

**CPUC Implementation Status for Independent Review Panel (IRP) and National Transportation Safety Board (NTSB)
Recommendations Regarding Gas Pipeline Safety and the September 9, 2010 San Bruno Gas Pipeline Explosion**

Recommendation Addressed	Action Recommended	Estimated Completion Date	% Complete	Progress
IRP 6.2.4.1	<i>"Adopt as a formal goal, the commitment to move to more performance-based regulatory oversight of utility pipeline safety." [This recommendation is the same as IRP 6.5.3.1]</i>	Q2 2012	50%	The CPUC has included this objective in its Natural Gas Safety Rulemaking (R.11-02-019). This objective is also a critical element of the CPUC's Comprehensive Natural Gas Safety Workplan, which is being developed to identify broad safety goals, including a commitment to acquiring the necessary increases in resources, training and skills to achieve the goal of effective performance-based oversight. The CPUC has completed the IRP and NTSB recommendations component of the workplan and will finish the comprehensive workplan in Q1 2012.
IRP 6.2.4.2	<i>"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."</i>	Complete	100%	The CPUC approved an increase in the training and travel budget for critical safety programs for FY 2011-2012. CPUC staff identified relevant industry groups and technical committees to participate in during FY 2011-2012. The increased travel and training budget approved by the CPUC will enable Consumer Protection and Safety Division staff to participate in the regularly scheduled meetings of industry groups and technical associations, including the National Association of Pipeline Safety Representatives (NAPSR), National Association of Corrosion Engineers (NACE), American Society of Mechanical Engineers (ASME), Pipeline Safety Trust, American Gas Association (AGA) and National Association of Regulatory Utility Commissioners (NARUC) Pipeline Safety Committee. Staff recently attended the NACE Western meeting in early November.

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IRP 6.2.4.3	<i>"The CPUC should further divide gas auditing groups to create integrity management specialists."</i>	Q4 2012	50%	The CPUC restructured the Consumer Protection and Safety Division to create separate natural gas safety and electric safety programs. A Job Bulletin for the Natural Gas Safety and Reliability Branch Manager position was posted December 19, 2011. Within the natural gas safety program, staff will be dedicated to integrity management efforts to improve operator programs, the analytical processes involved in identifying and responding to risk, and the application and development of preventative and mitigative measures. Additional training is required before specialists can be assigned, which is expected to be completed in Q3 2012.
IRP 6.2.4.4	<i>"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."</i>	Q4 2012	25%	The CPUC issued a Request for Proposals to conduct an internal management audit of the gas safety program on December 7, 2011, with the goal of having an external consultant on board by April 2012. Audit deliverable is within nine months of contract signing.

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IRP 6.2.4.5	<i>"Provide USRB staff with additional integrity management training."</i>	Ongoing	100%	The Natural Gas Safety and Reliability Branch sent staff to risk assessment training to supplement integrity management training required by Department of Transportation. Additional staff are enrolled in Department of Transportation integrity management training. Staff also conducts periodic meetings to review work and training plans, and to
IRP 6.2.4.6	<i>"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"</i>	Ongoing	100%	The CPUC has engaged technical experts to assist with the ongoing Maximum Allowable Operating Pressure Validation and Hydrotesting Efforts.
IRP 6.3.3.1	<i>"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."</i>	Q1 2012	20%	The CPUC is currently developing the scope of the independent audits and has requested copies of prior independent audits to assist in defining the scope. The CPUC will require operators to complete the first set of independent audits of their integrity management programs in 2012. This will coincide with the requirement to complete the initial set of baseline assessments by December 2012. Additional audits will be scheduled based on review of the 2012
IRP 6.3.3.2	<i>"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." [This recommendation is the same as IRP 6.4.3.2]</i>	Q1 2012	10%	The CPUC's Office of Governmental Affairs is considering draft legislation and will be meeting with members to discuss the recommendation in the next legislative session.

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IRP 6.3.3.3	<i>"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."</i>	Q3 2012	50%	This proposal is under consideration in the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019). The CPUC has scheduled a workshop to discuss coordination of ratemaking and safety issues for January 11, 2012.
IRP 6.3.3.4	<i>"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."</i>	Q3 2012	25%	The CPUC has increased its gas safety staffing from 9 positions on September 9, 2010, to 17.5 positions. Recruitment efforts have been stepped up for engineering classes and certain application processes have been revised to assist applicants in navigating the state hiring process. The CPUC, through the increased travel and training budget for safety programs, is also increasing staff opportunities for continuing education and meetings to cross train and work together to compare performance of operators and develop best practices statewide. As the CPUC gains experience with the new gas safety rules and programs, we will continue to assess personnel needs and seek additional staffing as necessary.

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IRP 6.3.3.5	<p><i>"USRB should augment its current use of vertical audits that focus on specific regulatory requirements such as leak records or emergency response plans with:</i></p> <ul style="list-style-type: none"> <i>o 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.</i> <i>o 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."</i> 	Q1 2012	25%	CPUC staff is reviewing and revising its audit procedures to identify alternative audit programs designed to target specific hazards, facilities and areas identified through risk assessment efforts and prior audits. The Risk Assessment Unit is assisting in this effort.
IRP 6.3.3.6	<p><i>"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."</i></p>	Q2 2012	50%	The CPUC has developed a process through which audit findings will be posted on the CPUC website following closure of the audit or inspection. Staff is also developing new internal review processes to reinforce a "plain English" standard for all written communications with utilities and the public. The new standards and procedures will be reviewed during all incident review and audit review discussions. As part of the CPUC's effort to better coordinate system safety and ratemaking, the CPUC will consider requiring a "safety" certification by senior management as one element of an operator's General Rate Case or Gas Transmission and Storage application. A workshop addressing this issue is scheduled for January 11, 2012.

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IRP 6.4.3.1	<i>"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."</i>	Q3 2012	25%	The CPUC has increased its gas safety staffing substantially over the past year. As we gain experience with the new gas safety rules and programs, we will continue to assess personnel needs and seek additional staffing as necessary.
IRP 6.4.3.2	<i>"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."</i> [This recommendation is the same as IRP 6.3.3.2]	Q1 2012	10%	The CPUC's Office of Governmental Affairs is considering draft legislation and will be meeting with members to discuss the recommendation in the next legislative session.
IRP 6.5.3.1	<i>"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."</i> [This recommendation is the same as IRP 6.2.4.1]	Q1 2012	50%	The CPUC has included this objective in its Natural Gas Safety Rulemaking (R.11-02-019). This objective is also a critical element of the CPUC's Comprehensive Natural Gas Safety Workplan, which is being developed to identify broad safety goals, including a commitment to acquiring the necessary increases in resources, training and skills to achieve the goal of effective performance-based oversight. The CPUC has completed the IRP and NTSB recommendations component of the workplan and will finish the comprehensive workplan in Q1 2012.
IRP 6.5.3.2	<i>"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."</i>	Q1 2012	25%	The CPUC Risk Assessment Unit recently conducted a nationwide survey of existing risk data. This data will be used to develop the plan for auditing highest-risk areas, including identification of specific content areas to be audited, audit procedures, audit frequency, audit reporting requirements.

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IRP 6.6.3.1	<i>"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."</i>	Q1 2012	75%	The CPUC created a new Risk Assessment Unit to improve the CPUC's ability to conduct state-of-the-art risk management work. The first four members of the Risk Assessment Unit were hired in September 2011. Their initial objective is to look broadly at and identify the risks associated with natural gas. A Request for Proposals for technical support for the Risk Assessment Unit will be issued in March 2012.
IRP 6.7.3.1	<i>"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."</i>	Complete	100%	At its December 1, 2011 business meeting, the CPUC adopted Resolution ALJ-274, which delegates specific authority to Consumer Protection and Safety Division staff to cite operators for rule or code violations.
IRP 6.8.3.1	<i>"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." [This recommendation is the same as IRP 7.4.1]</i>	Q2 2012	50%	The CPUC initiated a stakeholder process to discuss options for coordinating the Commission's Safety and Ratemaking responsibilities. Staff has interviewed several interested parties and workshops are scheduled for January 11-13, 2012.
IRP 6.8.3.2	<i>"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."</i>	Q3 2012	10%	This proposal is within the scope of the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019).

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IRP 7.4.1	<i>"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." [This recommendation is the same as IRP 6.8.3.1]</i>	Q2 2012	10%	The CPUC initiated a stakeholder process to discuss options for coordinating the Commission's Safety and Ratemaking responsibilities. Staff has interviewed several interested parties and workshops are scheduled for January 11-13, 2012.
IRP 7.4.2	<i>"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."</i>	Q4 2012	25%	The CPUC Risk Assessment Unit recently conducted a nationwide survey of existing risk data. In addition, CPUC staff is working to identify, generate and analyze relevant safety and performance data for each operator statewide, including PG&E. Using this data, staff will develop utility safety comparative algorithms for the purpose of measuring and comparing the safety processes, cultures and performance of the major operators. Incentives and penalty structures will be explored thereafter.

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NTSB P-10-5 (Urgent)	<i>"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."</i>	Q4 2012	50%	Immediately following the issuance of the National Transportation Safety Board's December 14, 2010 Safety Recommendations, CPUC Executive Director Paul Clanon directed PG&E to reduce to 20% below the Maximum Allowable Operating Pressure certain segments of potentially unsafe pipe, assess that pipe's integrity and obtain CPUC authorization before repressurizing. A follow-up letter on January 3, 2011 directed PG&E to produce comprehensive records relating to their pipeline system components, and to determine the valid Maximum Allowable Operating Pressure to ensure safe operations. PG&E expects to finish Maximum Allowable Operating Pressure validation of 2,088 High Consequence Area miles by January 31, 2012. 4,662 non-High Consequence Area miles of PG&E gas transmission exist for which Maximum Allowable Operating Pressure validation has not yet begun. The CPUC has validated records for pipeline segments for which PG&E requested pressure restoration. CPUC oversight of Maximum Allowable Operating Pressure validation efforts is continuing and will utilize the technical consultants described in IRP 6.2.4.6.
NTSB P-10-6 (Urgent)	<i>"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."</i>	Ongoing	25%	CPUC staff is actively monitoring the ongoing hydrotesting efforts. PG&E completed 152 miles in December 2011. CPUC staff's oversight responsibility will continue as the operators begin the hydrotesting and replacement proposed in the gas safety implementation plan.

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NTSB P-10-7 (Urgent)	<i>"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."</i>	Complete	100%	Operators were immediately notified by letter from CPUC Executive Director Paul Clanon along with a posting on the CPUC Website.
NTSB P-11-22	<i>"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."</i>			
	Conduct Operations & Maintenance Audit	Q2 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.
	Conduct Public Awareness Audit	Q1 2012	75%	CPUC staff conducted the audit in November 2011 in coordination with PHMSA. The audit report will be completed by January 15, 2012.
	Conduct Control Room Management Audit	Q4 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.

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	Conduct Emergency Planning and Response Audit	Q2 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.
	Conduct Integrity Management Audit	Q3 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.
	Conduct Operator Qualifications Audit	Q4 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.
	Conduct Selected District/Division Audits	Q4 2012	10%	Elements of the Comprehensive Audit have been scheduled. CPUC staff will conduct the audit in coordination with PHMSA immediately following the conclusion of its investigation into PG&E's possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion.
NTSB P-11-23	<i>"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."</i>			

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	Require operators to provide system-specific information to emergency response agencies	Q3 2012	50%	This proposal is within the scope of the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019).
	Require operators to ensure that control room operators call 911 to report emergency conditions or safety hazards	Q3 2012	50%	This proposal is within the scope of the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019).
	Require operators to equip the Supervisory Control and Data Acquisition system with tools to recognize leaks	Q3 2012	50%	This proposal is within the scope of the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019).
	Require Automatic Shutoff Valves or Remote Control Valves in High Consequence Areas	Q3 2012	25%	This proposal is within the scope of the Commission's existing Natural Gas Safety Rulemaking (R.11-02-019).
	Revise rules to eliminate discretion with regard to drug and alcohol testing of employees who performance either contributed to or cannot be discounted as a contributing factor	Q3 2012	10%	CPUC staff has recommended that this issue be added to the scope of the Natural Gas Safety Rulemaking (R.11-02-019) for Commission consideration
	Eliminate "grandfathering" by requiring that all gas transmission pipelines constructed before 1970 be subjected to hydrostatic pressure testing	Q3 2012	80%	The CPUC voted June 9, 2011 to require all "grandfathered" gas transmission pipelines that have not been tested to be either tested or replaced. Implementation Plans were filed by operators in August 2011 and hydrostatic testing has already begun. Full implementation of this policy will be completed as part of the Natural Gas Safety Rulemaking (R.11-02-019).
	Ensure that known manufacturing- and construction-related gas pipeline defects are not considered stable unless a gas pipeline has been subjected to a postconstruction hydrostatic pressure test of at least 1.25 times the MAOP.	Q3 2012	10%	CPUC staff has recommended that this issue be added to the scope of the Natural Gas Safety Rulemaking (R.11-02-019) for Commission consideration.

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	Require operators to retrofit pipelines to accommodate in-line inspection	Q3 2012	50%	This issue is currently under consideration in the Natural Gas Safety Rulemaking (R.11-02-019). Implementation Plans were filed in August 2011. Evidentiary Hearings on PG&E's Plan are scheduled for Q1 2012.
	Investigate possible violations of Commission rules and orders associated with PG&E's recordkeeping practices leading up to September 9, 2010	Q4 2012	25%	Staff Report expected in March 2012.
	Investigate possible violations of Commission Rules and Orders related to the September 9, 2010 San Bruno Gas Explosion	Q4 2012	50%	Staff Report expected in January 2012.