APPENDIX A

CPSD Rebuttal Brief Remedies Table

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Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
INTRODUCTION CPSD created the table in Appendix A by adding one column to the PG&E's Coordinated Reply Brief Appendix B, the Proposed Remedies table. The fifth column is entitled "CPSD Comments re PG&E Response and Edits". Entries in this column respond to PG&E's proposed edits to CPSD's original proposed remedy (by row). Where CPSD's response results in modification of the original proposed remedy, CPSD shows the modifications to the remedies it proposed in its Opening Fines and Remedies Brief in Column 2, entitled "Revised Party Proposal". CPSD Appendix B in this Rebuttal Brief takes the edits made in Column 2 of the table below, and proposes them without edits shown. CPSD recommends the Commission adopt the recommendations of Appendix B in their entirety.				

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.A.1	PG&E should pay to reimburse CPSD for contracts retaining independent industry experts, chosen by CPSD, for the cost of verification audits and inspections to ensure compliance with the other remedies. PG&E should also pay to reimburse CPSD for contracts retaining independent industry experts, chosen by CPSD in the near term to provide needed technical expertise as PG&E proceeds with its hydrostatic testing program, in order to provide a high level of technical oversight and to assure the opportunity for legacy piping characterization though sampling is not lost in the rush to execute the program.	PG&E agrees with this proposal. The Government Auditing Standards issued by the U.S. Government Accountability Office contain appropriate protocols for conducting audits. PG&E expects CPSD to follow these government-sanctioned standards to ensure high quality audits.	PG&E should pay to reimburse CPSD for contracts retaining independent industry experts, chosen by CPSD, for the cost of verification audits and inspections to ensure compliance with the other remedies. **These auditors should apply the Government Auditing Standards issued by the U.S. Government Accountability Office when conducting their audits.** PG&E should also pay to reimburse CPSD for contracts retaining independent industry experts, chosen by CPSD in the near term to provide needed technical expertise as PG&E proceeds with its hydrostatic testing program, in order to provide a high level of technical oversight and to assure the opportunity for legacy piping characterization though sampling is not lost in the rush to execute the program.	Oppose. Although PG&E claims it agrees with CPSD's proposal, CPSD never proposed GAO standards. Moreover, CPSD rejects PG&E's proposed changes on the grounds that: a) There is no reason to include an auditing standard *proposed by PG&E* in a remedy that is designed to determine whether PG&E has complied with the Commission's required remedies. b) Auditing is part of the Commission's legal jurisdiction. As such, CPSD will use its own auditing standard(s) designed for the purpose of recordkeeping and safety audits. c) CPSD will not limit pool of available auditors by restricting itself to the criteria set out in the Government Auditing Standard. CPSD reserves the right to appoint auditors and subject matter experts at its sole discretion, to undertake the proposed safety and recordkeeping audits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.A.2	PG&E should reimburse CPUC/CPSD for the cost of conducting all three of the present investigations.	PG&E agrees with this proposal.	None.	None.
4.A.3	PG&E should apply the remainder of the $2.25 billion penalty to the PSEP cost and expenses for Phases I and II until it reaches the maximum amount of the penalty.	PG&E continues to disagree with the $2.25 billion penalty as appropriate. However, if the CPUC adopts that amount, then the counting toward the $2.25 billion should occur in the following order: (1) PSEP Phase 1 disallowances and PG&E's actual spending as detailed in Table 1 of Appendix A (PG&E's May 16, 2013 response to General Hagan's request for financial information); (2) PG&E's forecast spending as detailed in Table 1 for upcoming work and Operational Commitments. And then, if necessary, (3) PSEP Phase 2 disallowances ordered by the Commission; and (4) any remaining amount to meet the $2.25 billion maximum will offset PSEP Phase 1 and 2 authorized dollars.	PG&E should apply the remainder of the $2.25 billion penalty ~~to the PSEP cost and expenses for Phases I and II~~ until it reaches the maximum amount of the penalty **in the following order: (1) PSEP Phase 1 disallowances and PG&E's actual spending as detailed in Table 1; (2) PG&E's forecast spending as detailed in Table 1 for upcoming work and Operational Commitments. And then, if necessary, (3) PSEP Phase 2 disallowances ordered by the Commission; and (4) any remaining amount to meet the $2.25 billion maximum will offset PSEP Phase 1 and 2 authorized dollars.**	*Refer to CPSD response brief*

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.1	PG&E's ~~should revise its~~ pipeline construction ~~and installation procedures and training to ensure that they~~ standards should meet ~~and~~ or exceed all legal requirements and industry standards for identifying and correcting pipe deficiencies and strength testing.	PG&E is implementing this recommendation[1] through updated training and procedures. *See* San Bruno OII Ex. PG&E-1a at 13-4 to 13-6.	PG&E's ~~should revise its~~ pipeline construction **standards should** ~~and installation procedures and training to ensure that they~~ meet ~~and~~ **or** exceed all **relevant** legal requirements and industry standards for identifying and correcting pipe deficiencies and strength testing.	CPSD accepts PG&E's proposed edits with the exception of the insertion of "relevant" because this term is highly subjective and tends to unnecessarily obscure an otherwise clearly stated remedy.

[1] For all recommendations that PG&E agrees with and is implementing, PG&E is taking independent action to meet the objectives of the recommendation. These actions may exceed what is recommended.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.2	PG&E should revise its GTIMRMP ~~section 2 of RMP-06~~ to ~~fully and~~ robustly meet the data gathering requirements of 49 CFR Part 192.917(b) and ASME-B31.8S, and to do so without limiting its data-gathering to only that data which is "readily available, verifiable, or easily obtained" by PG&E.	PG&E agrees that its data gathering practices should be reviewed to confirm that they meet or exceed regulatory and industry consensus guidance, and should be revised if necessary. This recommendation is being implemented through our review of Integrity Management and through Project Mariner (formerly described as the Gas Transmission Asset Management Project (GTAM)). *See* San Bruno OII Ex. PG&E-1c, Chapter 4.E. PG&E is substantially increasing the amount, types, quality, and accessibility of information collected and maintained electronically regarding our pipelines; improving systems for collecting, validating, and retaining pipeline data; and increasing the traceability of materials used in the construction and maintenance of transmission pipelines. In addition, through the MAOP validation effort, PG&E is building detailed pipeline features lists down to the individual component level for all of our transmission pipelines.	PG&E should revise ~~section 2 of RMP-06~~ its integrity management procedures to ~~fully and~~ robustly meet the data gathering requirements of 49 C.F.R. Part 192.917(b) and ASME ~~-~~B31.8S~~,~~ ~~and to do so without limiting its data-gathering to only that data which is "readily available, verifiable, or easily obtained" by PG&E~~.	CPSD accepts the minor edit in the first 3 lines, but objects to the deletion of the last 5 lines. During the Records OII, PG&E's records were found to be generally unavailable in reasonable amount of time to PG&E's employees for a number of reasons. CPSD plans to include in future audits a check of the reasonable availability and ability to verify records after PG&E has had time to retrieve and organize all of its transmission pipeline records. The inclusion of this language in the remedy puts PG&E on notice that it is expected to retrieve and organize all of its transmission pipeline records.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.3	PG&E should perform a complete company-wide record search ~~ensure~~ to populate its GIS database ~~includes~~ with all identified gas transmission pipeline leak history, including closed leak, information not already transferred to the GIS.	PG&E agrees with the recommendation that it gather and integrate all gas transmission leak history into its GIS. PG&E is implementing this recommendation by converting all paper records and databases documenting gas transmission leak history into a single electronic database. *See* San Bruno OII Ex. PG&E-1c at 4-39.	PG&E should perform a complete company-wide record search ~~ensure~~ **to populate** its GIS database ~~includes~~ **with** all **identified gas transmission** pipeline leak history, including closed leak, information not already transferred to the GIS.	CPSD accepts PG&E's edits

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.4	PG&E should revise its Integrity Management training to ensure that missing data is represented by conservative assumptions, and that those assumptions are supportable, per the requirements of ASME B31.8S. As required by Ordering Paragraph 1 of D. 11-06-017, PG&E should be required to fully document any engineering-based assumption it makes for data that is missing, incomplete or unreliable. Such assumptions must be clearly identified and justified and, where ambiguities arise, the assumption allowing the greatest safety margin must be adopted.	PG&E agrees that it should ensure that missing data is represented by conservative assumptions. PG&E's practice has been, and continues to be, to use conservative assumptions that reflect the most conservative pipeline specifications for pipe procurement standards in place at the time of the construction project, a practice that is consistent with ASME B31.8S guidance. *See* San Bruno OII Ex. PG&E-1, Chapter 5. PG&E has taken steps to review its data to ensure the adequacy of its conservative assumptions. Records R.T. 1485-87 (PG&E/Keas); Records OII Ex. CPSD-67 (PG&E Response to Data Request 89, Question 1).	None.	Since PG&E views Turn's proposed remedy 2A duplicative of CPSD's 4.B.4, CPSD proposes incorporating the 2A language into this remedy. CPSD disagrees with PG&E's representation that it has been and continues to use conservative assumptions that reflect the most conservative pipeline specifications. During hearings, CPSD showed numerous examples of incorrect assumptions or missing data in PG&E's GIS data base and, by extension, in its integrity management data base. Therefore, PG&E's statement in its response that " it has been and continues to use conservative assumptions that reflect the most conservative pipeline specifications . . ." is incorrect.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.5	PG&E should revise its GTIMPRMP ~~section 2 of RMP-06~~, and related training, to ensure ~~full and~~ robust data verification processes are enacted and implemented.	PG&E is implementing this recommendation through a review of our Integrity Management program and through enhanced data collection and validation processes in Project Mariner, and will revise its integrity management procedures (which will replace Risk Management Procedures, or RMPs) to ensure that data verification processes meet or exceed requirements of 49 C.F.R. Part 192, Subpart O and ASME B31.8S. *See* San Bruno OII Ex. PG&E-1c at 4-37 to 4-38.	PG&E should revise **its integrity management procedures** ~~section 2 of RMP-06~~, and related training, to ensure ~~full and~~ robust data verification processes are enacted and implemented.	CPSD accepts PG&E's edits.
4.B.6	PG&E should revise its threat identification and assessment procedures and training, including its Baseline Assessment Plans, to fully incorporate all relevant data for both covered and non-covered segments, including but not limited to potential manufacturing and construction threats, and leak data.	PG&E is implementing this recommendation through our review of Integrity Management. *See* San Bruno OII Ex. PG&E-1c, Chapter 4.E. Through the MAOP validation effort, PG&E is compiling comprehensive pipeline features lists that reflect data on all transmission pipelines at the component-by-component level, which will facilitate data gathering of the required data for covered and non-covered segments.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.7	PG&E should re-label its system MAOP nomenclature **in accordance with** ~~to avoid confusion with the MOP term of art as used by~~ 49 C.F.R. Part 192.~~917(e)(3).~~	PG&E agrees with this recommendation, and is revising its system MAOP nomenclature in accordance with 49 C.F.R. Part 192.	PG&E should re-label its system MAOP nomenclature **in accordance with** ~~to avoid confusion with the MOP term of art as used by~~ 49 C.F.R. Part 192.~~917(e)(3).~~	CPSD adopts PG&E's edits.
4.B.8	PG&E should permanently cease the self-suspended practice of regularly increasing pipeline pressure up to ~~above~~ a "system MAOP" to eliminate the need to consider manufacturing and construction threats. In addition, PG&E should analyze all segments that were subjected to the planned pressure increases to determine the risk of failure from manufacturing threats ~~due to PG&E's pressure spiking practice such threats should now be considered by PG&E to be unstable~~ under 49 C.F.R. Part 192.917(e)(3) , and perform further integrity assessments as warranted.~~.~~ Each assessment should be documented and retained for the life of the facility.	PG&E agrees with this recommendation, and has permanently ceased the practice of increasing pipeline pressure in certain high consequence area (HCA) pipe segments with identified manufacturing threats to the highest pressure experienced in the five years predating identification of the HCA. *See* San Bruno OII Ex. PG&E-1c at 4-25. PG&E has analyzed all HCA segments formerly subjected to this practice to determine the risk of failure from these defects pursuant to 49 C.F.R. Part 192.917(e)(3). This analysis, called an Engineering Critical Assessment (ECA), evaluates whether latent manufacturing or construction related defects have become unstable and would further require an integrity assessment.	PG&E should permanently cease the self-suspended practice of regularly increasing pipeline pressure **up to**~~above~~ a "system MAOP" to eliminate the need to consider manufacturing and construction threats. In addition, PG&E should analyze all segments that were subjected to the planned pressure increases to determine the risk of failure from manufacturing threats ~~due to PG&E's pressure spiking practice such threats should now be considered by PG&E to be unstable~~ under 49 C.F.R. Part 192.917(e)(3), and perform further integrity assessments as warranted.	CPSD accepts PG&E's proposed edits but, in doing so, sees a need for documentation of the proposed analyses and therefore adds: Each assessment should be documented and retained for the life of the facility.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.9	PG&E should revise its threat identification and assessment procedures and training to ensure that HCA pipeline segments that have had their MAOP increased are prioritized for a suitable assessment method (e.g., hydro-testing), per the requirements of 49 CFR Part 192.917(e)(3)-(4).	PG&E agrees with implementing this recommendation, but disagrees with the statement that its HCA segments "had their MAOP increased." PG&E's former practice of raising pressures to historic five year high levels did not result in increases in pipeline MAOP. *See* San Bruno OII Ex. PG&E-1c at 4-24 (PG&E's practice was to raise pressure to MAOP). As discussed in response to CPSD Recommendation 4.B.8, PG&E has analyzed all HCA segments formerly subjected to this practice to determine the risk of failure from these defects pursuant to 49 CFR Part 192.917(e)(3). This analysis, called an Engineering Critical Assessment (ECA), evaluates whether latent manufacturing or construction related defects have become unstable and would further require an integrity assessment.	PG&E should revise its threat identification and assessment procedures and training to ensure that HCA pipeline segments with identified manufacturing threats ~~that have had their MAOP increased~~ are prioritized for a suitable assessment method (e.g., hydro-testing), per the requirements of 49 C.F.R. Part 192.917(e)(3)-(4).	CPSD accepts PG&E's proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.10	PG&E should revise its threat identification and assessment procedures and training to ensure that cyclic fatigue and other loading conditions are incorporated into their segment specific threat assessments and risk ranking algorithm, and that threats that can be exacerbated by cyclic fatigue are assumed to exist per the requirements of 49 CFR Part 192.917(b).	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1c at 4-37 to 4-39.	None.	None.
4.B.11	PG&E should revise its risk ranking algorithm to ensure that PG&E's weighting factors in its risk ranking algorithm more accurately reflect PG&E's actual operating experience along with generally reflected industry experience.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a, at 13A-3 to 13A-4; San Bruno OII Ex. PG&E-1c, Chapter 4.E.	None.	None.
4.B.12	PG&E should revise its threat identification and assessment procedures and training to ensure that PG&E's weighing of factors in its risk ranking algorithm and the input of data into that algorithm corrects the various systemic issues identified in the NTSB report and the CPSD/PHMSA 2011 Risk Assessment Audit.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a, at 13A-4; San Bruno OII Ex. PG&E-1c, Chapter 4.E.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.13	PG&E should revise its threat identification and assessment procedures and training to ensure that the proper assessment method is being used to address a pipeline's actual and potential threats.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a, at 13A-4; San Bruno OII Ex. PG&E-1c, Chapter 4.	None.	None.
4.B.14	PG&E should review and implement its Inspection, Testing, and Maintenance procedure applicable to stations to ensure that integrity of equipment, wiring and documentation and identification of electrical components does not deteriorate to unsafe conditions.	PG&E is implementing this recommendation and reviewing its inspection, testing, and maintenance procedure applicable to stations (including the Milpitas Terminal) to ensure the integrity of electrical equipment, wiring, documentation, and identification of electrical components. *See* San Bruno OII Ex. PG&E-1a at 13A-4. However, the state of equipment, wiring, and documentation and identification of electrical components at the Milpitas Terminal were not deteriorated or otherwise unsafe. *See* San Bruno OII Ex. PG&E-1, Chapter 8.E.1.	PG&E should **review** ~~make revisions to~~ its ~~equipment retention policy~~ **Inspection, Testing, and Maintenance procedure applicable to stations** to ensure that integrity of **electrical** equipment, wiring and documentation and identification of electrical components does not deteriorate to unsafe conditions ~~such as occurred at the Milpitas Terminal, described herein. If PG&E does not have an applicable equipment retention policy then it should formulate one~~.	CPSD accepts PG&E's proposed edits and includes language to ensure the procedure is implemented.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.15	PG&E should revise its SCADA system to reduce the occurrence of "glitches" and anomalies in the control system that desensitizes operators to the presence of alarms and other inconsistent information.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-4 to 13A-5; San Bruno OII Ex. PG&E-1, Chapter 8.F.2.	None.	None.
4.B.16	PG&E should reevaluate SCADA alarm criteria with the goal of reducing unnecessary alarm messages.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-4 to 13A-5; San Bruno OII Ex. PG&E-1, Chapter 8.F.2.	None.	None.
4.B.17	PG&E should revise its control systems, including SCADA, to ensure that all relevant information, including redundant pressure sensors, is considered.	PG&E agrees that its SCADA system should make available all relevant information, and is implementing this recommendation through its Valve Automation Program. *See* San Bruno OII Ex. PG&E-1a at 13A-5. PG&E does not agree that redundant information is necessarily relevant. *See* San Bruno OII Ex. PG&E-1, Chapter 8.E.6.	PG&E should revise its control systems, including SCADA, to ensure that all relevant information~~**, including redundant pressure sensors,**~~ is considered. **PG&E is performing this through its Valve Automation Program.**	CPSD opposes PG&E's edits. Even if PG&E implements a valve automation program, redundant pressure sensor data will be available and should be incorporated into control systems, including SCADA. Redundant information from alternate sources is important and relevant in emergency situations like the one that occurred at Milpitas Station when data from a primary (and only) source became unreliable.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.18	PG&E should install more pressure sensors and have them closely spaced and use the additional information to incorporate leak or rupture recognition algorithms in its SCADA system.	PG&E agrees with this recommendation and is currently performing a pilot program to test the feasibility of performing real time leak and line break detection using SCADA information. PG&E will review the results of that pilot before proposing the installation of more pressure sensors through a system-wide program. *See* San Bruno OII Ex. PG&E-1a at 13A-5.	**Depending on the results of the leak and line break detection pilot program,** PG&E ~~should~~ **may** install more pressure sensors and have them closely spaced and use the additional information to incorporate leak or rupture recognition algorithms in its SCADA system.	CPSD opposes PG&E's edits. Clearly, the proposed remedy has merit because PG&E has already begun a pilot program. CPSD believes the goal, as stated in the proposed remedy, which is based on known and proven technology and basic math, is valid and necessary to create a safe transmission system.
4.B.19	PG&E should program its PLCs to recognize that negative pressure values are erroneous and require intervention to prevent valves from fully opening.	PG&E believes that the redundant pneumatic pressure limiting system (such as the system at the Milpitas Terminal) is the appropriate countermeasure in situations where regulator valves open unintentionally. PG&E does not believe that programming PLCs to disregard pressure information (even if it is likely invalid) is a prudent practice. *See* San Bruno OII Ex. PG&E-1a at 13A-5 to 13A-6; San Bruno OII Ex. PG&E-1, Chapters 8.C.2 & 8.E.8.	Oppose.	The proposed remedy is appropriate and necessary in light of the problems encountered by PG&E at the Milpitas Station. The goal is not to program the PLC to disregard pressure information, as PG&E states. The remedy is to program the PLC to see a negative pressure as reason to signal a problem in the system and to take the necessary steps to prevent the valves from fully opening, i.e. continue to operate valves to control pressures.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.20	PG&E should replace the three pressure controllers which malfunctioned on September 9, 2010.	PG&E is implementing enhanced functionality to the PLCs at Milpitas Terminal which will render the valve controllers unnecessary, at which point all valve controllers will be removed. *See* San Bruno OII Ex. PG&E-1, Chapter 8.E.	PG&E should **remove** ~~replace~~ the three pressure controllers which malfunctioned on September 9, 2010.	CPSD recognizes PG&E's proposed changes to the Milpitas Terminal. However, as long as the three controllers are in the system, which could potentially be years, they pose a risk to safety. Therefore, the remedy should remain as stated unless PG&E demonstrates that the controllers have already been removed from the system.
4.B.21	PG&E should review its work clearance process to ensure that abnormal operating conditions that may arise during the course of work are anticipated and responses to those conditions are detailed. Additionally, PG&E should create a ~~"method of~~ procedure~~s"~~ covering the ~~transfer and~~ commission of electrical ~~loads~~ equipment from one Uninterruptable Power Supply to another. ~~This plan~~Each project Clearance should ~~cover~~ include possible scenarios and contingency plans to mitigate any abnormal operating conditions that may arise.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a, at 13A-6; San Bruno OII Ex. PG&E-1, Chapters 8.F.1 & 8.F.3.	PG&E should review its work clearance process to ensure that abnormal operating conditions that may arise during the course of work are anticipated and responses to those conditions are detailed. Additionally, PG&E should create a **procedure** ~~"method of procedures"~~ covering the ~~transfer and~~ commission of electrical **equipment** ~~loads~~ from one Uninterruptable Power Supply to another. ~~This plan~~ **Each project** should **require** ~~cover~~ possible scenarios and contingency plans to mitigate any abnormal operating conditions that may arise.	CPSD accepts PG&E's edits with a minor revision in the last sentence to clarify that each project Clearance should include, not just require, possible scenarios and contingency plans . . .

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.22	PG&E should revisit its Work Clearance procedures and training to ensure that future work will not be authorized unless: all forms and fields therein are comprehensively and accurately populated, **and reviewed by a designated clearance supervisor.** ~~; and, the gas technician has prepared the work clearance him/herself or has intimate knowledge of the work clearance.~~ Additionally, work should not commence until such time as the operator and technician have reviewed the work clearance and have confirmed that **understand the actions to take in the event an abnormal condition is encountered** ~~have intimate knowledge of the items detailed in the work clearance form.~~ ~~both have intimate knowledge of the items detailed in the work clearance form.~~ Lastly, PG&E must ensure that proper records showing the specific steps taken, when taken, and by whom, are **maintained pursuant to its Record Retention Schedule** ~~retained.~~ ~~retained.~~	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a, at 13A-6; San Bruno OII Ex. PG&E-1, Chapters 8.F.1 & 8.F.3.	PG&E should revisit its Work Clearance procedures and training to ensure that future work will not be authorized unless~~:~~ all **necessary** forms and fields therein are comprehensively and accurately populated, **and reviewed by a designated clearance supervisor.** ~~; and, the gas technician has prepared the work clearance him/herself or has intimate knowledge of the work clearance.~~ Additionally, work should not commence until such time as the operator and technician have reviewed the work clearance and have confirmed that both **understand the actions to take in the event an abnormal condition is encountered** ~~have intimate knowledge of the items detailed in the work clearance form~~. Lastly, PG&E must ensure that proper records showing the specific steps taken, when taken, and by whom, are **maintained pursuant to its Record Retention Schedule** ~~retained~~.	CPSD accepts PG&E's proposed edits with one exception. The insertion of the word "necessary" leaves room for subjective determination of what is and is not to be filled out, leading to incomplete forms, which is a problem that arose when the Milpitas work Clearance was filled out.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.23	Training – PG&E should provide training to Gas Service Representatives to recognize the differences between fires of low-pressure natural gas, high-pressure natural gas, gasoline fuel, or jet fuel.	PG&E agrees that Gas Service Representatives should be provided training to identify hazards associated with natural gas infrastructure, and to make the system safe for the public and other employees. *See* San Bruno OII Ex. PG&E-1a at 13A-7.	Training – PG&E should provide training to Gas Service Representatives **to identify hazards associated with PG&E natural gas infrastructure and take action to make the condition safe for the public and employees. If assistance is needed and the situation is an imminent hazard, the GSR will remain on site until appropriate resources take control.** ~~to recognize the differences between fires of low-pressure natural gas, high-pressure natural gas, gasoline fuel, or jet fuel.~~	CPSD opposes PG&E's edits as they completely alter the purpose of the proposed remedy. PG&E's proposed language is already included in its emergency response training. When the San Bruno fire occurred, PG&E employees could not agree on the source of the fire and some key employees were not able to distinguish between possible sources, including natural gas, gasoline or jet fuel. The confusion seemed to affect the quality and timing of PG&E's response. CPSD's proposed training could easily be incorporated into PG&E's current emergency response training program.
4.B.24	Internal coordination – PG&E should revise its procedures to outline each individual Dispatch and Control Room employee's roles, responsibility, and lines of communication required to be made in the event of an emergency either during or outside normal working hours. This should include assigning specific geographical monitoring responsibilities for Control Room employees.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-7.	None.	None.

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4.B.25	External coordination – CPSD agrees with NTSB recommendation P-11-2, which requests that PHMSA issue guidance to operators of natural gas transmission and distribution pipelines and hazardous liquid pipelines regarding the importance of control room operators immediately and directly notifying the 911 emergency call center(s) for the communities and jurisdiction in which those pipelines are located when a possible rupture of any pipeline is indicated. CPSD further recommends that prior to such PHMSA guidance PG&E should revise their own procedures to allow for the immediate and direct notification of 911 emergency call centers when a possible pipeline rupture is indicated.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-7 and 13B (PG&E's May 23, 2012 letter to the NTSB); San Bruno OII Ex. 1, Chapter 10.B.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.26	Decision making authority – PG&E should revise its emergency procedures to clarify emergency response responsibilities, especially in regards to authorizing valve shut offs. PG&E policies should not just delegate authority to act but also detail obligations to act.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-7 to 13A-8; San Bruno OII Ex. PG&E-1, Chapter 10.B.	None.	None.
4.B.27	RCV/ASV – PG&E should perform a study to provide Gas Control with a means of determining and isolating the location of a rupture remotely by installing RCVs, ASVs, and appropriately spaced pressure and flow transmitters on critical transmission line infrastructure and implement the results.	PG&E agrees with this recommendation and is currently implementing this through its Valve Automation program in PSEP and its Leak and Line Break Detection Pilot Program, described in CPSD 4.B.18. *See* San Bruno Ex. PG&E-1a at 13A-8; San Bruno Ex. PG&E-1, Chapter 8.F.2.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.28	Response time – PG&E should review required response times in other utility service territories nationwide and devise appropriate response time requirements to ensure that its Emergency Plan results in a "prompt and effective" response to emergencies. PG&E ~~shall~~ will provide ~~report~~ its analysis and conclusions to ~~the Commission for review~~CPSD.	PG&E agrees that it should benchmark its required response times against those of other utilities nationwide and devise appropriate response time requirements to ensure that its Emergency Plan results in a prompt and effective response. PG&E is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-8; San Bruno OII Ex. PG&E-1, Chapter 10.B. PG&E requests additional information regarding the parameters of the reporting obligation recommended by CPSD.	Response time – PG&E should review required response times in other utility service territories nationwide and devise appropriate response time requirements to ensure that its Emergency Plan results in a "prompt and effective" response to emergencies. PG&E ~~shall~~**will provide** ~~report~~ its analysis and conclusions to **CPSD.** ~~the Commission for review.~~	CPSD accepts PG&E's proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.29	Emergency Plan Revision – Currently a maintenance supervisor annually reviews SCADA alarm responses and makes revisions as necessary. This process needs to be formalized to ensure a robust feedback loop such that new information is fully analyzed and necessary changes to PG&E's Emergency Plan and/or other procedures are implemented with a subsequent review of made changes to ensure they are adequate.	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-8; San Bruno OII Ex. PG&E-1, Chapter 10.B.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.30	Public Awareness – CPSD agrees with NTSB recommendation P-11-1, which requests PHMSA issue guidance to operators of natural gas transmission and distribution pipelines and hazardous liquid pipelines regarding the importance of sharing system-specific information, including pipe diameter, operating pressure, product transported, and potential impact radius, about their pipeline systems with the emergency response agencies of the communities and jurisdiction in which those pipelines are located. CPSD further recommends that prior to such PHMSA action PG&E undertake a review of its gas transmission~~its~~ public awareness and outreach programs to ensure that system-specific information is appropriately disseminated.	PG&E agrees with this recommendation as it relates to its gas transmission public awareness and outreach programs, and is implementing this recommendation accordingly. *See* San Bruno OII Ex. PG&E-1a at 13A-8 to 13A-9; San Bruno OII Ex. PG&E-1, Chapter 10.B.	Public Awareness – CPSD agrees with NTSB recommendation P-11-1, which requests PHMSA issue guidance to operators of natural gas transmission and distribution pipelines and hazardous liquid pipelines regarding the importance of sharing system-specific information, including pipe diameter, operating pressure, product transported, and potential impact radius, about their pipeline systems with the emergency response agencies of the communities and jurisdiction in which those pipelines are located. CPSD further recommends that prior to such PHMSA action PG&E undertake a review of **its gas transmission** ~~its~~ public awareness and outreach programs to ensure that system-specific information is appropriately disseminated.	CPSD accepts PG&E's edit.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.31	PG&E's ~~"Transformation" strategy and subsequent~~business strategies and associated programs should expressly ensure that safety is a higher priority than shareholder returns and be designed to implement that priority, which may include reinvesting operational savings into infrastructure improvements.	This recommendation is moot with respect to Business Transformation, which has not been an active program since 2007. This recommendation is also moot with respect to similar programs in the future because PG&E has already committed substantial shareholder investments to gas transmission improvements. There is no need to adopt an express requirement that any savings from operational efficiencies be reinvested into infrastructure improvements. *See* San Bruno OII Ex. PG&E-1a at 13A-11.	Oppose.	CPSD considers this proposed remedy critical to ensuring that PG&E prioritizes and finances safety in the best interest of its employees, customers and the public. Regardless of the title of the program or strategy, PG&E should have a program to expressly ensure that safety is a higher priority than shareholder returns and it should be designed to implement that priority, which may include reinvestment of operational savings into infrastructure improvements. CPSD proposes an edit to its original remedy language to recognize the expired condition of PG&E's Business Transformation program.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.32	PG&E should target retained earnings towards safety improvements before providing dividends, especially if the ROE exceeds the level set in a GRC decision.	PG&E disagrees with this recommendation. There is no basis for adopting a restriction on dividends based on prior earnings history, given that PG&E earned less than the authorized rate of return in more than half of the years under consideration by Overland. Moreover, through the end of 2012, PG&E's shareholders already spent more than $900 million on gas transmission work without any rate recovery. PG&E forecasts that it will spend an additional $1.3 billion in shareholder-funded improvements to gas transmission safety over the next several years. *See* San Bruno OII Ex. PG&E-1a at 13A-11 to 13A-12 Adopting a vaguely worded condition such as this would likely have an adverse effect on PG&E's ability to access debt and equity markets on as favorable terms as other California utilities, potentially increasing its cost of capital.	Oppose.	CPSD considers this remedy essential to correcting PG&E's past practices that led to a gas transmission system that contained numerous known and unknown safety threats. By opposing this proposed remedy, PG&E is essentially saying that it will prioritize dividends over safety improvements. This approach leaves its employees, customers and the public at risk.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.33	PG&E's incentive plan, ~~and other employee awards programs,~~ should include safety. ~~selection criteria for improved safety performance and training and/or experience in the reliability and~~ PG&E should revise its STIP program to make safety performance 40% of the score used to determine the total award. PG&E should require upper management to participate in annual training activities that enhance and expand their knowledge of safety, including exercises in which gas officers will have an opportunity to enhance their knowledge of incident command and will participate in an annual safety leadership workshop.~~safety aspects of gas transmission and distribution. PG&E should ensure that upper management attends gas safety training.~~	PG&E agrees with this recommendation. PG&E has revised its STIP program to make safety performance 40% of the score used to determine the total award. We endorse the recommendations that our upper management participate in activities that enhance and expand their knowledge of safety. We are continuing to enhance our gas emergency response training as discussed in Chapter 10, section B of PG&E's June 26, 2012 San Bruno OII testimony. All officers have an opportunity to participate in an annual drill, but we are now expanding the number and types of exercises that we will conduct throughout the year. We will be including exercises in which gas officers will have an opportunity to enhance their knowledge of incident command. All of our officers participate in an annual safety leadership workshop. Our officers also actively participate in industry organizations such as the American Gas Association, the Interstate Natural Gas Association of America, the Edison Electric Institute, the Nuclear Energy Institute, and the Institute of Nuclear Power Operations, where they learn about best industry practices to enhance safety. Several of our officers have	**A component of a PG&E gas employee** ~~PG&E~~'s incentive plan~~,~~ ~~and other employee awards programs,~~ should include ~~selection criteria for improved~~ safety~~performance and training and/or experience in the reliability and safety aspects of gas transmission and distribution~~. PG&E**'s annual training plan** should **require** ~~ensure~~ that **all gas leaders** ~~upper management~~ attend~~s~~ gas safety training.	CPSD recommends incorporating PG&E's proposed plans into this proposed remedy.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.34	PG&E should not hold joint Company and Corporation Board of Director meetings as the two entities should have different priorities.	PG&E disagrees with this recommendation because the interests of the Company and the Utility are aligned. The utility represents about 98% of PG&E Corporation's assets, making the interest of the two entities coextensive. *See* San Bruno OII Ex. PG&E-1a at 13A-13.	Oppose.	CPSD believes this remedy is essential to create a meeting environment that allows the Utility to appropriately address safety issues.
4.B.35	PG&E should focus on enhancing public safety and operational excellence as a core mission, and ~~PG&E~~ should examine whether the time and money it spends on public relations and political campaigns distracts it from ~~its~~ this core mission. ~~of providing safe and reliable gas service.~~	This recommendation is unnecessary. PG&E is focusing on enhancing public safety and operational excellence. *See* Ex. PG&E-1a at 13A-13.	Oppose.	CPSD rephrased its proposed remedy to incorporate PG&E's statement.
4.B.36	PG&E should revisit its Pipeline 2020 program, and subsequent variations thereof, to ensure that its implementation is fully flushed out with specific goals, performance criteria, and identified funding sources.	This recommendation is unnecessary. The Pipeline 2020 program is no longer an active program, and has been superseded by our PSEP. The CPUC has reviewed the detailed information submitted about PSEP during its OIR proceeding. *See* San Bruno OII Ex. PG&E-1a at 13A-13.	Oppose.	CPSD agrees with deleting this remedy.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.37	PG&E should examine internal communication processes to ensure that all employees ~~are knowledgeable on what is expected of them and their teams.~~understand their job responsibilities and priorities. Goals of PG&E gas employees should describe what is expected of them and their teams.	PG&E agrees with this recommendation, and is implementing the recommendation through a thorough re-examination of a number of issues, including job responsibilities. The gas business, in particular, has clarified job responsibilities and priorities. *See* San Bruno OII Ex. PG&E-1a at 13A-13.	**Goals of** PG&E **gas employees** should **describe** ~~examine internal communication processes to ensure that all employees are knowledgeable on~~ what is expected of them and their teams.	CPSD accepts PG&E's additional language and incorporates part of PG&E's response for a clearer remedy.
4.B.38	CPSD agrees with the following NTSB recommendations to PG&E (CPSD-9, pages 130-131)	PG&E agrees with and is implementing this recommendation to follow the NTSB recommendations. *See* San Bruno OII Ex. PG&E-1a at 13A-13 to 13A-16; Exhibit 11 of PG&E's March 25, 2013 Records OII Request for Official Notice (reflecting the latest status of these items with the NTSB).	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.38.a	Revise your work clearance procedures to include requirements for identifying the likelihood and consequence of failure associated with the planned work and for developing contingency plans. (P-11-24)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-14 & Ch. 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-24 (marked closed by NTSB on 3/14/13)); San Bruno OII Ex. PG&E-1, Chapters 8.F.1 and 8.F.3.	None.	None.
4.B.38.b.1	Establish a comprehensive emergency response procedure for responding to large-scale emergencies on transmission lines; the procedure should (1) identify a single person to assume command and designate specific duties for supervisory NTSB Pipeline Accident Report 131 control and data acquisition staff and all other potentially involved company employees	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-14 & Ch. 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-25 (marked closed by NTSB on 8/29/12)); San Bruno OII Ex. PG&E-1, Chapter 10.B.	None.	None.
4.B.38.b.2	Establish a comprehensive emergency response procedure for responding to large-scale emergencies on transmission lines; the procedure should include the development and use of trouble-shooting protocols and checklists	PG&E agrees with and is implementing this recommendation. The NTSB stated that this recommendation was closed on 8/29/12.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.38.b.3	Establish a comprehensive emergency response procedure for responding to large-scale emergencies on transmission lines; the procedure should include a requirement for periodic tests and/or drills to demonstrate the procedure can be effectively implemented. (P-11-25)	PG&E agrees with and is implementing this recommendation. The NTSB stated that this recommendation was closed on 8/29/12.	None.	None.
4.B.38.c	Equip your supervisory control and data acquisition system with tools to assist in recognizing and pinpointing the location of leaks, including line breaks; such tools could include a real-time leak detection system and appropriately spaced flow and pressure transmitters along covered transmission lines. (P-11-26)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-14 & 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-26); San Bruno OII Ex. PG&E-1, Chapter 8.F. We are expecting closure in 2014.	None.	None.
4.B.38.d	Expedite the installation of automatic shutoff valves and remote control valves on transmission lines in high consequence areas and in class 3 and 4 locations, and space them at intervals that consider the factors listed in Title 49 Code of Federal Regulations Part 192.935(c). (P-11-27)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-14 to 13-15 & 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-27); San Bruno OII Ex. PG&E-1, Chapter 8.F.2. We are expecting closure in 2014.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.38.e	Revise your post-accident toxicological testing program to ensure that testing is timely and complete. (P-11-28)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1a at 13A-15 & 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-28); San Bruno OII Ex. PG&E-1, Chapter 8.F.4. This recommendation was closed by the NTSB on 8/29/2012.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.38.f	Assess every aspect of your integrity management program, paying particular attention to the areas identified in this investigation, and implement a revised program that includes, at a minimum, (1) a revised risk model to reflect the PG&E Company's actual recent experience data on leaks, failures, and incidents; (2) consideration of all defect and leak data for the life of each pipeline, including its construction, in risk analysis for similar or related segments to ensure that all applicable threats are adequately addressed; (3) a revised risk analysis methodology to ensure that assessment methods are selected for each pipeline segment that address all applicable integrity threats, with particular emphasis on design/material and construction threats; and (4) an improved self-assessment that adequately measures whether the program is effectively assessing and evaluating the integrity of each covered pipeline segment. (P-11-29)	PG&E agrees with and is implementing this recommendation. PG&E has embarked on a complete assessment of every aspect of our transmission integrity management program. We have hired a number of consultants recognized and respected in the industry as experts in integrity management to assist in an exhaustive review of our program's policies, procedures, and tools. This review will assure that our integrity management program meets all regulatory requirements, including improving its practices in areas highlighted in the NTSB report and CPSD/PHMSA 2011 Risk Assessment Audit. We expect closure by 2013. *See* San Bruno OII Ex. PG&E-1c at 4.E; San Bruno OII Ex. PG&E-1a at 13A-15 & 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-29).	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.B.38.g	Conduct threat assessments using the revised risk analysis methodology incorporated in your integrity management program, as recommended in Safety Recommendation P-11-29, and report the results of those assessments to the Commission and the Pipeline and Hazardous Materials Safety Administration. (P-11-30)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1c Chapter 4.E; San Bruno OII Ex. PG&E-1a at 13A-16 & 13B (PG&E's May 23, 2012 response to NTSB Recommendations P-11-29 and P-11-30). We expect closure in 2013.	None.	None.
4.B.38.h	Develop, and incorporate into your public awareness program, written performance measurements and guidelines for evaluating the plan and for continuous program improvement. (P-11-31)	PG&E agrees with and is implementing this recommendation. *See* San Bruno OII Ex. PG&E-1 Chapter 10.B; San Bruno OII Ex. PG&E-1a at 13A-16 & 13B (PG&E's May 23, 2012 response to NTSB Recommendation P-11-31 (marked closed by NTSB 3/14/13)).	None.	None.
4.C.1	PG&E's gas transmission organization- should be required to achieve at least a Level 3 information maturity score under the Generally Accepted Records Keeping Principles within 3 years. (CPSD Exhibit 6, Appendix 4)	PG&E will undertake to achieve a Level 3 score for its gas transmission records management practices using the GARP principles as a benchmark. This is a significant undertaking that is likely to take upwards of three years to complete.	PG&E**'s gas transmission organization** should be required to achieve ~~at least~~ a Level 3 information maturity score under the Generally Accepted Records Keeping Principles **within 3 years**. (CPSD Exhibit 6, Appendix 4)**.**	CPSD agrees with PG&E's edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.2	PG&E should be required to achieve International Organization Standard (ISO) certification against ISO 30300 for its Management System for Records (MSR) within five years of the ISO 30300 audit standard being finalized and published	PG&E disagrees with this recommendation. ISO 30300, which will be a newly revised update to ISO 15489, is primarily used for organizations that have international demands on information governance, including EU directives and other cross-country requirements. Meeting ISO 30300 would be unnecessary and inappropriate for an organization that although large is located in one state of the United States.	Oppose.	CPSD rejects PG&E's opposition to this proposal The International Standards Organization (ISO) has developed a new family of standards the ISO 30300 series, called "Management System for Records" -. The series is **not** a revision of ISO15489 -2001 known as "The Records Management Standard" which is still current. ~~And~~ ISO 30300 was *not* developed only for companies that have international demands on information. ~~"~~ "ISO 30300 is applicable to all organizations, regardless of size, type or location allowing you to benefit immediately by saving time and costs by applying a best practice approach. ISO 30301:2011 can ~~-~~ be implemented with other Management System Standards (MSS) and is especially useful in demonstrating compliance with the documentation and records requirements of other MSS. ISO 30301:2011 specifies requirements to be met by a management system for records

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
				(MSR) in order to support an organization in the achievement of its mandate, mission, strategy and goals. It addresses the development and implementation of a records policy and objectives and provides the necessary information on measuring and monitoring your organizations performance."[2]
4.C.3.a., b, and c.	PG&E should ~~develop a program to draft, review, approve and~~ issue a corporate policy~~ies~~ and ~~policy guidance~~standard that will: a. ~~establish guidance for all departments and divisions to assist them with drafting standard practices to implement the corporate policies,~~ (a) Communicate recordkeeping expectations **that underlie its post-2010 Corporate Records and Information Management Policy and Standard** for all departments and divisions across PG&E. These expectations should be incorporated into procedures specific to meet the needs of	(a) PG&E's Information Management and Compliance Department has issued a **corporate records and information management policy and standard that** communicates recordkeeping expectations for all departments and divisions across PG&E. This will be incorporated into procedures specific to meet the needs of every Line of Business, including gas transmission. It is impractical to draft standard practices that	PG&E should ~~develop a program to draft, review, approve and~~ issue **a** corporate policy~~ies~~ and ~~policy guidance~~ **standard** that will: ~~establish guidance for all departments and divisions to assist them with drafting standard practices to implement the corporate policies,~~ **(a) communicate recordkeeping expectations for all departments and divisions across PG&E. This should be incorporated into procedures specific to meet the needs of every Line of Business. (b) The IM Compliance Department should design a governance controls catalog for recordkeeping practices to assess compliance**	CPSD accepts PG&E's proposed language with minor edits.

[2] Extract from www.bsigroup.com

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
	every Line of Business. (b) The IM Compliance Department should design a governance controls catalog for recordkeeping practices to assess compliance with the corporate policy and standard, consistency of behavior with official records being stored in approved systems of record, and timeliness of addressing records during their lifecycle. (c) The retention schedule will support the policy by providing retention length for all identified official records to meet legal and regulatory mandates. ~~establish guidance for all departments and divisions to assist them with drafting standard practices to implement the corporate policies,~~ ~~a. will incorporate an internal audit function to review standard practices for compliance, consistency and accuracy, and~~ b. ~~will incorporate a retention policy with a schedule that identifies all~~	would fit business processes as diverse as Gas Operations, Human Resources and Regulatory Affairs, for example. (b) The IM Compliance Department will be designing a governance controls catalog for recordkeeping practices to assess compliance with the corporate policy and standard, consistency of behavior with official records being stored in approved systems of record, and timeliness of addressing records during their lifecycle. (c) The retention schedule will support the policy by providing retention length for all identified official records to meet legal and regulatory mandates. The retention schedule for Gas Operations is currently being updated and will be accessible to Gas Operations employees through a common forum. *See* PG&E's response to CPSD Recommendation	**with the corporate policy and standard, consistency of behavior with official records being stored in approved systems of record, and timeliness of addressing records during their lifecycle. (c) the retention schedule will support the policy by providing retention length for all identified official records to meet legal and regulatory mandates.**	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
	~~records within the business for which there is a retention period mandated by federal / state laws; general orders and regulations including CPUC section 451 and its successors.~~	4.C.9. Public Utilities Code section 451 is not a recordkeeping provision and contains no retention requirements. Therefore, PG&E retention schedules will not list section 451 as a mandate for retention.		
4.C.4	PG&E should develop and implement an education and training program for the gas transmission organization in Records and I~~i~~nformation ~~governance; records~~ M~~m~~anagement principles and practices within an information governance framework~~; and information security.~~	PG&E agrees that it should develop and implement Records and Information Management (RIM)[3] training for its gas transmission organization.	PG&E should develop and implement an education and training program **for the gas transmission organization** in **Records and I**nformation ~~governance; records~~ **M**anagement **(RIM)** principles and practices~~;~~ ~~and information security~~.	CPSD accepts PG&E's edits, but adds back the phrase "within an information governance framework, which is the basis of Generally Accepted Record Keeping Principles (GARP). (Refer to Remedy 4.C.1)

[3] Records and Information Management (RIM) is the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use, and disposition of records.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.5	PG&E should develop and deploy the systems necessary to manage, maintain, access and preserve both records and documents (physical and electronic, in all formats and media types); their related data, metadata, and geographic location and geospatial content in accordance with legal and business mandated rules, utilizing technology that includes appropriate aids to help improve data and metadata quality, including but not limited to validation, verification and referential integrity.	PG&E agrees with this recommendation, and is implementing this recommendation in its gas transmission business.	PG&E should develop and deploy the **gas transmission** systems necessary to manage, maintain, access and preserve ~~both~~ records ~~and documents~~ (physical and electronic, in all formats and media types); their related data, metadata, and geographic location and geospatial content **to the extent appropriate** in accordance with **PG&E's records retention schedule**~~legal and business mandated rules~~, utilizing technology that includes appropriate aids to help improve data and metadata quality~~,~~ ~~including but not limited to validation, verification and referential integrity~~.	CPSD opposes PG&E's addition of "gas transmission" as unnecessarily limiting. "Systems" is not limited to gas transmission in this case. Systems could also mean records /document / content management systems; Quality management systems at any level in the Corporation. CPSD opposes PG&E's addition of "PG&E's records retention schedule" as unnecessarily vague. Without seeing PG&E's record retention schedule, CPSD is not convinced that it incorporates all of the requirements stated in the CPSD remedy.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.6	PG&E should establish ~~a method of a~~accountability ~~for senior manager who are responsible~~ for ~~developing~~ development and ~~implementing~~ implementation of a PG&E governance strategy across gas transmission that should rest with PG&E Senior Management and a method of accountability should be developed and implemented. ~~information governance strategies across engineering processes and standard practices and should document the results at least annually.~~	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should establish ~~a method of~~ accountability for **developing and implementing** ~~senior manager who are responsible for developing and implementing~~ information governance strategies across **gas transmission**~~engineering processes and standard practices and should document the results at least annually~~.	CPSD agrees that this remedy should be rewritten for clarity and so proposes edits, which incorporate PG&E's proposed language, to achieve that goal.
4.C.7	PG&E should identify and document ~~annually~~ the employees responsible for implement**ingation the Records and Information Management program for gas transmission.** ~~of standard practices developed for records and engineering documents control.implementation of standard practices developed for records and engineering documents control.~~	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should identify and document ~~annually~~ the employees responsible for implement**ing**~~ation~~ **the Records and Information Management program for gas transmission**~~of standard practices developed for records and engineering documents control~~.	CPSD agrees with PG&E proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.8	PG&E should develop consistent standard practices that include gas transmission records management ~~/ engineering document control~~ linked to corporate polices on information governance~~, and engineering processes.~~	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should develop consistent standard practices that include **gas transmission** records management~~ / engineering document~~ control linked to corporate polices on information governance~~ and engineering processes~~.	CPSD accepts PG&E proposed edits.
4.C.9	PG&E should implement mandated retention periods for all ~~relevant~~ records relevant to gas transmission.	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should implement mandated retention periods for all relevant records **in gas transmission**.	CPSD accepts PG&E's edit with one minor modification.
4.C.10	PG&E should ensure that each **gas transmission** ~~engineering process and corresponding~~ standard **conforms with Records and Information Management (RIM) policies for gas transmission.**~~practice explains how the data, information, documents and records are handled, when and by whom; which laws, regulations and standards govern the records and where the records reside and are maintained, retained and disposed of.~~	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should ensure that each **gas transmission** ~~engineering process and corresponding~~ standard **conforms with Records and Information Management (RIM) policies for gas transmission.**~~practice explains how the data, information, documents and records are handled, when and by whom; which laws, regulations and standards govern the records and where the records reside and are maintained, retained and disposed of.~~	CPSD accepts PG&E proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.11	PG&E should **include the treatment of active and inactive records in its Records and Information Management (RIM) Policy for gas transmission.** ~~develop a policy that describes how records (paper and electronic) that are inactive and accessed on an irregular basis for long periods of time will be stored and protected.~~	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E should **include the treatment of active and inactive records in its Records and Information Management (RIM) Policy for gas transmission**~~develop a policy that describes how records (paper and electronic) that are inactive and accessed on an irregular basis for long periods of time will be stored and protected~~.	CPSD accepts PG&E's edits.
4.C.12	PG&E's records management processes should be ~~able to~~ manage**d** and maintain**ed** **in accordance with the** traceab**le,**~~ility~~ **verifiable** and ~~accuracy~~ **complete standard, including retention** of physical and digital pipeline records for the 'life of the asset.'	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	PG&E's **as-built** records **for gas transmission pipelines** ~~management processes~~ should be ~~able to~~ manage**d** and maintain**ed** **in accordance with the** traceab**le,**~~ility~~ **verifiable** and ~~accuracy~~ **complete standard and aligned with PG&E's record retention schedule**~~of physical and digital pipeline records for the 'life of the asset.'~~	CPSD accepts some of PG&E's edits. It is important to retain the phrase "for the life of the asset" in this remedy, as that is the primary concern as this remedy relates to physical assets. CPSD does not want to limit the records to just "as-built" records because in the course of these investigations it has been difficult to discern exactly what records PG&E includes in that classification.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.13	The accuracy and completeness of data within gas transmission records should be traceable, verifiable and complete and when errors are discovered, the record should be corrected as soon as correct information is available and the reason(s) for each change should be documented and kept with the record. For example, when discrepancies are discovered in GIS 3.0, GIS 3.0 should be updated as soon as the new information is available and reflected in the audit change log.	PG&E agrees with this recommendation and is implementing this recommendation in its gas transmission business.	The accuracy and completeness of ~~data within~~ gas transmission **pipeline** records should be traceable, verifiable and complete and when ~~errors~~ **discrepancies** are discovered **in GIS 3.0**, ~~the record~~ **GIS 3.0** should be ~~corrected~~ **updated** as soon as ~~correct~~ **the new** information is available and **reflected in the audit change log**~~the reason(s) for each change should be documented and kept with the record~~.	CPSD opposes PG&E's edits on the basis that they limit PG&E to addressing discrepancies within its GIS 3.0 system only. However, CPSD agrees that the traceable, verifiable and complete principal should apply to PG&E's GIS 3.0 system and the audit change log in addition to other PG&E records.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.14	PG&E should create a standard format for the organization of a job file so that PG&E personnel will know exactly where to look in a file folder, or set of file folders, to find each type of document associated with a job file. At a minimum, a job file will contain traceable, verifiable and complete records to support the MAOP of the pipeline segment installed; design documentation; purchase documentation showing the sources and specifications of equipment purchased; permits; environmental documents; field notes; design, construction and as-built drawings; x-ray reports and weld maps; pressure test records; correspondence with the CPUC; and inspection reports and correspondence.	PG&E agrees with this recommendation, and is implementing this recommendation by creating an electronic format for job file organization.	PG&E should create a standard **electronic** format for the organization of a job file so that PG&E personnel will know exactly where to look **electronically** in a file folder, or set of file folders, to find each type of ~~document~~ **record** associated with a job file. ~~At a minimum, a~~ **An electronic** job file will contain traceable, verifiable and complete records to support the MAOP of the pipeline **features that were reviewed as part of the MAOP Validation project including where available:** ~~segment installed;~~ design documentation; purchase documentation showing the sources and specifications of equipment purchased; ~~permits; environmental documents; field notes;~~ design, construction and as-built drawings; **and** ~~x-ray reports and weld maps;~~ pressure test records~~; correspondence with the CPUC; and inspection reports and correspondence~~.	CPSD opposes PG&E's proposed edits as it ignores the presence of, and problems associated with Job Files that this proposed remedy addresses. PG&E's Job file contents should not be limited to the features or job files that were reviewed as part of the MAOP Validation project**,** but should include all of the records listed that document the history of the pipeline, including any past, present or future records that support the MAOP of the pipeline or pipeline segment installed. This list of document types included in this remedy was developed from lists of job file contents provided by PG&E.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.15	Job file data, including drawings, for all parts of the active PG&E gas transmission system should be immediately accessible from multiple locations. The development of a complete and accurate catalog of job files that can be searched immediately should be included within this objective.	PG&E agrees with this recommendation, and is implementing this recommendation through Project Mariner.	Job file ~~data~~**records**, including drawings, for all parts of the active PG&E gas transmission **pipelines** ~~system~~ should be ~~immediately~~ accessible from multiple locations. ~~The development of a complete and accurate catalog of "job files that can be searched immediately should be included within this objective.~~	CPSD opposes PG&E's proposed edits as they ignore the issues that this remedy addresses and the timeliness element of it. By including a requirement for a catalog of job files, CPSD's intent is for PG&E's staff to have immediate access to relevant information and not have to wait days or months for the information to be located. PG&E also attempts to limit the scope of this exercise to gas transmission pipelines, rather than the full extent of the gas transmission system itself (e.g. terminals etc).

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.16.a, b., and c	The information that was contained in PG&E's historic records and documents, and that has been identified as 'missing or disposed of,' and is necessary to be retained for the safe operation of the pipelines, pursuant to laws, regulations and standards and the PG&E retention schedule, should be recovered. This recovery should include but not be limited to: a. updating and verification of data in engineering databases, such as the leak database, GIS and the integrity management model, b. updating plat sheets and other engineering drawings, and c. updating and organizing job files.	PG&E agrees with this recommendation, and is implementing this recommendation through the MAOP validation effort. *See* PG&E's response to CPSD Recommendation 4.B.4.	**In the course of the MAOP Validation Project, when PG&E cannot locate records, PG&E should apply conservative assumptions in its development of its Pipeline Features Lists for gas transmission pipelines.**	CPSD opposes PG&E's proposed edits. Despite PG&E claim that it agrees with CPSD's proposal, PG&E's proposed edits completely ignore the inferred 'duty of care' element to recover such information via a range of options, rather than simply insert a conservative value. And, by PG&E's own admission, it is still searching for records and expects to find them. When PG&E finds the missing records, the information contained therein should be appropriately integrated into the records system and in each instance PG&E meets its expectation to find its missing records, should allow replacement of assumed conservative values with actual values.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.17	PG&E should document adoption of, and changes and amendments to policies and standard practices and the reasons for their adoption, amendment or cancellation. An audit trail of changes should be maintained, retained and preserved permanently, taking heed of potential changes in technology that may render documents unreadable in the future.	PG&E agrees that it should document changes to gas transmission polices and standard practices. An explanation of changes should be maintained so long as the standard practice is in effect, or for a reasonable, defined period of time. Permanent retention of all documents is not practicable.	PG&E should **maintain** document**ation of** ~~adoption of, and~~ changes **to gas transmission standards and procedures** and ~~amendments to policies and standard practices and the reasons for their adoption, amendment or cancellation. An audit trail of changes should be maintained,~~ retain **according to PG&E's Records and Information Management (RIM) policies, standards and procedures** ~~ed and preserved permanently, taking heed of potential changes in technology that may render documents unreadable in the future~~.	CPSD opposes PG&E's proposed edits as they specifically exclude the permanent preservation requirement defined in CPSD's proposed remedy.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.18	PG&E will identify each section of pipe that has been salvaged and reused within the PG&E gas transmission system. For each section of pipe identified, PG&E will change the installed date in its GIS and its IM model to the date the pipe was originally installed in the PG&E pipeline system.	PG&E agrees with this recommendation, and will identify sections of pipe that have been salvaged and reused in other gas transmission pipelines through its MAOP Validation Effort.	**Using the information collected in the MAOP Validation Effort,** PG&E will ~~identify~~ **track** each section of pipe that has been salvaged and reused ~~within~~ **on** the PG&E gas transmission **pipelines** ~~system~~. For ~~each~~ **those** section**s** ~~of pipe identified~~, PG&E will ~~change~~ **reflect both** the **current** installed date **and the original date of manufacture and installation, if available,** in its GIS and its IM model ~~to the date the pipe was originally installed in~~ **for** the PG&E pipeline system.	CPSD opposes PG&E's proposed edits. Although PG&E claims to agree with CPSD's recommendation, the remedy should not be unnecessarily and arbitrarily limited to PG&E's MAOP validation effort as the source of identifying documents.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.19	PG&E will create a system to track reused pipe installed within its operating gas transmission pipeline system and identify pipeline characteristics along with where the pipe segments originated from, medium transported previously, and justification of the usage of it in its system. PG&E ~~and~~ will maintain these records so long as there are sections of reused pipe in the PG&E operating gas transmission pipeline system.	PG&E addresses this recommendation in response to CPSD Recommendation 4.C.18.	Oppose as duplicative of CPSD 4.C.18.	CPSD opposes PG&E's opposition to this proposal as it is not duplicative of proposal 4.C.18. Proposal 4.C.18 requires PG&E to identify each section of salvaged and reused pipe in its system and to correct its GIS records. This proposal (4.C.19) requires PG&E to create and maintain a system that tracks all reused pipe in PG&E's operating gas system and tasks PG&E with the specific mandate to maintain all records relating to the reused pipe for as long as reused pipe remains in place.
4.C.20	PG&E should implement the recommendations included in the final Pricewaterhouse Coopers (PwC) audit report. (TURN Exhibit 16, Appendix B)	PG&E's assessment of each of the 59 recommendations is located in Records OII Ex. PG&E-61, Chapter 1D, Attachment 1D.	Oppose as addressed in Ex. PG&E-61, Chapter 1D, Attachment 1D.	The CPSD recommended remedy should stand as proposed because Ex PG&E61, Chapter 1D, Attachment 1D does not commit that PG&E will implement all of PwC recommendations. In fact, PG&E that Exhibit merely states that many PwC recommendations are under review or under consideration.~~.~~

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.21	Using independent auditors, CPSD will undertake audits of PG&E's recordkeeping practices within the Gas Transmission Division on an annual basis for a minimum of ten years after the final decision is issued in I.11-02-016.	PG&E agrees that CPSD should audit PG&E's recordkeeping practices, and supports the use of independent auditors retained by CPSD. However, auditing PG&E's practices annually is not practical or useful. The steps necessary for audits to be successful (define audit criteria, conduct an audit, discuss findings with PG&E, issue report, PG&E to implement corrective actions in response to findings, allow time for implementation) will take longer than one year. Also, the Government Auditing Standards issued by the U.S. Government Accountability Office contain appropriate protocols for conducting recordkeeping audits of the kind contemplated by CPSD's proposal. PG&E expects CPSD to define the scope and criteria for its audits at the outset, and to follow the standards to ensure high quality audits.	Using independent auditors, **and applying the Government Auditing Standards issued by the U.S. Government Accountability Office,** CPSD will undertake audits of PG&E's recordkeeping practices within the Gas Transmission Division ~~on an annual basis~~ for a minimum of ten years after the final decision is issued in I.11-02-016.	Oppose. Although PG&E claims it agrees with CPSD's proposal, CPSD never proposed GAO standards. Moreover, CPSD rejects PG&E's proposed changes on the grounds that: d) There is no reason to include an auditing standard *proposed by PG&E* in a remedy that is designed to determine whether PG&E has complied with the Commission's required remedies. e) Auditing is part of the Commission's legal jurisdiction. As such, CPSD will use its own auditing standard(s) designed for the purpose of recordkeeping and safety audits. f) CPSD will not limit the pool of available auditors by restricting itself to the criteria set out in the Government Auditing Standard. CPSD reserves the right to appoint auditors and subject matter experts at its sole discretion, to undertake the proposed safety and recordkeeping audits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.C.22	PG&E will correct deficiencies in recordkeeping discovered as a result of each CPSD audit and will report to CPSD when such deficiencies have been corrected.	The Government Auditing Standards provide an opportunity to discuss the draft findings with PG&E prior to issuance of its report, to ensure a common understanding of the alleged deficiency, and develop an agreed-upon corrective action plan. To ensure consistency with these government-sanctioned standards, PG&E expects CPSD to provide an opportunity to discuss the draft findings with PG&E prior to issuance of its report, to ensure a common understanding of the alleged deficiency, and needed corrections.	PG&E will correct deficiencies in recordkeeping discovered as a result of each CPSD audit and will report to CPSD when such deficiencies have been corrected. **Consistent with the Government Auditing Standards issued by the U.S. Government Accountability Office, CPSD will review the draft findings and proposed corrective action plans with PG&E prior to issuance of its audit report.**	Oppose. Although PG&E claims it agrees with CPSD's proposal, CPSD never proposed GAO standards. Moreover, CPSD rejects PG&E's proposed changes on the grounds that: g) There is no reason to include an auditing standard *proposed by PG&E* in a remedy that is designed to determine whether PG&E has complied with the Commission's required remedies. h) Auditing is part of the Commission's legal jurisdiction. As such, CPSD will use its own auditing standard(s) designed for the purpose of recordkeeping and safety audits. i) CPSD will not limit pool of available auditors by restricting itself to the criteria set out in the Government Auditing Standard. CPSD reserves the right to appoint auditors and subject matter experts at its sole discretion, to undertake the proposed safety and recordkeeping audits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.1	Systems: Utilize industry-standard ~~approved and accepted~~ software for electronic storage of class location information. ~~o~~ Devise a ~~system~~ process to capture ~~and document~~ new PG&E service hook-ups especially in proximity to transmission lines and incorporate into the class location analysis.	PG&E agrees with this recommendation to utilize industry-standard software for electronic storage of class location information. PG&E will implement this recommendation via an integrated GIS and gas transmission asset management system that will enable the use of software to perform class location calculations. *See* Class OII Ex. PG&E-1 at A-1 and Chapter 1, Section B.2. PG&E agrees with the recommendation to devise a new system to document new service hookups in proximity to transmission lines. We are studying how to best accomplish this goal. We have created a pilot project to identify new gas and electric meters, new building permits, new assessor parcel numbers, and increased county tax assessments (indicating a recent improvement on the property) for parcels located within 1,000 feet of our pipelines and thereby identify potential class location changes. *See* Class OII Exhibit PG&E-1, Chapter 1, Section 2.	Systems: Utilize industry-~~approved and accepted~~ **standard** software for electronic storage of class location information. o Devise a ~~system~~ **process** to capture ~~and document~~ new PG&E service hook-ups ~~especially~~ in proximity to transmission lines **and incorporate into the class location analysis**.	CPSD accepts PG&E's edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.2	Procedures: Update procedures, patrolling process instructions, and related OQ training ~~TD 4412-07 6.2 (4)~~ to require written confirmation to Patrol Supervisors~~patrollers~~ that follow up has been performed on all new construction that the patroller has previously observed and documented. ~~The same change should be made to Attachment 7 Item 5 of TD 4412-07, Aerial Patrolling Process Instructions. This requirement should also be included in the OQ training for the task.~~	PG&E agrees with the essence of CPSD's recommendation. We are in the process of revising our patrol standard to require that field employees and their supervisors investigate all conditions identified on aerial patrol reports to ensure all patrol observations are properly addressed. See Class OII Ex. PG&E-1 at 1-9 n.24. In addition, we plan to use the Company's SAP software to schedule all pipeline patrols and necessary corrective actions. This will enable the Pipeline Patrol Process Owner to monitor the completion of scheduled patrols and any necessary follow up actions.	Procedures: Update procedure**s** ~~TD 4412-07 6.2 (4)~~ to require ~~written~~ confirmation to **Patrol Supervisors** ~~patrollers~~ that follow up has been performed on all new construction that the patroller has previously observed and documented. ~~The same change should be made to Attachment 7 Item 5 of TD 4412-07, Aerial Patrolling Process Instructions. This requirement should also be included in the OQ training for the task.~~	CPSD agrees with some of PG&E's edits and rejects others. The remedy is revised for clarity.
4.D.3	Procedure 6.3 (3) should be rewritten as "List all new observations regardless if it is believed that the ground crew has already investigated the observation."	PG&E agrees with and is implementing this recommendation. *See* Class OII Ex. PG&E-1 at 1-8, A-2.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.4	TD-4412-07 section 6.1 (2) should include specific language for the pilot to recommended increased patrolling to the Aerial Patrol Program Manager.	PG&E agrees with this recommendation, and is implementing this recommendation by revising our patrol procedure to encourage aerial patrol pilots to recommend increased patrolling of specific segments based on observed ground activity. The Patrol Process Owner will review, validate, and incorporate the pilots' recommendations into future patrols as appropriate. *See* Class OII Ex. PG&E-1, at 1-9 to 1-12. We will also use information from our Public Awareness and Damage Prevention Programs to increase patrol frequencies as appropriate.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.5	Ensure that the Report of New Construction forms are completed.	PG&E agrees with and is implementing this recommendation and has trained field supervisors on the updated class location and patrol procedures, including the supervisors' responsibility to complete the "Report of New Construction Along Pipeline" Form. Additionally, the Maintenance & Construction organization's Manager of Gas Compliance will be responsible for performing regular compliance documentation reviews of class location analysis and patrolling, including reviewing "Report of New Construction Along Pipeline" forms to ensure they are properly completed. *See* Class OII Ex. PG&E-1 Chapter 1.D-1.E.	None.	None.
4.D.6	Increase the duties of the Aerial Patrol Program Manager (APPM) to include oversight and review of the quality and accuracy of patrol reports.	PG&E agrees with and is implementing this recommendation. *See* Class OII Ex. PG&E-1 at A-3.	None.	None.
4.D.7	Create a detailed procedures manual containing the APPM's duties to ensure quality control of aerial patrol responsibilities.	PG&E agrees with and is implementing this recommendation. *See* Class OII Ex. PG&E-1 at A-3.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.8	Training: Utilize varied ~~Generate multiple~~ training exams for patrolling.	PG&E agrees with this recommendation, and is implementing this recommendation by evaluating a specialized training program and testing regiment utilizing varied training exams for patrolling personnel. *See* Class OII Ex. PG&E-1 at 1-12, A-3.	Training: **Utilize varied** ~~Generate multiple~~ training exams for patrolling.	CPSD agrees with PG&E's proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.9	The new training exams for patrolling should include questions with greater detail and complexity than the current exam and shall use aerial photos as exam exhibits where pilots indicate which structures are approximately 660 feet from the right of way and would require reporting. Training materials and associated tests should be reviewed and updated to enhance employee competency, utilize aerial photos and other aids, and reflect field conditions to approximate buildings' key distances from lines. ~~[Patrolling exams submitted to CPUC staff contained fairly simple questions which require only a rudimentary understanding of class locations.]~~	PG&E agrees with this recommendation, and is implementing this recommendation by evaluating a specialized training program and testing regiment utilizing enhanced training exams for patrolling personnel. *See* Class OII Ex. PG&E-1 at 1-12, A-3.	~~The new training exams for patrolling should include questions with greater detail and complexity than the current exam.~~ **Training materials and associated tests will be reviewed and updated to enhance employee competency, utilize aerial photos and other aids, and reflect field conditions to approximate buildings' key distances from lines.**	CPSD accepts PG&E's additional language but rejects the proposed deletion, which is the substance of the entire proposed remedy. Patrolling exams submitted to CPUC staff contained fairly simple questions which require only a rudimentary understanding of class locations. The exams should be improved with greater detail and complexity for productive training. Because PG&E agrees with this recommendation and believes San Bruno's proposed remedy V.D.2.g is duplicative, CPSD adds specific language from V.D.2.g to the proposed remedy. The phrase added is: "and shall use aerial photos as exam exhibits where pilots indicate which structures are approximately 660 feet from the right of way and would require reporting"

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.10	Improve Aerial Patrol Pilot training. ~~[~~PG&E should consider pilot training using aerial photographs taken at an altitude of 750 feet, which replicates what the pilots see on patrol, and include a number of structures both within and outside of the 660 foot standard. Use the photos as exam exhibits where the pilots indicate which structures are approximately 660 feet from the right of way and would require reporting. Training should also include a ~~WDA~~ Well-Defined Area (WDA) in the exhibit as well.~~]~~PG&E should also consider using in its training photographs, video or other aids to reflect expected views to be seen from typical patrol altitudes.	PG&E agrees with and is implementing this recommendation by evaluating a specialized training program and testing regiment utilizing enhanced training exams for patrolling personnel. *See* Class OII Ex. PG&E-1 at 1-12, A-3. This training may test a patroller's estimate of distances between structures and a pipeline. *Id.* at 1-12.	Improve Aerial Patrol Pilot training**:** ~~[~~PG&E should consider pilot training using ~~aerial~~ photographs**, video or other aids to reflect expected views to be seen from typical patrol altitudes. Include structure examples** ~~taken at an altitude of 750 feet, which replicates what the pilots see on patrol, and include a number of structures~~ both within and outside of the 660 foot standard. Use the photos as exam exhibits where the pilots indicate which structures are approximately 660 feet from the right of way and would require reporting. Training should also include a **Well-Defined Area (**WDA**)** in the exhibit.~~]~~	CPSD accepts PG&E's proposed additions, but rejects the deletion of taking aerial photographs at 750 feet. The remedy recommends that PG&E consider this alternative aerial photograph, which replicates what the pilots see on patrol. PG&E employees may gain a better understanding of the structures and PG&E's system by using this additional source of information.
4.D.11	~~Audits:~~ Audits ~~for~~ the patrolling process should include a comparison of new construction observations with new gas/electrical hook ups near the line to ensure that new construction has not been missed.	PG&E agrees with and is implementing this recommendation through a pilot program to evaluate the comparison of new construction indications with patrol observations. *See* Class OII Ex. PG&E-1 at 1-6.	Audits: Audits for **the** patrolling **process** should include a comparison of new construction observations with new gas/electrical hook ups near the line to ensure that new construction has not been missed.	CPSD agrees with PG&E's proposed edits.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
4.D.12	A new item "All Sections of Document Completed" should be added to the audit checklist when reviewing Reports of New Construction.	PG&E agrees with and is implementing this recommendation. The Maintenance and Construction Manager of Gas Compliance will be responsible for performing regular compliance reviews of class location analysis and patrolling records, including new construction forms. *See* Class OII Ex. PG&E-1 at A-4.	None.	None.
4.D.13	Audits should make sure that copies of completed Reports of New Construction are being provided to local supervisors as required by standard procedure TD-4127P-01 section 3.8 (5).	PG&E agrees with and is implementing this recommendation. *See* Class OII Ex. PG&E-1 at A-4.	None.	None.

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
TURN's Proposals				
1	PG&E should be required to track in a centralized database where it has placed reused or otherwise reconditioned pipe in its system. For each such segment, the database should show the date of manufacture of the segment, if known. If this date is unknown, the database should so indicate, to ensure that the segment is given appropriate attention in integrity management. The database should include a link to reliable and readily accessible documentation showing, for each re-used or otherwise reconditioned pipe segment, that all steps necessary to prepare the segment for installation were performed and inspected. If such documentation is unavailable, the centralized documentation should so indicate so that the segment will be given appropriate attention in integrity management.	See PG&E's response to CPSD Recommendations 4.C.18 and 4.C.19.	Oppose as duplicative of CPSD 4.C.18 and 4.C.19.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
2A	As required by Ordering Paragraph 1 of D.11-06-017, PG&E shall fully document any engineering-based assumptions it makes for data that is missing, incomplete or unreliable. Such assumptions must be clearly identified and justified and, where ambiguities arise, the assumption allowing the greatest safety margin must be adopted.	Object. See PG&E's response to CPSD Recommendation 4.B.4.	Oppose as duplicative of CPSD 4.B.4.	
2B	PG&E shall pay for the costs of a qualified independent auditor, retained by the Commission, to: (a) audit PG&E's MAOP Validation results for accuracy, reliability, and compliance with the requirements of D.11-06-017, and (b) to prepare a full report to the Commission and available to interested parties of its conclusions and recommendations for remediation of any observed deficiencies.	See PG&E's response to San Bruno Recommendation V.C.	Oppose as duplicative of San Bruno V.C.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
3	PG&E shall pay for the costs of a qualified independent auditor, retained by the Commission, to (a) examine the new systems developed in Project Mariner, including observations of the systems in operation, to ensure that they result in accurate, reliable, and accessible pipeline data that meets all safety operational needs, and (b) to prepare a report to the Commission and available to interested parties of its conclusions and recommendations for remediation of any observed deficiencies.	Object. See PG&E's response to San Bruno Recommendation V.C.	Oppose as duplicative of San Bruno V.C.	
San Bruno's Proposals				
V.B.	San Bruno Requests that Commission Establish the California Pipeline Safety Trust	Object for the reasons discussed in Section V.B.2 of PG&E's brief.	Oppose.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
V.C.	Appoint an Independent Monitor to Oversee PG&E Compliance with the PSEP and Remedies Imposed in the Proceeding.	PG&E disagrees with this recommendation. PG&E agrees that CPSD's resources are limited and that adding substantial management and oversight obligations to its existing duties could outstrip available resources. To address that concern, PG&E agrees with CPSD's suggestion that the Commission order a portion of any penalty imposed against PG&E be used to retain consultants to assist CPSD in managing and overseeing PG&E's implementation of its operational commitments and continuing PSEP activities. Such consultants could be identified, hired and directed by CPSD, but funded by PG&E.	Oppose.	
V. D.1	Establishment of the Peninsula Emergency Response Fund	Object for the reasons discussed in Section V.B.2 of PG&E's brief.	Oppose.	
V. D.2.a	Provide training to Gas Service Representatives to recognize the differences between fires of low-pressure natural gas, high-pressure natural gas, gasoline fire, or jet fuel.	See PG&E's response to CPSD recommendation 4.B.23.	Oppose as duplicative of CPSD 4.B.23.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
V. D.2.b	Provide training to its Gas Service Representatives (GSRs) and Gas Control Operators to ensure that they coordinate effectively with emergency responders, follow PG&E's own internal procedures when responding to emergencies, and each GSR Gas Control Operators shall be trained and able to manually shut off valves. PG&E shall also audit its GSRs and Gas Control Operators annually to ensure that they are properly trained.	PG&E agrees with the recommendation that its Gas Service Representatives and Gas Control Operators should be trained to coordinate with emergency responders and follow internal emergency plans. PG&E further agrees that gas service representatives should, at the direction of gas control operators, be trained and able to manually shut off emergency shutdown zone valves. PG&E agrees that its GSRs and Gas Control Operators should be audited to ensure that they are properly trained. However, annual auditing of every employee is impractical and unnecessary.	Provide training to its Gas Service Representatives (GSRs) and Gas Control Operators to ensure that they coordinate effectively with emergency responders, follow PG&E's own internal procedures when responding to emergencies, and each GSR **under** Gas Control Operators**' direction should** ~~shall~~ be trained and able to manually shut off **emergency shutdown zone** valves. PG&E **should** ~~shall~~ also audit its GSRs and Gas Control Operators ~~annually~~ to ensure ~~that~~ they are properly trained.	
V. D.2.c	Develop and deliver, to all staff, records management education and training sessions to provide records management skills and give staff and understanding of the responsibilities and tasks that relate to managing records. These sessions shall be updated and repeated at regular intervals at least twice annually to include amendments to the records management program and for the benefit of new staff.	See PG&E's response to CPSD Recommendation 4.C.4.	Oppose as duplicative of CPSD 4.C.4.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
V. D.2.d	Develop specific and additional training for those staff involved directly in the management of retention and disposition of records.	See PG&E's response to CPSD Recommendation 4.C.4.	Oppose as duplicative of CPSD 4.C.4.	
V. D.2.e	Develop specific and additional training focusing on all of the widely used recordkeeping systems such as SAP, GEMS, SharePoint, IGIS, ECTS. Employees and PG&E contractors who have duties using these programs shall be required to attend these training sessions.	See PG&E's response to San Bruno Recommendation V.D.2.c and CPSD Recommendation 4.C.4.	Oppose as duplicative of San Bruno V.D.2.c and CPSD 4.C.4..	
V. D.2.f	Improved Aerial Patrol Pilot training by using aerial photographs taken at an altitude of 750 feet, which replicates what the pilots see on patrol, and include a number of structures both within and outside of the 660 foot standard. Training shall also include a Well-Defined Area ("WDA") in the exhibit as well.	See PG&E's Response to CPSD Recommendation 4.D.10.	Oppose as duplicative of CPSD 4.D.10.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
V. D.2.g	Generate multiple training exams for patrolling to ensure that the trainee does not see the same exam upon subsequent requalification. New training exams shall include questions with greater detail and complexity than the current exam and shall use aerial photos as exam exhibits where pilots indicate which structures are approximately 660 feet from the right of way and would require reporting.	See PG&E's response to CPSD Recommendations 4.D.8 and 4.D.9.	Oppose as duplicative of CPSD 4.D.8 and 4.D.9.	
V.D.3	Require PG&E to Formalize its Emergency Response and Disclosure Obligations with Every City, County, and Fire District in its Service Territory.	Object for the reasons discussed in Section V.B.3 of PG&E's brief.	Oppose.	
V.E	Direct PG&E to Undertake an Automated Safety Valve ("ASV") Pilot Program Throughout its Service Territory	PG&E objects to this recommendation, as automated safety valve implementation is addressed in the Pipeline Safety Enhancement Plan in R.11-02-019.	Oppose as addressed in R.11-02-019.	

Brief Reference	*Revised* Party Proposal	PG&E Response and Reasoning	PG&E Proposed Edits	CPSD Comments re PG&E Response and Edits
V.F	Modification of PG&E Long-Term and Short-Term Incentive Program Calculations to incorporate proper priorities	This recommendation is duplicative of CPSD Recommendation 4.B.33. As stated in response to CPSD Recommendation 4.B.33, PG&E has revised its STIP program to make safety performance 40% of the score used to determine the total award. It is not appropriate to modify LTIP in the manner San Bruno recommends because LTIP is a different kind of compensation program, designed specifically to focus on comparative long-term market performance. PG&E's shareholders pay for LTIP in its entirety.	Oppose as duplicative of CPSD 4.B.33.	