### SoCalGas-125 CPUC Gas Safety Plan. I.19-06-016

ALJs: Hecht/Poirier

Date Served: March 15, 2021

### **CPUC Gas Safety Plan**

The 2010 rupture of a PG&E natural gas pipeline in San Bruno, California, was a game-changer for the CPUC. Since then we have greatly improved our safety and enforcement programs and are ensuring that safety and risk assessment are a part of everything we do.

This document captures the Gas Safety Plan that we are committed to completing at the CPUC. Below is an overview of what can be found under the tabs and instructions on how to navigate this document to find specific information.

### Overview of Tabs:

**Goals Tab:** Show the Goals Matrix. On this matrix you will see the four overall Gas Safety Goals as well as the identified project tasks associated with each of the goals.

**Task 1, Task 2, Task 3, etc. Tabs:** Show the detailed information for each project task including: project description, plan element, status, source of recommendation and assigned group. The status of tasks will be updated on a quarterly basis.

### **Document Navigation**

From the Goals Matrix you can navigate to the specific project task information by following the steps below.

**Step 1:** To view specific task information, click on the project task title in the cell. This will load the task details tab associated with the task.

**Step 2:** To return to the Goals Matrix, click on the "Return" link located in the top left cell on the task details tab. This will reload the Goals Tab, showing the matrix.

**Please note:** You can bypas the Goals Matrix to access specific project task infomation by selecting the Task # tab (Task 1) at the bottom of the spreadsheet.

http://www.cpuc.ca.gov/PUC/safety/Pipeline/Natural Gas Safety Action Plan-Oct 2012.htm

Exhibit 2-27

2/25/2021 M. Felts

### **CPUC Gas Safety Plan**

### **Goals Matrix**

	GOAL: Ensuring the safety of the existing gas system	GOAL: Upgrading and replacing the gas system to make it safer	GOAL: Reforming the CPUC - making safety its first priority	GOAL: Instilling Safety Culture in Gas Operators
Task	1. The CPUC <sup>1</sup> will require testing of all grandfathered transmission pipes.	11. The CPUC will adopt Pipeline Safety Enhancement Plans for each operator.	17. SED shall base safety program on Risk Assessment, not solely compliance with rules.	25. SED will use regular management audits to benchmark and evaluate progress.
Task	2. The CPUC will require complete record searches to ensure operators know what they have.	12. The CPUC will consider installation of automatic and remote valves and safety enhancements.	18. CPUC management shall empower staff to aggressively identify problems and pursue timely response.	26. SED will institute quarterly open house for utility field personnel to bring ideas/concerns to utility and CPUC.
Task	3. GSRB <sup>2</sup> will comprehensively inspect the physical condition of the gas system.	13. The CPUC will consider effective emergency response plans.	19. The CPUC shall establish vigorous V	Vhistleblower protection programs
Task	4. GSRB will audit operators' procedures to ensure they're safe.	14. The CPUC directed the replacement of pipes that can not be adequately tested.	20. GSRB shall acquire and retain qualified inspectors; provide enhanced training and increased industry involvement.	27. SED will mandate periodic CEO safety certification and reporting at Gas Safety Summit.
Task	5. GSRB will Perform targeted and random field-checks of facilities to ground-truth the paperwork.	15. The CPUC will adopt SB 705 plan	ns to keep focus on safety.	
Task	6. GSRB will develop and impler safety plan (Aldyl-A, etc.).	ment a comprehensive distribution	21. The CPUC will establish internal Safety Council to end siloing in Safety.	28. GSRB will educate operators of small gas systems.

### **CPUC Gas Safety Plan**

### **Goals Matrix**

	of the existing gas system	GOAL: Upgrading and replacing the gas system to make it safer	GOAL: Reforming the CPUC - making safety its first priority	GOAL: Instilling Safety Culture in Gas Operators
Task	7. GSRB will develop and impleisafety plan.	ment a comprehensive transmission	22. The CPUC will set rates and order pr	ograms to ensure safe operation.
Task	8. SED will utilize enforcement to deter unsafe behavior by operators.	16. SED will increase oversight capa support.		29. The CPUC will use enforcement to deter unsafe behavior by operators.
Task	9. The CPUC will adopt new gas	s safety regulations where necessary.	23. GSRB shall promote continuous impr transparency.	ovement in work quality and increase
Task	10. The CPUC will develop and	utilize risk-based safety programs.	24. SED will conduct root cause analysis of incidents.	30. GSRB will develop and utilize risk- based safety programs.

### **Return** Ensuring the safety of the existing gas system

Task 1: The CPUC will require testing of all grandfathered transmission pipes.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Propose and implement new natural gas safety requirements.	Oversee PG&E hydrotesting effort	Ongoing	NTSB P-10-6	GSRB Staff R. 11-02-019
Require PG&E to correct all deficiencies identified as a result of the San Bruno accident investigation and verify that all corrective actions are completed.	Delete grandfather clause	Ongoing	NTSB P-11-23 (PHMSA)	R. 11-02-019

PG&E - Pacific Gas and Electric Company

NTSB - National Transportation Safety Board

PHMSA - Pipeline and Hazardous Materials Safety Administration

### **Return** Ensuring the safety of the existing gas system

Task 2: The CPUC will require complete record searches to ensure operators know what they have.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Pronoce and implement new natural	Require PG&E to search for traceable, verifiable and complete records to support MAOP - HCA	Completed	NTSB P-10-5	R. 11-02-019
Investigate possible violations of Commission rules and orders regarding recordkeeping.	Staff Technical Report	Completed	SED	I. 11-0216

MAOP - Maximum Allowable Operating Pressure HCA - High Consequence Area

Task 3: GSRB will comprehensively inspect the physical condition of the gas system.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
	Public Awareness Audit	Completed	NTSB P-11-6 (PHMSA)	GSRB Staff
Conduct a comprehensive audit of all			NTSB P-11-22	GSRB Staff GSRB Staff GSRB Staff GSRB Staff GSRB Staff GSRB Staff
aspects of PG&E operations, including control room, emergency planning,	Control Room Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
record-keeping, performance-based risk and integrity management	Operators Qualifications Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
programs and public awareness. Require PG&E to correct all	Transmission Integrity Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
deficiencies identified during the audits	Distribution Integrity Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
	North Bay Division Distribution	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Conduct Audits. There are currently 17 transmission and 31 distribution units in California that the CPUC audits at various intervals. The CPUC also conducts corporate	Completed /	IRP 6.2.4.1	GSRB Staff
	audits for drug and alcohol testing and operator qualification on a system wide basis for each major utility. GSRB will conduct about 35 audits a year.	Ongoing Annuallly	<u>IRP 6.3.3.5</u>	

### Return Ensuring the safety of the existing gas system

Task 3: GSRB will comprehensively inspect the physical condition of the gas system.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Establish a program to audit DIMP Plans for compliance with Subpart P of CFR Title 49, Part 192.	DIMP Audits (Large Operators)	6/30/2013	SED	GSRB Staff
Major operators must have a Public Awareness Program that includes provisions to educate the public, appropriate government organizations, and persons engaged in excavation activities.	Conduct initial audits of the major utilities within one year.	Completed	SED	GSRB Staff
Evaluate Operators' compliance with new Control Room Management/ Human Factors requirements.	Conduct initial audits in 2012 and 2013 then audit once every three years.	Initial Audits Completed	SED	GSRB Staff
Improve the MHP Gas Safety Program. The CPUC has jurisdiction over approximately 2,600 master-metered mobile home parks (MHP). Currently, each MHP must be nspected at least once every five years resulting in over 500 inspections a year.	Conduct Inspections. Pursuant to PU Code, Section 4351-4361, the CPUC has jurisdiction over approximately 2,550 master-metered mobile home parks (MHP). Each MHP must be inspected once every five years. Starting on 1/1/2013, each MHP must be inspected at least once every seven years using a risk-based schedule.	Ongoing	SED	GSRB Staff

### Return Ensuring the safety of the existing gas system

Task 3: GSRB will comprehensively inspect the physical condition of the gas system.

Managed by / Considered within	Source of Recommendation	fo sated Date of Completion	fament nalq	Project Description
GSRB Staff	SED	gniognO	Conduct inspections. Pursuant to PU Code, Section 4451-4465, the CPUC has jurisdiction over approximately 660 propane distribution systems serving 10 or more customers in a residential or commercial district and two or more customers in a MHP. Starting on 1/1/2013, each propane system must be inspected at least system must be inspected at least based schedule.	Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.

### **Return** Ensuring the safety of the existing gas system

Task 3: GSRB will comprehensively inspect the physical condition of the gas system.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline	Schedule and conduct audits to monitor gas corporations' progress on safety projects and activities.	Ongoing	SED	GSRB Staff R. 11-02-019
operations; 3) Incorporate specific requirements to ts ratemaking procedures and restrict cost recovery by gas corporations; 4) Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute. SB 216 requires the CPUC to undertake similar activity regarding automatic shutoff valves.	Conduct audits to monitor and verify compliance. Prepare audit report.	Ongoing	SED	GSRB Staff R. 11-02-019

DIMP - Distribution Integrity Management Program

CFR - Code of Federal Regulations

SB - Senate Bill

IRP - Independent Review Panel

PU Code - Public Utilities Code

### Return Ensuring the safety of the existing gas system

Task 4: GSRB will audit operators' procedures to ensure they are safe.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Conduct a comprehensive audit of all	Public Awareness Audit	Completed	NTSB P-11-6 (PHMSA) NTSB P-11-22	GSRB Staff
aspects of PG&E operations, including control room, emergency planning,	Control Room Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
record-keeping, performance-based risk and integrity management	Operators Qualifications Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
programs and public awareness.	Transmission Integrity Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
Require PG&E to correct all deficiencies identified during the audits.	Distribution integrity Management Audit	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
	North Bay Division Distribution	Completed	NTSB P-11-22; NTSB P-11-23	GSRB Staff
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Conduct Audits. There are currently 16 transmission and 31 distribution units in California that the CPUC audits at various intervals. The CPUC also conducts corporate audits for drug and alcohol testing and operator qualification on a system wide-basis for each major utility. GSRB will conduct about 35 audits a year.	Ongoing	IRP 6.2.4.1, IRP 6.3.3.5	GSRB Staff
Establish a program to audit DIMP Plans for compliance with Subpart P of CFR Title 49, Part 192.	DIMP Audits (Large Operators)	6/30/2013	SED	GSRB Staff
Improve operator programs, the analytical processes involved in dentifying and responding to risk, and the application and development of preventative and mitigative measures.	Annual review of audit procedures	Ongoing	SED	GSRB Staff

### Ensuring the safety of the existing gas system

Task 4: GSRB will audit operators' procedures to ensure they are safe.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Major operators must have a Public Awareness Program that includes provisions to educate the public, appropriate government organizations, and persons engaged in excavation activities.	Conduct initial audits of the major utilities within one year.	Completed	SED	GSRB Staff
Evaluate Operators' compliance with new Control Room Management/ Human Factors requirements.	Conduct initial audits in 2012 and 2013 then audit once every three years.	Initial Audits Completed	SED	GSRB Staff
Improve the MHP Gas Safety Program. The CPUC has jurisdiction over approximately 2,600 master-metered mobile home parks (MHP). Currently, each MHP must be inspected at least once every five years resulting in over 500 inspections a year.	Pursuant to PU Code, Section 4351- 4361, the CPUC has jurisdiction over approximately 2,550 master-metered mobile home parks (MHP). Each MHP must be inspected once every five years. Starting on 1/1/2013, each MHP	Ongoing	SED	GSRB Staff

### Ensuring the safety of the existing gas system

Task 4: GSRB will audit operators' procedures to ensure they are safe.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Conduct inspections. Pursuant to PU Code, Section 4451-4465, the CPUC has jurisdiction over approximately 660 propane distribution systems serving 10 or more customers in a residential or commercial district and two or more customers in a MHP. Starting on 1/1/2013, each propane system must be inspected at least once every seven years using a risk based schedule.	Ongoing	SED	GSRB Staff
	Technical Workshops	Ongoing	IRP 5.7.4.2 (PG&E)	R. 11-02-019
	Conduct technical workshop to discuss implementation plans	Completed	IRP 5.7.4.2 (PG&E)	R. 11-02-019
	Review PG&E Implementation Plan and provide technical report for rulemaking	Completed	NTSB (PHMSA)	GSRB Staff R. 11-02-019
Propose and implement new natural	Review Sempra and SW Gas Implementation Plans and provide technical report for rulemaking	Completed	NTSB (PHMSA)	GSRB Staff R. 11-02-019
gas safety requirements.	Review PG&E's ongoing requests to increase pressure on lines facing pressure reductions	Ongoing	NTSB P10-5	GSRB Staff
	CPUC consideration of PG&E Implementation Plan	Completed	SED	GSRB Staff R. 11-02-019
	Review Sempra MAOP Validation Effort	Ongoing	SED	GSRB Staff R. 11-02-019
	Review results of independent audit(s) conducted by PG&E in response to IRP recommendations	Ongoing	SED	GSRB Staff

### Return Ensuring the safety of the existing gas system

Task 4: GSRB will audit operators' procedures to ensure they are safe.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
establish emergency response standards applicable to owners or operators of CPUC-regulated gas pipelines.  By 7/1/2012, the CPUC must initiate a formal proceeding to establish such standards.  CPUC must issue a report to the Legislature on the CPUC's process toward meeting the statute by January 1, 2013.	Conduct audits of all pipeline operators' current emergency response plans. Conduct continuous and ongoing assessments of operators' implementation and adherence.	Ongoing	SED	GSRB Staff
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline operations;  3) Incorporate specific requirements to its ratemaking procedures and restrict cost recovery by gas corporations;  4) Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute.  SB 216 requires the CPUC to undertake similar activity regarding automatic shutoff valves.	Review and critique pressure testing implementation submitted by each gas corporation	Ongoing	SED	GSRB Staff R. 11-02-019
	Review the Gas corporations' twice-yearly reports	Ongoing	SED	GSRB Staff R. 11-02-019
	Schedule and conduct audits to monitor gas corporations' progress on safety projects and activities.	Ongoing	SED	GSRB Staff
	Conduct audits to monitor and verify compliance. Prepare audit report.	Ongoing	SED	GSRB Staff

### Ensuring the safety of the existing gas system

Task 4: GSRB will audit operators' procedures to ensure they are safe.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve Coordination between Safety Organization and DRA to better incorporate safety into ratemaking.	Review utility safety information files twice yearly	Ongoing	SED	SED
Investigate possible violations of CPUC Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.	CPUC Investigation	Completed	SED	GSRB Staff I.12-01-007
EXPROSION.	Draft Order Instituting Investigation	Completed	SED	GSRB Staff I.11-11-009
nvestigate possible violations of rules and orders regarding class location	Staff Investigation Report	Completed	SED	GSRB Staff I.11-11-009
dentification.	CPUC Investigation	Completed	SED	GSRB Staff I.11-11-009

Sempra - Gas Utility Company comprised of Southern California Gas and San Diego Gas and Electric

SW - Southwest Gas Corporation

DRA - Division of Ratepayer Advocates

### Ensuring the safety of the existing gas system

Task 5: GSRB will perform targeted and random field checks of facilities to ground-truth the paperwork.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline operations;	Schedule and conduct audits to monitor gas corporations' progress on safety projects and activities.	Ongoing	SED	GSRB Staff R. 11-02-019
3) Incorporate specific requirements to its ratemaking procedures and restrict cost recovery by gas corporations; 4) Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute. SB 216 requires the PUC to undertake similar activity regarding automatic shutoff valves.	Conduct audits to monitor and verify compliance. Prepare audit report.	Ongoing	SED	GSRB Staff R. 11-02-019

### Ensuring the safety of the existing gas system

Task 6: GSRB will develop and implement a comprehensive distribution audit plan (Adlyl-A, etc.).

Managed by \ Considered within	Source of Recommendation	Estimated Date of Completion	Plan Element	Project Description
GSRB Staff	SED	6/30/2013	Develop Audit Procedures for Large Operators (Major Utilities)	
GSRB Staff	SED	6/30/2013	Develop Audit Procedures for Small Operators (MHP, Propane)	establish a program to audit DIMP Plans for compliance with Subpart P of SFR Title 49, Part 192.
GSRB Staff	SED	6/30/2013	A-lyblAlyrosivbA eqi9 sitssl9	

DIMP: Distribution Integrity Management Program MHP - Mobile Home Park

### Ensuring the safety of the existing gas system

Task 7: GSRB will develop and implement a comprehensive transmission audit plan.

Managed by / Considered within	oource of noisebnammoosa?	Estimated Date of Completion	Jan Element	Project Description
GSRB Staff R. 11-02-019	SED	gniognO	Serubecord fibuA qoleveD	Improve operator programs, the analytical processes involved in identifying and responding to risk, and the application and development of preventative and mitigative measures.

### Ensuring the safety of the existing gas system

Task 8: SED will utilize enforcement to deter unsafe behavior by operators.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Corrective Action Procedures and Tracking of Compliance Actions	Ongoing	SED	GSRB Staff
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Issue Citations	Ongoing	SED	GSRB Staff
Reduce the number of gas incidents	Propose Enforcement Legislation	Ongoing	SED	GSRB Staff
involving excavation.	Develop Citation Program	Ongoing	SED	GSRB Staff
	Propose a citation program to delegate authority to staff to fine operators for code violations.	Completed	IRP, NTSB P-11-21 (GOV), NTSB	CPUC Resolution ALJ- 274
Develop citation program to reduce the number of violations committed by	Develop Citation Procedures to reduce the number of violations committed by operators.	Completed	IRP. NTSB P-11-21 (GOV). NTSB	GSRB Staff
pipeline operators.	Develop a database to record and monitor citations.	Completed	SED	GSRB Staff
	Establish enforcement unit to support CPUC proceedings.	Hired Staff / Training	SED	GSRB Staff

CFR: Code of Federal Regulations GOV - Governor of the State of California

### Ensuring the safety of the existing gas system

ask 9: The CPUC will adopt new gas safety regulations where necessary.	.1	มธดรรรรม	where	regulations	safety	dys	wen	adopt	lliw	CPUC	ЭЧТ	:6	SEK
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R. 11-02-019	NTSB P-11-23 IRP	gniognO	Availability of Gas Safety Information	Propose and implement new natural gas safety requirements.
Managed by / Considered within	Source of Recommendation	fstimated Date of Completion	fnemel3 nsl9	Project Description

### **Return** Ensuring the safety of the existing gas system

Task 10: SED will develop and utilize risk-based safety programs.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within	
	Hire Staff	Completed	SED	SED	
	Perform detailed threat and risk analyses that integrate accurate data from the state's pipeline system	12/31/2013	SED	GSRB Staff	
dentify measures to improve the overall integrity of pipeline systems and	Utilize these risk analyses to identify appropriate risk assessment methods and preventative and mitigative measures for staff and operators	12/31/2014	SED	SED	
educe risk	Develop procedures to understand operator's corporate risk management plans	12/31/2014	SED	GSRB Staff	
	PHMSA advisories and recommendations	Ongoing	SED	GSRB Staff	
	Integrate and analyze threat data and assessment methods from other state programs	Ongoing	SED	GSRB Staff	
	Develop utility safety comparative algorithms	Ongoing	SED	GSRB Staff	
mprove the MHP Gas Safety Program. The CPUC has jurisdiction over approximately 2.600 master-metered mobile home parks (MHP). Currently, each MHP must be aspected at least once every five years esulting in over 500 inspections a year.	Seek legislation allowing CPUC to focus its attention on MHP's with frequent violations	Completed	IRP 6.4.3.2	GSRB Staff	
mprove the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Seek legislation allowing CPUC to focus its attention on propane systems with frequent violations	Completed	IRP 6.3.3.2,	GSRB Staff	
mprove the data collected and eceived.	Revise GO 112-E to require the utilities to provide more data including pipeline material and cause of failures in quarterly reports. (Rulemaking)	12/31/2015	SED	GSRB Staff R. 11-02-019	
	Revise GO 112-E to require the utilities to report complaints received. (Rulemaking)	12/31/2015	SED	GSRB Staff R. 11-02-019	

### Upgrading and replacing the gas system to make it safer

Task 11: The CPUC will adopt Pipeline Safety Enhancement Plans for each operator.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Require PG&E to correct all deficiencies identified as a result of the San Bruno accident investigation and verify that all corrective actions are completed.	Revise rules to eliminate discretion with regard to drug and alcohol testing of employees whose performance either contributed to or cannot be discounted as a contributing factor.	12/31/2015	NTSB (PHMSA), NTSB P-11-23	R. 11-02-019
Establish emergency response standards applicable to owners or operators of CPUC-regulated gas pipelines.  By 7/1/2012, the CPUC must initiate a formal proceeding to establish such	Draft and open a formal proceeding to develop and propose new emergency response standards and associated enforcement process for CPUC approval.	Completed	SED	R. 11-02-019
standards. CPUC must issue a report to the Legislature on the CPUC's process toward meeting the statute by January 1, 2013.	Develop a scope, workplan and timeline in consultation with OES, CFCA, and emergency responders, though meetings and/or workshops.	1/1/2014	SED	R. 11-02-019

### Upgrading and replacing the gas system to make it safer

Task 11: The CPUC will adopt Pipeline Safety Enhancement Plans for each operator.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline operations;	Develop a report format for gas corporations' comprehensive pressure testing implementation plan.	12/31/2014	SED	GSRB Staff R. 11-02-019
<ol> <li>Incorporate specific requirements to its ratemaking procedures and restrict cost recovery by gas corporations;</li> <li>Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute.</li> <li>SB 216 requires the PUC to undertake similar activity regarding automatic shutoff valves.</li> </ol>	Develop format and content for gas corporations to report on gas storage and safety activities.	12/31/2014	SED	GSRB Staff R. 11-02-019

OES - Office of Emergency Services, California Emergency Management Agency (Cal EMA) CFCA - California Fire Chief's Association

### Return Upgrading and replacing the gas system to make it safer

Task 12: The CPUC will consider installation of automatic and remote valves and safety enhancements.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Require PG&E to correct all deficiencies identified as a result of the	Require operators to equip SCADA system with tools to recognize leaks.	12/31/2015	NTSB (PHMSA), NTSB P-11-23	R. 11-02-019
San Bruno accident investigation and verify that all corrective actions are completed.	Require automatic shut-off valves or RCV's in High Consequence Areas.	12/31/2015	NTSB (PHMSA), NTSB P-11-23	R. 11-02-019
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated	Develop, recommend, and oversee a process to develop rules for automatic remote shutoff valves.	12/31/2014	SED	R. 11-02-019
with assessments and reporting of natural gas transmission pipeline operations;  3) Incorporate specific requirements to its ratemaking procedures and restrict	Solicit input from stakeholders though a hearing and series of meetings and/or workshops.	12/31/2013	SED	R. 11-02-019
cost recovery by gas corporations; 4) Monitor gas corporations on a continuous and ongoing basis to	Develop staff proposal(s)	7/1/2014	SED	GSRB Staff R. 11-02-019
ensure compliance with the statute. SB 216 requires the PUC to undertake similar activity regarding automatic shutoff valves.	CPUC adopts plan for shutoff valves.	12/31/2014	SED	R. 11-02-019

SCADA - Supervisory Control and Data Acquisition RCV - Remote Control Valve

### Upgrading and replacing the gas system to make it safer

Task 13: The CPUC will consider effective emergency response plans.

Project Description	tnəməl3 nslq	fo bate Datemits Ferinal Date of	Source of Recommendation	Va haganaM Considered within
	Conduct Emergency Response/ First Responder Workshops and prepare report	bəfəlqmoO	SED	GSRB Staff R. 11-02-019
pose and implement new natural safety requirements.	Expand Local Emergency and Disaster Preparedness coordination with local officials and other agencies.	<b>1</b> 2/31/2014	SED	GSRB Staff R. 11-02-019
	Strengthen Emergency Response Procedures of Utility Operators	<b>1</b> 2/31/201 <b>4</b>	SED	GSRB Staff R. 11-02-019
quire PG&E to correct all forther as a result of the ficiencies identified as a result of the n Bruno actions and are are	Require operators to provide system- specific information to emergency response agencies.	12/31/2015	(A2MH9) 82TU <u>SS-11-9 82TU</u>	R. 11-02-019
fy that all corrective actions are rpleted.	Require operators to ensure control	12/31/2015	(ASMH9) BSTN ES-11-9 BSTN	R. 11-02-019

Task 13: The CPUC will consider effective emergency response plans.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Establish emergency response standards applicable to owners or operators of CPUC-regulated gas pipelines. By 7/1/2012, the CPUC must initiate a formal proceeding to establish such	Develop and refine new standards through meetings, workshops and/or staff reports.	1/1/2014	SED	GSRB Staff R. 11-02-019
standards. CPUC must issue a report to the Legislature on the CPUC's process toward meeting the statute by January 1, 2013.	CPUC adopts new emergency response standards.	1/1/2014	SED	GSRB Staff R. 11-02-019

Task 14: The CPUC directed replacement of pipes that cannot be adequately tested.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Propose and implement new natural gas safety requirements.	Eliminate Grandfather Rule - re: Pressure Testing	Ongoing	NTSB (PHMSA), NTSB P-11-23	R. 11-02-019
San Brillion accident investigation and	re PG&E to correct all encies identified as a result of the runo accident investigation and that all corrective actions are		NTSB (PHMSA), NTSB P-11-23	R. 11-02-019

Task 15: The CPUC will adopt SB 705 plans to keep focus on safety.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Develop policies a procedures to assess the safety culture of natural gas pipeline operators.	12/31/2014	SB 705	GSRB Staff
Propose and implement new natural gas safety requirements.	Adopt "Attachment B" Proposed Rules	12/31/2015	SED	GSRB Staff R. 11-02-019
Require PG&E to correct all deficiencies identified as a result of the San Bruno accident investigation and verify that all corrective actions are completed.	Amend the code to state that manufacturing and construction-related defects cannot be stable unless subjected to a hydro test at 1.25 MAOP	12/31/2015	NTSB (PHMSA), NTSB P-11-23	R. 11-02-019

### Return Upgrading and replacing the gas system to make it safer

Task 15: The CPUC will adopt SB 705 plans to keep focus on safety.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Develop and adopt initial service and safety plans for each gas corporation by December 31, 2012, and to review and approve subsequent modifications.	Initiate a formal proceeding to develop and adopt new service and safety plans for all jurisdictional gas corporations, and ongoing process to update and approve plan updates.	Completed	SED	GSRB Staff R. 11-02-019
	Solicit input from stakeholders through a hearing and a series of meetings and/or workshops.	Ongoing	SED	GSRB Staff R. 11-02-019
	Develop and refine new service and safety plans.	Ongoing	SED	GSRB Staff R. 11-02-019
	Adopt new service and safety plans.	Ongoing	SED	GSRB Staff R. 11-02-019
	Review and either approve, modify, or reject all subsequent plan updates proposed by gas corporations.	Completed	SED	GSRB Staff R. 11-02-019
	Resolve issues noted in SED review of Safety Plans	6/30/2013	SED	GSRB Staff R. 11-02-019

MAOP - Maximum Allowable Operating Pressure SB - Senate Bill

Task 16: Increase oversight capability using CPUC Staff with consultant support.

within GSRB Staff	SED	gniognO	Propose Enforcement Legislation	Reduce the number of gas incidents
Considered	Recommendation	Completion		
200000		Fstimated Date of Completion	Plan Element	Project Description

### Reforming the CPUC - making safety it's first priority

Task 17: SED shall base safety programs on Risk Assessment, not solely on compliance with rules

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Assessment Se Perform detaile analysis that in from the State's  Utilize these ris appropriate rish methods and p mitigative meas operators.  Develop proces operator's corp management p  PHMSA advisor recommendation  Integrate and a and assessment State programs	Hire staff to form new Risk Assessment Section.	Completed	SED	SED
	Perform detailed threat and risk analysis that integrate accurate data from the State's pipeline system.	12/31/2013	SED	GSRB Staff
	Utilize these risk analyses to identify appropriate risk assessment methods and preventative and mitigative measures for staff and operators.	12/31/2014	SED	GSRB Staff
	Develop procedures to understand operator's corporate risk management plans.	12/31/2014	SED	GSRB Staff
	PHMSA advisories and recommendations	Ongoing	SED	GSRB Staff
	Integrate and analyze threat data and assessment methods from other State programs.	Ongoing	SED	GSRB Staff
	Develop utility safety comparative algorithms.	Ongoing	SED	GSRB Staff

Task 17: SED shall base safety programs on Risk Assessment, not solely on compliance with rules.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
	Develop a plan for auditing highest- risk areas, including specific content areas to be audited, audit procedures, audit frequency, and audit reporting requirements.	12/31/2014	SED	GSRB Staff
	Develop audit schedule.	Ongoing	SED	GSRB Staff
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Adopt as a formal program goal, the commitment to/for more performance-based regulatory oversight.	12/31/2014	IRP 6.2.4.1	GSRB Staff
	Augment audit procedures to include additional audits that target a segment or work order on operators' system through the life cycle of the asset.	12/31/2014	IRP 6.3.3.5	GSRB Staff
	Develop method to measure performance of inspection units.	12/31/2014	IRP 7.4.2	GSRB Staff
	Refine audit targets and intervals based on performance measures.	12/31/2014	SED	GSRB Staff
	Develop method to review operator protocols regarding maintenance of pipeline infrastructure documents and records, including as-built drawings, alignment sheets, operational maintenance data, to ensure company records accurately reflect the pipeline's physical and operational characteristics.	12/31/2014	SED	GSRB Staff

### Reforming the CPUC - making safety it's first priority

Task 17: SED shall base safety programs on Risk Assessment, not solely on compliance with rules.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve operator programs, the analytical processes involved in identifying and responding to risk, and	Develop an audit schedule that incorporates the results of the operators annual independent audits.	Ongoing	IRP 6.3.3.1	GSRB Staff
he application and development of preventative and mitigative measures.	Plan for annual utility-initiated independent integrity management audits.	Ongoing	SED	GSRB Staff
Major operators must have a Public Awareness Program that includes provisions to educate the public, appropriate government organizations, and persons engaged in excavation activities.	Develop a plan to audit all utilities on a 3-year basis.	6/30/2013	SED	GSRB Staff
Evaluate Operators' compliance with new Control Room Management / Human Factors requirements.	Develop CRM audit plans and procedures.	12/31/2013	SED	GSRB Staff
	Develop a plan to audit all utilities on a 3-year basis.	Ongoing	SED	GSRB Staff
Propose and implement new natural gas safety requirements	Adopt new reporting requirements.	12/31/2015	SED	GSRB Staff R. 11-02-019
The CPUC must:  1) Open a formal Proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain interstate gas transmission lines;  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline operations;  3) Incorporate specific requirements to its ratemaking procedures and restrict cost recovery by gas corporations;  4) Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute.  SB 216 requires the PUC to undertake similar activity regarding automatic shutoff valves.	Develop, recommend and oversee a process to develop rules for automatic remote shutoff valves.	12/31/2014	SED	R. 11-02-019
	Solicit input from stakeholders through a hearing and series of meetings and/or workshops.	12/31/2013	SED	R. 11-02-019
	Develop staff proposal(s)	7/1/2014	SED	GSRB Staff R. 11-02-019

### Reforming the CPUC - making safety it's first priority Return

Task 17: SED shall base safety programs on Risk Assessment, not solely on compliance with rules.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve the data collected and received.	Revise GO 112-E to require the utilities to provide more data including pipeline material and cause of failures in quarterly reports. (Rulemaking)	12/31/2015	SED	GSRB Staff R. 11-02-019
	Revise GO 112-E to require the utilities to report complaints received. (Rulemaking)	12/31/2015	SED	GSRB Staff R. 11-02-019
Seek approval from DOF for additional Funding for staff and training.	Create Risk Assessment Unit.	Completed	IRP 6.6.3.1	SED

CRM - Control Room Management

DOF - Department of Finance, State of California

### Reforming the CPUC - making safety it's first priority

Task 18: SED management shall empower staff to aggressively identify problems and pursue timely response.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Corrective Action Procedures and Tracking of Compliance Actions	Ongoing	SED	GSRB Staff
nvestigate gas incidents to determine the cause, identify potential violations, and develop measures to prevent similar incidents.	Convene Incident Review Committee.	Ongoing	SED	GSRB Staff
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Issue citations	Ongoing	SED	GSRB Staff
mprove the data collected and received.	Annual review of compliance/trends	Ongoing	SED	GSRB Staff
Reduce the number of gas incidents	Develop Excavation Damage Investigation Procedures.	12/31/2013	SED	GSRB Staff
nvolving excavation.	Propose Enforcement Legislation	Ongoing	SED	GSRB Staff
	Develop citation program	Ongoing	SED	GSRB Staff

### Return Reforming the CPUC - making safety it's first priority

Task 18: SED management shall empower staff to aggressively identify problems and pursue timely response.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Develop program to review proposed gas safety legislation.	Track Federal and State natural gas safety legislation.	Ongoing	SED	GSRB Staff
	Propose a citation program to delegate authority to staff to fine operators for code violations.	Completed	IRP, NTSB P-11-21 (GOV), NTSB	CPUC Resolution ALJ-274
	Develop Citation Procedures to reduce the number of violations committed by operators.	Completed	<u>IRP.</u> NTSB P-11-21 (GOV). NTSB	GSRB Staff
	Develop a database to record an monitor citations.	Completed	SED	GSRB Staff
	Establish enforcement unit to support CPUC proceedings.	Hired Staff / Training	SED	SED
GSRB has procedures for conducting audits, inspections and investigations and issuing citations. GSRB also has several inspection and annual report forms for MHP and propane systems operators. GSRB also records and monitors all of it's inspections and investigations with databases. When changes to CFR Title 49, parts 191 and 192 or the PU Code occur, or new legislation is enacted that affects gas safety, GSRB may need to modify it's procedures, forms and databases to reflect the changes and new legislation.		Ongoing	SED	GSRB Staff

Task 18: SED management shall empower staff to aggressively identify problems and pursue timely response.

Managed by / Considered within	Source of Recommendation	Estimated Date of Completion	Plan Element	Project Description
GSRB Staff	RED	gniognO	Schedule knowledge sharing/peer review meetings.	
GSRB Staff	<u> 6.4.5.</u> 8 되 <u>위</u>	gniognO	Hold annual or semi-annual meetings of the entire gas safety program to review work plans and re-enforce safety approach.	ncrease staff expertise and improve staff retention.

## Reforming the CPUC - making safety it's first priority

Task 19: SED shall establish a vigorous Whistleblower protection program.

Managed by \ Considered within	Source of Recommendation	for Date of Tele of Completion	Plan Element	Project Description
GSRB Staff	SED	12/31/2013	Review and revise complaint investigation procedures	GSRB responsibilities include recording, analyzing, and resolving complaints received from
GSRB Staff	SED	gniognO	Whistleblower Investigation Procedures	whistleblowers and the general public
GSRB Staff R. 11-02-019	SED	gniognO	Whistleblower Protection	Propose and implement new natural gas safety requirements.

Task 20: GSRB shall acquire and retain qualified inspectors; provide enhanced training and increased industry involvement.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Develop specialization to perform comprehensive integrity management	Distribution Integrity Management Training	Ongoing	SED	GSRB Staff
audits.	Transmission Integrity Management Training	Ongoing	SED	GSRB Staff
Establish a program to audit DIMP Plans for compliance with Subpart P of CFR Title 49, Part 192.	Complete all PHMSA required DIMP training courses.	6/30/2013	SED	GSRB Staff
Improve operator programs, the analytical processes involved in identifying and responding to risk, and the application and development of preventative and mitigative measures.	Develop Integrity Management Specialists (Complete all courses required).	Ongoing	IRP 6.2.4.3	GSRB Staff R. 11-02-019
Major operators must have a Public Awareness Program that includes provisions to educate the public, appropriate government organizations, and persons engaged in excavation activities.	Complete all required courses by PHMSA.	Ongoing	SED	GSRB Staff
Evaluate Operators' compliance with new Control Room Management/ Human Factors requirements.	Complete CRM training.	Ongoing	SED	GSRB Staff

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Task 20: GSRB shall acquire and retain qualified inspectors; provide enhanced training and increased industry involvement.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Investigate gas incidents to determine the cause, identify potential violations, and develop measures to prevent similar incidents.	PHMSA Root Cause Analysis Course for all staff.	Ongoing	SED	GSRB Staff
Reduce the number of gas incidents involving excavation.	811/Common Ground Alliance Participation	Ongoing	SED	GSRB Staff
	Expand SED's commitment to Evacuation Damage Prevention Activities/Public Education.	Ongoing	SED	GSRB Staff
	Annual Schedule of Attendance at Industry Group/Association meetings (Corrosion, Pipe, Testing, AGA, INGAA)	Ongoing	IRP 6.2.4.2	GSRB Staff
Improve the SED staff involvement in	Join NAPSR Committees	Ongoing	IRP 6.2.4.2	GSRB Staff
industry committees and organizations.	NARUC liaison/Prepare safety materials and resolutions for NARUC meetings	Ongoing	IRP 6.2.4.2	GSRB Staff
	NACE and ASME	Ongoing	IRP 6.2.4.2	GSRB Staff
	NAPSR Regional/National Meetings	Ongoing	IRP 6.2.4.2	GSRB Staff
Establish a independent branch with a specific workplan to address issues regarding gas safety.	Participate in Federal natural gas safety rulemakings and workshops.	Completed	SED	SED

## Reforming the CPUC - making safety it's first priority

Task 20: GSRB shall acquire and retain qualified inspectors; provide enhanced training and increased industry involvement.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Work with the DOF to identify additional funding for staff and training.	Gas Safety Inspectors	Completed	SED	SED
	Create Risk Assessment Unit	Completed	IRP 6.6.3.1	SED
	Increase recruitment efforts to attract and retain qualified engineers.	Ongoing	IRP 6.3.3.4	GSRB Staff
Develop training program for all facets of GSRB work.	GSRB staff will complete all PHMSA WBT courses.	Ongoing	IRP 6.5.3.2	GSRB Staff

DIMP - Distribution Integrity Management Program

AGA - American Gas Association

INGAA - Interstate Natural Gas Association of America

NAPSR - National Association of Pipeline Safety Representatives

NACE - National Association of Corrosion Engineers

ASME - American Society of Mechanical Engineers

PHMSA: Pipeline and Hazardous Materials Safety Administration

WBT - Web Based Training

# Reforming the CPUC - making safety it's first priority

Task 21: The CPUC will establish internal Safety Council to end siloing in safety.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve coordination between Safety Organization and the DRA to better incorporate safety into ratemaking.	Increase coordination with DRA to increase understanding of the costs of pipeline safety.	Ongoing	IRP 6.8.3.1 IRP 7.4.1	SED
Improve the Safety Culture at the CPUC.	The CPUC Safety Council was established and is operating.	Ongoing	CPUC	SED

DRA - Division of Ratepayer Advocates

Task 22: The CPUC will set rates and Order programs to promote safe operation.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Provide a technical value judgment of the safety and security proposals made by PG&E in its 2012 GRC filing.	Hire consultant to evaluate PG&E's gas operations relative to prevailing industry standards and best practices.	12/31/2013	SED	GSRB Staff
, , , , , , , , , , , , , , , , , , ,	Consultant to prepare report	12/31/2013	SED	GSRB Staff
Increase the public's confidence in the safe operations of the State's pipeline network by improving our internal and external communications.	Require operators to submit safety certification with GRC and GTS applications (Ratemaking Proceeding).	Ongoing	SED	GSRB Staff R. 11-02-019
Improve coordination between Safety Organization and the DRA to better incorporate safety into ratemaking.	Increase coordination with DRA to increase understanding of the costs of pipeline safety.	Ongoing	IRP 6.8.3.1	SED
			IRP 7.4.1	

# Reforming the CPUC - making safety it's first priority

Task 22: The CPUC will set rates and Order programs to promote safe operation.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
The CPUC must:  1) Open a formal proceeding to adopt and enforce new safety standards to require automatic or remote-control shutoff valves for certain intrastate gas transmission lines.  2) Adopt new procedures associated with assessments and reporting of natural gas transmission pipeline operations.  3) Incorporate specific requirements into ratemaking procedures and restrict cost recovery by gas corporations.  4) Monitor gas corporations on a continuous and ongoing basis to ensure compliance with the statute.  SB 216 which requires the CPUC to undertake similar activity regarding automatic shut off valves.	In consultation with the Energy Division, track each gas corporation's safety projects, activities, and expenditures.	Ongoing	SED	GSRB Staff R. 11-02-019

GRC - General Rate Case

GTS - Gas Transmission and Storage

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Major operators must have a Public Awareness Program that includes provisions to educate the public, appropriate government organizations, and persons engaged in excavation activities.	Develop public awareness program audit procedures.	6/30/2013	SED	GSRB Staff
Evaluate Operators' compliance with new Control Room Management/ Human Factors requirements.	Develop CRM audit plans and procedures.	12/31/2013	SED	GSRB Staff
Investigate gas incidents to determine	Review and revise investigation procedures.	Ongoing	SED	GSRB Staff
the cause, identify potential violations, and develop measures to prevent	Incident Report Approval Process	Ongoing	SED	GSRB Staff
similar incidents.	Improve incident database.	12/31/2013	SED	GSRB Staff
GSRB responsibilities include recording, analyzing, and resolving complaints received from whistleblowers and the general public for areas under its jurisdiction.	Improve database for Complaint Tracking and Close-out.	12/31/2013	SED	GSRB Staff

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve the MHP Gas Safety Program. The CPUC has jurisdiction over	Seek legislation allowing CPUC to focus its attention on MHP's with frequent violations.	Completed	IRP 6.3.3.2	SED
	Seek legislation revising Annual Report requirement.	Ongoing	IRP 6.3.3.2	SED
approximately 2,600 master-metered nobile home parks (MHP).	Review and improve procedures.	Ongoing	SED	GSRB Staff
Currently, each MHP must be nspected at least once every five ears resulting in over 500 inspections	Acquire equipment to allow inspectors to generate reports in the field with laptops.	12/31/2014	SED	GSRB Staff
a year.	Develop computer based MHP inspection program.	12/31/2014	SED	GSRB Staff
	Electronically issue inspection reports.	6/30/2015	SED	GSRB Staff
	Improve database.	12/31/2013	SED	GSRB Staff
	Seek legislation allowing CPUC to focus its attention on propane systems with frequent violations.	Ongoing	IRP 6.3.3.2 IRP 6.4.3.2	GSRB Staff
	Seek legislation revising Annual Report requirement.	Ongoing	IRP 6.3.3.2	GSRB Staff
Improve the Propane Safety Program.	Seek new legislation requiring notification of new propane systems to the CPUC.	Ongoing	IRP 6.3.3.2 IRP 6.4.3.2	GSRB Staff
The CPUC has jurisdiction over approximately 680 propane systems.	Review and improve audit procedures.	Ongoing	SED	GSRB Staff
	Generate reports in the field with laptops.	6/30/2015	SED	GSRB Staff
	Develop computer based propane inspection program.	12/31/2014	SED	GSRB Staff
	Improve database.	12/31/2013	SED	GSRB Staff

## Reforming the CPUC - making safety it's first priority

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Considered within	Recommendation	Completion		
GSRB Staff	SED	gniognO	Transfer propane surcharge collection to Fiscal Office/Administrative Services.	

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve the data collected and received.	Develop procedures for review of utilities semi-annual safety reports ordered in GRCs and GTS applications.	Ongoing	SED	GSRB Staff
Establish a independent branch with a specific workplan to address issues regarding gas safety.	Adopt Gas Safety Workplan including a commitment to achieving the necessary increases in resources, training, and skills to achieve the goal of effective oversight.	Completed	IRP 6.5.3.1	SED
Increase the public's confidence in the	Develop a plain English standards to be applied by both staff and operators in the development of audit findings and responses.	12/31/2013	IRP 6.3.3.6	GSRB Staff
safe operations of the State's pipeline network by improving our internal and external communications.	Publish audit letters/reports on CPUC website.	Ongoing	SED	GSRB Staff
	Issue annual Gas Safety Activity Reports to the CPUC (see Annual Report).	Ongoing	SED	GSRB Staff
	Improve quality of the Annual Report.	9/30/2013	SED	GSRB Staff
Prepare Gas Safety Program Annual	Develop method to collect data.	6/30/2013	SED	GSRB Staff
Report.	Develop schedule for preparation and review.	Completed	SED	GSRB Staff
	Prepare Annual Report and publish on CPUC website.	Ongoing	SED	GSRB Staff

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Prepare and Issue a RFO/RFP for an	Select and hire contractor	Ongoing	IRP 6.2.4.4	SED
external consultant to conduct a nanagement audit of the GSRB	Internal audit	12/31/2014	IRP 6.2.4.4	SED
organization, including staffing and skills assessment.	Review results and implement recommendations.	6/1/2015	IRP 6.2.4.4	SED
Manage the PHMSA Certification program to comply with all statutory mandates, including annual grant applications, annual performance audits and fiscal audits,	Annual grant application	Ongoing	SED	GSRB Staff
	Develop procedures for PHMSA audits.	6/30/2013	SED	GSRB Staff
	Develop method to ensure that staff meets field day requirements.	6/30/2013	SED	GSRB Staff
Manage the PHMSA Certification program to comply with all statutory mandates, including annual grant	Respond to PHMSA Correspondence/Surveys	Ongoing	SED	GSRB Staff
applications, annual performance audits and fiscal audits.	Review and respond to PHMSA Advisories.	Ongoing	SED	GSRB Staff
	Annual Performance Audit	Ongoing	SED	GSRB Staff
	PHMSA Financial Audit	Ongoing	SED	GSRB Staff
	Track Expenditures	Ongoing	SED	GSRB Staff
	Track Suspension Funding	7/1/2014	SED	GSRB Staff

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
GSRB has procedures for conducting audits, inspections and investigations and issuing citations. GSRB also has several inspection and annual report forms for MHP and propane systems operators. GSRB also records and monitors all of it's inspections and investigations with databases. When changes to CFR Title 49, parts 191 and 192 or the PU Code occur, ore new legislation is enacted that affects gas safety, GSRB may need to modify it's procedures, forms and databases to reflect the changes and new legislation.		Ongoing	SED	GSRB Staff
	Audit database upgrade	12/31/2013	SED	GSRB Staff
Improve our ability to identify trends.	Database maintenance	Ongoing	SED	GSRB Staff
implove our ability to identify fielids.	Develop report Preparation and Review Schedule.	6/30/2013	SED	GSRB Staff
	Schedule knowledge sharing/peer review meetings.	Ongoing	SED	GSRB Staff
ncrease staff expertise and improve staff retention.	Hold annual or semi-annual meetings of the entire gas safety program to review workplans and reenforce safety approach.	Ongoing	IRP 6.2.4.5	GSRB Staff

Task 23: GSRB shall promote continuous improvement in work quality and increase transparency.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Purchase equipment for inspections	Annual equipment procurement plan	Ongoing	SED	GSRB Staff
	Purchase field laptops to streamline MHP/Propane inspection reports.	Ongoing	SED	GSRB Staff
and to verify complaints.	Purchase state-of-the-art leak detection equipment to check facilities, respond to complaints, and demonstrate equipment at safety seminars.	12/31/2013	SED	GSRB Staff
Develop training program for all facets of GSRB work.	GSRB staff will complete all PHMSA WBT courses.	Ongoing	IRP 6.5.3.2	GSRB Staff

Task 24: SED will conduct root-cause analysis of incidents.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Investigate gas incidents to determine the cause, identify potential violations, and develop measures to prevent similar incidents.	Investigate Incidents	Ongoing	SED	GSRB Staff
Investigate possible violations of CPUC Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.	Staff Technical Report	Completed	SED	GSRB Staff I.12-01-007
GSRB has procedures for conducting audits, inspections and investigations and issuing citations. GSRB also has several inspection and annual report forms for MHP and propane systems operators. GSRB also records and monitors all of it's inspections and investigations with databases. When changes to CFR Title 49, parts 191 and 192 or the PU Code occur, ore new legislation is enacted that affects gas safety, GSRB may need to modify it's procedures, forms and databases to reflect the changes and new legislation.	Establish task force to make recommendations to revise procedures, inspection forms, Annual report forms and databases.	Completed	SED	GSRB Staff

## Instilling Safety Culture in Gas Operators

Task 25: SED will use regular management audits to benchmark and evaluate progress.

Managed by / Considered within	Source of Recommendation	Estimated Date of Completion	Plan Element	Project Description
GSRB Staff R. 11-02-019	90 <i>L</i> 8S	12/31/2014	Develop policies and procedures to assess the safety culture of natural gas pipeline operators.	Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.

# **Instilling Safety Culture in Gas Operators**

Task 26: SED will institute quarterly open house for utility field personnel to bring ideas/concerns to the utility and CPUC.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Improve the SED staff involvement in industry committees and organizations.	Establish statewide committee to address gas safety issues.	Ongoing	IRP 6.2.4.2	GSRB Staff
GSRB has procedures for conducting audits, inspections and investigations and issuing citations; GSRB also has several inspection and annual report forms for MHP and propane systems operators. GSRB also records and monitors all of it's inspections and investigations with databases. When changes to CFR Title 49, parts 191 and 192 or the PU Code occur, ore new legislation is enacted that affects gas safety, GSRB may need to modify it's procedures, forms and databases to reflect the changes and new legislation.		Ongoing	SED	GSRB Staff

## Instilling Safety Culture in Gas Operators

Task 27: SED will mandate periodic CEO safety certification and reporting at the bi-annual Gas Safety Summit.

Considered within	Recommendation	Completion	Discuss and define expectations for safety and the consequences of failure. Provide for workshops, panels, and presentations designed	A series of symposiums beginning in
Managed by / Considered within	Source of Recommendation	Estimated Date of Completion	Plan Element	Project Description

The CPUC plans to have a Gas Safety Symposium in May 2013

# **Instilling Safety Culture in Gas Operators**

Task 28: GSRB will educate operators of small gas systems.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
Audit jurisdictional operations for effective risk management and compliance with CFR Title 49, Parts 191,192,193, and 199.	Corrective Action Procedures and Tracking of Compliance Actions	Ongoing	SED	GSRB Staff
Establish a program to audit DIMP Plans for compliance with Subpart P of CFR Title 49, Part 192.	Training seminars for small operators	Ongoing	SED	GSRB Staff
Improve the MHP Gas Safety Program. The CPUC has jurisdiction over approximately 2,600 master-metered mobile home parks (MHP). Currently, each MHP must be inspected at least once every five years resulting in over 500 inspections a year.	Conduct training seminars for MHP operators.	Ongoing	SED	GSRB Staff
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Conduct training seminars for propane system operators.	Ongoing	SED	GSRB Staff

# **Instilling Safety Culture in Gas Operators**

Task 29: The CPUC will use enforcement to deter unsafe behavior by operators.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	
Conduct Formal Investigations for major Gas Accidents / Incidents	Open Enforcement Proceedings for San Bruno Incident	Ongoing	SED	
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Issue Citations	Ongoing	SED	
	Develop Excavation Damage Investigation Procedures.	12/31/2013	SED	
Reduce the number of gas incidents nvolving excavation.	Propose Enforcement Legislation	Ongoing	SED	
	Develop citation Program	Ongoing	SED	
	Propose a citation program to delegate authority to staff to fine operators for code violations.	Completed	IRP., NTSB P-11-21 (GOV), NTSB	
Develop citation program to reduce the number of violations committed by pipeline operators.	Develop Citation Procedures to reduce the number of violations committed by operators.	Completed	IRP, NTSB P-11-21 (GOV), NTSB	
	Develop a database to record and monitor citations.	Ongoing	SED	
	Establish enforcement unit to support CPUC proceedings.	Hired Staff / Training	SED	

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# **Return** Instilling Safety Culture in Gas Operators

Task 30: GSRB shall develop and utilize risk-based safety programs.

Project Description	Plan Element	Estimated Date of Completion	Source of Recommendation	Managed by / Considered within
	Research pipeline threats & Hazards both intrastate and nationally/abroad.	Ongoing	SED	Risk Assessment Unit
	Incorporate pipeline threats and hazards into Risk Assessment database	Completed	SED	Risk Assessment Unit
	Maintain Risk Assessment database as new data becomes available	Ongoing	SED	GSRB
Identify and analyze present and potential risks in the gas operator's	Perform risk modeling of pipeline threats and hazards to create a risk profile for each utility.	Ongoing	SED	Risk Assessment Unit
natural gas distribution, transmission, and storage systems.	Utilize risk analyses to identify appropriate risk assessment methods and preventative and mitigative measures for staff and operators.	Ongoing	SED	Risk Assessment Unit
	Review and evaluate operator's risk management programs and risk management plans.	Ongoing	SED	Risk Assessment Unit
	Develop utility safety comparative benchmarks.	Ongoing	SED	Risk Assessment Unit
	Utilize risk analyses information to identify appropriate risk preventative and risk mitigative measures.	Ongoing	SED	Risk Assessment Unit
Mitigate present and potential risks in the gas operator's natural gas distribution, transmission, and storage	Recommend changes to operator's risk management programs/plans as appropriate based on sound	Ongoing	SED	Risk Assessment Unit
systems.	analyses. Embed SED Staff in utility emergency response / disaster preparedness drills / exercises.	Planned	SED	GSRB / Risk Assessment Unit

	Add / evaluate Layers of Protection Analyses (LOPA) in utilities natural gas system.	Planned	SED	Risk Assessment Unit
	Increase staffing of SED's Risk Assessment Unit	Completed	SED	Risk Assessment Unit
	Continue Risk Assessment Training	Ongoing	SED	Risk Assessment Unit
	Attend Industry safety seminars/conferences/exercises.	Ongoing	SED	Risk Assessment Unit
Increase resources and capabilities of SED's Risk Assessment Unit	Engage professional risk management consultant to assist in preparation and planning of SED's risk management activities.	Planned	SED	Risk Assessment Unit
	Create a Critical Infrastructure catalog of Utilities natural gas systems	Planned	SED	Risk Assessment Unit
	Define safety terms and concepts Commission-wide	Planned	SED	Risk Assessment Unit
	Obtain real-time access to utilities GIS systems or the like.	Planned	SED	Risk Assessment Unit
Improve the MHP Gas Safety Program. The CPUC has jurisdiction over approximately 2.600 master-metered mobile home parks (MHP). Currently, each MHP must be inspected at least once every five years resulting in over 500 inspections a year.	Seek legislation allowing CPUC to focus its attention on MHP's with	Completed	IRP 6.4.3.2	GSRB Staff
Improve the Propane Safety Program. The CPUC has jurisdiction over approximately 680 propane systems.	Seek legislation allowing CPUC to focus its attention on propane systems with frequent violations	Completed	IRP 6.3.3.2	GSRB Staff

## **National Transportatio**

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## n Safety Board Recommendations

Reccomendation	Issuant
Through appropriate and expeditious means such as advisory bulletins and posting on your website, immediately inform the pipeline industry of the circumstances leading up to and the consequences of the September 9, 2010, pipeline rupture in San Bruno, California, and the National Transportation Safety Board's urgent safety recommendations to Pacific Gas and Electric Company so that pipeline operators can proactively implement corrective measures as appropriate for their pipeline systems.	PHMSA
Aggressively and diligently search for all as-built drawings, alignment sheets, and specifications, and all design, construction, inspection, testing, maintenance, and other related records, including those records in locations controlled by personnel or firms other than Pacific Gas and Electric Company, relating to pipeline system components, such as pipe segments, valves, fittings, and weld seams for Pacific Gas and Electric Company natural gas transmission lines in class 3 and class 4 [footnote removed] locations and class 1 and class 2 [footnote removed] high consequence areas [footnote removed] that have not had a maximum allowable operating pressure established through prior hydrostatic testing. These records should be traceable, verifiable, and complete. (P-10-2)	PG&E
Use the traceable, verifiable, and complete records located by implementation of Safety Recommendation P-10-2 (Urgent) to determine the valid maximum allowable operating pressure, based on the weakest section of the pipeline or component to ensure safe operation, of Pacific Gas and Electric Company natural gas transmission lines in class 3 and class 4 locations and class 1 and class 2 high consequence areas that have not had a maximum allowable operating pressure established through prior hydrostatic testing.	PG&E
If you are unable to comply with Safety Recommendations P-10-2 (Urgent) and P-10-3 (Urgent) to accurately determine the maximum allowable operating pressure of Pacific Gas and Electric Company natural gas transmission lines in class 3 and class 4 locations and class 1 and class 2 high consequence areas that have not had a maximum allowable operating pressure established through prior hydrostatic testing, determine the maximum allowable operating pressure with a spike test followed by a hydrostatic pressure test.	PG&E
Develop an implementation schedule for the requirements of Safety Recommendation P-10-2 (Urgent) to Pacific Gas and Electric Company (PG&E) and ensure, through adequate oversight, that PG&E has aggressively and diligently searched documents and records relating to pipeline system components, such as pipe segments, valves, fittings, and weld seams, for PG&E natural gas transmission lines in class 3 and class 4 locations and class 1 and class 2 high consequence areas that have not had a maximum allowable operating pressure established through prior hydrostatic testing as outlined in Safety Recommendation P-10-2 (Urgent) to PG&E. These records should be traceable, verifiable, and complete; should meet your regulatory intent and requirements; and should have been considered in determining maximum allowable operating pressures for PG&E pipelines.	CPUC

If such a document and records search cannot be satisfactorily completed, provide oversight to any spike and hydrostatic tests that Pacific Gas and Electric Company is required to perform according to Safety Recommendation P-10-4.	CPUC
Through appropriate and expeditious means, including posting on your website, immediately inform California intrastate natural gas transmission operators of the circumstances leading up to and the consequences of the September 9, 2010, pipeline rupture in San Bruno, California, and the National Transportation Safety Board's urgent safety recommendations to Pacific Gas and Electric Company so that pipeline operators can proactively implement corrective measures as appropriate for their pipeline systems.	CPUC
Expeditiously evaluate the authority and ability of the pipeline safety division within the California Public Utilities Commission to effectively enforce state pipeline safety regulations, and, based on the results of this evaluation, grant the pipeline safety division within the California Public Utilities Commission the direct authority, including the assessment of fines and penalties, to correct noncompliance by state regulated pipeline operators.	Gov.
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.	CPUC
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 recommended in Safety Recommendation P-11-22, and verify that all corrective actions are completed.	CPUC

## **Independent Review Panel Recommendations**

IRP Number	Reccomendation
5.7.4.2	The CPUC or its designated consultant should review the plan and collaborate with PG&E in the development of clear objectives, measures, and schedule.
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 professionals services firms, as well as other federal and state pipeline safety
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 GSRB 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.
6.3.3.1	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 fiveyear 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
6.3.3.4	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	GSRB 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
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
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.
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.