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)

OPENING BRIEF OF THE CITY AND COUNTY OF SAN FRANCISCO

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I. INTRODUCTION AND SUMMARY

Pursuant to the Assigned Administrative Law Judge's ruling on March 29, 2012, the City and County of San Francisco ("San Francisco" or "City") submits its Opening Brief on PG&E's Pipeline Safety Enhancement Plan ("PSEP" or "Implementation Plan"). As described more fully below, PG&E has failed to demonstrate the reasonableness of the PSEP. Since the tragic events on September 9, 2010 in San Bruno, the Commission and the public have realized that many safety improvements are necessary to ensure that PG&E is providing safe and reliable service. The PSEP, unfortunately, (1) does not incorporate or respond to the findings of the National Transportation Safety Board ("NTSB") or the Consumer Protection and Safety Division ("CPSD") investigations, (2) fails to properly prioritize the projects that were ordered to be prioritized by the Commission, (3) does not use the best available information, (4) is not supported by robust analysis, (5) is largely necessary to remediate PG&E's failure to conduct its gas operations in a reasonable and prudent manner and in compliance with historic safety regulations and standards, and (6) unreasonably allocates most costs to PG&E's customers.

The Commission must evaluate the reasonableness of PG&E's immediate request to charge ratepayers more than \$2 billion and in doing so balance the need to perform safety activities quickly, but also correctly. The PSEP was proposed before the NTSB and CPSD completed their investigations into the underlying cause of the San Bruno incident, factors contributing to the San Bruno explosion and PG&E's record keeping practices As a result, the PSEP does not remedy serious failures identified in those reports. Nor does the PSEP indicate that PG&E has taken to heart the recommendations of the Commission's Independent Review Panel ("IRP"), which were published more than two months before the PSEP was filed. Rather than incorporating the best available information into the proposal for this large and complex program to ensure pipeline safety, the PSEP is largely based on PG&E's Pipeline 2020, a program that was hurriedly developed in the weeks following the San Bruno explosion and excoriated by the IRP.

In addition, the Commission should be concerned about PG&E's failure to follow the safety priorities set forth in Decision 11-06-017 ("D.") (the "June Decision") that ordered PG&E to file its plan. Rather than following the Commission's direction to test pipeline segments in the highest risk areas, PG&E has modified the scope without coherent explanation resulting in a much larger program that may delay the most pressing work.

Further, PG&E has not proven that the projects proposed should not have already been performed had PG&E been a prudent operator. To evaluate the reasonableness of PG&E's request, the Commission must determine which actions should have been performed had PG&E complied with industry standards and state and federal law. The PSEP makes little effort to demonstrate which projects are the result of historic failures and which projects are the result of new regulatory requirements. Without this analysis, the Commission cannot fully understand which projects should have been performed earlier, and may present immediate hazards to be remediated now, or make an informed decision about cost sharing between ratepayers and shareholders.

Based on the unprecedented scope and cost of work proposed, the lack of analysis supporting the program, and the failure to use the most accurate data, CCSF has many reservations about the reasonableness of the PSEP. At the same time, CCSF recognizes that pressing safety work cannot be delayed. But approving the PSEP as it has been proposed is unreasonable in terms of both safety and cost considerations.

Recommendations

The Commission should:

- Reject the PSEP's modified scope and order PG&E to start with the 630 miles of pipelines in high consequence areas for which PG&E lacks pressure test records, as required by D.11-06-017;
- Direct PG&E to revise its decision trees to consider all potential threats to PG&E's pipelines;
- Order PG&E to re-run its decision trees using the data from its MAOP validation project;

- Require PG&E to develop a proposal that includes a specification of alternatives considered and an evaluation of the tradeoffs among safety, effectiveness, and cost:
- Reject the GTAM without prejudice and require PG&E to review and incorporate the results of a proper independent study, into its design of a responsive record management system prior to requesting further cost recovery for the GTAM;
- Reject as premature PG&E's proposed cost sharing between shareholders and ratepayers;
- Require PG&E to identify the PSEP work that would already have been performed had PG&E been operating its system as a prudent operator and in accordance with laws, regulations, and industry standards;
- Disallow rate recovery for all MAOP validation costs. Alternatively, disallow rate recovery for the costs of MAOP validation for pipeline installed between 1961-1970, in addition to the MAOP validation costs for pipelines installed after 1970. Disallow rate recovery for all re-testing of pipelines installed between 1961-1970 that is required because PG&E lacks a "complete" record;
- Find that cost recovery and allocation decisions are premature pending the completion of the investigations into PG&E's past practices. Alternatively, ensure that any costs included in rates are subject to refund;
- Order an independent audit of PG&E's Transmission Integrity Management Program ("TIMP") to determine which actions and projects should have been performed as a prudent operator or pursuant to federal law.

II. LEGAL STANDARD

A. Standard of Review

The California Constitution and Legislature give the Commission broad powers to ensure the safe and reliable provision of utility services at reasonable rates. Public Utilities Code Section 451 requires utilities to provide "adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, . . . as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public." The Commission has noted that "a utility which provides adequate service is in compliance with laws, regulations and public policies that govern public utility facilities and operations" and "adequate service encompasses all aspects of the utility's service offering, including but not limited to safety,

¹ Under the Public Utilities Act, the Commission's primary purpose is to "insure the public adequate service at reasonable rates without discrimination." *Pac. Tel. & Tel. v. Pub. Util. Comm'n*, (1950) 34 Cal.2d 822, 826; *Pac. Tel. & Tel. v. Pub. Util. Comm'n*, (1965) 62 Cal.2d 634, 647; *City and County of San Francisco v. Pub. Util. Comm'n*, (1971) 6 Cal.3d 119, 126

reliability, emergency response, public information services and customer service."² Further, Section 761 charges the Commission with the responsibility to correct and prevent unsafe utility practices.³ Given the substantial information in the public record relating to PG&E's historic failure to safely operate and maintain its gas pipeline system, the Commission must closely examine PG&E's proposals here to ensure that they effectively promote the safety of PG&E's gas pipeline system.

The Commission must also determine whether the cost of the proposals is reasonable.

The Public Utilities Code prohibits raising rates to pay for the costs of a program like the PSEP unless the Commission finds the program and the increased costs to be just and reasonable.

PG&E bears the burden of proving that the proposal and its costs are reasonable.

In addition, the law is explicit that utility costs arising directly or indirectly from errors or omissions by the utility may not be recovered in rates.

Where utility records are inadequate to enable the Commission to "completely evaluate any relevant or potentially relevant issue," the costs at issue may not be recovered.

Thus, in order for PG&E to recover in rates the costs of its PSEP, it

² Interim Order on Storm and Reliability Issues, Decision No. 04-10-034, 2004 Cal. PUC LEXIS 506, at p. *8.

³ Cal Pub. Util. Code § 761 states "Whenever the commission, after a hearing, finds that the rules, practices, equipment, appliances, facilities, or service of any public utility, or the methods of manufacture, distribution, transmission, storage, or supply employed by it, are unjust, unreasonable, unsafe, improper, inadequate, or insufficient, the commission shall determine and, by order or rule, fix the rules, practices, equipment, appliances, facilities, service, or methods to be observed, furnished, constructed, enforced, or employed."

⁴ Cal. Pub. Util. Code § 451 provides in relevant part: "All charges demanded or received by any public utility . . . for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful."

⁵ Cal. Pub. Util. Code § 454 states in relevant part: "no public utility shall change any rate . . . as to result in any new rate, except upon a showing before the commission and a finding by the commission that the new rate is justified." See, e.g., D.10-06-048 at 14.

⁶ Cal. Pub. Util. Code § 463(a) states in relevant part: "the commission shall disallow expenses reflecting the direct or indirect costs resulting from any unreasonable error or omission relating to the planning, construction, or operation of any portion of the corporation's plant.

⁷ Cal. Pub. Util. Code § 463 (b) states in relevant part: "Whenever an electrical or gas corporation fails to prepare or maintain records sufficient to enable the commission to completely evaluate any relevant or potentially relevant issue related to the reasonableness and prudence of any expense relating to the planning, construction, or operation of the corporation's

must demonstrate that the proposal is reasonable and that the costs do not arise because of any error or omission by PG&E. As discussed in the remainder of this brief, PG&E has not done so.

B. Cost-Effectiveness Analysis

In determining whether utility proposals are reasonable, the Commission routinely requires a showing that the proposal is cost-effective to ensure that projects funded through rates provide appropriate benefits to ratepayers. This concept of cost-benefit or cost-effectiveness analysis is so important that it is reflected in the statutory requirements for applications to construct new utility facilities. Here, PG&E must demonstrate that, among the many available alternatives to address the safety of its gas pipelines, it is proposing programs that will effectively improve safety, are cost effective, and do not saddle ratepayers with unnecessary costs. Not only has the Commission required this type of analysis for decades, Ordering Paragraph 9 of the June Decision and the IRP Report explicitly identified such an analysis as a necessary component of any proposal by PG&E to receive rate recovery for a pipeline safety plan. As discussed more fully in section VI, PG&E has provided no cost-effectiveness

plant, the commission shall disallow that expense for purposes of establishing rates for the corporation."

⁸ See, e.g., D. 89-09-039, a decision reviewing Southern California Edison's (SCE) \$1.63 billion Advanced Metering Initiative, where the Commission expressly stated that "SCE's burden in this application is to establish that its proposal is cost effective "slip. op., p. 14. Likewise, in reviewing the reasonableness of capital additions to generating facilities, the Commission specified that utilities must show, among other things, the cost-effectiveness of the capital additions. See, e.g., D. 99-03-055, 1999 Cal. PUC LEXIS 236, p. 2.

⁹ Cal. Pub. Util. Code § 1003(d) requires a "cost analysis comparing the project with any feasible alternative sources of power." Provisions such as Section 1003(d) "require the Commission to consider the cost-effectiveness of a proposed project as a means of meeting a perceived need before saddling ratepayers with the economic burden of new investments." D. 90-09-059, 1990 Cal. PUC LEXIS 1473, *29. (While these requirements may not be directly applicable to this application, they reflect the Legislature's expectation of the type of showing that is necessary to justify major capital projects).

¹⁰ See, e.g., D. 95-12-055 at p. 70: "Our duty to the public compels us to consider the cost-effectiveness of a plant that adds \$100 million to rates every year."

¹¹ IRP Report at p. 14.

analysis, no comparison of alternatives, and little other analysis demonstrating the reasonableness of the funding it seeks in this case.

In D. 10-06-048, the Commission reviewed PG&E's request for approval of its "Cornerstone Improvement Project," a multi-billion dollar program to improve electric distribution reliability. The Commission rejected most of that proposal¹² and provided guidance to PG&E about the analysis necessary to justify such a program:

For any proposed reliability programs or projects, PG&E should, as part of its processes, consider all reasonable alternatives, including the types of solutions proposed by other parties in this proceeding. In determining what is optimal, we expect PG&E to conduct appropriate levels of cost-effectiveness analyses. [footnote omitted] This does not mean that a project that does not have a benefit to cost ratio greater than 1.0 should necessarily be rejected from consideration. Knowing the extent of how cost-ineffective a project may be will aid in the process of determining whether it is reasonable to proceed with the project, or how the project should be prioritized, when considering other factors such as the severity of the problem being addressed and non-quantifiable benefits. ¹³

This statement makes it clear that the Commission is looking for a robust and thoughtful analysis not a particular cost-effectiveness ratio or metric. Thus, PG&E's statement in rebuttal that "We do not believe it is appropriate to conduct a traditional cost benefit analysis of this issue because such a study would require PG&E to place a value on the loss of life and property and compare that to the cost of the program" is misses the mark. PG&E also failed to provide a robust discussion of alternative approaches to that could have been considered. There is little explanation for the absence of this important analysis.

The Commission's discussion in the Cornerstone decision is instructive because it demonstrates that even though the proposal addressed a goal widely shared and recognized as important, PG&E was still required to justify the reasonableness of the proposal.

With respect to PG&E's statement that whether or not it should proceed with Cornerstone and provide its customers with a new level of improved reliability is

¹² See D. 10-06-048 at 2, noting that the decision approves \$357.4 million in capital and \$9.2 million in expenses out of the requested \$1,992 million in capital and \$58.9 million in expenses.

¹³ D. 10-06-048 at pp. 20-21.

¹⁴ Exhibit 21 (PG&E Rebuttal) at p. 6-2.

fundamentally a policy question, our overarching policy is that PG&E must provide reliable electric service to its customers. However, that alone is insufficient reason for approving Cornerstone. We also have the obligation to ensure that rates are reasonable. Whether characterized as a policy or a basic ratemaking principle, for a capital program or project such as Cornerstone, there must be a compelling demonstration of need. A broad policy such as the desirability of maintaining or improving electric distribution reliability can only be implemented at the program or project level if there is demonstrated need for the particular programs or projects. PG&E has the burden to demonstrate such need for Cornerstone. After considering the evidence, we conclude that the need for Cornerstone has not been demonstrated.¹⁵

Likewise, here, all parties, the Commission, and PG&E share the goal of improving the safety of PG&E's gas pipeline system, but that does not *ipso facto* establish the reasonableness of PG&E's proposal from the perspective of either safety or rates. Because the safe operation of PG&E's gas transmission system is at stake, it is even more important that the Commission and PG&E ensure that the proper safety measures are addressed expediently and appropriately. Where costs and risks are greater, utilities are expected to use greater care. ¹⁶ In view of the compelling need for PG&E to improve system-wide safety, it should have taken extraordinary care to justify its proposal.

C. Reasonableness of Utility Proposals and Actions

Through many decisions evaluating utility proposals, management decisions, or costs, the Commission has developed standards for determining the reasonableness of utility actions. The Commission evaluates proposals and actions in the context of "our overall responsibility to ensure that utilities provide safe, reliable, and efficient service at reasonable rates," and applies the same "reasonable and prudent" manager standard to its review of all types of utility cases.

The Commission summarized this standard in D. 02-08-064, explaining that "the reasonableness of a particular management action depends on what the utility knew or should

¹⁵ D. 10-06-048, at pp. 15-16.

¹⁶ See, e.g., D. 90-09-088, 1990 Cal. PUC LEXIS 847, *23, citations omitted.

¹⁷ See, e. g., D. 10-06-048 at 13.

have known at the time that the managerial decision was made, not how the decision holds up in light of future developments."¹⁸ The decision further explained that

The standard of reasonableness does not derive from the consequences of managerial action, but the soundness of the utility's decision-making process that led to the decision and the consequences:

Thus, a decision may be found to be reasonable and prudent if the utility shows that its decision making process was sound, that its managers considered a range of possible options in light of information that was or should have been available to them, and that its managers decided on a course of action that fell within the bounds of reasonableness, even if it turns out not to have led to the best possible outcome. As we have previously stated, the action selected should logically be expected, at the time the decision is made, to accomplish the desired result at the lowest reasonable cost consistent with good utility practices." ¹⁹

That decision also notes that while the standards of reasonableness can be clarified through guidelines, "the utilities should be aware that guidelines are only advisory in nature and do not relieve the utility of its burden to show that its actions were reasonable in light of circumstances existent at the time." The Commission has used this same reasonable manager standard for decades and continues to apply it today.²¹

This measure of reasonableness is important for evaluating PG&E's PSEP in several ways. First, in determining the reasonableness of PG&E's proposal here, the Commission should be very interested in the decision-making process employed by PG&E to develop the PSEP and PG&E's use of the information it knew or should have known in developing the proposal. This is particularly important in light of the findings of the IRP, NTSB, and CPSD that are critical of PG&E in these regards. As discussed below, the PSEP does not reflect a sound decision-making process based on the information a prudent utility manager should be expected to know.

¹⁸ D. 02-08-064 at 5; also citing D. 98-09-040, D. 90-09-088, D.89-02-074D. 88-03-036, D. 87-06-021.

¹⁹ *Id.* at 6, citations omitted.

²⁰ *Id.* at 5

²¹ See, e.g., D.11-10-002 at 13-16, 22-24.

Second, PG&E has recognized²² that the Commission could determine that all or a portion of PSEP costs should be disallowed in rates based on either the Commission's review in this proceeding or the Commission's review of PG&E's past practices in another proceeding such as one of the three investigations the Commission has opened.²³ The record in those proceedings would support a determination by the Commission that the entire PSEP or some portion of it was necessary only or primarily because of the unreasonable past failures of PG&E to properly maintain and operate its gas pipelines. Public Utilities Code Section 463 requires the Commission to disallow any costs that directly or indirectly result from unreasonable errors or omissions of the utility. PG&E has provided no evidence in this proceeding to show that PSEP costs do not result from such errors and omissions. Thus, any ratemaking determinations made by the Commission here must be subject to refund pending a final review in those investigations.

III. THE SCOPE OF WORK PROPOSED IN PHASE I OF THE PSEP DOES NOT RESPOND TO THE PRIORITIES ORDERED BY THE JUNE DECISION

As San Francisco witness Gawronski testified, the scope of work proposed in Phase I does not comply with the priorities ordered by the June Decision.²⁴ Ordering Paragraph 4 of the June Decision directed PG&E to "start with pipeline segments located in Class 3 and Class 4 locations and Class 1 and Class 2 high consequence areas, with pipeline segments in other locations given lower priority for pressure testing." Although the plan must reflect "timeline for completion that is as soon as practicable," segments with highest risk were ordered to be tested or replaced first. And, the plan must contain a priority-ranked schedule for pressure testing pipeline not previously so tested.²⁷

²² Transcript ("Tr."), Volume ("Vol."), at 810:22-811:3 (Bottorff).

²³ Investigation 11-02-016 (PG&E Record keeping practices); Investigation 11-11-009 (Class location investigation); and Investigation 12-01-007 (San Bruno Rupture and Fire).

²⁴ Exhibit 137 (CCSF Direct Testimony) at pp. 6-7.

²⁵ June Decision, Ordering Paragraph 5.

²⁶ June Decision, Ordering Paragraph 9.

²⁷ June Decision, Ordering Paragraph 7.

Instead of developing a plan that followed these priorities, however, the PSEP proposes

to:

"prioritize a subset of that broader scope into Phase 1, consisting of the pipe segments in urban areas (Class 2, 3 and 4 and Class 1 HCA) operating at or greater than 30 percent SMYS without strength tests and those segments characterized with a manufacturing threat at or greater than 20 percent SMYS.... The remaining urban pipe (Class 2, 3 and 4 and Class 1 HCA) operating between 20 percent SMYS and 30 percent SMYS characterized with a Fabrication and Construction (F&C) threat construction threat and/or a corrosion and latent mechanical damage threat, will be addressed at the beginning of Phase 2 commencing in 2015."

PG&E asserted that the reason for deviating from the ordered schedule was because the scope ordered by the Commission was

"Despite Decision 11-06-017 stating that each Implementation Plan "should start with pipeline segments located in Class 3 and Class 4 locations and Class 1 and Class 2 high consequence areas," this represents far too large of a work scope for PG&E to accomplish in a 4-year period (2011-2014) in Phase 1."²⁹

²⁸ Exhibit 2 (PG&E Direct Testimony) at 3-37.

²⁹ *Id.*, at p. 3-37.

PG&E did not make clear, however, that the effect of this re-prioritization is that PG&E excluded 176 miles of pipeline segments in Class 2, 3, and 4 locations and Class 1 high consequence areas operating between 20% and 30% SMYS with fabrication & construction defects from Phase I of the Implementation Plan. Instead of providing proposals to replace, pressure test or retrofit these segments, PG&E proposes to perform these same actions for 499.8 additional miles of pipeline segments in Class 1 and 2 non-high consequence area locations in Phase I of the Implementation Plan. Table 1 below breaks down the proposed work by class location during Phase I. 31

Summary of Phase 1 work per HCA and Class Location

	Pipeline Replacement						
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA		
feet	980,753	0	728,020	23,869	228,864		
miles	185.7	0.0	137.9	4.5	43.3		

Pipeline Pressure Test						
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA	
feet	4,134,487	0	2,499,775	185,967	1,448,745	
miles	783.0	0.0	473.4	35.2	274.4	

ILI Projects (Retrofit / Inspections)						
	Total Length	Class 4	Class 3	Class 1 & 2 HCA	Class 1 & 2 non HCA	
feet	1,241,067	5,449	240,457	33,455	961,706	
miles	235.1	1.0	45.5	6.3	182.1	

Thus, despite the fact that PG&E claims the ordered scope of work presented too much work to be completed by 2014, PG&E is actually performing testing, retrofitting and replacement on more pipeline segments than directed by the June Decision. By including class 2 locations as a criterion for its highest priorities for accomplishing remedial actions, Mr.

³⁰ Exhibit 137 (CCSF Direct Testimony) at p. 7.

³¹ *Id.*, Table 1 was included in Exhibit 137.

Gawronski found that "PG&E's plan will delay testing pipelines with the highest risk in class 3 and 4 locations and will have their remedial actions delayed until pipelines with lower risk class 2 locations are worked on."³² To the extent this impacts pipeline segments in Class 3 and 4 locations or segments in Class 1 and 2 HCAs, this results in pipelines in more populous locations being deprioritized and is directly contrary to the Commission's directive.

In addition, the Commission should be dubious that Phase I actually presents the most urgent safety work. PG&E admitted at the hearings that Phase I was proposed to cover the time from 2011 to 2014 "because that happens to be really – our GT&S rate case cycle ends on '14." PG&E also admitted that "[t]he Phase I scope of pipeline modernization projects between P/L 2020 and PSEP has remained essentially unchanged." In light of the fact that the scope of work has not changed significantly from when it was proposed in Pipeline 2020, the many flaws identified with that program, and the fact that the program does not incorporate the most recent analysis, there is little assurance that the most pressing safety issues are being remediated in a timely fashion.

CCSF recommends that the Commission reject the PSEP's modified scope. To ensure that pressing safety work is performed expeditiously, the Commission should order PG&E to start with the 630 miles of pipelines in HCAs for which PG&E lacks pressure test records.

IV. THE PSEP DOES NOT CORRECT THE FLAWS IDENTIFIED IN OTHER REPORTS TO IMPROVE THE SAFETY OF PG&E'S PIPELINES

It is unreasonable from both a safety and cost perspective to approve an expensive program of pipeline modernization that does not use the best available analysis or information.

In this instance, an extensive record of pipeline knowledge has been developed in the NTSB and

 $^{^{32}}$ Id

³³ Tr., Vol. 11, at 1451:28-1452:1 (Hogenson).

³⁴ Exhibit 34 (CCSF Data Request 005-05).

CPSD investigations.³⁵ Although these reports were still pending at the time of the June Decision, the Commission stated "We will take official notice of the record in other proceedings, including the investigation of PG&E's gas system record-keeping, in our ratemaking determination."³⁶ From the outset of this rulemaking, the Commission recognized that given that the "unique circumstances of PG&E's pipeline records and pipeline strength testing program for its pre-1970 pipeline may require extraordinary safety investments."³⁷ In November, the Assigned Commissioner issued a scoping ruling that clarified "[t]he testimony that will be most useful to the Commission as it considers these issues will include an assessment of past practices and proposals for future operations and ratemaking based on rigorous analysis." Thus, as the Commission considers what safety actions must be prioritized to ensure the public safety and the ratemaking implications of its decision, it must consider the reasonableness and prudence of PG&E's past practices.

Indeed, both PG&E and the Commission publicly recognized the importance and relevance of the NTSB findings. The Commission's Executive Director, Paul Clanon stated "[t]he tragedy in San Bruno forever changed the way California and the nation view pipeline safety. We worked closely with the NTSB in its investigation of the pipeline rupture and we welcome the recommendations." Two weeks later, in a letter to Assemblyman Roger Dickinson Mr. Clanon stated "[w]e are taking a thorough look at the report and will incorporate the recommendations and lessons learned into our ongoing efforts to improve pipeline safety in California." PG&E's Vice President of Gas Operations, Nick Stavropoulos stated "PG&E"

³⁵ The NTSB Report, and CPSD and Overland Consulting reports into the San Bruno Incident and PG&E's Record Keeping practices were incorporated by reference into the testimony of Tom Long (Exhibit 121 of this record).

³⁶ Order Instituting Rulemaking 11-02-019, at p. 12, fn 6; June Decision at p. 23.

³⁷ June Decision at 22, *citing* Order Instituting Rulemaking 11-02-019, at p. 11.

³⁸ CPUC Comments On NTSB Findings Regarding PG&E Pipeline Rupture In San Bruno, available at: http://docs.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/142324.htm.

³⁹ September 15, 2011 letter to Assemblyman Roger Dickinson, available at: http://www.cpuc.ca.gov/NR/rdonlyres/689AC09B-F15F-4965-8F1C-

embraces all of the NTSB recommendations and those of other major investigations of this accident, such as the Report of the Independent Review Panel, which was ordered by the California Public Utilities Commission (CPUC). In the year since the tragedy, we have taken numerous actions including many recommended by the NTSB and others."⁴⁰

Despite these statements, the PSEP was never modified or updated to respond to the substance or the significance of NTSB findings. It is an uncontested fact that the PSEP was proposed before these reports were finalized. The PSEP was proposed on August 26, 2011. The NTSB introduced its findings and adopted its report at a public meeting on August 30, 2011. The CPSD Report into the underlying factors that led to the San Bruno incident was issued on January 12, 2012, when Investigation 12-01-007 was opened. The CPSD Reports into PG&E's record keeping practices were first introduced on March 12, 2012. The record is also clear that the PSEP was never updated to respond to these reports. As described more fully below, many of these findings are germane to the pipeline modernization program that PG&E is now proposing. Furthermore, the CPSD's reports in the investigations into the cause of the San Bruno accident and PG&E's record keeping are also contain findings that are highly relevant to this proceeding. Not only does the PSEP not address any of these findings, it is actually based on a program that the Commission's IRP has already determined was defective.

 $A259B972F07D/0/09_15_11_Reply_letter_to_Assemblymember_Roger_Dickinson_re_followup_information_on_the_AAR_hearing_.PDF.$

⁴⁰ Exhibit 32 (Nick Stavropoulos Senate Testimony on Gas Pipeline Safety) (emphasis added).

⁴¹ NTSB Report into PG&E Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, California ("NTSB Report").

⁴² http://www.cpuc.ca.gov/PUC/sanbrunoreport.htm

⁴³http://www.cpuc.ca.gov/PUC/events/120312_ReferenceDocumentsforCPSDReportsinRecordkeepingPenaltyConsiderationCase.htm

A. The IRP Identified Significant Flaws In Pipeline 2020.

Many of the actions PG&E proposes to perform in the PSEP were first developed as part of Pipeline 2020, which PG&E introduced in October 2010.⁴⁴ Immediately following the explosion in San Bruno, PG&E committed to reviewing its operations and developing a plan to improve the safety of its pipelines. Only one month later, PG&E introduced Pipeline 2020, a plan under which PG&E proposed to pressure test, replace, and retrofit its pipelines, and install automated valves on its pipelines. PG&E has admitted that "significant elements of the Pipeline 2020 program ... did become part of our implementation plan that's being considered in this proceeding" and presented "ultimately ... in the form of Pipeline Safety Enhancement Plan that we're discussing today." Because Pipeline 2020 formed the basis for the PSEP's pipeline modernization and valve automation programs, as the Commission reviews the reasonableness of the PSEP, it is relevant to consider the Commission's Independent Review Panel's ("IRP") findings regarding Pipeline 2020.

The IRP examined Pipeline 2020 in the context of developing an understanding as to what happened in San Bruno, to delve into the complexities of pipeline integrity management and the regulatory oversight, and to offer recommendations for actions, which the operator and regulators can consider to reduce the likelihood of future incidents. Specific to Pipeline 2020, the IRP found that:

- Pipeline 2020 was developed "a few weeks after the San Bruno incident, but the plan is grossly underdeveloped;"⁴⁷
- Pipeline 2020 "lacks sufficient analysis" "was not well-reasoned or based on a thoughtful examination of alternatives;"⁴⁸

⁴⁴ Exhibit 30 (NTSB Presentation on PG&E Pipeline 2020 Program).

⁴⁵ Tr., Vol. 9, at 927:25-928:1 (Bottorff).

⁴⁶ Tr., Vol. 9, at 929:19-21 (Bottorff).

⁴⁷ IRP Report at 17.

⁴⁸ IRP Report at 13.

- Pipeline 2020 was "reactive" and that after carefully reading PG&E's materials the Panel expressed "concerns [that] the company has not underpinned its efforts with solid engineering and economic analysis;" 49
- "There is no clear vision expressed by the senior management of PG&E as to what the PG&E transmission pipeline system of the future should look like, and, therefore, no overall guidance as to what objectives and measurable goals the 2020 Program is designed to deliver other than compliance;" 50 and
- "We assume PG&E wants regulators to agree to hundreds of millions or billions of dollars in improvements to its system to assure public safety. The Panel believes for ratepayers to be responsible in the future for investments (some of which, arguably, should have been made already), PG&E must be prepared to support its request for rate recovery with a thorough delineation of its long-term capital program, including the specification of the alternatives considered and an appraisal of the tradeoffs among safety, effectiveness, and cost for each alternative approach."⁵¹

In response to the IRP's findings and recommendations, PG&E stated "[w]e welcome today's thoughtful report by the Independent Review Panel, and we're grateful for their hard work. We will move quickly to review the report's detailed findings and take further action to improve the safety, quality and performance of our gas system." ⁵²

Unfortunately, despite this statement, and the fact that PG&E is seeking Commission approval to spend billions of dollars to upgrade the safety of its system, PG&E has not supported the PSEP with "a thorough delineation of its long-term capital program, including the

⁴⁹ *Id*.

⁵⁰ IRP Report at84.

⁵¹ IRP Report at 14.

⁵² Exhibit 31 (Press Release: PG&E Will Quickly Review Independent Panel Report Findings).

specification of the alternatives considered and an appraisal of the tradeoffs among safety, effectiveness, and cost for each alternative approach."

B. Despite the IRP's Findings, the PSEP Made No Improvements to the Decision Trees from Pipeline 2020.

PG&E conceded that the "Pipeline 2020 Valve Automation program development and analysis formed the basis for the PSEP's Valve Automation Program." PG&E also admitted that "the Decision Trees [for the valve automation program] included in the PSEP filing are *identical* to those developed by Pipeline 2020, as are the 80 identified Phase 1 project sites for valve automation work." PG&E further stated that it made "only minor adjustments to the program from the completion of development as part of Pipeline 2020 to the PSEP Implementation Plan filing." S5

Moreover, regarding pipeline replacement and testing PG&E stated "Pipeline 2020 Pipeline Modernization program development and analysis formed the basis for the Pipeline Safety Enhancement Plan (PSEP), Pipeline Modernization Program." And although the Pipeline 2020 Program decision tree "included 6 primary threat considerations: Manufacturing, Fabrication & Construction, Corrosion & latent Mechanical damage, Hard Spot Cracking, Stress Corrosion Cracking, Ground Movement, PG&E removed the last 3 threat considerations when it transitioned from Pipeline 2020 to PSEP." Thus, rather than modify the analysis to respond to the IRP's concern that "PG&E has not developed the analytical support for investments in either pipe or valves, ⁵⁸ PG&E actually removed threat considerations from the decision trees submitted with the PSEP. PG&E asserts that these threats are being remedied through PG&E's existing

⁵³ Exhibit 34 (CCSF DR 005-03).

⁵⁴ *Id.* (emphasis added).

⁵⁵ *Id*.

⁵⁶ Exhibit 33 (CCSF DR 005-05).

⁵⁷ *Id*.

⁵⁸ IRP Report at p. 14.

programs, but given the amount of work that PG&E is proposing, these considerations should be addressed as part of its modernization efforts. As discussed below, in addition to failing to consider the threats of Hard Spot Cracking, Stress Corrosion Cracking, Ground Movement, PG&E's proposal does not address additional findings and analysis raised by the NTSB and CPSD that are relevant to ensuring pipeline safety. Lacking such consideration, the PSEP is an incomplete proposal.

On cross-examination, PG&E stated that "we were aware of at the time when we submitted Pipeline 2020 is that it did need additional analysis" and "we wanted to discuss [the program] with regulators and other parties" and "it certainly had an opportunity to become fully fleshed out once the Commission held workshops to consider the decision tree." Yet, as stated in its data response, PG&E did not make any substantive improvements to its decision trees. These workshops were held in June of 2011. On cross-examination, PG&E's engineer responsible for the valve automation program stated that the Decision Trees had not been changed since May of 2011. 60

PG&E's own statements confirm that it performed little additional analysis, made no changes to the decision trees used for valve automation, and actually only subtracted analysis from the decision trees used for pipeline modernization. PG&E has not remedied the significant failure identified by the IRP, that "the company has not underpinned its efforts with solid engineering and economic analysis." The PSEP does not contain any of the additional analysis recommended by the IRP: there is no consideration of alternatives, or consideration of the tradeoffs among safety, effectiveness, timing, and cost for each alternative approach. Without such analysis, the Commission cannot find that the PSEP is reasonable.

⁵⁹ Tr., Vol. 9, at 931:1-14 (Bottorff).

⁶⁰ Tr., Vol. 10, at 1296:8-20 (Menegus).

⁶¹ IRP Report at p. 13.

1. The Decision Trees Should Be Revised to Incorporate Findings by the NTSB and CPSD.

Based on the current state of the decision trees, the PSEP is a multi-billion dollar proposal that fails to address all potential threats to PG&E's pipelines. When PG&E prepared the decision trees in October 2010, it did not consider the presence of manufacturing threats on DSAW pipeline, the effect of pressure cycling on the stability of manufacturing and construction defects, or the interactive nature of threats to pipelines. While PG&E should have recognized the existence of such threats even in October 2010, after the findings presented by the NTSB and CPSD reports, it would be unreasonable for the Commission to approve any pipeline safety program that does not account for such threats.

As originally proposed, the PSEP states "[i]f the pipe is known to be Seamless or have Double Submerged Arc Welded (DSAW) seams, it is not considered to be inherently susceptible to gross manufacturing defects." The NTSB made clear, however, that PG&E had an extensive history of weld failures on its pipelines, including "at least four longitudinal seam weld cracks found during radiography or the girth welds as part of the 1948 construction of Line 132 that were allowed to remain in service." The NTSB also presented a table containing list of seam leaks or failures in PG&E's system dating back to 1948. At least six of these leaks and failures occurred in DSAW pipe. Based on these findings, the CPSD Report into the San Bruno explosion found that "PG&E's procedure should have considered the category of DSAW as one of the weld types potentially subject to manufacturing defects, and subject to Part 192.917(e)(3)." In a footnote, the CPSD report noted "[f]indings from both the 2011 Risk Assessment audit and PG&E's response in the record keeping OII indicate that *PG&E did not believe DSAW pipe was an integrity threat.*" In rebuttal testimony, PG&E agreed that "untested

⁶² Exhibit 2 (PG&E Direct Testimony) at p. 3B-13.

⁶³ NTSB at p. 111.

⁶⁴ NTSB at p. 39.

⁶⁵ CPSD San Bruno Report at pp. 41-42.

DSAW pipe should be strength tested."⁶⁶ Unfortunately, the PSEP contains no specific risk analysis addressing manufacturing and construction defects on DSAW pipe. In addition, there is no consideration of whether DSAW of similar vintage to the weld failures identified in the NTSB report⁶⁷ should be prioritized for testing because they may be more susceptible to failure.

Both the NTSB and CPSD found that PG&E had a practice of over-pressurizing its pipelines, and that this practice de-stabilized potential manufacturing and construction defects on PG&E's pipelines. The CSPD Report further found that "PG&E did not incorporate cyclic fatigue or other loading conditions into their segment specific threat assessment and risk ranking algorithm." The PSEP decision trees contain no explicit consideration of which pipelines PG&E knows have experienced over-pressurizations, and whether those pipelines should be prioritized for assessment through testing or replacement.

In addition, the decision trees should be revised to more explicitly consider the interactive nature of threats. Currently, PG&E's proposal examines each threat in isolation but states that it considers interactive threats as it relates to prioritization. However, there is no analysis regarding how PG&E's operational choice to over-pressure its pipelines could destabilize manufacturing or construction threats on specific pipeline segments subject to those pressures or how this fact could affect pipelines with known corrosion issues. Given the scope of the work proposed and the magnitude of the cost, it is unreasonable to approve the decision trees that do consider these additional findings.

CCSF recommends that the Commission direct PG&E to revise its decision trees to consider all potential threats to PG&E's pipelines.

⁶⁶ Exhibit 21 (PG&E Rebuttal) at p. 3-4:12-26.

⁶⁷ NTSB at p. 39.

⁶⁸ NTSB at pp. 37-38; CPSD San Bruno Report at pp. 40-46.

⁶⁹ CPSD San Bruno Report at p. 51.

⁷⁰ Exhibit 2 (PG&E Direct Testimony) at p. 3-34.

V. THE PSEP DOES NOT USE THE MOST ACCURATE INFORMATION AVAILABLE.

Just as the PSEP is flawed because it does not incorporate the most recent analysis, the PSEP is equally flawed because it does not use most the accurate information to plan and prioritize the safety projects to be performed. Despite PG&E's repeated statements that safety is its top priority, the company relied on its existing, flawed records system to develop the scope of work for the PSEP. In addition to the obvious safety implications of this decision, planning a multi-billion dollar program using faulty data is not reasonable. The NTSB reviewed PG&E's GIS system and found that "in many cases, PG&E used assumed values for key pipeline parameters. The records also included many obvious errors in key pipeline parameters, including but not limited to seam type, SMYS, and depth of cover." Based on these inaccuracies, the NTSB expressed "concern[] that the PG&E GIS still has a large percentage of assumed, unknown, or erroneous information for Line 132 and likely its other transmission pipelines as well."

Since last March, however, PG&E has been developing a database with accurate information regarding pipeline features as part of its MAOP validation work. As of December 31, 2011, PG&E had completed its MAOP validation for 1,805 miles of pipeline segments identified in class 3 and 4 locations as well as class 1 and 2 high consequence areas. In addition, as of January 2012, PG&E completed the MAOP validation for an additional 283 miles reclassified as being class 3 and 4 and class 1 and 2 high consequence areas. Despite having these updated, presumably accurate records, PG&E is not using this data in its decision trees.

PG&E should be required to re-run the decision trees with the verified data to ensure that the scope of work proposed is complete and that the prioritization of work is proper. At the hearings, CPSD's engineer asked PG&E to explain:

⁷¹ Exhibit 2 (PG&E Direct Testimony), at pp. 3-18:31-3-19:28.

⁷² NTSB Report, at p. 108.

"You've had the data for sometime now to be able to do that. So I'm just wondering why it still hasn't been rerun to kind of confirm based on whatever new information you have that your prioritizations are still good.

As we saw this morning in some of your responses to testimony earlier, there are segments that have been identified that would sound like would come off the program or certainly go from replacement to testing based on information, new information you have.

So I guess what's prevented the company from at least running that and confirming that the prioritization schedules as provided in the August filing are still valid?"⁷³

PG&E responded:

What, probably the biggest challenge right now, Sunil, for us is the MAOP records validation team as they are generating and gathering all the new – all the pipeline attribute information, they're putting it in a new GIS system called our Intrepid system.

We're challenged with that system does not talk, we can't electronically pass information today from that Intrepid system into our GIS system.

PG&E attempted to clarify that prior to beginning engineering work, the pipeline modernization team will confer with the MAOP validation team to determine if there is a prior pressure test, or if the pipeline attributes are consistent with its GIS data. ⁷⁴ If there is a prior pressure test, PG&E removes the segment from the scope of work. ⁷⁵ If the pipeline attributes have changed, then PG&E re-runs the whole project through the decision tree. ⁷⁶ While this last-minute quality check on a project-by-project basis is useful, it is not a substitute for designing the program using the best data available and does not address the fact that some pressing projects will potentially be delayed because the GIS data was inaccurate in the first instance. Conversely, some projects that may be less urgent may be performed sooner based on the inaccurate information. Additionally, the initial scope of work may be less than PG&E proposes given that PG&E has located more pressure test records than initially discovered in March 2011.

⁷³ Tr., Vol. 11, at 1434:24-1435:13 (Shori).

⁷⁴ Tr., Vol. 11, at 1432:22-1433:1 (Hogenson).

⁷⁵ Tr., Vol. 11, at 1433:2-3 (Hogenson).

⁷⁶ Tr., Vol. 11, at 1433:4-12 (Hogenson).

Thus, despite the fact that it has completed the MAOP validation process for pipeline segments in class 3 and 4 locations and class 1 and 2 high consequence areas, and that it has new information relating proper class locations, PG&E has not updated the proposed work for Phase I of the PSEP.⁷⁷ And in fact, PG&E's use of GIS data potentially hinders prioritization of most pressing work. Given that Phase I was developed using inaccurate data, the Commission can have little confidence that the most pressing projects are being performed first.

CCSF recommends that the Commission order PG&E to re-run its decision trees using the data from its MAOP validation project. This will at least assure that the work being performed is the product of the most accurate information. In addition, PG&E should re-run its decision trees using the MAOP validation information for the 630 miles of pipelines in class 3 and 4 locations and class 1 and 2 high consequence areas for which it lacks pressure test records. This will help to ensure that the work in the most populous locations gets performed first, that the work performed is actually necessary and that resources are not spent unnecessarily.

VI. THE PSEP IS NOT SUPPORTED BY RIGOROUS ANALYSIS

It is PG&E's burden to demonstrate the reasonableness of its proposal. From the outset, PG&E was directed to evaluate cost effectiveness of any proposal submitted. The Order Instituting Rulemaking made clear "[g]iven the economic challenges confronting California's families and businesses, we must be certain that each investment in safety that we order provides value to customers." In addition, the June Decision ordered PG&E to "include best available expense and capital cost projections for each Plan component and each year of the implementation period. Although not a determinative factor, improved safety effects for amount expended must be considered in prioritizing projects." And one of the IRP's key findings was

⁷⁷ Tr., Vol. 11, at 1432:1-1434:1 (Hogenson).

⁷⁸ Order Instituting Rulemaking 11-02-019, at p. 11.

⁷⁹ June Decision, Ordering Paragraph 9.

that "PG&E has no overall strategy to improve how it assesses the integrity of its system." The Panel believed that "for ratepayers to be responsible in the future for investments (*some of which, arguably, should have been made already*), PG&E must be prepared to support its request for rate recovery with a thorough delineation of its long-term capital program, including the specification of the alternatives considered and an appraisal of the tradeoffs among safety, effectiveness, and cost for each alternative approach."

Unfortunately, the testimony supporting the PSEP does not provide evidence from which the Commission can be assured that the most pressing safety projects have been prioritized or that including the costs in rates is just and reasonable. The testimony does not present PG&E's long term vision for its gas transmission system. The IRP recommended that PG&E develop a long term vision for its pipelines in order to "demonstrate the asset profile, and how it will support safety, and operational goals."82 While there is some discussion of PG&E's desire to retrofit all transmission pipeline lines operating above 30% SMYS to be able to accommodate smart pigs, and that at the conclusion of the PSEP, PG&E will have "comprehensively assessed all 5,786 miles of its natural gas transmission pipelines" there is little indication of what PG&E hopes to accomplish following this assessment other than compliance with the June Decision. For example, PG&E does not discuss whether it will re-assess non-high consequence area pipelines on similar intervals required for high consequence area pipelines, if PG&E intends to propose subsequent pipeline modernization programs as the older vintages of pipeline reach critical ages, or even from an operational standpoint how PG&E intends to respond to the overpressurization of its pipelines. Aside from testimony discussing which projects will be prioritized for Phase I, and the potential costs for Phase II of the PSEP, there is little detail provided as to Phase II. Without greater discussion of PG&E's long term vision for its pipelines,

⁸⁰ IRP Report, at p. 12.

⁸¹ Id., at p. 14 (emphasis added).

⁸² *Id.*, at p. 85.

discussion of alternative proposals and justification of expected benefits for amounts authorized, it is difficult to determine the reasonableness of PG&E's proposal.

Additionally, although the PSEP proposes criteria to determine when shareholders should be responsible for the costs of certain work, PG&E has provided no specific analysis demonstrating which projects arguably should already have been performed. There is no "assessment of past practices and proposals for future operations and ratemaking based on rigorous analysis." The extent of PG&E's consideration of this issue is that the PSEP "specifically excludes work that was authorized by Gas Accord V." There are two problems with this statement. First, it does not take into account that PG&E may have asked for cost recovery for certain types of work in previous rate cases other than Gas Accord V. Second, given the many historical deficiencies identified with PG&E's gas operations, it is doubtful that PG&E would have sought recovery for testing or assessments that it should have been performing. 85

The PSEP does not provide a specification of alternatives considered or an evaluation of the tradeoffs among safety, effectiveness, and cost. Both the IRP and June Decision made clear that this information would relevant for any request. On cross-examination, when the engineer charged with developing the pipeline modernization program was asked if PG&E had "done any analysis as far as replacements in terms of where it makes more sense to replace rather than test based strictly based on length of segment," he responded "[w]e hadn't contemplated doing that." As discussed earlier, there are many flaws in the PSEP that originated in Pipeline 2020, including the fact that PG&E had not underpinned its proposal with solid engineering and economic analysis.

⁸³ Amended Scoping Ruling at p. 2.

⁸⁴ Exhibit 2 (PG&E Direct Testimony), at p. 3-38:30-32.

⁸⁵ See e.g. Exhibit 72 (Portions of PG&E's Testimony in A.04-03-021 in which PG&E admits that "[p]ressure testing will be used on a limited basis since it requires the pipeline to be temporarily taken out of service to perform the test.")

⁸⁶ Tr., Vol. 11, at 1420:19-1421:23 (Hogenson).

The PSEP simply presents proposed work to be performed with little explanation.

Because the PSEP lacks robust analysis, CCSF recommends that the Commission approve only a limited amount of work at this juncture and that any rate recovery be subject to refund.

A. PG&E Has Not Developed A Strategic Plan to Deploy Valves.

CCSF supports the use of automatic shut-off valves ("ASVs"), or remote controlled valves ("RCV") (jointly "automated valves") to improve safety and reduce the likelihood of serious harm from leaks or ruptures. CCSF also recognizes that there is state legislation that would require the use of automated valves in high consequence areas, if the Commission makes a finding that the use of automated valves "are necessary for the protection of the public." The Commission should make such a finding, and then direct gas operators to develop a strategic plan to implement the use of automated valves in a manner the provides the highest degree of safety at a reasonable cost. The PSEP consideration of valves is insufficient, and the Commission should require PG&E to develop a strategic plan to deploy automated valves.

1. PG&E's Consideration of Automated Valves.

The federal regulations already require operators to consider the use of automated valves. Section 192.935(c) requires an operator to evaluate whether an automated valves would be an efficient means of adding protection to a high consequence area. When performing this evaluation, gas operators are directed to consider: (i) the swiftness of leak detection and pipe shut-down capabilities, (ii) the type of gas being transported, (iii) operating pressure, (iv) the rate of potential release, (v) pipeline profile, (vi) the potential ignition, and (vii) the location of nearest response personnel.

As made clear by the NTSB, PG&E's historic consideration of valves as part of its TIMP was insufficient. The NTSB noted that in a 2005 audit, PHMSA and the Commission found that

⁸⁷ Cal. Pub. Util. Code § 957.

PG&E did not have a process to evaluate the use of ASVs or RCVs. 88 In response, PG&E prepared an internal memo that found that the "use of an ASV or RCV as a prevention and mitigative measure in an HCA 'would have little or no effect on increasing human safety or protecting properties' and did not recommend using either."89

At the NTSB hearings, PG&E's manager of gas system operations admitted that automated valves could have reduced the time it took to isolate the rupture by one hour. ⁹⁰ The NTSB recommended that PG&E "expedite the installation of ASVs and RCVs on transmission lines in HCAs and class 3 and 4 locations, and space them at intervals that consider the factors listed in 49 CFR 192.935(c)." ⁹¹

Rather than apply the factors in section 192.935(c), PG&E asserts that its Valve Automation Program complements the TIMP, and considers different factors. It is unclear why PG&E, a utility that has "conceded its work on the installation of remote valves was in the pilot stage," would not use the factors provided by the federal statute instead of creating its own analysis to determine where automated valves should be installed.

PG&E did not support the PSEP's Valve Automation program with any cost benefit analysis despite the fact that such analysis was recommended by the Jacobs Consultancy Technical Report⁹³ and recommended by San Francisco witness Michael Scott.⁹⁴ Instead, PG&E asserts "[w]e do not believe that it is appropriate to conduct a traditional cost benefit analysis of this issue because such a study would require PG&E to place a value on the loss of life and property and compare that to the cost of the program." PG&E claims to have "looked at safety

⁸⁸ NTSB at 67.

⁸⁹ NTSB at 56.

⁹⁰ NTSB at 103.

⁹¹ NTSB at 104

⁹² IRP Report at p. 13.

⁹³ Jacobs Technical Report on PG&E's PSEP, Recommendation 6.4.1

⁹⁴ Exhibit 137 (CCSF Testimony) at p. 27.

⁹⁵ Exhibit 21 (PG&E Rebuttal) at p. 6-3:21-28.

benefits, looked at cost versus benefits, but that it is nearly impossible to do a full traditional cost/benefit analysis based on the rarity of pipeline ruptures occurring." When asked how PG&E responded to the Jacob's report's findings, PG&E stated "We didn't provide any additional studies ... and we didn't see any way to do that type of analysis for this project."

PG&E conceded that it had not performed any detailed study of ruptures where automatic shut-off valves were in place and the effectiveness of those valves. ⁹⁸ And even though it has direct experience stemming from the rupture in San Bruno, PG&E only examined how it could have isolated the section of pipe that ruptured, and did not examine the sequence of events and perform any specific analysis of how an automated valve would have responded to the San Bruno incident. ⁹⁹ PG&E also conceded that it could have analyzed the costs of disruption of service as one way to evaluate the costs versus benefits of automated valves, but had not done so. ¹⁰⁰

While CCSF supports the expanded use of automated valves, PG&E should be required to develop a more robust analysis before the Commission approves its proposal, in order to improve safety and ensure reasonable rates

B. PG&E's GTAM Proposal

PG&E has failed to demonstrate the reasonableness of its Gas Transmission Asset Management ("GTAM") project. When reviewing PG&E's record keeping systems the IRP found that:

"While we understand the entire pipeline industry has had challenges in digitizing and systematizing all the engineering design, construction and operating data, we find PG&E's efforts inchoate. The lack of an overarching effort to centralize diffuse sources of data hinders the collection, quality assurance and analysis of

⁹⁶ Tr., Vol. 10, at 1294:27-1295:3 (Menegus).

⁹⁷ Tr., Vol. 10, at 1295:24-25 (Menegus).

⁹⁸ Tr., Vol. 11, at 1349:25-1350:24.

⁹⁹ Tr., Vol. 11, at 1352:5-25 (Menegus).

¹⁰⁰ Tr., Vol. 11, at 1355:1-21 (Menegus).

data to characterize threats to pipelines as well as to assess the risk posed by the threats on the likelihood of a pipeline's failure and consequences." ¹⁰¹

To address these deficiencies, the IRP made two recommendations:

5.3.4.1 PG&E should conduct a comprehensive review of its data and information management systems to validate the completeness, accuracy, availability, and accessibility to data and information and take action through a formal management of change process to correct deficiencies where possible.

and

5.3.4.2 Upon obtaining the results of the review, PG&E should undertake a multiyear program that collects, corrects, digitizes and effectively manages all relevant design, construction and operating data for the gas transmission system.

PG&E committed to identifying industry experts to conduct a thorough study of its data and records management systems. As of the hearings, that study was incomplete, but GTAM was already "in flight." PG&E had already designed the GTAM, without incorporating the recommended findings from the report in its GTAM project. Further, PG&E has not yet determined how to solve the lack of compatibility between its various data systems. CITE and explain briefly—I can't remember this very well but it was mentioned in testimony or on cross.

Given these issues, it is premature for the Commission to consider cost recovery for the GTAM. The Commission should require PG&E to review and incorporate the results of a proper independent study, and design a responsive record management system prior to requesting cost recovery for the GTAM.

VII. THE PSEP IS REMEDIAL

The current state of PG&E's gas transmission system is the result of many years of operational neglect. From the outset of this rulemaking, the Commission recognized that:

The unique circumstances of PG&E's pipeline records and pipeline strength testing program for its pre-1970 pipeline may require extraordinary safety investments. Our ratemaking authority empowers this Commission to impose such ratemaking consequences as the public interest may require. The extraordinary safety investments required for PG&E's gas pipeline system and the

¹⁰¹ IRP Report, at p. 8.

¹⁰² Tr., Vol. 1745:26-1746:1 (Whelan).

unique circumstances of the costs of replacing the San Bruno line are situations where this Commission may use its ratemaking authority to, for example, reduce PG&E's rate of return on specific plant investments or impose a cost sharing requirement on shareholders.¹⁰³

Therefore, the June Decision ordered PG&E to "include a cost-sharing proposal between ratepayers and shareholders." The Commission stated that it would "take official notice of the record in other proceedings, including the investigation of PG&E's gas system record-keeping (1.11-02-016)," in order to inform its ratemaking determination. It was clear to the Commission then even before PG&E's plan was filed, that the work that plan would propose is necessary to remedy PG&E's past failures. This fact is even more obvious now after PG&E has filed the plan and after the NTSB and CPSD reports have been completed.

In the PSEP, PG&E proposed two principles to determine when costs should be borne by PG&E shareholders versus PG&E ratepayers. The first criterion is that incremental costs associated with new regulatory gas safety standards adopted in the June Decision should be borne by ratepayers. The second criterion is that if the work is required to comply with preexisting regulatory requirements, then PG&E's shareholders should bear the costs of such work. PG&E purports to apply these principles to the actions proposed in the PSEP. In this proceeding, PG&E has admitted that it should have pressure test records for pipelines based on the date installation. However, the fact that PG&E did not identify *any* testing or replacement that should have been performed to comply with preexisting regulatory requirements does not align with the many findings by the IRP, the NTSB, and the CPSD reports.

PG&E formed this position before the NTSB finalized its investigation and the Commission issued its reports in the investigations into the San Bruno incident and PG&E's record keeping practices. These reports identified extensive historic failings in PG&E's gas pipeline safety operations that are germane to the proposal before the Commission. It should be

¹⁰³ Order Instituting Rulemaking 11-02-019, at pp. 11-12.

¹⁰⁴ June Decision at p. 22.

¹⁰⁵ June Decision at p. 23.

uncontroversial that PG&E's records management, gathering, and integration have been deficient; ¹⁰⁶ that PG&E failed to use conservative assumptions when it lacked pertinent data; ¹⁰⁷ that PG&E's threat identification has historically understated the extent of potential threats to its pipelines; ¹⁰⁸ that PG&E intentionally raised pressures on its pipelines to avoid having to perform pressure tests and as a result should have considered the manufacturing and construction defects on those lines to be unstable; ¹⁰⁹ and that PG&E's historic consideration of valves was unsound. ¹¹⁰

These reports make clear that many of the safety actions PG&E is now proposing (record keeping modernization, testing, replacement, use of automated valves) are necessary because of the historic failings identified. It is doubtful whether PG&E would have asserted that none of the work proposed is remedial if it had prepared the PSEP after the reports were issued. Even if PG&E cannot now admit that the need for this unprecedented testing and replacement program is caused by historic failures, this Commission can and should make such a finding based on the public record.

A. The Requirement to Keep Reliable, Accurate and Complete Records Is Not A New Regulatory Requirement.

Poor record keeping pervades PG&E's historic failings and operations. It affects all aspects of PG&E's operations – proper class location surveys; leak detection; risk assessment

¹⁰⁶ IRP Report, at pp. 57-62; NTSB Report at pp. 108-110; CPSD San Bruno Report at pp. 27-34; CPSD Records Testimony of Duller and North and Testimony of Felts, entirety of reports.

¹⁰⁷ IRP Report at p. 61; NTSB Report at pp. 108-109; CPSD San Bruno Report at pp. 31, 46.

¹⁰⁸ IRP Report at pp. 63-71; NTSB Report at pp. 110-112; CPSD Report San Bruno Report at pp. 35-59.

¹⁰⁹ NTSB Report at pp. 37-38; CPSD San Bruno Report at p. 40.

¹¹⁰ IRP Report at p. 70; NTSB Report at pp. 56-57; CPSD San Bruno Report at pp. 103-107.

and threat identification and organization of integrity management procedures – and is one of the primary causes for the remedial work being proposed now in the PSEP.

Although PG&E witness James Howe attempted to assert that the grandfathering provision of the 1970 federal regulations was intended to acknowledge that operators may not have construction, design, and testing records sufficient to validate the MAOP, he could not actually identify any language indicating such intent. In truth, when the grandfathering provision was enacted in 1970, there was an expectation that pipeline operators would have pressure test records to substantiate the historic maximum operating pressure for pipelines operated under the grandfather provision. There was also an understanding that certain levels of safety were being provided by means of class location design factors that limited the maximum pressure based on test pressures and the population density of the route along the pipeline.

Initially, the Department of Transportation proposed a rule that would have required MAOP to be determined by the lower of either (1) the design pressure in the weakest element in the pipeline system, or (2) the pressure obtained by dividing the pressure to which the pipeline was tested after construction by the appropriate class location factor. The Department of Transportation, however, recognized "since some pipelines have been operated above 72 percent of specified minimum yield strength (the highest design stress allowed by Part 192) and since many were tested to no more than 50 pounds above maximum allowable operating pressure, these proposed regulations would have required a reduction of operating pressures" for those pipelines to comply with the new regulations.

¹¹¹ Tr., Vol. 10 at 1195:2-1198:12 (Howe).

¹¹² 35 Federal Register 13248 (August 19, 1970) (Exhibit 52).

¹¹³ *Id*.

¹¹⁴ *Id*.

¹¹⁵ *Id*.

After the Department of Transportation proposed the regulations in 1968 in draft form, the Federal Power Commission submitted a letter stating that the proposed new requirements would require operators to reduce the pressure on "thousands of miles" of pipeline installed between 1935-1951 because many pipelines installed during those years in compliance with the then existing codes, were only tested to 50 psi above the proposed maximum operating pressure. The Federal Power Commission stated that it had "reviewed the operating record of the interstate pipeline companies and found no evidence that would indicate a material increase in safety would result from requiring wholesale reductions in the pressure of existing pipelines which have proven capable of withstanding present operating pressures through actual operation." The Federal Power Commission concluded "[i]f it is the intention of the Office of Pipeline Safety to require the retesting of all existing pipelines to the higher standards proposed ... it is our suggestion that this section be revised to permit the development of an orderly testing program that will allow the jurisdictional pipeline companies the necessary time to obtain from this Commission such certificate authorizations as may be necessary."

In response, the Department of Transportation stated "in view of the statements made by the Federal Power Commission, and the fact that this Department does not now have enough information to determine that existing operating pressures are unsafe, a "grandfather" clause has been included in the final rule to permit continued operation of pipelines at the highest pressure to which the pipeline had been subjected during the 5 years preceding July 1, 1970."¹¹⁹

Thus, from the outset, there was an expectation that operators would have detailed records of its pipe and components to either be able to calculate MAOP based on the weakest element in the pipeline system, and that operators would have pressure test records to validate the MAOP. Second, the Department of Transportation allowed grandfathered pressures because

¹¹⁶ *Id.*

¹¹⁷ *Id*.

¹¹⁸ *Id*.

¹¹⁹ *Id*.

it assumed the pipelines operated pursuant to the grandfather clause would primarily be those pipelines that: (a) had been installed from 1935 to 1951; and (b) either applied lower class location design factors than the industry applied since 1952 up until the 1968, 120 had been tested to 50 psi above the MAOP.

This demonstrates that the grandfather provision is based on the assumption that operators using this provision had records of pipeline materials as well as pressure test records to validate the historic MAOP, and the fact that the Department of Transportation could not determine that the historic pressures (those tested to 50 psi over MAOP) were unsafe. The Department of Transportation was not creating a "safe harbor" for operators lacking sufficient records and the grandfather provision of the federal regulations was not intended to be used as carte blanche for operators lacking important pipeline records.

1. It Is Imprudent to Operate Pursuant to 192.619(c) to Pressure Levels Established by Affidavit.

In response to questions from the ALJ, PG&E witness Singh stated that of the pipelines located in high consequence areas operated pursuant to the grandfather clause, the MAOP for 50-70% of those pipelines was established by affidavit. This number is uncommon within the gas pipeline industry. As PG&E's witness Howe stated,

A. [Howe] My experience is that there are occasions where I think that's been used, but I don't think it's a huge percentage of -- most of the experience that I have seen with operators is that they have been able to locate -- they have at that point in time been able to locate pressure charts and other documentation of the historic operating pressure had been. So they have that to point to.

I do believe there are occasions where operators had to go back to utilizing notarized statement or whatever from a party. That was part of the test, part of the operations in that prior period. But my belief is it is not a huge percentage.

Q. [ALJ Bushey] When you say not a huge, less then ten?

¹²⁰ The requirements of the 1968 ANSI B31.8 code was being essentially implemented as interim federal safety standards following enactment of the US Natural Gas Pipeline Safety Act of 1968.

¹²¹ Tr., Vol. 12, at 1612:2-1613:12 (Singh).

A. [Howe] Yes, I would say that is my judgment. 122

Based on statements by PG&E's own witness, most operators are able to locate pressure charts or other documentation when relying on the grandfather provision. PG&E, on the other hand, operated up to 70% of the grandfathered pipeline segments in high consequence areas based on affidavits. Although this method of determining historic MAOP may be acceptable at the discretion of the regulatory agency, operating such a high percentage of pipelines in high consequence areas by affidavit was uncommon within the natural gas industry and constituted an unreasonable and imprudent practice.

The fact that PG&E used affidavits to establish the MAOP for the majority of grandfathered pipelines located in high consequence areas is a reflection on the state of PG&E's records. PG&E compounded this imprudent decision by not taking additional precautions to ensure public safety and validate the integrity of the pipeline, such as pressure testing or performing additional data analysis. Had PG&E done so, some of the proposed work (data gathering and pressure testing or replacement) could potentially have been avoided.

2. Operators have always been required to have accurate and reliable records in order to safely operate the system.

It should be clear that a prudent operator would always have been required to keep accurate records of its pipeline system. Since at least 1961, state law has imposed record keeping requirements for natural gas operators. GO-112, as originally adopted in 1960, stated:

301.1 "The responsibility for the maintenance of necessary records to establish that compliance with these rules has been accomplished rests with the utility. Such records shall be available for inspection at all times by the Commission or the Commission staff.

302.1 Specifications for material and equipment, installation, testing and fabrication shall be maintained by the utility.

¹²² Tr., Vol. 10, at 1222:16-1223:7 (Howe).

303.1 Plans covering the operating and maintenance procedures, including maximum actual operating pressure to which the line is intended to be subjected, shall be maintained by the utility.

In addition:

810.1 It is intended that all materials and equipment that will be come a permanent part of any piping system constructed under this code shall be suitable and safe for the conditions under which they are used. All such materials and equipment shall be qualified for the conditions of their use by compliance with certain specification, standards and special requirement of this code or otherwise as provided herein.

In addition to requiring operators to have records of pressure tests, GO-112 required pipeline operators to keep records regarding the specifications for material and equipment, installation, testing and fabrication. Operators have also been required to show that all materials and equipment permanently attached to any piping system are suitable and safe for the proposed use. It is unclear how an operator could demonstrate compliance with GO-112 if it did not have accurate and complete records of its pipeline systems. Even PG&E witness Howe conceded that it would be good engineering practice to make and retain accurate as-built drawings of significant facilities. ¹²³

In addition to the MAOP validation costs for pipelines installed after 1970, CCSF recommends that PG&E shareholders pay for the costs of MAOP validation project for pipeline installed between 1961-1970.

B. The Extensive Pressure Testing and Replacement Being Proposed Is the Result of PG&E's Failure to Act As A Reasonable Operator.

PG&E has not carried its burden to demonstrate that all proposed testing and replacement should not have been done previously based on historical failures. In fact, PG&E has offered little evidence on this issue other than its conclusory statements. Based on the date of installation, PG&E should have pressure test records for many of the pipeline segments it is now proposing for testing. In addition, as San Francisco witness Gawronski found, based on the

¹²³ Tr., Vol. 10, at 1216:11-1217:14 (Howe).

¹²⁴ Exhibit 21 (PG&E Rebuttal) at pp. 3-12:25-3-14:35.

presence of potential manufacturing and construction defects or other unsatisfactory conditions pipelines, PG&E should have pressure tested or replaced many additional pipelines that are now being proposed for testing and replacement. 125

The federal regulations require pipeline operators to continuously identify threats, select appropriate methods to assess those threats, properly test for those threats, remedy any problems or anomalies, and document the entire process. ¹²⁶ In addition, when the operator discovers an unsatisfactory condition the federal regulations already require pipeline operators to phase out, recondition or reduce pressure on any pipelines, including those in non-high consequence areas. ¹²⁷

1. PG&E Should Have Pressure Tests Records.

Based on federal record keeping requirements implemented in 1970, PG&E admits that it should have pressure test records for all pipelines installed after the enactment of the federal minimum standards in 1970. As described above, PG&E should also have records for pipelines installed after 1961 if it had been complying with GO-112. And, based on industry standard ASA B.31.1.8, beginning in 1955, PG&E had an obligation to keep records of pressure tests.

a. The Commission should reject PG&E's cost sharing proposal for testing of pipelines installed between 1961-1970.

In its technical report, CPSD recommended that PG&E also identify and pay for the testing costs associated with pipe installed between the effective dates of GO 112 and the federal regulations (generally between 1961 and 1970) where the strength test documentation is

¹²⁵ Exhibit 137 (CCSF Direct Testimony) at pp. 15-16.

¹²⁶ 49 C.F.R § 192.911.

¹²⁷ 49 C.F.R § 192.613(b).

missing. PG&E supports this recommendation, but believes that the Commission should only do with based on certain conditions. The Commission should reject PG&E's proposal.

PG&E proposes to have shareholders pay for the costs of testing pipeline installed between 1961 and 1970, where PG&E's test records do not contain: a) test pressure, b) test medium, c) test duration of 1 hour or more based on the requirements of GO-112 in 1961. However, PG&E "deem[s] "complete" pressure test records to be those that contain the following four elements: 1) name of the operator, 2) test pressure, 3) test duration, and 4) test medium. In other words, when PG&E applies criteria to determine the sufficiency of the pressure test record, it uses a standard that includes four elements. But, when determining if shareholders should be responsible for the costs of such re-testing, PG&E applies a less stringent examination, and asks only if the record has the three elements required by GO-112.

First, this signifies that PG&E has included potentially more pipelines for testing and replacement based on the fact that PG&E lacks a "complete" pressure test record. The June Decision stated "a pressure test record must include all elements required by the regulations in effect when the test was conducted. For pressure tests conducted prior to the effective date of General Order 112, one hour is the minimum acceptable duration for a pressure test." Instead of using the June Decision's guidance to determine if a pressure test was complete, PG&E continued to use the definition it proposed in the March 15, 2011 filing. If PG&E needs to perform remedial measures on these pipelines, PG&E should be straightforward in requesting approval to perform the necessary work.

Second, even though PG&E has included more pipelines for testing and replacement than ordered by the June Decision, PG&E's proposal for shareholder responsibility ensures that

¹²⁸ Jacobs Technical Report on PG&E's PSEP, Recommendation 5.4.2.

¹²⁹ Exhibit 2 (PG&E Direct Testimony) at pp. 1-17-1-18.

¹³⁰ *Id*.

¹³¹ PG&E March 15, 2011 Report on Records and MAOP Validation, at p. 10.

¹³² June Decision, Ordering Paragraph 3.

PG&E will be responsible for only a subset of that work. PG&E should apply the same standard determine the completeness of a test record and to determine cost sharing for the pipe segment installed between 1961-1970.

CCSF recommends that the Commission should require PG&E to pay for all re-testing of pipelines installed between 1961-1970 that is required because PG&E lacks a "complete" record.

2. The Federal Regulations Require Pressure Testing.

Beginning in 2004, PG&E had an obligation to develop a plan to assess the stability of potential manufacturing and construction defects on pipelines made with certain pre-1970's manufacturing or construction methods. Section 192.917 (e)(4) ASME B31.8S Appendices A4.3 and A4.4 recognize that certain pipeline segments may be particularly susceptible to failure and therefore pose potential threats to pipeline integrity. These include pipelines containing ERW pipe, steel pipeline more than 50 years old, mechanically coupled pipelines, and pipelines joined by acetylene girth welds in areas where the pipeline is exposed to land movement. Because pipeline segments with these characteristics are more susceptible to failure, the federal regulations state that if a pipeline segment is made with these materials and construction techniques and the operating pressure exceeds the five year MOP, in addition to considering the segment as a high risk for the baseline assessment or subsequent assessment, the operator "must select an assessment technology or technologies with a proven application capable of assessing seam integrity and seam corrosion anomalies."

^{133 49} C.F.R. §§ 192.917(e)(3)(i) and (4) (incorporating by reference ASME Appendix 4.3. ASME Appendices incorporated by reference are binding requirements on pipeline operators. See PHMSA FAQ # 155. "Where sections of consensus standards are incorporated by reference into a rule, those sections become binding requirements the same as if the language were repeated in the rule. Operators must follow the requirements in the Appendices of ASME/ANSI B31.8S when those Appendices, or sections thereof, are referenced in the rule, even though the standard indicates that the appendices are non-mandatory").

¹³⁴ 49 C.F.R. § 192.917(e)(4).

Here, even if PG&E used the grandfather provision to set the MAOP for its pipelines, it still had an obligation to assess the integrity of its pipelines. There are 1,059 miles of pipeline in PG&E's TIMP.¹³⁵ In its 2004 Baseline Assessment Plan ("BAP"), ¹³⁶ PG&E identified 456.6 miles of pipeline with potential manufacturing and construction defects. ¹³⁷ As has been made clear by the IRP, the NTSB and the CPSD reports, PG&E's TIMP was historically deficient, especially with regards to threat identification and assessment. Given the age of some of PG&E's pipe segments, the fact that PG&E lacks pressure test records for segments of its pipelines, and various findings from the NTSB and CPSD that PG&E's spiking made manufacturing and construction defects unstable, PG&E should have considered all potential manufacturing and construction defects on those lines to be unstable.

It is well documented that PG&E used External Corrosion Direct Assessment ("ECDA") for the majority of its pipelines. For example, PG&E assessed 649 miles of pipelines in high consequence areas using ECDA, while only assessing 14 miles of pipelines in high consequence areas using hydrotesting. While the widespread use of ECDA is appropriate to address the threat of corrosion, "[t]he integrity assessment method an operator uses must be based on the threats identified to the covered segment. (See § 192.917.) *More than one method may be required to address all the threats to the covered pipeline segment.*" Thus, the fact that PG&E assessed the its pipelines using ECDA does not excuse it from having to assess manufacturing and construction defects via pressure testing or in-line inspection where pipeline segments contain potentially unstable manufacturing and construction defects.

¹³⁵ Exhibit 2 (PG&E Direct Testimony), at p. 3-32:26-27.

¹³⁶ Pursuant to 49 C.F.R. § 192.919, an operator's BAP must identify potential threats to covered pipeline segments; the methods selected to assess the integrity of the line pipe, including an explanation of why the assessment method was selected; propose a schedule for completing the assessments; and propose a procedure to minimize environmental and safety risks.

¹³⁷ PG&E 2004 BAP (Attached as Exhibit 6 to CCSF Direct Testimony (Exhibit 137))

¹³⁸ Exhibit 2 (PG&E Direct Testimony), at p. 2-17, Table 2-5.

¹³⁹ 49 C.F.R. § 192.919(b) (emphasis added).

However, as the Overland Report makes clear, based on budgetary constraints, PG&E often chose ECDA because it was much more economical.

"For Integrity Management, low 2008 funding drove many pigging projects (higher cost) to be changed to ECDA projects (at a lower cost). While ECDA is an approved method of inspection, it provides a much less thorough evaluation of the pipeline via statistical methods rather than by direct inspection. Gas Engineering would strongly prefer to smart pig PG&E's higher stress pipelines to obtain a much better initial evaluation of the line, but that is not financially viable at current funding rates. (emphasis added)." 140

3. PG&E Could Have Avoided 84% of The Proposed Testing Costs If It Had Complied With State and Federal Law.

San Francisco witness Gawronski reviewed PG&E's proposals for lines 101, 109, 132, and 132A and concluded that over 84% of the proposed testing costs could have been avoided had PG&E been keeping accurate records and faithfully complying with federal pipeline safety laws. ¹⁴¹ Based on the age of installation, Mr. Gawronski evaluated which pipeline segments currently being proposed for testing that PG&E should have had pressure test records. For any segments that preceded the 1955 standard, Mr. Gawronski evaluated whether PG&E should have pressure tested those segments based on the federal TIMP regulations. Thus, Mr. Gawronski examined:

- whether PG&E should have had pressure test records as required by industry standard (beginning in 1955), state law (beginning in 1961) or federal law (beginning in 1970) for the segments being proposed for testing;
- whether PG&E should have pressure tested the segments based on its TIMP; or
- if the cost of the proposed testing were truly required by new regulatory requirements and should be recovered by PG&E. 142

¹⁴⁰ Overland Consulting Focused Audit of Pacific Gas & Electric Gas Transmission Pipeline Safety-Related Expenditures For the Period 1996 to 2010, at p. 7-8.

 $^{^{141}}$ Id

¹⁴² Exhibit 137 (CCSF Direct Testimony), at pp. 1416; Exhibit 7 to CCSF Testimony.

While PG&E disagreed with Mr. Gawronski's analysis, it did not present any contrary analysis or conclusions. As discussed below, it PG&E has made no showing of what work should have already been performed.

Ratepayers should not be required to bear the cost of re-establishing pipeline records and pressure testing records caused by PG&E's poor design, quality control, construction, pressure testing and oversight practices of the past, or deficiencies in carrying out its current TIMP plan.

4. PG&E Presented No Contrary Evidence.

At the time the PSEP was filed, PG&E admitted that it had pressure tested only 14 miles of pipeline as part of its TIMP, and that it did not plan to perform any further hydrotests as part of its TIMP. In stark contrast, PG&E is proposing to hydrotest 783 miles of pipeline in Phase 1 of the PSEP.

PG&E admitted that it had not performed any analysis examining the segments identified as having manufacturing and construction defects in its 2004 BAP and whether PG&E is required to test those segments for potentially unstable manufacturing and construction defects.

PG&E also admitted that it has not performed a similar analysis based on its 2010 BAP.

As described earlier, PG&E only examined whether any of the projects proposed were included in its Gas Accord V filing. PG&E's prior rate case is not an appropriate benchmark for what work should have been performed because PG&E did not analyze what work should have been performed as part of prior rate cases, and given PG&E's historic failings, it is doubtful that PG&E would have requested funding for necessary work. In essence, PG&E has provided no evidence to support its claim that none of the work being proposed in the PSEP should not already have been performed.

¹⁴³ Exhibit 73 (TURN Data Request 031-02); Tr., Vol. 12, at 1584:3-15 (Hogenson).

¹⁴⁴ Tr., Vol. 12, at 1584:16-21 (Hogenson).

Instead, PG&E attempted to undermine Mr. Gawronski's testimony by asserting that his testimony contained "only conclusions" and that "because he provides no analysis or any other support for his conclusions (e.g. demonstrating segment-by-segment basis that a known threat requiring assessment by hydrostatic testing existed), his testimony on Exhibit 7 are mere conjecture." However, the NTSB and CPSD reports identified many deficiencies in PG&E's threat identification and assessment.

"PG&E's failure to consider evidence of seam defects discovered during both construction and operation of Line 132, as well as its weighting of factors so as to understate the threat of manufacturing defects, resulted in PG&E selecting an assessment technology (ECDA) that was incapable of detecting seam flaws like the one that led to this accident." ¹⁴⁶

"the NTSB concludes that the PG&E gas transmission integrity management program was deficient and ineffective." ¹⁴⁷

"The discounting of certain threats can, and did, result in inappropriate assessment technology being used." ¹⁴⁸

"PG&E did not incorporate cyclic fatigue or other loading conditions into their segment specific threat assessments and risk ranking algorithm." ¹⁴⁹

"PG&E did not follow the requirement that it <u>must</u> assume the presence of defects and evaluate whether a failure could result from these defects in each of the pipeline segments." ¹⁵⁰

Because PG&E has not provided any analysis demonstrating that system wide testing and replacement should not have been performed earlier, the Commission should question PG&E's assertion that all work proposed in the PSEP has not been previously required, and should order an independent audit of PG&E's TIMP to determine which actions and projects should have been performed as a prudent operator or pursuant to federal law. Given the large body of

¹⁴⁵ Exhibit 21 (PG&E Rebuttal) at pp. 3-13:33-3-14:6.

¹⁴⁶ NTSB Report at p. 112.

¹⁴⁷ *Id.* at p. 114.

¹⁴⁸ CPSD San Bruno Report at p. 38.

¹⁴⁹ *Id.* at 51.

¹⁵⁰ *Id*.

As alleged in CCSF's testimony in Investigation 12-01-007, PG&E has conceded that there are at least 46 miles of pipeline segments with unstable manufacturing and construction defects.

public information and the Commission's own knowledge, it is not credible to find that nearly all of the PSEP work is incremental.

In addition, PG&E concedes that some testing may have been required previously. In his rebuttal testimony, PG&E witness Hogenson stated "if hydrotesting were required for these segments, PG&E has not requested nor received funding to perform hydrotesting on these pipelines in prior GT&S rate cases." And when asked to clarify whether the PSEP duplicated the existing requirements under the TIMP, witness Hogenson stated "there's going to be overlap" and that "they may support, or benefit or enhance." PG&E witness Bottorff made clear, however, that

"At the time we prepared our application for the PSEP back in the summer of 2011, we were not fully aware of what steps and projects we would undertake to conform with the 2012 plan for integrity management. So the PSEP plan application included some work that we subsequently determined in 2012 would be part of our Integrity Management Program in 2012. So we agreed to have those portions or those costs that were part of the 2011 application that would be performed in 2012 as part of the Integrity Management Program, that work would be completed at our shareholders' expense." ¹⁵³

PG&E has not provided an update to the PSEP reflecting this proposed cost sharing. Because it has not provided any analysis in the record demonstrating what work should already have been performed as part of its TIMP, PG&E has failed to carry its burden to show that the PSEP is not remedial, or to demonstrate that all work proposed was not already required by pre-existing regulations. Rather than address concerns from the IRP and the NTSB that PG&E's threat identification and assessment have historically been deficient, PG&E proposed that if it the work had not been previously proposed in a general rate case, then it was not required by preexisting regulations. This assertion does not account for the many violations found by the NTSB and alleged by the CPSD reports.

¹⁵² Exhibit 21 (PG&E Rebuttal), at p. 3-14:4-6

¹⁵³ Tr., Vol. 9 at 944:26-945:11 (Bottorff).

VIII. SAFETY ACTIONS FOR LINES 101, 109, AND 132 SHOULD HAVE BEEN PERFORMED EARLIER

PG&E's proposal to now test and replace many segments on lines 101, 109 and 132 is the result of imprudent operations by PG&E. In 1984, PG&E proposed "a forward-looking 30 year plan, called the Gas Pipeline Replacement Plan (GRPR)." The plan stated:

"The steel transmission lines proposed for replacement are 38 to 55 years old and were originally installed in open spaces, often in narrow rights-of way in areas which have since been highly developed. Many of these pipelines are now in confined areas with reduced ground cover. They need to be replaced with modern pipe to enable PGandE to continue to provide safe and reliable' service. In addition, the three pipelines supplying San Francisco from Milpitas were built between 1929 and 1947 also. They will be replaced with pipelines capable of operating at higher pressures, which will provide sufficient pipeline storage to allow abandonment of the remaining aboveground low-pressure gas holder in San Francisco."

Clearly, PG&E knew in mid-1980's that the three peninsula lines needed "to be replaced with modern pipe to enable PGandE to continue to provide safe and reliable service." At that time, PG&E recognized that the ages of the pipelines, the lines should be replaced.

In Phase I of the PSEP, PG&E is proposing to test and replace large section of all three peninsula lines.¹⁵⁵ The PG&E has not demonstrated that its current requests to test and replace these lines should not have occurred earlier, or does not constitute deferred maintenance. It is PG&E's burden to show that its proposal reasonable. The Commission should not approve any ratepayer funding for safety activities on these lines as PG&E's imprudent operations have created the need to test them at this date.

IX. PG&E'S COST SHARING PROPOSAL IS CONTRARY TO THE FACTS OF THIS CASE, UNLAWFUL, AND UNFAIR TO RATEPAYERS

The Commission has already recognized that PG&E's responsibility for the San Bruno explosion and the flawed pipeline operations, maintenance, and record-keeping that led to it

¹⁵⁴ CSPD Record Keeping Report (Felts) at p. 18.

¹⁵⁵ Workpaper references: Line 101 replacement (WP3-43); Line 109 replacements (WP3-67, WP3-70, WP 3-74, WP 3-78, WP 3-81); Line 132B replacement (WP 3-132); Line 101 test (WP 3-809); Line 109 test (WP 3-827); Line 132 tests (WP 3-862, WP 3-870); Line 132A test (3-873).

would likely require unusual ratemaking treatment.¹⁵⁶ For this reason, Ordering Paragraph 10 of D. 11-06-017 required PG&E to include a proposed allocation of PSEP costs between ratepayers and shareholders. In the PSEP, PG&E proposes to forego rate recovery of costs incurred in 2011 and for testing pipelines for which it should have had pressure test records based on the date of installation.¹⁵⁷ In so doing, PG&E has nominally complied with the Commission's order, but PG&E's proposal is not reasonable and should be rejected. PG&E's proposal for cost sharing is unsupported by the public record, not equitable to ratepayers, and unlawful under Public Utilities Code Section 463.

First, the cost sharing proposal fails to acknowledge the remedial nature of most if not all of the PSEP work, as discussed above in Section VII. The significant failings of PG&E's gas pipeline practices have been identified by numerous reports and are the subject of at least three ongoing Commission investigations. The Commission cannot make a final determination regarding appropriate shareholder responsibility until it completes those proceedings. Public Utilities Code Section 463 provides that the Commission shall disallow any costs that directly or indirectly result from a utility's unreasonable errors and omissions. The Commission does not have the discretion to allow PG&E to recover such costs. Thus, this issue may not be decided until the scope and impact of PG&E's unreasonable errors and omissions has been determined.

Second, as identified in the March 28, 2012 letter from Congresswoman Jackie Speier, PG&E's shareholders continued to earn healthy returns during most of the years that PG&E was failing to prudently manage its gas pipeline system. The ultimate allocation of cost responsibility to shareholders and ratepayers must reflect not only the utility's past practices but also the costs and benefits that accrued to ratepayers and shareholders over the relevant time periods.

¹⁵⁶ See June Decision at 22 and Section IV above.

¹⁵⁷ Tr., Vol. 14 at 1965:23-24 (Marre).

Third, the minimal cost sharing proposal limits the responsibility for shareholders while creating unlimited potential costs for customers. PG&E acknowledges that it has proposed no shareholder component for any Phase 2 costs nor even for the additional costs in Phase 1 that PG&E proposes to request by Advice Letter. This is unfair and unreasonable.

X. THE COMMISSION BEARS THE RESPONSIBILITY TO ENSURE THAT THE WORK AUTHORIZED IN THE PSEP PROTECTS THE PUBLIC SAFETY

Ultimately, it is Commission's obligation to ensure that PG&E performs the work necessary to ensure the public safety. While PG&E has an obligation to comply with the law, it is the Commission's obligation to regulate PG&E to ensure compliance with the law. In the June Decision, the Commission identified PG&E has needed to "rebuild the Commission's and public's trust in the safety of its operations." The Commission must also rebuild the public's trust in the Commission's regulation of the natural gas pipeline operators.

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¹⁵⁸ Tr., Vol. 14 at 1967:26-1968:3 (Marre).

¹⁵⁹ Order Instituting Rulemaking 11-02-019, at p. 17.

The Commission has committed to changing the way it reviews gas utilities rate cases. If it hopes to avoid re-creating the mistakes of the past, it must change the rigor with which it views PG&E's applications. The Commission must review PG&E's application not only to determine if the safety request is reasonable and adequate in terms of dollars, but also to ensure that the public safety is being provided. The Commission bears the responsibility to approve only those costs demonstrated to be necessary to ensure the public safety. Before the Commission can approve PG&E's request for unprecedented sums of ratepayer funds, the Commission must find that PG&E's request is reasonable.

Dated: May 14, 2012

Respectfully submitted,

DENNIS J. HERRERA City Attorney THERESA MUELLER AUSTIN YANG Deputy City Attorneys

By:	/S/	
	AUSTIN YANG	

Attorneys for CITY AND COUNTY OF SAN FRANCISCO

CERTIFICATE OF SERVICE

1, KIANA V. DAVIS, declare that:

l am employed in the City and County of San Francisco, State of California. I am over the age of eighteen years and not a party to the within action. My business address is City Attorney's Office, City Hall, Room 234, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102; telephone (415) 554-4698.

On May 14, 2012, 1 served:

OPENING BRIEF OF THE CITY AND COUNTY OF SAN FRANCISCO

by electronic mail on all parties in on the attached email service list CPUC Proceeding No. R.11-02-019.

The following addresses without an email address were served:

BY UNITED STATES MAIL: Following ordinary business practices, I sealed true and correct copies of the above documents in addressed envelope(s) and placed them at my workplace for collection and mailing with the United States Postal Service. I am readily familiar with the practices of the San Francisco City Attorney's Office for collecting and processing mail. In the ordinary course of business, the sealed envelope(s) that I placed for collection would be deposited, postage prepaid, with the United States Postal Service that same day.

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I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed on May 14, 2012, at San Francisco, California.

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