compatible with the minimum standards prescribed under this chapter. ...” See also, 49 USC 60121(c): “State Violations As Violations Of This Chapter. In this section, a violation of a safety standard or practice of a State is deemed to be a violation of this chapter or a regulation prescribed or order issued under this chapter only to the extent the standard or practice is not more stringent than a comparable minimum safety standard prescribed under this chapter.

<sup>57</sup> Id.

action in the event the Commission fails to properly enforce federal law or the federal safety regulations.<sup>58</sup>

Second, 49 CFR § 192.619 applies to all pipelines in service, not just those installed after the regulations were adopted. Section 192.619 is in subpart L of the regulations, entitled “Operations.” Section 619 of subpart L is entitled “What is the maximum allowable operating pressure for steel or plastic pipelines?” It describes the calculations required to establish the MAOP of a pipeline. Section 192.619 is not, as the Decision suggests, a regulation governing how a pipeline should be designed prior to construction.<sup>59</sup> Design regulations are provided in other subparts of the regulations. Further, nothing in the plain language of the regulation limits its application to post-1970 lines; the regulation does contain an express provision to address pre-1970 pipeline where an operator does not have adequate records – but it does not exempt pre-1970s pipelines from compliance. Nor should it, because such a regulation would make no sense. Exempting older pipelines from the regulations regarding how MAOP is calculated would lead to the perverse result that older pipelines would be subject to less stringent regulatory requirements than newer pipelines. And the Commission’s only decision addressing 49 CFR § 192.619 does not suggest that it does not apply to pre-1970 pipelines.<sup>60</sup>

Finally, according to an exhibit sponsored by PG&E, PHMSA’s Office of Pipeline Safety (OPS) considers the provisions of subpart L (which includes § 192.619) to be retroactive. That exhibit, Attachment A hereto, purports to be an “OPS List of Retroactive and Non-Retroactive Subparts of Pipeline Safety Laws and OPS Pertinent Contacts.” The last page of the exhibit groups the subparts of Part 192 of the CFR into “Retroactive Subparts” and “Non-Retroactive Subparts” and subpart L, Operations, is clearly in the “Retroactive Subparts” category.<sup>61</sup>

In short, the plain language of the federal safety regulations on determining MAOP, the absence of an exemption for lines installed before 1970, logic dictating that 49 CFR § 192.619

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<sup>58</sup> 49 USC § 60121, “Actions by private persons”. Subsection (b) permits and award of costs and fees to a prevailing plaintiff.

<sup>59</sup> Decision, p. 14 (“That subsection is applicable to pipelines installed beyond the effective date of these regulations since all pipelines are expected to be designed per these regulations.”)

<sup>60</sup> D.11-06-017, pp. 20 and 31, Ordering Paragraph 4.

<sup>61</sup> Ex. OSC-14, OPS List of Retroactive and Non-Retroactive Subparts, Attachment A hereto, last page.

applies to all pipelines, especially older ones, and an OPS document introduced by PG&E that lists subpart L (including § 192.619) as retroactive, (in contrast to pipeline design requirements which for obvious reasons are not), all compel the conclusion that the provisions on MAOP apply to *all* pipelines in service. PHMSA has concluded that 49 CFR § 192.619 applies to all pipelines, regardless of their age. It is difficult to understand how the Decision reaches the opposite conclusion. This legal error in the Decision must be corrected.

**C. The Decision Commits Legal Error Because There Is No Showing That PG&E Properly Calculated The MAOP Consistent With Applicable Federal Regulations And No Resolution Of That Issue**

Regardless of whether the Commission agrees that 49 CFR § 192.619 applies to pre-1970 lines, the Commission is still required to ensure that PG&E's MAOP is calculated consistent with the federal regulations, and especially in light of the San Bruno tragedy, this showing should be included in relevant Commission decisions. However, the Commission's decision describing the showing that PG&E must make to establish MAOP – D.11-09-006 – does not require PG&E to show that it has properly complied with the federal regulations.<sup>62</sup> In fact, a review of the Commission decisions issued in this proceeding, and the discussions in the November 18 and 20 hearings, reveal that the issue of what is required to establish an appropriate MAOP consistent with federal regulations has been overlooked in the Commission's pressure restoration orders for the past two years.<sup>63</sup> Instead, the Commission's focus, as

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<sup>62</sup> See D.11-09-006, pp. 4-6, 11-12, 17-18, which explains the showing PG&E must make; see also Decision, pp. 2-3, which reiterates the showing PG&E must make pursuant to D.11-09-006. Neither of these lists make any reference to the relevant federal regulations which establish the rules for calculating the MAOP of a line, which are in subpart L of the code. There is one reference to subpart J of the code in item G(b) of the D.11-09-006 list. However, subpart J does not address the establishment of MAOP. It addresses the requirements for performing a proper hydrotest.

<sup>63</sup> The issue of PG&E's failure to show compliance with the federal regulations governing the setting of MAOP was repeatedly raised in the November 18 and 20 hearings and the parties were discouraged from pursuing this issue. See, e.g. 18 RT 2748-2750: 20-25 and 18 RT 2864-2865: 6–26. This issue was expressly raised in no uncertain terms at 18 RT 2749-2750: 24-20:

MS. BONE: Your Honor, if the Commission is using an incorrect protocol to set MAOP that is not consistent with federal regulations, that is an issue that needs to be addressed here when you decide to set the next MAOP for Line 147. It cannot be ignored. It would be legal error to ignore the fact that we have an improper application of the federal code to calculate the MAOP.

articulated in those decisions, has been on whether PG&E's hydrotests met the requirements of a different section of the federal code – Subpart J (Test Requirements), which addresses how to perform a proper hydrotest.<sup>64</sup> In this myopic and misplaced focus on hydrotests, the Commission has apparently failed to understand that a properly performed hydrotest is only one component considered in establishing a MAOP consistent with the regulations in Subpart L of the code. To the Joint Parties' knowledge, only D.11-06-017, which held that California operators must validate the MAOP of their lines without relying on the grandfather provision, properly recognizes that an MAOP must be set pursuant to §192.619 in Subpart L of the code.<sup>65</sup>

Verifying that PG&E has complied with the federal regulations when establishing the MAOP is not just an academic concern. PG&E was evasive in its testimony regarding which provision it has applied to calculate the MAOP for Line 147<sup>66</sup> - thus suggesting the very real possibility that PG&E is not in compliance with the regulations, or that it has exceeded the MAOP in some instances. PG&E has admitted that it has a “corrected regulatory interpretation” of § 192.611 of the code, which it refers to as “one-class out,” and that this new “conservative

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MAOP is not just based on hydrotest records. You take the Subpart J record, and you run it through the requirements of 619, and you look at the design MAOP as well. And that section is the one that determines what MAOP does. You cannot ignore that section to set MAOP. And that is what appears to be happening here.

ALJ BUSHEY: If it's happening here, then it's happened throughout this proceeding. I don't agree that it is happening here. But we need to get started. We've spent an hour on this now. And it appears that there are no factual disputes. If there are any disputes, they're legal disputes.

See also, 18 RT 2768-2769 (ORA/Bone). A review of the Commission's decisions setting the MAOPs for other PG&E gas lines confirm that the Commission has not previously considered whether or not PG&E's proposed MAOPs complied with Subpart L of the code, which govern how MAOP is established. See, e.g., D.12-09-003, D.11-12-048, and D.11-10-010.

<sup>64</sup> See, e.g., D.12-09-003, pp. 5 and 7, D.11-12-048, pp. 4 and 7-10, and D.11-10-010, p. 3 (there is also a mention of Subpart K in this decision (Uprating), but no mention of Subpart L).

<sup>65</sup> D.11-06-017, pp. 20 and 31, Ordering Paragraph 4.

<sup>66</sup> See, e.g., Mr. Malkin's discussion of PG&E's position at 18 RT 2725-2729 which never once admits that design pressure is a consideration for setting the MAOP of a line, and where he implies that lines constructed before 1970 are not subject to § 192.619. See also Mr. Singh's testimony at 18 RT 2860-2865, where he similarly avoids answering direct questions regarding whether design MAOP is relevant to PG&E's proposal of a 330 psig for Line 147 and suggests that lines constructed before 1970 are not subject to § 192.619. There were similar discussions like this throughout the November 18 and 20 hearings.

reading” of the regulation requires lowering the MAOP of Line 101.<sup>67</sup> Evidence presented by PG&E and discussions in the hearings about Line 101 suggest that PG&E has been incorrectly applying § 192.611 for over 40 years, resulting in MAOPs that are higher than permitted under the regulations.<sup>68</sup> The Joint Parties estimate that PG&E’s changed interpretation of § 192.611 may impact up to 13% of its gas pipeline system.<sup>69, 70</sup>

Both of these factors demonstrate that the Commission can no longer defer to PG&E regarding MAOP calculations if it seeks to comply with its regulatory obligations under federal law.

**D. The Decision Commits Legal Error By Failing To Include Findings And Conclusions On Material Issues And Erroneously Excluding Key Evidence From The Record**

The Line 147 Decision outlines the “expedited process” adopted in D.11-09-006, which specified the showing that PG&E must make to restore the MAOP on its natural gas transmission lines.<sup>71</sup> The Line 147 Decision states that D.11-09-006 requires PG&E to “submit” the following information:

- A. [Name/]number of segment, general description, location, length of segment, and percent specified minimum yield strength (SMYS) at maximum allowable operating pressure (MAOP).
- B. Maximum operating pressure (MOP) and MAOP for each segment and the entire Line prior to the pressure reduction.

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<sup>67</sup> 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), ¶ 4; *see also* Verified Statement, ¶¶ 63-64 and Ex. OSC-1, Errata, pp. 2-4;

<sup>68</sup> 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), *passim* and ¶¶ 4, 63-64; 16B RT 2502-2504 (Johnson/P&G&E); and 20 RT 3133-3135: 22-18 (Singh/P&G&E); Ex. OSC-5; and 20 RT 3172-3184.

<sup>69</sup> ORA bases this calculation on information contained in confidential Attachment 1, contained in a data response PG&E provided to SED-5, Q 13. Cross examination on this issue was not permitted on the basis that PG&E’s compliance with 49 CFR § 192.611 was not within the scope of this proceeding. See, e.g., 20 RT 3180-3184: 21-25.

<sup>70</sup> Notwithstanding that the OSC expressly identified this as an OSC issue (OSC, pp. 3-4) the parties were informed during hearings that this issue was being addressed between PG&E and SED outside of this proceeding. See 20 RT 3173:20-24; 3176: 20-21; and 3184: 18-25 (ALJ).

<sup>71</sup> Decision, pp. 2-3.

- C. Reason for MAOP reduction.
- D. Complete Pressure Test Results for each segment in Class 3 or Class 4 locations or Class 1 or Class 2 High Consequence Areas (HCA) where MAOP will be restored. Explain findings and any actions taken based on results of pressure testing.
- E. MAOP validation records for non-HCA segments where MAOP will be restored.
- F. Proposed MOP and MAOP for each segment and the entire Line and proposed effective date.
- G. Safety Certification. Verified statement from the PG&E officer responsible for gas system engineering that:
  - a. PG&E has validated pipeline engineering and construction;
  - b. PG&E has reviewed pressure test results and can confirm that a strength test was performed on the segment in accord with 49 CFR Part 192, subpart J, or the regulations in effect at the time the pressure test was performed; and
  - c. in the professional judgment of the engineering officer, the system is safe to operate at the proposed MAOP.
- H. Concurrence of the Commission’s Consumer Protection and Safety Division.<sup>72</sup>

While the Decision states that D.11-09-006 required PG&E to “submit” this information,<sup>73</sup> D.11-09-006 actually required PG&E to “file” this information – thus making it part of the record of the proceeding.<sup>74</sup> D.11-09-006 also anticipated that the requirements listed above would be the “minimum requirements for future such filings.”<sup>75</sup>

Pursuant to an October 8, 2013 Ruling of the Assigned Commissioner and the Assigned ALJ, PG&E made most of its showing regarding the safety of Line 147 in a “Safety Certification” served on some of the parties on October 11 and 16. PG&E’s “Safety Certification” included a four-page cover note, including as Attachment B a one-page Verified

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<sup>72</sup> Decision, pp. 2-3. It is unclear how PG&E could provide the Concurrence of the Commission’s Consumer Protection and Safety Division (see Item H), but this is what D.11-09-006 requires.

<sup>73</sup> Decision, p. 2.

<sup>74</sup> D.11-09-006, p. 11 (“We ... adopt the following requirements for the Supporting Information to be filed by PG&E with this first request to lift an operating pressure limitation and we expect that this information will be the minimum requirements for future such filings.”)

<sup>75</sup> D.11-09-006, p. 11.

Statement from Mr. Kirk Johnson, PG&E's Vice President, Major Projects and Programs, Gas Operations. For convenience, that 4 page cover note is Attachment B hereto. The Safety Certification also included confidential Exhibits A and B, two volumes of materials which together were approximately one inch high, and were provided to support the statements made in Mr. Johnson's one-page Verified Statement. Confidential Appendix A of the Safety Certification includes, among other things, hydrotest information on the mainline portion of Line 147. Confidential Appendix B of the Safety Certification includes, among other things, hydrotest information on the "shorts" related to Line 147 and PG&E's "Maximum Allowable Operating Pressure (MAOP) Report."<sup>76</sup>

With regard to the record of this proceeding, the first legal error was committed when only the four-page cover note for PG&E's Safety Certification was entered into the record as PG&E's "Safety Certification" supporting PG&E's claim that every foot of Line 147 has been properly hydrotested. PG&E stipulated that Exhibits A and B to the Safety Certification could be entered into the record, under seal if necessary,<sup>77</sup> ORA engaged in extensive cross examination using those exhibits,<sup>78</sup> and ORA moved to have them entered into the record, more than once.<sup>79</sup> Each time, however, the motion was denied.<sup>80</sup>

To reiterate ORA's position articulated in the hearings: PG&E assertions regarding hydrotests are not sufficient to establish the MAOP of a natural gas transmission line in a formal Commission proceeding.<sup>81</sup> Nor is it adequate to rely upon assertions by the Commission's

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<sup>76</sup> PG&E's October 16, 2013 filing in this proceeding defined shorts as follows: "Along the route of Line 147, there are 15 smaller diameter pipelines tapped off the mainline that supply gas to individual customers, feed the distribution system (DFMs) or are required for pipeline operations (such as blow-downs or drips). Even though some of the DFMs may not be short in an absolute sense, all of these appurtenances to the mainline pipe are referred to as 'shorts.'"

<sup>77</sup> PG&E offered to redact Exhibits A and B so that they could be entered into the public record. However, ORA determined that redaction would have rendered the information in the Exhibits meaningless.

<sup>78</sup> *See, e.g.*, 17 RT 2683:26, 2685:13, and 2699:22.

<sup>79</sup> Discussion regarding ORA's motion is at 18 RT 2751-2754, 2765-2767 and 2974:6-18. *See also* footnote 87, below.

<sup>80</sup> *See* footnote 87, below.

<sup>81</sup> Discussion regarding ORA's motion is at 18 RT 2751-2754, 2765-2767 and 2974:6-18.



Safety and Enforcement Division (SED), or any other party.<sup>82</sup> The hydrotests, and any other evidence necessary to establish the safety of the line, should be included in the record of the proceeding. Here, the only record available to establish the MAOP of Line 147 is PG&E's four page cover note to its Safety Certification, SED's "concurrence,"<sup>83</sup> and testimony (mainly from PG&E witnesses) over two days of hearings. Without any corroborating data whatsoever in the record, there is no way for an independent observer to review the record of this proceeding, and determine that the MAOP was properly set.

Notably, even if Exhibits A and B (the Supporting Information for PG&E's Safety Certification) were included in the record, they still do not demonstrate that all of Line 147 was hydrotested. This is because (as parties learned during the hearings) PG&E does not rely on the hydrotest reports included in those exhibits to track where each hydrotest was performed.<sup>84</sup> Indeed, it could not rely on those reports because the hydrotest information in them is internally contradictory and inaccurate. This was the subject of ORA's testimony in this proceeding.<sup>85</sup> Despite ORA's considerable efforts via discovery to get PG&E to explain discrepancies in the hydrotest information provided in support of its Safety Certification, it was only after the first day of hearings that PG&E divulged that it relies primarily upon as-built drawings of a line to identify where hydrotests of that line start and stop (maps that were not included in the supporting information for its Safety Certification).<sup>86</sup> Only by reviewing those as-built maps, with guidance from PG&E, can a person determine whether or not there has been a complete

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<sup>82</sup> For example, ORA's witness testified at 18 RT 2718:20-25 that "... [T]o the degree that we were able to look at the documents and confirm that the line had been hydrotested, I can say that I believe the line has been hydrotested to the pressure that PG&E has stated."

<sup>83</sup> SED's "Report on Investigation of Pacific Gas and Electric Company's Gas Transmission Pipeline 147" was filed on November 14, 2013 in this docket.

<sup>84</sup> 17 RT 2600-2602:17-5 (Singh/PG&E).

<sup>85</sup> ORA's testimony and supporting documents regarding PG&E's flawed showing were entered into the record of this proceeding as Exhibits P and Q.

<sup>86</sup> 17 RT 2600-2602:17-5 (Singh/PG&E). Note that when directly asked: "Please explain which record DRA should consider accurate for understanding where hydrotests were performed on PG&E's system and how much mileage the hydrotests covered, and provide supporting documentation" PG&E did not tell ORA to look at the as built drawing, or offer to provide those drawings to ORA – which would have been the proper response to a very direct question. Instead PG&E answered: "The PFLs are up to date with the most current information for 2011 tests performed on L-147. This is corroborated by the STPRs, as-built drawings, and the Data in the Update PSEP filing due October 29<sup>th</sup>." See Exhibit Q, Supporting Documentation to ORA Testimony, at Exhibit 5, answer to question 2(g).

hydrotest of every foot of a line. Thus, the second legal error committed by the Decision is that the record of this proceeding does not include the as-built maps necessary to determine where the hydrotests actually occurred.

Notwithstanding the fact that Confidential Exhibits A and B to PG&E's Safety Certification totaled approximately one inch of paper and could be filed under seal, and PG&E stipulated to their entry into the record, they were excluded from the record on the basis that it was too cumbersome to do, was made available to the parties for inspection (and therefore was subject to adequate review), and it had never been done in prior pressure restoration proceedings.<sup>87</sup> The Decision obliquely addresses this issue by emphasizing that PG&E did not provide Exhibit A to all of the parties because "PG&E explained that Exhibit A contained sensitive information regarding the location critical infrastructure [sic], the disclosure of which could post [sic] a public safety risk."<sup>88</sup> The Decision then continues: "As with similar sets of information prepared for earlier pressure restoration requests, [footnote omitted] PG&E made this information available for the parties' inspection but not copying."<sup>89</sup> The Decision makes the same representations regarding Exhibit B.<sup>90</sup> The Decision is wrong on both counts. PG&E made both Exhibits A and B fully available – not just for inspection – to the parties who had rights to confidential information, including the Joint Parties. Further, ORA has several copies of both Exhibits A and B in its possession and is free to make more copies as needed, provided they are retained as confidential.

The point is that contrary to what the Decision implies, and the ALJ ruled, there is no good reason why the data was not included in prior pressure restoration proceedings, and there is no good reason why it should be excluded from the record in this proceeding. In truth, all of the facts suggest that this type of evidence should be included in the record of *all* of the

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<sup>87</sup> 18 RT 2752: 1-23; 18 RT 2765-2767: 20-22; 18 RT 2775-2776: 26-18. 18 RT 2974: 15-18 ("... [C]onsistent with our past practice in dealing with pressurization, that information is not included in the formal record."); see also 17 RT 2683:26, 2685:13, and 2699:22 wherein ORA cross examined PG&E witnesses using Exhibit A as a cross examination exhibit. See also, 18 RT 2775-2776 (Gruen/SED making a similar motion to enter hydrotest data into the record).

<sup>88</sup> Decision, p. 5.

<sup>89</sup> Decision, p. 5.

<sup>90</sup> Decision, p. 6 ("As with the October 11 submission [Exhibit A], the specific pipeline information was made available to the parties for inspection but not copying as part of Exhibit B to the request to lift operating pressure limitation." [sic]).

Commission's pressure restoration proceedings as a matter of good and transparent regulatory practice. In this case, both exhibits contain the bulk of the data necessary to support PG&E's assertions concerning the safety of Line 147. ORA reviewed that data, propounded discovery on it, commented on it in prepared testimony, and used Exhibit A to cross examine PG&E's witnesses during hearing on November 18.<sup>91</sup> Indeed, ORA's reliance on them for cross examination, without objection, suggests there should be no question that they should be part of the record. Stranger yet, even though these two slim volumes containing the supporting data for the Safety Certification were excluded from the record, the Decision refers to the data in these documents multiple times as if to show that this evidence (which was required of PG&E) was not ignored.<sup>92</sup> But references in the Decision to the showing in these documents does not fill the gaping hole in the record. These documents are a key part of PG&E's required showing and should be part of the record of this proceeding.

**E. The Decision Contains Factual And Legal Error Because It Fails To Consider Whether PG&E's Showing Demonstrates That Its Records Can Be Relied Upon -- The Question Posed In The OSC**

The August 19, 2013 OSC leading to this pressure restoration proceeding expressly raised the issue of PG&E's ongoing recordkeeping problems in its title: "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*" (emphases added). It specifically stated that PG&E would be required to demonstrate that its pipeline records are reliable, for purposes of determining whether to revise PG&E's MAOPs.<sup>93</sup>

In response to this direction in the OSC, ORA submitted unchallenged testimony that demonstrates that PG&E's records submitted to support the safety of Line 147 were inaccurate, unreliable, and incomplete. These issues were deferred to later hearings – with the sole focus

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<sup>91</sup> See, e.g., 17 RT 2683:26, 2685:13, and 2699:22.

<sup>92</sup> Decision, pp. 2-3, 10-11, p. 15 Finding of Fact 2, p. 16 Finding of Fact 5..

<sup>93</sup> OSC, p. 6 ("Due to the serious issues raised in the attempted July filing, PG&E is ordered to appear at the hearing scheduled below and show cause why all orders issued by this Commission authorizing increased operating pressures should not immediately suspended pending competent demonstration that PG&E's natural gas system records are reliable.").

being to get everyone to agree that PG&E had pressure tested every inch of Line 147 – regardless of the actual showing PG&E had made. Concerns regarding PG&E’s failure to provide accurate and complete records in its Safety Certification were dismissed as “paperwork”<sup>94</sup> and “documentation problems”<sup>95</sup> rather than recognized as recordkeeping problems within the scope of the OSC.

The Decision similarly ignored ORA’s showing of PG&E’s records deficiencies.

Setting aside the OSC expectation that there would be a recordkeeping inquiry before establishing an MOAP for Line 147, it seems axiomatic that the Commission should know with certainty, before it issues an MAOP decision, that the data supporting that MAOP is in fact accurate, complete, and reliable. The Decision’s failure to consider whether PG&E’s MAOP showing rests on reliable records constitutes legal error.

**F. The Decision Commits Legal Error And Denies San Carlos Due Process By Making a Decision Without A Complete Record**

San Carlos’ motion for party status was granted at the October 21, 2013 pre-hearing conference (PHC).<sup>96</sup> The ALJ explained that the purpose of the PHC was to resolve discovery disputes and schedule future cross examination of PG&E’s witnesses.<sup>97</sup> At that PHC, both the cities of San Bruno and San Carlos expressed concerns with moving forward in revising the operating pressure for Line 147 without expert engineering advice.<sup>98</sup> PG&E emphasized that curtailments could occur absent changes in the status quo, and PG&E’s interim proposal – modified in response to a safety flaw that San Carlos identified without benefit of any

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<sup>94</sup> 18 RT 2754-2755: 26-17; 18 RT 2754 2-5 (“The only dispute is about what’s been presented, that they haven’t presented the correct paper to the Commission?”).

<sup>95</sup> 18 RT 2764-2765: 15-16.

<sup>96</sup> PHC-3 RT 45-46: 20-6 (ALJ).

<sup>97</sup> PHC-3 RT 46: 7-22 (ALJ).

<sup>98</sup> PHC-3 RT 57: 3-19 (Rubens/San Carlos) and 53: 1-6 (Strottman/San Bruno): “But it’s my position as city counsel for City of San Bruno that an independent engineer take a look at this. We have seen through the proceedings that some assertions that PG&E have made about the safety of their lines has not been accurate.”

engineering advice<sup>99</sup> - was adopted based on PG&E's unexamined and unsupported curtailment assertions, and over the objections of San Carlos.<sup>100</sup> Ultimately, San Carlos was reminded:

And recall, of course PG&E is the operator of the line. It is their responsibility to operate it in a safe manner at all times. So that's, it's on them. So keep that in mind.<sup>101</sup>

Given PG&E's unwillingness to take responsibility for the San Bruno explosion, it is fair to say that this admonition provided San Carlos no solace, and it reserved its rights to bring evidence forward in the future to challenge the adopted protocol.<sup>102</sup>

Ultimately, San Carlos never had the opportunity to put on the evidence it felt was necessary to address the proper MAOP of Line 147. San Carlos sought to perform a fracture test on the portion of the line that was removed from service, and provide testimony on the relevance of that test, including potentially the need to replace parts of Line 147.<sup>103</sup> Instead, hearings were scheduled before a such test could be performed and analyzed, all under the guise of raising Line 147's operating pressure to avoid customer curtailments – again, assertions which PG&E never supported with any meaningful analysis or evidence.

The Commission's rush to judgment was unnecessary and unlawful. In light of the fact that PG&E withheld the need to reduce the operating pressure for Line 147 from the Commission for over 8 months, this rush to judgment was also ill-advised. San Carlos was willing to put PG&E's claims of curtailment to the test. Yet, notwithstanding a record of PG&E errors and omissions, the Commission again deferred to PG&E's inadequate showing to make a final decision on this matter

In all, PG&E and this Commission ignored local government in the Line 147 pressure restoration proceedings. As a coordinate branch of government charged with the immediate protection of the public health, safety, and welfare, and as the very entity which, by virtue of its franchise agreements, permits PG&E to operate a gas and electric system, a measure of respect for its responsibilities, and deference towards its constituency, is warranted. Public confidence

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<sup>99</sup> PHC-3 RT 73-74: 3-9 (Rubens/San Carlos).

<sup>100</sup> PHC-3 RT 57-66: 20-9.

<sup>101</sup> PHC-3 RT 67: 8-12.

<sup>102</sup> PHC-3 RT 67: 17-26.

<sup>103</sup> 18 RT 2953-2956: 3-22 (Rubens/San Carlos).

in this institution and in the utility could not be any lower,<sup>104</sup> yet there is no remedy in the Line 147 Decision which addresses this fundamental disconnect. The Commission has the power and the duty to direct this utility to do better.

As stated above, on several occasions, San Carlos requested on the record more time to analyze whether Line 147 is safe. San Carlos continues to this day to review the information and data that it is receiving about Line 147.<sup>105</sup> San Carlos has expended significant time and money to ensure that complete and accurate expert testing was conducted on Line 147 and the Commission denied San Carlos' reasonable request to delay the vote on the Commission decision for another month,<sup>106</sup> and the Line 147 Decision never once addressed any of the issues raised by San Carlos – as if no record existed on its issues. Simply stated, this proceeding and decision was rushed. Instead of giving deference to the very important public safety concerns expressed by San Carlos and its City Council, the Commission felt that PG&E's need to restore operating pressure due to unverified “winter demands” and manufactured deadlines for PG&E projects,<sup>107</sup> trumped the City's legitimate public concerns.

#### IV. CONCLUSION

For the reasons set forth above, in the record of this proceeding, in the Joint Parties's oral arguments made in this proceeding, and in their comments on the proposed decision, the Commission should grant rehearing to correct the errors identified in this application for rehearing. These are the most critical modifications:

- The Commission should direct PG&E to explain how it determined the revised MAOP for Line 147. The Commission should review that information and include it in the record.
- The Commission should determine whether PG&E has established the Line 147 MAOP consistent with the applicable federal regulations (49 CFR Part 192.619), and should make findings and conclusions on this material issue.

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<sup>104</sup> 19 RT 3026:27-28 (Florio) (“There certainly is an enormous public confidence problem ...”).

<sup>105</sup> PHC-3 RT 55: 9-14; 17 RT 2528-2538: 19-20.

<sup>106</sup> *See, e.g.*, PHC-3 RT 74-75.

<sup>107</sup> 18 RT 2800-2804.

- The Decision should establish the maximum allowable operating pressure for Line 147, rather than the maximum operating pressure, based on the record and the applicable federal safety regulations. Key terms including “maximum allowable operating pressure” and “maximum operating pressure” should be defined and used correctly and appropriately throughout the Decision.
- The Commission should consider requiring PG&E to resubmit its Safety Certification after correcting the errors PG&E acknowledged during the proceeding, and any other errors discovered by PG&E in its pressure restoration showing. The supporting information for PG&E’s original or corrected Safety Certification should be admitted into the record of this proceeding (under seal to the extent necessary).
- PG&E should be required to supplement its Safety Certification for Line 147 with the as-built drawings demonstrating that all of Line 147 has been hydrotested, which were shown to the parties for the first time on November 19, 2013. This evidence should also be admitted into the record and findings of fact based on this evidence should be made.

Respectfully submitted,

/s/ TRACI BONE

/s/ STEVEN R. MEYERS

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TRACI BONE

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Attorneys for the CITY OF SAN CARLOS

January 23, 2014

ATTACHMENT A

Exhibit OSC-14

OPS List of Retroactive and Non-Retroactive Subparts of Pipeline Safety Laws and OPS  
Pertinent Contacts



OJC-12

Proceeding: R.11-02-019 \_\_\_\_\_  
Exhibit No.: \_\_\_\_\_  
Date: \_\_\_\_\_

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**PACIFIC GAS AND ELECTRIC COMPANY**

**Determination of Maximum Allowable Operating Pressure in Natural  
Gas Pipelines – PHMSA Instructions**

([http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/  
maop\\_determination.pdf](http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/maop_determination.pdf))

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DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS  
PIPELINES

*INSTRUCTIONS*

The minimum federal pipeline safety standards of 49 CFR Part 192 require that each section of pipeline or each segment of a distribution system have a maximum allowable operating pressure (MAOP) established. A separate MAOP must be established for each distinct segment of a gas pipeline system. The transmission line transporting gas to the town border station, the feeder line supplying district regulator stations, and each separately operated portion of a distribution system, must each have a designated MAOP. The federal standards of Part 192.619, Part 192.621, and Part 192.623 list the factors to review in determining the MAOP, and the lowest pressure thus determined is the MAOP. Records must be available to substantiate any value determined.

The attached form can be used to determine MAOP. It should be kept on permanent file, along with any support documents or records, and periodically reviewed to determine if anything has occurred which would change the MAOP.

The form can be used for both transmission pipelines and distribution systems. Part 192.619 applies to both transmission lines and distribution systems, but only for steel and plastic pipe; this regulation does not apply to other types of pipe, such as cast iron. Part 192.621 applies to high pressure distribution systems but not to transmission lines. Part 192.623 covers low pressure distribution systems.

A. Part 192.619: Transmission Lines and High Pressure Distribution Systems, and Part 192.621: High Pressure Distribution Systems.

Part 192.619(a)(1), Part 192.621(a)(1) Design Pressure.

The design pressure for steel pipe can be determined from Part 192.105, and for plastic pipe from Part 192.121. The design pressure for other pipeline system components will presumably come from the manufacturer's literature. Copies of this literature should be retained for every type of component installed.

Special attention should be paid to pressure regulators. The body pressure rating is not the value to use, but rather the inlet pressure rating which will vary with orifice size. For example, one common service regulator has a body pressure rating of 125 psig, but with a large orifice an inlet pressure rating of only 5 psig. Also, some district regulators may have outlet pressure ratings as low as 5 psig above set point.

If the design pressure rating for system components cannot be determined due to lack of information, setting the MAOP based on Part 192.619(a)(4) or Part 192.621(a)(5) may be considered. This decision should be cleared through the appropriate regulatory authority. It is suggested that any approval received from an appropriate regulatory authority be obtained in writing to confirm action in the future.

## DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS PIPELINES

For transmission pipelines, under certain circumstances a design pressure limit (or lack of information on which to set a design pressure limit) may be overridden by Part 192.619(c). This regulation allows systems components installed prior to July 1, 1970, to remain in service at the same pressure they were subjected to between July 1, 1965, and June 30, 1970, even if that pressure exceeds the pressure rating for the component. If that is the case, the historic operating pressure may be used to set the MAOP in lieu of the design pressure. Note that if the component is replaced, it must meet current design pressure requirements.

### Part 192.619(a)(2): Pressure Test.

A pressure test means raising the pressure in the pipeline (using water, gas, or air) to a level well in excess of the intended operating pressure to check pipeline tightness and integrity. Leak tests conducted at or near operating pressure are not pressure tests within the context of this regulation.

This regulation applies not only to tests made after initial construction of the pipeline or system, but also to tests of pipe used for extensions, laterals, or services connected to the original pipe, and to any replacement pipe. Any single piece of pipe tested to a lower pressure than the rest of the system will set the MAOP for the entire system.

Note that the regulation makes no provision for using a pressure test to set the MAOP for steel pipe operating at less than 100 psig.

If more than one pressure test has been conducted, the most recent test controls.

A record of the pressure test, or for distribution systems the test procedure in use at the time, must be available.

### Part 192.619(a)(3): Historic Operating Pressure.

For onshore pipelines, review records for the highest operating pressure between July 1, 1965, and July 1, 1970, such as pressure charts, regulator station inspection reports showing inlet or outlet pressures, etc. (If no records are available, a notarized statement by a person in charge of pipeline operations during that time period, attesting to the operating pressure during that period, may be acceptable at the discretion of regulatory agencies).

The historic operating pressure limit can be overridden in two ways: by a pressure test under Part 192.619(a)(2) conducted after July 1, 1965, or by an uprating in compliance with Part 192, Subpart K. The most recent test or uprating would control.

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS  
PIPELINES

B. Part 192.621: High Pressure Distribution Systems.

Part 192.621(a)(2): The federal standards limit distribution system MAOP to 60 psig **unless** overpressure protection in accordance with Part 192.197(c) is provided at the point of delivery to customers.

If, as permitted by Part 192.197(c)(3), service regulators with internal relief are selected to permit operation at over 60 psig, the inlet pressure rating for adequate relief capacity must be carefully checked. The amount of inlet pressure the internal relief can safely vent depends on the size of the regulator orifice, with the relievable inlet pressure rating decreasing as orifice size increases.

Part 192.621(a)(3) The MAOP of a distribution systems containing cast iron pipe with unreinforced bell and spigot joints is limited to 25 psig. Reinforcement can be any of several methods of clamping or encapsulating joints to prevent pullout and/or leakage.

Part 192.621(a)(4) Any pressure limit on joints.

C. Additional Consideration.

If the operator has adequate data to thoroughly check all other MAOP criteria, but believes that a lesser pressure should be specified due to safety considerations not addressed in the other criteria, then the operator can set the MAOP at whatever value is considered the maximum safe pressure. Obviously, this pressure must be less than that determined from Part 192.619(a)(1)-(3) or Part 192.621(a)(1)-(4). Leak histories, corrosion problems, equipment problems, or other safety-related operational problems may require a lower MAOP be specified. However, operation of a system at a pressure below the MAOP for operational, not safety, reasons would not affect the MAOP.

There is also another way these regulations can be used. If pipeline and/or distribution system records are missing or incomplete, it may be impossible to conclusively determine what the MAOP should be under the other criteria. In that case, the operator ***must consult with the Regulatory Agency***, and should look at the normal operating pressures over the last 5 years, and select the highest pressure which did not cause unusual safety or operational problems. This pressure must have applied for a long enough period of time for any problems to become evident. The operator could then conclude that this pressure represents the maximum known safe operating pressure, and determine that it should be the MAOP.

Use of these regulations to determine the MAOP would not preclude a future raising of the MAOP through pressure test or uprating, except that any known limits based on other regulations could not be exceeded.

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS  
PIPELINES

Use of either of Part 192.619(a)(4) or Part 192.621(a)(5) to establish the MAOP will require that the pipeline or system have overpressure protection to prevent the MAOP from being exceeded should a regulator failure occur. (See Part 192.619(b) and Part 192.621(b).) Any previous "grandfather" exemption from overpressure protection requirements is overruled. The concept is that if higher than normal pressures could cause a safety problem, or if the safety risk of a higher pressure cannot be determined because of lack of information, then measures must be taken to prevent that higher pressure from occurring.

D. Part 192.619(c) The Grandfather Clause.

Onshore transmission pipelines installed prior to March 12, 1971, can have an MAOP established based on the highest actual operating pressure that the pipeline was subjected to during the 5 year period preceding July 1, 1970, even though the design or testing under Part 192.619(a) are not satisfied. However if a segment of pipeline or component is replaced, the replacement is subject to the Part 192.619(a) requirements.

E. Part 192.623: Low Pressure Distribution System.

On distribution systems where the gas is delivered to the customer at system pressure with no service regulator, the MAOP is determined by the operator based on the maximum pressure which can safely be delivered to the customer. There is no universal consensus on what that pressure should be, but it must obviously be compatible with the customer piping and appliances. An MAOP established under this regulation should be periodically reviewed to determine if operating experience, local building code changes, new appliances or appliances regulators, etc., warrant revising the MAOP.

F. Determination of MAOP.

After determining the appropriate pressure limit in each category which applies to the pipeline or pipeline system involved, select the lowest value as the MAOP. Date the document to aid in future decision-making on whether the MAOP should be reevaluated, and attach all support documents. These support documents should be for all categories reviewed, not just the one which controlled. This file should be maintained for the life of the pipeline or system involved.

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS  
PIPELINES

Identity of Pipeline/Distribution Area

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A. Maximum Allowable Operating Pressure: Steel or Plastic Pipelines (Part 192.619):  
and High-Pressure Distribution Systems (Part 192.621).

Part 192.619(a)(1) Design Pressure: Lowest design pressure  
Part 192.621(a)(1) for any of the following system elements

Pipe (including service lines)	_____
Valves	_____
Flanges	_____
Fittings	_____
Mechanical Couplings	_____
Leak Clamps	_____
Instruments	_____
Odorizers	_____
Overpressure Protection Devices	_____
Upstream Regulator(s)-Outlet Pressure Rating	_____
Downstream Regulators-Inlet Pressure Rating	_____
Other (list) _____	_____

Part 192.619(a)(2) Pressure Test

Plastic Pipe: Test Pressure divided by 1.5

Steel Pipe operated at or over 100 psi: Test Pressure divided by Class  
Location Factor \_\_\_\_\_

Part 192.619(a)(3) Historic Operations

Highest operating pressure between 7/1/65 and 7/1/70 unless the pressure  
test in (a)(2) was after 7/1/65 or an uprating in accordance with Subpart K  
has been conducted. \_\_\_\_\_

B. Part 192.621: High Pressure Distribution Systems Only.

Part 192.621(a)(2) 60 psig unless all services have overpressure protection  
\_\_\_\_\_

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS  
PIPELINES

Part 192.621(a)(3) 25 psig for any cast iron pipe with unreinforced joints \_\_\_\_\_

Part 192.621(a)(4) Pressure limit on joints \_\_\_\_\_

C. Part 192.619(a)(3) and Part 192.621(a)(5): Additional Consideration for  
Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe based on operating history \_\_\_\_\_

D. Part 192.623: Low Pressure Distribution Systems.

Highest delivery pressure which can be safely applied to customer piping and  
properly adjusted gas appliances. \_\_\_\_\_

E. Part 192.619(c): Alternate consideration for transmission lines. Highest operating  
pressure between 7/1/65 and 7/1/70 (7/1/71 and 7/1/76 for offshore gathering lines.)

F. Determination of MAOP.

Either item E, where applicable, or the lowest pressure on any of the above lines is  
the MAOP.

MAOP \_\_\_\_\_

By \_\_\_\_\_

Date \_\_\_\_\_

ATTACHMENT B

PACIFIC GAS AND ELECTRIC COMPANY'S SUPPORTING INFORMATION FOR  
SAFETY CERTIFICATION OF LINES 147 PURSUANT TO RULING OF ASSIGNED  
COMMISSIONER AND ASSIGNED ADMINISTRATIVE LAW JUDGE

October 16, 2013



**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

R.11-02-019  
(Filed February 24, 2011)

**PACIFIC GAS AND ELECTRIC COMPANY'S SUPPORTING  
INFORMATION FOR SAFETY CERTIFICATION OF LINES 147  
PURSUANT TO RULING OF ASSIGNED COMMISSIONER AND  
ASSIGNED ADMINISTRATIVE LAW JUDGE**

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**Attorneys for  
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October 16, 2013

**BEFORE THE PUBLIC UTILITIES COMMISSION  
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Order Instituting Rulemaking on the  
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and Related Ratemaking Mechanisms

R.11-02-019  
(Filed February 24, 2011)

**PACIFIC GAS AND ELECTRIC COMPANY'S SUPPORTING  
INFORMATION FOR SAFETY CERTIFICATION OF LINES 147  
PURSUANT TO RULING OF ASSIGNED COMMISSIONER AND  
ASSIGNED ADMINISTRATIVE LAW JUDGE**

Pacific Gas and Electric Company (PG&E) submits additional Supporting Information for the updated Safety Certification ordered by the October 8, 2013 Ruling of Assigned Commissioner and Assigned Administrative Law Judge Directing Pacific Gas and Electric Company to File and Serve Updated Safety Certification for Line 147 and Setting Prehearing Conference, as authorized by ALJ Bushey's October 10, 2013 email.

The supporting information being provided at this time consists of the following:

1. Pipeline Features List for the Line 147 shorts<sup>1</sup>
2. MAOP Report for the Line 147 shorts
3. Pipeline Centerline Survey Results for the remaining 1.37 miles of Line 147 mainline pipe and shorts
4. Safety Certification by PG&E engineering officer

Except for the Pipeline Centerline Survey Results, which are Attachment A to this document, and the Safety Certification, which is Attachment B to this document, the Supporting Information is found in Exhibit B.

This information reflects updated information, work and assessments completed on Line 147 to-date. It supplements or replaces the supporting information submitted in October and

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<sup>1</sup> Along the route of Line 147, there are 15 smaller diameter pipelines tapped off the mainline that supply gas to individual customers, feed the distribution system (DFMs) or are required for pipeline operations (such as blow-downs or drips). Even though some of the DFMs may not be short in an absolute sense, all of these appurtenances to the mainline pipe are referred to as "shorts."

November 2011 in connection with PG&E's request to lift the operating pressure restriction on Line 147.

The supporting information in Exhibit B contains sensitive information concerning the location of critical infrastructure, the disclosure of which could pose a public safety risk. Consequently, PG&E is providing such portions of the supporting documentation to the Safety and Enforcement Division and Office of Ratepayer Advocates pursuant to Public Utilities Code § 583, and to the active parties that have signed a nondisclosure agreement or are subject to a protective order in these proceedings. Pursuant to the Notice of Availability served and filed on October 11, 2013, PG&E will make a complete set of Supporting Information available for viewing (but not copying) on Thursday, October 17, 12 noon to 4 p.m., at PG&E headquarters, 77 Beale Street, San Francisco, by other interested parties that contacted Allie McMahon (a2mx@pge.com) by noon on Wednesday, October 16.

Respectfully submitted,

/s/ Alejandro T. Vallejo

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October 16, 2013

## ATTACHMENT A

### Pipeline Centerline Survey Results

#### Pipeline Centerline Survey Background

To further refine the geospatial accuracy of its pipelines, PG&E has undertaken the Pipeline Centerline Survey of its transmission system. In addition to confirming the geospatial accuracy, PG&E is able to identify any potential occupied and unoccupied structures as well as vegetation directly above or in close proximity to the pipeline. The survey consists of the following:

- The physical position of the pipeline centerline is located by impressing a signal on the pipeline and it is marked
- Survey-grade, Global Positioning System (GPS) coordinates are acquired for the pipeline's centerline
- Any potential occupied and unoccupied structure as well as vegetation directly above or in close proximity to the pipeline is identified
- The new centerline data will be uploaded into the new, enhanced Geospatial Information System that PG&E is implementing for its transmission system

#### Pipeline Centerline Survey Results

PG&E has now completed the survey of Line 147 mainline pipe. The results are as follows:

- There were no occupied or unoccupied structures identified directly above the pipeline
- There was vegetation identified in close proximity to the pipeline, and PG&E has a vegetation management clearance project to clear such vegetation as appropriate

ATTACHMENT B

Safety Certification

I, Kirk Johnson, state as follows:

1. I am currently Vice President, Major Projects and Programs, Gas Operations, for Pacific Gas and Electric Company (PG&E). Until October 1, 2013, I was Vice President, Gas Transmission Maintenance & Construction responsible for Pipeline Safety Enhancement Plan engineering, and prior to that gas transmission system engineering. Because of my prior involvement with PG&E's filing to restore pressure on Line 147 as well as my responsibilities up to October 1, I am the PG&E officer most familiar with the engineering of Line 147.

2. I received a B.S. in mechanical engineering from the University of California, Davis, in 1980. I have worked PG&E as an engineer since graduating, spending 30 years in gas operations.

3. I have reviewed the information in support of the safety of Line 147. I certify that:

- a. PG&E engineers have validated the engineering and construction through records review of piping and all associated components, including off-takes, as documented in the exhibits submitted in October and November 2011 and October 11 and 16, 2013; and
- b. PG&E successfully completed hydrostatic pressure testing of all pipe segments and components on Line 147 in HCAs and operating at or above 20 percent of specified minimum yield strength (SMYS) for which we do not have complete records of a prior pressure test in accordance with the applicable standards at the time they were performed, in accord with Title 49 of the Code of Federal Regulations, Part 192, subpart J, at pressures above those required to confirm the safe operation of Line 147 at a maximum allowable operating pressure of 330 pounds per square inch gauge (psig) with an additional margin of safety.

4. In my professional judgment, Line 147 is safe to operate at an MAOP of 330 psig.

I declare under penalty of perjury that the foregoing is true and correct.

Executed at San Francisco, California, this 16th day of October 2013.

/s/ Kirk Johnson

KIRK JOHNSON, Vice President,  
Major Projects and Programs, Gas Operations  
PACIFIC GAS AND ELECTRIC COMPANY