Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.	Rulemaking 11-02-019 (Filed February 24, 2011)

DECISION AMENDING SCOPE OF RULEMAKING 11-02-019 AND ADDING RESPONDENTS

1. Summary

This order amends Order Instituting Rulemaking 11-02-019 to include complying with the requirements of Public Utilities Code Sections 961 and 963, which was recently enacted by Senate Bill (SB) 705 (Ch. 522, Stats. 2011). The new code sections require each gas corporation to develop and implement a plan for the safe and reliable operation of its gas pipeline facilities, and the Commission to accept, modify, or reject the plan by year-end 2012. The Legislature stated that: "It is the policy of the state that the commission and each gas corporation place safety of the public and gas corporation employees as the top priority. The commission shall take all reasonable and appropriate actions

necessary to carry out the safety priority policy of this paragraph consistent with the principle of just and reasonable cost-based rates."[1]

Since the tragic events in San Bruno, this Commission has moved forward on numerous fronts to improve the safety of California's natural gas transmission and distribution systems. As analyzed in detail below, we are well underway with review and implementation of many of the natural gas transmission and distribution system safety issues set forth in Sections 961 and 963. We find, however, that our efforts have not fully addressed safety-related corporate culture and whether we should adopt enhanced standards for safety representations to the Commission. To initiate this review, we order management audits and financial audits of the gas corporations, beginning with Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas), the major gas corporations operating in California. We also order financial audits which include, but will not be limited to, comparing the authorized gas safety expenditures and capital investments to actual recorded amounts, and the rationale for any deviations. Further hearings are expected and will be set by the assigned Commissioner and Administrative Law Judge.

When the Commission issued Rulemaking 11-02-019 in February 2011, we named PG&E, SDG&E, SoCalGas, and Southwest Gas Corporation (SWG) as respondents in this proceeding. SB 705 applies to all gas corporations; therefore, we add the following gas corporations as respondents to this proceeding: West Coast Gas, Alpine Natural Gas, and Southern California Edison

[1] Pub. Util. Code § 963(b)(3).

(Catalina Island), as well as natural gas storage companies, Niska Storage (formerly Wild Goose), Lodi Gas Storage, Gill Ranch Storage, and Central Valley Gas Storage. Sacramento Natural Gas Storage, LLC[2] is added to the service list.

2. Background

Pursuant to Pub. Util. Code § 451, each public utility in California must "furnish and maintain such adequate, efficient, just and reasonable service, instrumentalities, equipment, and facilities, . . . as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public." Ensuring that the management of investor-owned gas utility systems fully performs its duty of safe operations is a core obligation of this Commission.

To meet this obligation with added urgency after the San Bruno events, the Commission has expanded its efforts in the following areas: (1) General Rate Cases, (2) this Rulemaking, and (3) enforcement proceedings. We have also obtained invaluable outside assistance from the National Transportation Safety Board (NTSB) and the Independent Review Panel. Natural gas transmission system safety has, as its base, regulatory requirements promulgated at the federal level. After a summary of the federal Integrity Management programs, below, we turn to this Commission's efforts.

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[2] Sacramento Natural Gas Storage, LLC, has pending before the Commission an application for a Certificate of Public Convenience and Necessity, Application (A.) 07-04-013 and must be added as a respondent if it is issued a Certificate of Public Convenience and Necessity.

2.1. Integrity Management Plans

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is part of the United States Department of Transportation and its Office of Pipeline Safety administers the Department's national regulatory program to assure the safe transportation of natural gas, petroleum, and other hazardous materials by pipeline. The Office of Pipeline Safety develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities.[3] PHMSA is responsible for the federal rules that are referenced in and adopted by the Commission's General Order (GO) 112-E.

2.1.1. Natural Gas Transmission Integrity Management Plans

PHMSA regulations, and in particular the Integrity Management Rule, require each gas transmission system operator to develop and implement an Integrity Management Plan. The purpose of the Integrity Management Rule is to improve pipeline safety through:

- performing integrity assessment of pipeline segments in High Consequence Areas;
- improving integrity management systems within companies;
- improving the government's role in reviewing the adequacy of an operator's integrity programs and plans; and
- ensuring that the public is kept apprised of safety efforts.

The requirements for the Integrity Management Plan began with a framework:

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[3] See generally, http://www.phmsa.dot.gov/portal/site/PHMSA.

> By no later than December 17, 2004, each operator of a covered pipeline segment was required to develop and follow a written integrity management program that contains all the elements described in § 192.911 and that addresses the risks on each covered transmission pipeline segment. The initial integrity management program must consist, at a minimum, of a framework that describes the process for implementing each program element, how relevant decisions will be made and by whom, a time line for completing the work to implement the program element, and how information gained from experience will be continuously incorporated into the program. The framework will evolve into a more detailed and comprehensive program. An operator must make continual improvements to the program.[4]

Gas transmission pipeline operators are required to submit performance measures on their Integrity Management programs, along with the annual reports on their pipeline infrastructure. PHMSA uses these reports—due March 15 each year—to monitor industry progress in complying with requirements of the Integrity Management Rule, to prioritize regulatory inspections, and to respond to inquiries about PHMSA's oversight program.

These performance measure reports provide information pertaining to operators' Integrity Management Programs, including the amounts of miles inspected and assessed, the operator's repair activities addressing time-sensitive conditions, and the numbers and types of incidents, leaks, and failures occurring in HCA segments of their pipelines. After performing quality checks, PHMSA posts these reports for the public to view.

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[4] 49 CFR 192.907.

2.1.2. Distribution Integrity Management Program

PHMSA also requires that operators of gas distribution pipelines develop and implement integrity management programs similar to those required for transmission pipelines. The purpose of these programs is to enhance safety by identifying and reducing pipeline integrity risks; however, unlike transmission, the distribution rule requirements apply to all distribution facilities and are not limited to the High Consequence Areas.

Specifically, by August 2, 2011, each gas distribution pipeline operator must have developed and implemented an Integrity Management program that included a written Integrity Management Plan.[5] The written Plan must contain procedures for developing and implementing the following elements:

(a) Knowledge. An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.

(b) Identify threats. The operator must consider the following categories of threats to each gas distribution pipeline: Corrosion, natural forces, excavation damage, other outside force damage, material, weld or joint failure (including compression coupling), equipment failure, incorrect operation, and other concerns that could threaten the integrity of its pipeline. An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience.

(c) Evaluate and rank risk. An operator must evaluate the risks associated with its distribution pipeline. In this

[5] 49 CFR §§ 192.1005, 1007.

evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure. An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk.

(d) Identify and implement measures to address risks. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found).

(e) Measure performance, monitor results, and evaluate effectiveness. An operator must develop and monitor performance measures from an established baseline to evaluate the effectiveness of its program, and consider the results of its performance monitoring in periodically re-evaluating the threats and risks.

(f) Periodic Evaluation and Improvement. An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas. Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. An operator must conduct a complete program re-evaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations.

(g) Report results. An operator must report, on an annual basis, the number of leaks and excavation damages to PHMSA and the state pipeline safety authority if a state exercises jurisdiction over the operator's pipeline.

The new regulations also require pipeline operators to report to the federal and state governments, on an annual basis, information related to the failure of compression couplings.

Operators of natural gas master-metered systems and small propane systems must also develop and implement an Integrity Management program that includes a written plan. However, the requirements for these operators are simpler in recognition of the lower complexity of these pipeline systems.

2.2. Commission Review - General Rate Cases

In a General Rate Case, this Commission considers a utility's overall operations and revenue requirement. Priorities are set for operating requirements and capital investment projects. Safety considerations are necessarily a primary component of the overall General Rate Case review. In addition, in Pacific Gas and Electric Company's (PG&E) gas transmission and storage rate case, Application (A.) 09-09-013, we expanded the scope to include explicitly a "safety phase" to focus directly on PG&E's disaster and emergency plans, automated shut-off valve installation and monitoring, changes to capital project priorities, safety related protocols, and relationships with first responders.

The scope of General Rate Cases includes all utility operations and provides revenue requirement to support staffing levels, equipment, facilities, and needed capital investments. General Rate Cases are one of the logical places for the Commission to review comprehensively and order any improvements necessary to improve the safety of utility operations.

2.3. This Rulemaking

We initiated this Rulemaking to consolidate and coordinate our efforts, obtain public input, and propose rule and policy changes as necessary. We set

forth the following primary objectives of this proceeding, as well as specific plans for achieving each objective:

A. Provide the public with a means to make their views known to this Commission.

B. Provide the public with the Independent Review Panel's expert recommendations regarding the technical explanation for the explosion, assessment of likelihood that similar events may occur, and recommendations for preventive measures and other improvements.

C. Develop and adopt safety-related changes to the Commission's regulation of natural gas transmission and distribution pipelines, including requirements for construction, especially automated shut-off valves, maintenance, inspections, operation, record retention, ratemaking, and the application of penalties.

D. Consider ways that this Commission can undertake a comprehensive risk assessment for all natural gas pipelines regulated by this Commission, and possibly for other industries that the Commission regulates.

E. Consider available options for the Commission to better align ratemaking policies, practices, and incentives to elevate safety considerations, and maintain utility management focus on the "nuts and bolts" details of prudent utility operations.

F. Consider the appropriate balance between the Commission's obligation to conduct its proceedings in a manner open to the public with the legitimate public safety concerns that arise from unlimited availability of certain utility information.

G. Consider if we need further rules or other protection for whistleblowers to inform the Commission of safety hazards.

H. Expand our emergency and disaster planning coordination with local officials.

Since initiation, our primary efforts have been focused on ensuring that California's natural gas transmission system operators are properly determining the Maximum Allowable Operating Pressure (MAOP) for each segment of the natural gas transmission system. Our review caused us, on June 9, 2011, to order all California natural gas transmission pipeline operators to prepare Natural Gas Transmission Pipeline Comprehensive Pressure Testing Implementation Plans to either pressure test or replace all segments of natural gas pipelines that were not pressure tested or lacked sufficient details related to performance of any such test.[6] We required that the Plans provide for testing or replacing all such pipeline as soon as practicable, and that at the completion of the implementation period, all California natural gas transmission pipeline segments would be (1) pressure tested, (2) have traceable, verifiable, and complete records readily available, and (3) where warranted, be capable of accommodating in-line inspection devices. The gas system operators have filed their Implementation Plans which propose multi-year programs with proposed costs of hundreds of millions of dollars. The evidentiary record is being prepared for Commission consideration of these Plans. In addition, the Commission required the operators to implement interim safety enhancement measures, including increased patrols and leak surveys, pressure reductions, prioritization of pressure testing for

[6] The Commission's GO 112, which became effective on July 1, 1961, mandated pressure test requirements for new transmission pipelines (operating at 20% or more of Specified Minimum Yield Strength (SMYS)) installed in California after the effective date. Similar federal regulations followed in 1970, but exempted pipeline installed prior to that time from the pressure test requirement. Such pipeline is often referred to as "grandfathered" pipeline, because pursuant to 49 CFR 192. 619(c), pressure testing was not mandated.

critical pipelines that must run at or near MAOP values which result in hoop stress levels at or above 30% Specified Minimum Yield Strength (SMYS), and other such measures that will enhance public safety during the implementation period.

Apart from the comprehensive Implementation Plan, PG&E also brought forward specific requests necessary to prepare for the winter heating season. PG&E requested Commission authorization to lift operating pressure restrictions that had been imposed on certain lines following the San Bruno rupture. To consider such requests, the Commission adopted a public process for PG&E to make its demonstration that line operation could be safely restored to pre-restriction levels. The Commission required that PG&E provide documentation showing that it had gone beyond a rote pressure test of the line in question, and include a responsible engineer's review of the pipeline construction and assessment of the results in a Safety Certification. Specifically, the PG&E officer responsible for gas system engineering was required to provide a verified statement showing the following information:

a) that PG&E has validated the pipeline engineering and construction;
b) that PG&E has reviewed pressure tests results and can confirm that a pressure test was performed on the pipeline in accordance with federal regulations; and,
c) that in the professional judgment of the engineering officer, the system would be safe to operate at the proposed restored pressure levels.[7]

[7] D.11-09-006, at 18.

2.4. Enforcement Proceedings

Where the Commission finds good cause to believe that a public utility has violated a Commission order or California law for which the Commission has enforcement authority, the Commission may open an investigation to consider imposing fines or other penalties for any such violations. The Commission has opened investigations into PG&E's operations regarding the San Bruno rupture, Investigation (I.) 12-01-007; PG&E's recordkeeping, I.11-02-106; and the High Consequence Areas Investigation, I.11-11-009.

2.5. Reports from the NTSB and the Independent Review Panel

The NTSB and the Independent Review Panel convened by this Commission have made many recommendations related to the investigation of the San Bruno explosion.[8]

The NTSB report concluded that the Commission should do the following:

- With assistance from the Pipeline and Hazardous Materials Safety Administration, conduct a comprehensive audit of all aspects of Pacific Gas and Electric Company operations, including control room operations, emergency planning, record-keeping, performance-based risk and integrity management programs, and public awareness programs. (P-11-22)
- Require the Pacific Gas and Electric Company to correct all deficiencies identified as a result of the San Bruno, California, accident investigation, as well as any additional deficiencies identified through the comprehensive audit

[8] The entire Independent Review Panel report is found at http://www.cpuc.ca.gov/PUC/events/110609_sbpanel.htm. The NTSB report is at http://www.ntsb.gov/investigations/summary/PAR1101.html.

> recommended in Safety Recommendation P-11-22, and verify that all corrective actions are completed. (P-11-23)

Among the many recommendations for PG&E, the NTSB issued this comprehensive directive regarding PG&E's integrity management program and risk analysis:

- 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 Pacific Gas and Electric 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)
- 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 California Public Utilities Commission and the Pipeline and Hazardous Materials Safety Administration. (P-11-30)

The Independent Review Panel's full set of recommendations are reproduced in Appendix A to today's decision. These recommendations include instituting state-of-the-art risk analysis to evaluate the likelihood of various possible failures and to establish a culture of pipeline integrity. The

Independent Review Panel's recommendation 5.4.4.5 captures the comprehensive and long-term perspective needed:

> PG&E should develop and adopt a maturity framework that reflects the importance and advancement of thinking of pipeline integrity and safety as a journey, which is coherently applied across the enterprise, where progress is transparent and measurable, and is consistent with the best thinking on pipeline integrity and process safety management.

2.6. Public Utility Code §§ 961 and 963

Recent California legislation has also emphasized the need for increased and more effective safety procedures.[9] As noted above, SB 705, codified as Pub. Util. Code §§ 961 and 963, requires each gas corporation to develop a plan for the "safe and reliable operation of its commission-regulated gas pipeline facility that implements the policy of paragraph (3) of subdivision (b) of Section 963, subject to approval, modification, and adequate funding by the commission." As provided in Pub. Util. Code § 961(e), the Commission and each gas corporation must "provide opportunities for meaningful, substantial, and ongoing participation by the gas corporation workforce in the development and implementation of the plan, with the objective of developing an industry-wide culture of safety that will minimize accidents, explosions, fires, and dangerous conditions for the protection of the public and the gas corporation workforce."

By December 31, 2012, the Commission is required to review and accept, modify, or reject the plan for each gas corporation as part of a proceeding that

[9] See Senate Bill (SB) 44, Assembly Bill (AB) 56, SB 216, SB 705, and SB 879. We discussed this legislation in Resolution ALJ-274.

includes a hearing, and Pub. Util. Code § 961(c) and (d) provide specific details on what is required.

To organize the detailed Legislative directives, we grouped the list found in the two code sections into five overall topics: (1) safety systems, (2) emergency response, (3) state and federal regulations, (4) continuing operations, and (5) emerging issues. The items are grouped and listed below, along with references, where appropriate, to the on-going Commission processes discussed above.

List of Issues from Pub. Util. Code § 961(c) and (d)(1 -10), Grouped By Topic	**Overall Topic**	**Commission Oversight Process**
Identify and minimize hazards and systemic risks. 961(d)(1)	Safety Systems	Utility operations and Maintenance Plans in place, along with Integrity Management for both transmission and distribution systems to address threats and systemic risks.
Identify the safety-related systems that will be deployed to minimize hazards. 961(d)(2)		
Equipment and personnel procedures to limit the damage from accidents. 961(d)(5)	Emergency Response	Emergency response procedures required by 49 CFR 192.615, utility customer service response set in General Rate Cases, with revenue requirement provided to meet the standards. Improving first-responder and utility coordination, and access to pipeline facility data already underway in Rulemaking.
Timely response to reports of leaks, hazardous conditions, and emergency events. 961(d)(6)		
Prepare for and respond to earthquakes and other major events. 961(d)(8)		
Protocols for determining maximum allowable operating pressures.	State and Federal Regulations	Federal regulations currently specify maximum allowable operating criteria. Since September 13, 2010, where

961(d)(7)		warranted, Commission has been ordering reductions of Maximum Allowable Operating Pressure on a line-by-line basis, and has set standards for any authorized resumptions; Commission leads the US by ordering all gas transmission lines to have MAOP established by pressure tests. General Order 112-E requirements exceed federal regulations; however, staff has proposed revisions to General Order 112 in this Rulemaking.
Meet or exceed the minimum standards for safe design, construction, installation, operation, and maintenance of gas transmission and distribution facilities prescribed by regulations. 961(d)(9)		
Best practices in the gas industry and with federal pipeline safety statutes. 961(c)		
Safety of the public and gas corporation employees as the top priority, take all reasonable and appropriate actions consistent with the principle of just and reasonable cost-based rates. 963(b)(3)	Continuing operations	Federal regulations currently specify patrol and leak survey activities to inspect for leaks. Commission staff continually stays informed on new leak detection technologies to make activities more effective. General Rate Cases require overall review of operations which includes gas transportation capacity, newly created safety phase to focus on programs for safety.
Provide adequate storage and transportation capacity to reliably and safely deliver gas to all customers. 961(d)(3)		
Provide for effective patrol and inspection to detect leaks. 961(d)(4)		
Ensure an adequately sized, qualified, and properly trained gas corporation workforce. 961(d)(10)		
Any additional matter that the commission determines should be included in the	Emerging issues	Commission has opened Rulemakings for longer-term issues, with Commission Executive Director empowered to

plan. 961(d)(11)		take urgent actions as needed, and enforcement proceedings are the ultimate procedural mechanism.

The legislation acknowledges both state and federal requirements, but this Commission must determine whether the utilities have properly assessed risks and are properly implementing the required mitigation measures. Similarly, the Independent Review Panel and the NTSB have provided recommendations and directives that focus on safety systems, to see safety as a long-term effort that must be consistently applied throughout gas system operations.

3. Next Steps on the Safety Journey

In today's decision, we expand the scope of this Rulemaking to explicitly include issues addressed in Pub. Util. Code §§ 961 and 963. As set forth above, this Commission and our federal counterparts are already hard at work on many of these issues. We expect that the actions we have taken to date in this proceeding and will take in the future will be informed by the information we gain from the expanded scope of this proceeding. In short, the issues stated in §§ 961 and 963 join our safety improvement proceeding in progress.

3.1. Safety Plans

As set forth above, the overall safety plans of California's natural gas system operators flow from numerous Commission processes in addition to the PHMSA regulations. To provide a comprehensive articulation of these components, e.g., policies, procedures, standards, guidelines, which together form their respective safety plans, we will order all California natural gas system operators to file and serve no later than June 29, 2012, a natural gas system operator safety plan that shows how the operator addresses each element of Pub. Util. Code §§ 961 and 963 for its gas transmission and distribution facilities.

The operators' safety plans may reference existing components or include Exhibits or Attachments that cross-reference to other existing utility documentation, but should include a substantive summary of the referenced policy, procedure, or standard that is a component of the safety plan.

In a hierarchy of gas utility documents that communicate its safety program, this gas safety plan is at the top. It conveys the Executive Officer's safety performance expectations, policy principles, and goals/objectives for the gas utility's safety performance. The rationale for developing a gas safety plan is to motivate a gas utility to reflect upon its existing methods and for it to change, to optimize, or to enhance the existing methods, using the elements promulgated by SB705 and the lessons learned from the San Bruno incident, as appropriate, to ensure that the gas utility has a prudent plan in place to protect public safety and worker safety.

As set forth above, § 961(e) states that this Commission require each gas corporation to "provide opportunities for meaningful, substantial, and ongoing participation by the gas corporation workforce in the development and implementation of the plan, with the objective of developing an industry-wide culture of safety that will minimize accidents, explosions, fires, and dangerous conditions for the protection of the public and the gas corporation workforce." To comply with § 961(e), we will require that each gas corporation make its safety report available to its workforce, and provide for comments and suggestions from the workforce. Gas system operators shall retain a log of the comments and suggestions, including the disposition of the comment or suggestion, with a summary of the rationale for the disposition. The gas system operators shall also inform their employees that any employee who perceives a breach of safety requirements may inform the Commission of the breach, and

that the Commission will keep the identity of the employee confidential. Each gas operator shall provide its workforce with the address of the Director of the Commission's Consumer Safety and Protection Division and the designation "Safety Breach Notification from Gas System Operator Employee–Confidentiality Requested" to seek confidential treatment. Other procedures and processes may be considered and implemented as part of the expanded Rulemaking.

3.2. Management Audits

Section 961(e) sets creating a "culture of safety" as an objective of the Commission's regulation of California natural gas systems operators. The history to date of our efforts to improve natural gas system safety lead us to conclude that attaining the objective of a culture of safety will require a review of California's natural gas system operators that goes beyond simple compliance with state and federal regulations. No rules can take the place of corporate leaders who are committed to safety as their first priority and who establish the priorities and values of a corporation, translate those priorities into a safety management system in its daily operations, and, in a routine and habitual basis, instill in the corporation's workers a commitment to safety through personal example and reward systems.

To evaluate whether California's natural gas system operators have established a "culture of safety," we must start with executive management. This Commission requires concrete assurance that the executive leaders of the gas corporations are fully meeting their safety responsibilities. We therefore order a management audit of the gas corporations and will begin with a management audit of PG&E, San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas). We will review the safety culture

at each utility from the highest levels of management on down. We will consider how that culture is expressed in safety budgets, operational requirements, staffing, and priorities. The primary objective of the audit is to assess the effectiveness of the overall management system in achieving the goal of public and employee safety. The management audit will also review how safety is addressed in the gas corporations' executive compensation policies and employee incentive programs. Because we consider management values to be crucial to achieving our essential purpose of safe operations, we intend to be uncompromising in our review of management. We expect these highly compensated individuals to demonstrate with clarity how they go about fulfilling their duty of safe operations to all Californians.

In addition to the management audit, we also order audits of the gas corporations' implementation of revenue requirements authorized in their General Rate Cases. As set forth above, this Commission most directly exercises its oversight responsibilities through comprehensive review of investor-owned utilities budgets and operations in General Rate Cases. Again, we begin with audits of the major gas corporations operating in California. Therefore, we also order financial audits that will include, but not be limited to, the authorized and budgeted safety-related capital investments and operation and maintenance expenditures of PG&E, SDG&E, and SoCalGas for their last two authorized General Rate Case cycles. We are particularly interested in an audited delineation of the revenue requirements previously authorized by the Commission compared with actual expenditures by each utility, as well as each utility's earnings over the audited period. We will evaluate the overall utility revenues and expenses to the extent necessary to determine the categories of income that translate into earnings. We stress that our purpose with this review

is to ensure that authorized safety projects have been implemented and, if not, whether procedural or accounting mechanisms need to be instituted.

Our ultimate goal is to review and, where necessary, improve existing systems for safe gas utility operations. Our purpose is not to invite or consider specific capital or expense projects, but rather to inspect the overall management system in place and the resulting management culture and the Commission's oversight role in achieving the obligation of safe operations. We need to be assured that the regulatory and management systems in place effectively prevent or detect and correct safety lapses. These systems have to work to identify and address threats to overall gas system operations. At the same time, we cannot consider these safety plans in a cost vacuum. As we noted in the order initiating this proceeding, California's families and businesses are confronting economic challenges and "we must be certain that each investment in safety that we order provides value to customers." (Order Instituting Rulemaking at 12.)

We will begin with a management audit, including the overall management system and the safety culture promulgated at each major gas corporation. We direct PG&E, SDG&E, and SoCalGas to enter into reimbursable contracts with the Commission for the purpose that the funding of management audits of each utility arise from utility funds and not from ratepayers. Commission Staff, specifically its Consumer Protection and Safety Division, will select the independent consultants and will manage these audits. The assigned Commissioner and Administrative Law Judge (ALJ) will establish the scope and timing of the management audits.

To understand precisely how the utilities have allocated their funds to operate their systems, we also direct PG&E, SDG&E, and SoCalGas to enter into reimbursable contracts with the Commission such that Commission Staff will

select the independent consultants and will manage a financial audit of each utility's gas safety expenditures and capital investments over the last two General Rate Case cycles. We note that PG&E has been subject to an audit for gas transmission-related expenditures, so this area will be excluded from the financial audits we order.[10] Again, the assigned Commissioner and ALJ will establish the scope and timing of these audits.

3.3. Safety Certification

As described above, we have been requiring an enhanced level of safety certification from PG&E when considering a request to lift operating pressure restrictions. The scope of this OIR should be expanded to consider whether officers and employees of gas operators should be required to comply with a higher ethical standard in their professional representations to the Commission regarding gas system safety.

We may look to the ethical obligations for professional engineers for guidance or other sources[11] where professional judgment forms a key component of public safety.

We are interested in considering enhanced obligations for written certifications as well as the oath administered in hearings when issues of public safety are before the Commission.

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[10] As appropriate, we will incorporate the record established regarding the audit of PG&E in I.12-01-007.

[11] For example, the Nuclear Regulatory Commission published its Safety Culture Policy Statement in the Federal Register (76 FR 34773, June 14, 2011) and defined safety culture as core values and behaviors which foster nine definable traits.

4. Schedule and Procedural Issues

The assigned Commissioner and assigned ALJ will establish the scope and timing of the audits that we order today and will schedule any workshops. We confirm that this proceeding remains categorized as ratesetting and acknowledge that a hearing will be required, pursuant to § 961(b)(2). We defer to the assigned Commissioner and assigned ALJ to schedule evidentiary hearings, if required, or to convene a legislative-style hearing to consider recommendations for adopting each gas corporation's Gas Safety Plan by year-end 2012.

Consistent with Pub. Util. Code § 1701.5, we anticipate this amended rulemaking will be concluded within 24 months of the issuance of the assigned Commissioner's Amended Scoping Memo Ruling, at the earliest. The management and financial audits we order today must be thorough and we intend to allow sufficient time for such audits to be carried out to set the stage for further orders of the Commission. We plan to consider similar audits for the smaller and multi-jurisdictional gas utilities and the gas storage providers in the future. *Ex parte* communications in this rulemaking are subject to the reporting requirements set forth in Rule 8.4 and the restrictions set forth in Rule 8.3(c).

Findings of Fact

1. SB 705 was signed into law on October 7, 2011 and requires the Commission to review, accept, modify, or reject the gas corporations' Gas Safety Plans by year-end 2012.

2. All gas corporations are subject to the requirements of SB 705.

3. The Commission must consider the safety culture of each gas corporation, consistent with the requirements of SB 705.

4. Management audits are required to evaluate the overall management system in place that ensures public and employee safety and that creates the current safety culture at California's natural gas systems operators.

5. Financial audits are necessary to ensure that Commission-approved revenue requirement is being used appropriately by California's natural gas system operators.

Conclusions of Law

1. Rulemaking 11-02-019 should be amended to allow the Commission to implement SB 705.

2. PG&E, Southern California Edison Company, SWG, SDG&E were named as respondents when this Rulemaking was issued in February 2011. Alpine Natural Gas Company, West Coast Gas Company, Niska Gas Storage Company formerly known as Wild Goose Gas Storage Company, Lodi Gas Storage, Gill Ranch Storage, and Central Valley Storage should now be added as respondents to this proceeding, and Sacramento Natural Gas Company should be added to the service list, to be added as a respondent if it is issued a Certificate of Public Convenience and Necessity in Application 07-04-013.

3. It is reasonable to order management audits and financial audits of the gas corporations and to begin with audits of PG&E, SDG&E, and SoCalGas.

4. The amendments to Rulemaking 11-02-019 should be effective today.

O R D E R

IT IS ORDERED that:

1. Order Instituting Rulemaking 11-02-019 is amended to include implementation of Senate Bill 705, which added Sections 961 and 963 to the Public Utilities Code.

2. Alpine Natural Gas Company, West Coast Gas Company, Niska Gas Storage Company formerly known as Wild Goose Gas Storage Company, Lodi Gas Storage, and Gill Ranch Storage are made respondents to this proceeding Central Valley Storage and Sacramento Natural Gas Company is added to the service list of this proceeding and must be added as a respondent if it is issued a Certificate of Public Convenience and Necessity in Application 07-04-013.

3. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Gas Company shall enter into reimbursable contracts with this Commission such that our Staff selects the consultants and manages the management and financial audits of each named utility. The scope and timing of the management and financial audits will be established by the assigned Commissioner and assigned Administrative Law Judge.

4. The Executive Director will cause this amended Order Instituting Rulemaking to be served on all respondents and on the service list to Rulemaking 11-02-019.

5. No later than June 29, 2012, each Respondent shall file and serve its Safety Plan, with documentation of the workforce/comment process as described herein.

6. The category of this amended rulemaking remains "ratesetting," and the assigned Commissioner and assigned Administrative Law Judge may determine

whether evidentiary hearings are required, or whether a legislative-style, en banc hearing will be convened to consider the Gas Safety Plans.

7. The assigned Commissioner and assigned Administrative Law Judge (ALJ) will establish the scope and schedule of the workshops ordered today. The assigned ALJ, in consultation with the assigned Commissioner, may make additions or adjustments to the schedule, as appropriate.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

List of Recommendations from Report of the Independent Review Panel

No.	***Recommendation***
Section 2 – Background	
None	
Section 3 – The Panel and Its Approach	
None	
Section 4 – San Bruno Incident	
None	
Section 5 – Review of PG&E's Performance as an Operator	
5.1.4.1	*PG&E needs to create a culture of system integrity that enables every employee to recognize and understand how his or her day-to-day actions affect system integrity.*
5.1.4.2	*PG&E needs to streamline the organization, reducing layers of management and rebuilding the core of technical expertise.*
5.2.4.1	*PG&E should acquire and develop a staff of professionals with the skills necessary to do state-of-the-art practical analysis of risk management decisions that concern public health and safety, employee health and safety, environmental consequences, socioeconomic consequences, and financial and reputation implications for the company.*
5.2.4.2	*The Board of Directors of PG&E should require that state-of-the-art risk analysis be conducted on every problem included on PG&E's list of top 10 catastrophic risks. The Board should be assessing the quality of involvement of the members of the top management team in every one of these risk analysis, as all risk management decisions that concern the top ten catastrophic risks should be of direct concern to all top PG&E executives, including the President and CEO, as well as the Board.*
5.3.4.1	*PG&E should conduct a comprehensive review of its data and information management systems to validate the completeness, accuracy, availability, and accessibility to data and information and take action through a formal management of change process to correct deficiencies where possible.*
5.3.4.2	*Upon obtaining the results of the review, PG&E should undertake a multi-year program that collects, corrects, digitizes and effectively manages all relevant design, construction and operating data for the gas transmission system.*

5.4.4.1	*The pipeline and distribution integrity management programs should be separated organizationally with dedicated resources to manage and execute both programs.*
5.4.4.2	*PG&E should conduct a staffing and skills assessment of the integrity management group to determine if the organization would be better able to maintain its focus and accomplish its complex mission that would with an alternate structure.*
5.4.4.3	*PG&E should establish a capital program, based on risk criteria, that includes retrofitting existing pipelines, as appropriate, to accommodate ILI tools. ILI surveys provide additional information about the condition of the pipe that enable better decisions regarding remediation, prevention, and mitigation such as monitoring, inspection, repair, replacement, and rehabilitation.*
5.4.4.4	*PG&E needs to establish a culture of pipeline integrity that enable field and staff to encourage self-reporting of deviations from company policies, processes, or practices. CPUC pipeline safety inspectors should view self-reported deviations as nonconformance rather than noncompliance.*
5.4.4.5	*PG&E should develop and adopt a maturity framework that reflects the importance and advancement of thinking of pipeline integrity and safety as a journey, which is coherently applied across the enterprise, where progress is transparent and measurable, and is consistent with the best thinking on pipeline integrity and process safety management.*
5.5.3.1	*Review and restructure all division, regional and company emergency plans for consistency in presentation and feel, while incorporating best practices observed from Pipeline 2020.*
5.5.3.2	*Conduct a study of SCADA needs to achieve enhanced gas transmission system knowledge that would enable improved shutdown capabilities in the event of a future pipeline rupture. Study to include: (1) the visibility of the transmission operations to system operators, (2) the ability of automation to sense line breaks, (3) the ability to model failure events; and (4) the capability to transmit schematic and real-time information to pipeline field personnel.*
5.5.3.3	*When study of SCADA needs is completed (described in Recommendation 5.5.3.2), establish a multi-year program to make implement the results of the study.*
5.6.4.1	*PG&E should take a fresh look at the budgets for pipeline integrity efforts and make informed judgments about how to address the quality and timeliness of efforts to improve its system.*

5.6.4.2	*PG&E should establish a multi-year program that deals with all the capital requirements to assure system integrity, based on sound risk criteria (i.e., a methodology that addresses the likelihood of various possible failures given competing alternatives). This program would include:* • *Investments to collect, correct, digitize and effectively manage all relevant design, construction and operating data for the gas transmission system.* • *Investments to retrofit existing pipelines to accommodate in-line inspection technology, to test or replace uncharacterized or anomalous pipe has needed, and to reroute pipe in the HCAs where accessed.*
5.7.4.1	*PG&E should restructure the Pipeline 2020 document to enhance effectiveness and assist in monitoring for both PG&E and the CPUC, by incorporating the following:* • *Vision Statement, which will describe "the transmission pipeline system of the future." This should be a clear statement as to how PG&E sees the role of the transmission system of the future. This will facilitate decisions made in the strategic parts of 2020 that can be focused and relevant to more than just compliance. It should demonstrate the asset profile, and how it will support safety, and operational goals. PG&E should identify specific measures to define what an effective program will deliver.* • *Delivery Strategies, which will set out the goals of the strategy and steps to deliver the vision. The delivery strategies should be fully developed based on other recommendations for pipeline integrity management and related improvements.* • *Execution Plan, which will define the tasks to be accomplished, how they will be accomplished, an associated timeframe and projected costs.* • *Analysis of Alternatives, which will document various alternatives considered, complete with costs and consequences. A thorough analysis of alternatives will ultimately result in support of the program.* • *In lieu of or in addition to R&D funding for new technology, entertain reasonable opportunities to serve as a testing ground for improved ILI technology.* *The CPUC or its designated consultant should review the plan and collaborate with PG&E in the development of clear objectives, measures, and schedule.*
Section 6 – Review of CPUC Oversight	
6.2.4.1	*Adopt as a formal goal, the commitment to move to more performance-based regulatory oversight of utility pipeline safety.*

6.2.4.2	*Greater involvement by staff in industry groups such as the Gas Piping Technical Committee (GPTC) will better enable the CPUC staff to keep abreast pipeline integrity management advancements from a technical, process, and regulatory perspective. In addition, the CPUC can, through such forums, gain insight for pipeline operators, utilities, service providers, and professional services firms, as well as other federal and state pipeline safety professionals.*
6.2.4.3	*The CPUC should further divide gas auditing groups to create integrity management specialists.*
6.2.4.4	*Undertake an independent management audit of the USRB organization, including a staffing and skills assessment, to determine the future training requirements and technical qualifications to provide effective risk-based regulatory oversight of pipeline safety and integrity management, focused on outcomes rather than process.*
6.2.4.5	*Provide USRB staff with additional integrity management training.*
6.2.4.6	*Retain independent industry experts 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 through sampling is not lost in the rush to execute the program.*
6.3.3.1	*The CPUC should develop a plan and scope for future annual California utility initiated independent integrity management program audits. The results of these audits should be used to provide a basis for future CPUC performance based audits on a three-year basis.*
6.3.3.2	*Request the California General Assembly to enact legislation that would replace the mandatory minimum five-year audit requirements for mobile home parks and small propane systems with a risk-based regime that would provide the USRB with needed flexibility in how it allocates inspection resources.*
6.3.3.3	*The CPUC should consider requiring the major regulated utilities operating in the State of California to submit the results of the independent integrity management audits as part of their respective rate case processes.*
6.3.3.4	*The USRB is currently understaffed and will be further understaffed as new programs such as Distribution Integrity Management are added. This understaffing problem must be relieved by a combination of an enhanced recruitment and training program to attract and retain qualified engineers plus a framework of supplemental support by outside consultants.*

6.3.3.5	*USRB should augment its current use of vertical audits that focus on specific regulatory requirements such as leak records or emergency response plans with: •* • *Horizontal audits that assess a segment or work order of the operator's system through the entire life cycle of the current asset for regulatory compliance.* • *• Focus field audits based on an internally ranking of the most risk segments of the gas transmission system assets in the state, regardless of the operator.*
6.3.3.6	*To raise the profile of the audits among all the stakeholders, add the following requirements to the safety and pipeline integrity audits of the utilities that includes the following features: (1) posting of audit findings and company responses on the CPUC's website; (2) use of a "plain English" standard to be applied for both staff and operators in the development of their findings and responses, respectively; and (3) a certification by senior management of the operator that parallels that certifications now required of corporate financial statements pursuant to Sarbanes-Oxley.*
6.4.3.1	*CPUC should consider seeking approval from the State Budget Director for an increase in gas utility user fees to implement performance-based regulatory oversight for all gas utilities.*
6.4.3.2	*Request the California legislature pass legislation that would replace the mandatory minimum five-year audit requirements with a risk-based regime that would provide the USRB with the needed flexibility in how it allocates inspection resources.*
6.5.3.1	*Adopt as a formal goal, the commitment to move to performance-based regulatory oversight of utility pipeline safety and elevate the importance of the USRB in the organization.*
6.5.3.2	*Develop a holistic approach to identifying pipeline segments for integrity management audits based on intrastate pipeline risk as opposed to simply auditing each operator's pipeline.*
6.6.3.1	*The CPUC should significantly upgrade its expertise in the analytical skills necessary for state-of-the-art quality risk management work. The CPUC should have an organizational structure for individuals doing this work such that they have an equal stature and access to management of the CPUC as those who deal with rate issues or legal or political issues. Although the CPUC's role is to provide oversight of the operator's compliance with federal and state codes, its role should not be to provide management of risk direction to the utilities.*
6.7.3.1	*The CPUC should seek to align its pipeline enforcement authority with that of the State Fire Marshal's by providing the CPSD staff with additional enforcement tools modeled on those of the OSFM and the best from other states.*

6.8.3.1	*Consider a more proactive role for the safety staff in utility rate filings. Improve the interaction between the gas safety organization and the Division of Ratepayer Advocates of the CPUC so there is an enhanced understanding of the costs associated with pipeline safety.*
6.8.3.2	*Consider, as appropriate, transferring the USRB gas safety staff to the OSFM, and with them the responsibility for inspection of gas operator safety and integrity management programs as required by federal and state gas pipeline safety regulations.*
Section 7 – Public Policies in the State of California	
7.4.1	*Improve the interaction between the gas safety organization and the Division of Ratepayer Advocates of the CPUC so that there is an enhanced understanding of the costs associated with pipeline safety.*
7.4.2	*Upon thorough analysis of benchmark data, adopt performance standards for pipeline safety and reliability for PG&E, including the possibility of rate incentives and penalties based on achievement of specified levels of performance.*

(END OF APPENDIX A)