Independent Review Panel

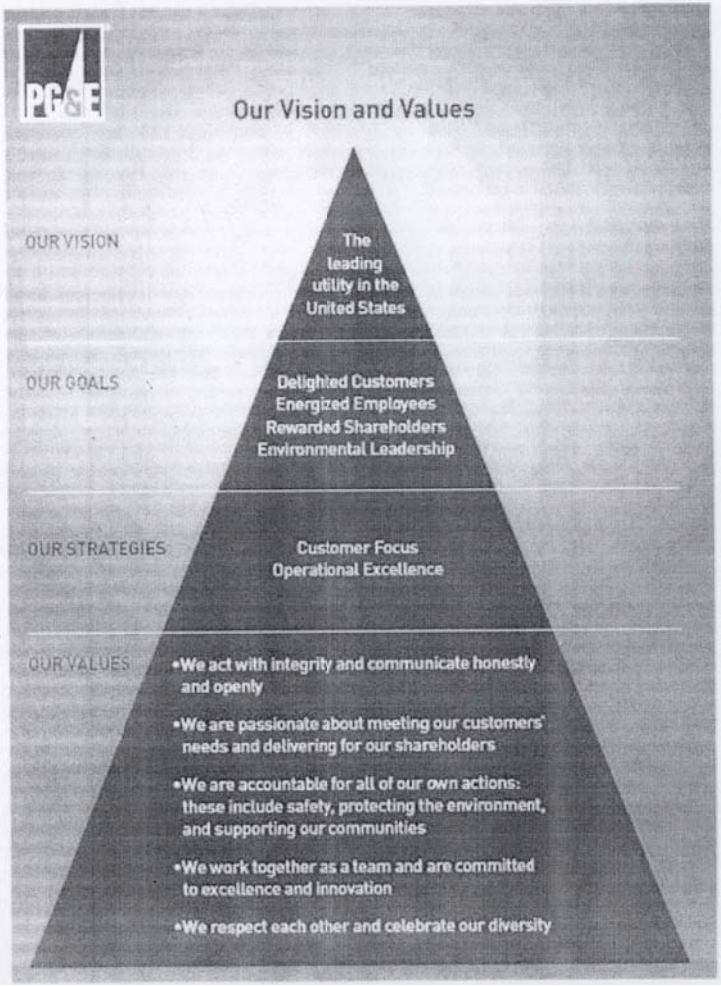
Discussion Topics with COO of PG&E

12 January 2011

Introduction

- Background on President and tenure with Company
- Executive management perspectives on gas department (size, expertise, business protocols, safety focus, culture)
- Key initiatives undertaken regarding people, process, and technology in gas operations

PG&E Vision and Values



Road to 2014: Goals and Priorities

2014 Goals

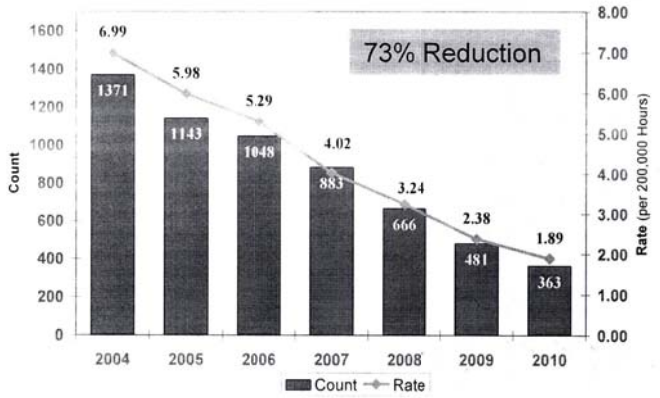
- The first decile for customer satisfaction
- The first quartile for employee engagement
- The first decile for environmental leadership
- The first quartile for total shareholder return

Business Priorities

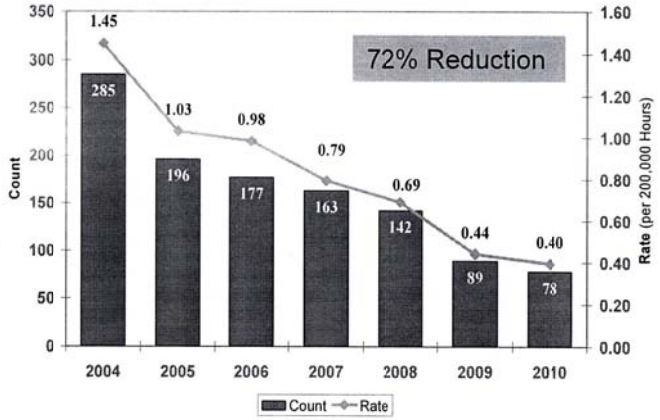
- Improve safety and human performance
- Drive customer satisfaction
- Improve reliability
- Deliver on budget, on plan, and on purpose
- Champion effective regulatory and legislative policies

Business Priority – Safety

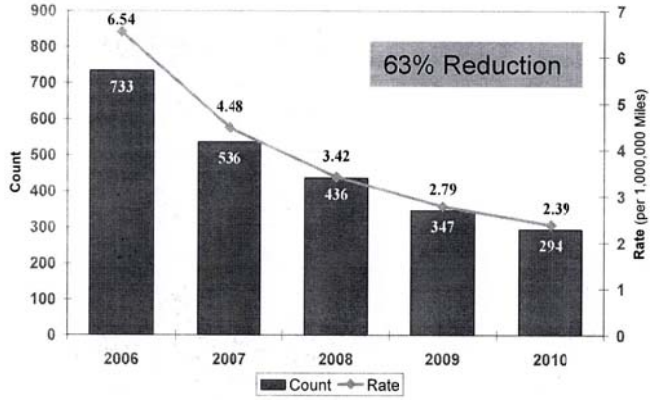
OSHA Recordables and OSHA Recordable Rates



Lost Workday Cases and Lost Workday Case Rates



Motor Vehicle Incidents (MVIs) and MVI Rates



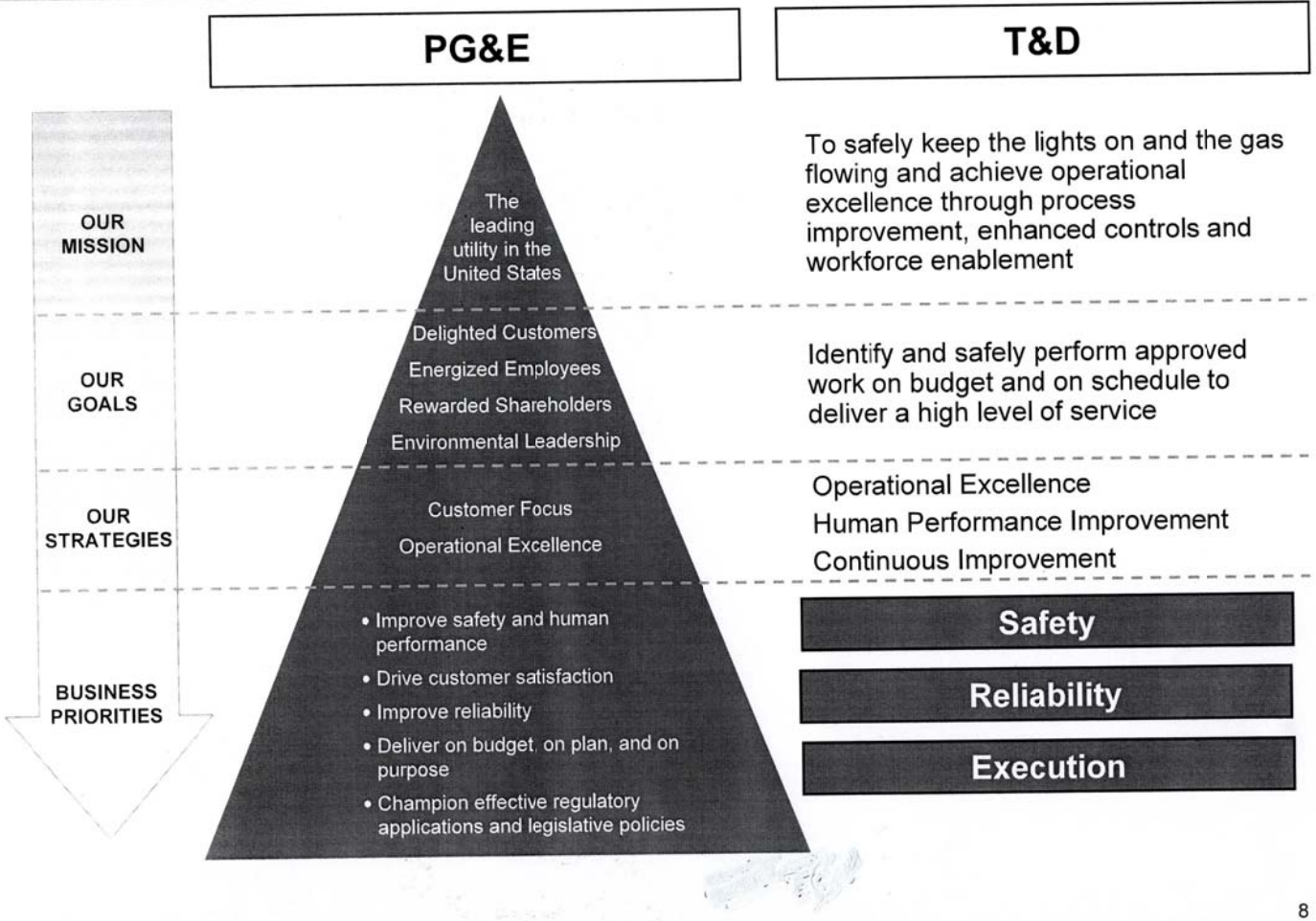
Organizational Considerations

- Organizational design and reporting relationships of gas department functions
  - Separation between transmission and distribution functions
  - Separation between engineering and operating functions
  - Separation between operations and field functions
  - Accountability and responsibility
  - Staffing levels; manpower trends
- Goal-setting process; rewards and incentives

PG&E Transmission & Distribution System Overview

- PG&E owns and operates one of the largest natural gas pipeline system in the United States
  - 48,000 miles of transmission & distribution gas mains ranging from 42" – 1" in diameter
  - 3.3 million service lines serving 4.3 million gas customers
  - 3 natural gas storage fields with 97 billion cubic feet of working inventory
  - 8 compressor stations with a combined 197,000 horsepower of installed compression to maintain flow
- PG&E employs ~8,700 employees in its Engineering & Operations and Energy Delivery Organizations
  - ~5,500 IBEW-unionized field forces & clerks
  - ~1,600 are ESC-unionized estimators, mappers, engineers, etc.
  - Remaining ~1,600 Management employees are primarily supervision

Transmission & Distribution: Mission and Vision



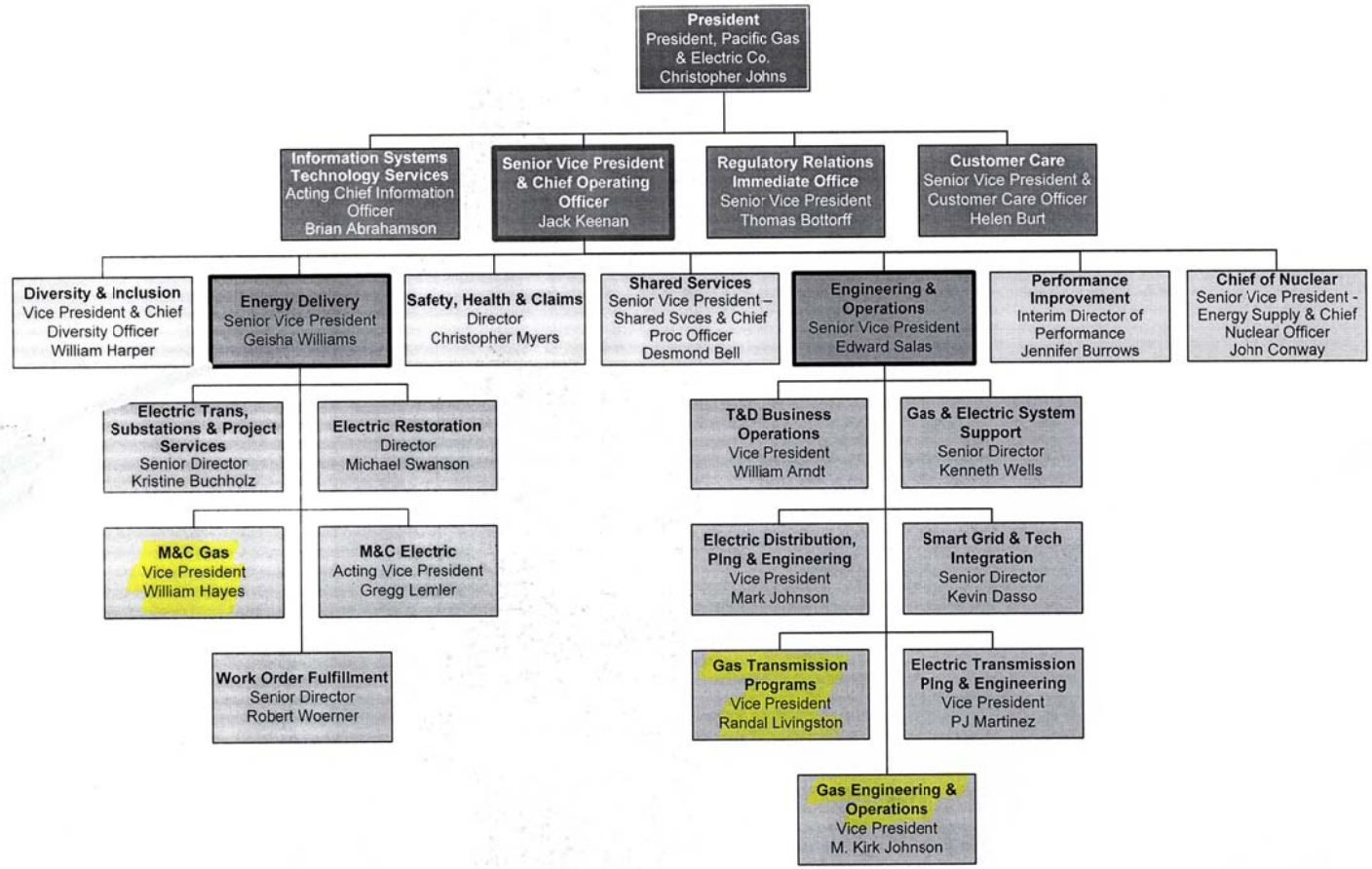
Transmission and Distribution Strategies to Achieve Vision

Mission: To safely keep the lights on and the gas flowing and achieve operational excellence through process improvement, enhanced controls and workforce enablement

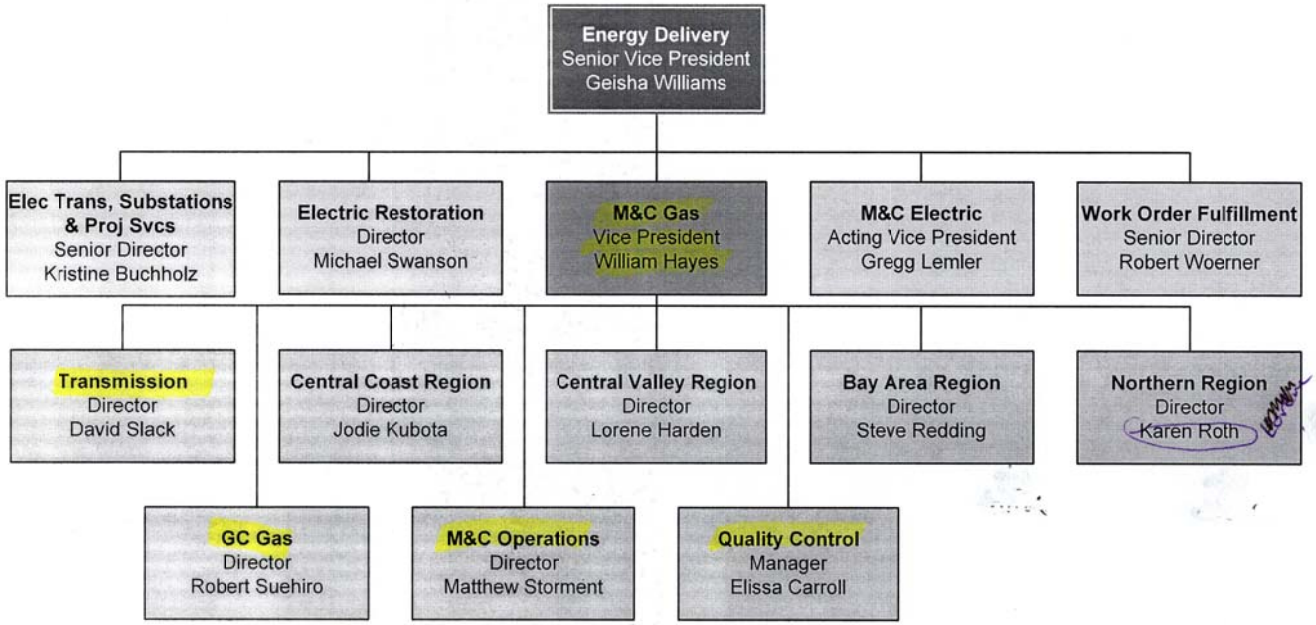
Business Priorities	Strategies to Achieve Vision
Safety	• Safety culture founded on premise of "zero incidents" and full accountability, where employees feel empowered to speak up and take action to ensure both employee safety and public safety • Ensure personal accountability for adherence to safety rules and procedures – Seven Rules To Live By • Supervisory and management effectiveness • Skills training / internal controls
Reliability	• Customer-experience focused reliability strategy • Restoration process improvements, enhanced tools, automation • Storm prediction models • Gas – verify and maintain ongoing system integrity ← • Gas & Electric maintenance – on fixed / condition based schedules • Increased use of technology and automation
Execution	• Operational & Human Performance Improvement initiatives – technical methods / training, standards, process & procedure improvement • Business Results Team – end-to-end process improvement • Project Management Improvement Team • Integrated financial / resource planning

How does T&D perform work?

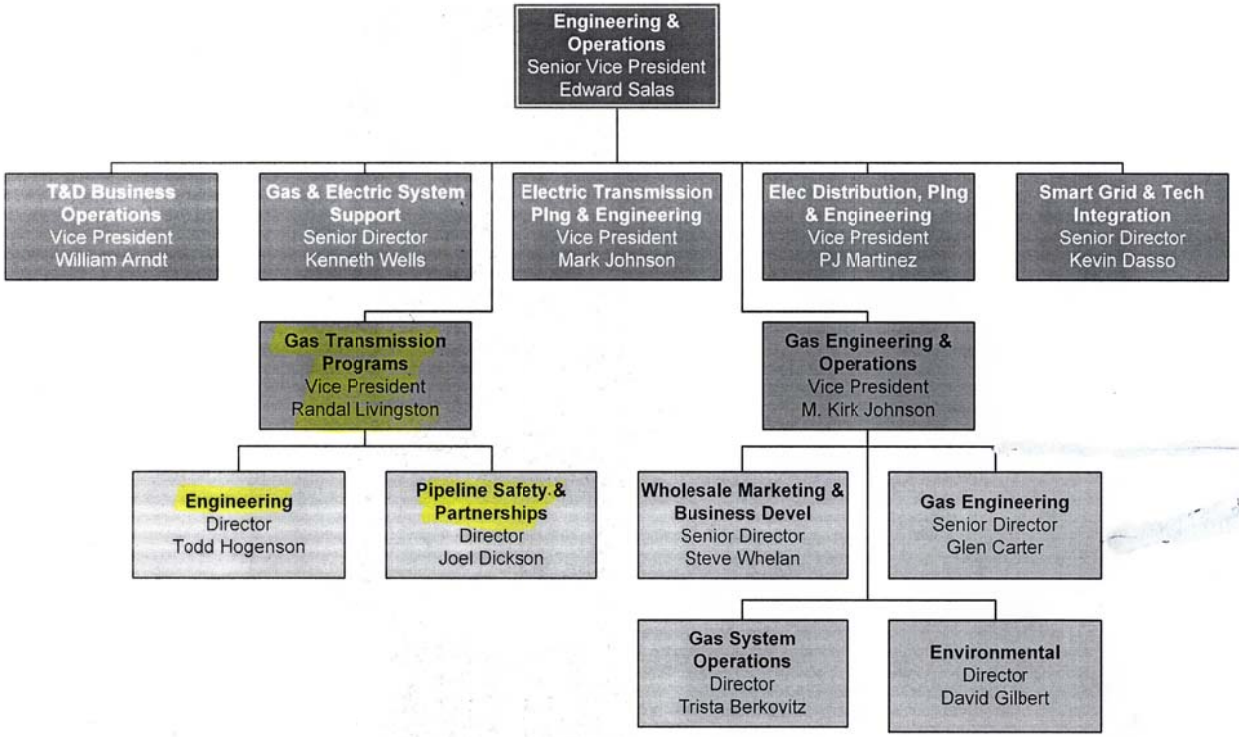
President and COO, PG&E



Energy Delivery



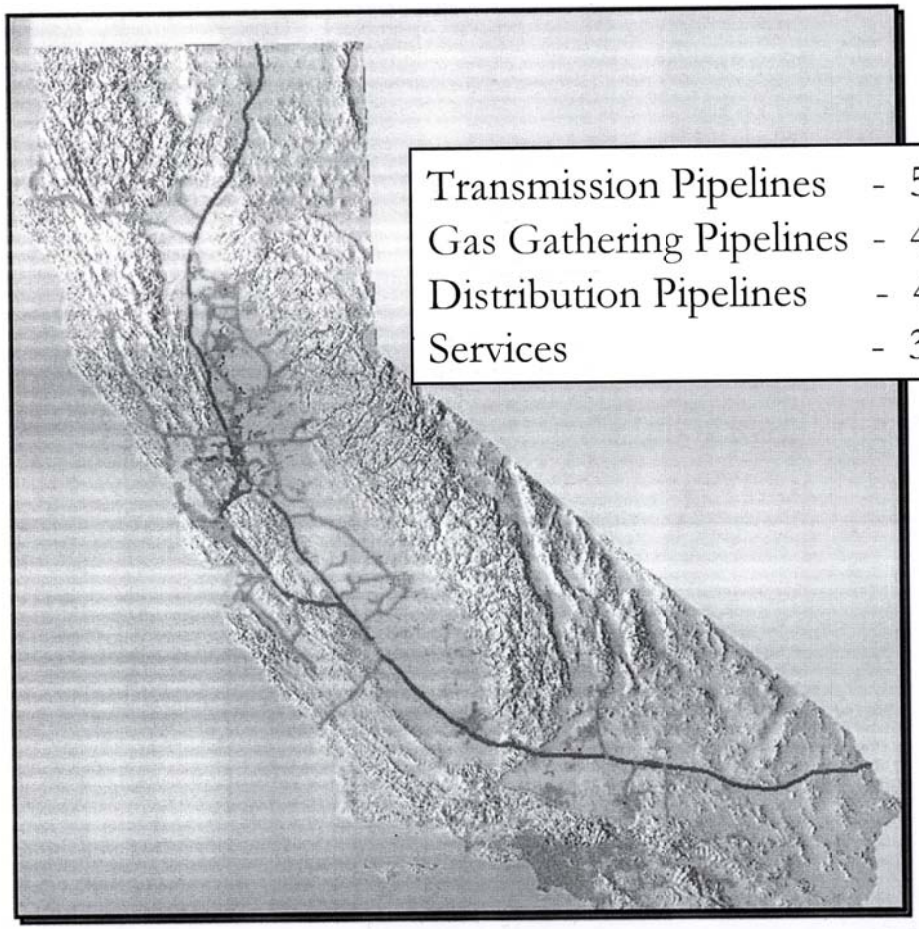
Engineering & Operations



Pipeline Integrity Management Program

- Corporate risk management framework
- Governance of pipeline integrity management program
- Focus on High Consequence Areas
- Visibility of pipeline integrity efforts within organization; process for disseminating information among various leaders, and within engineering, operations, and field organizations

PG&E's Gas System



Transmission Pipelines	-	5,777 miles*
Gas Gathering Pipelines	-	42 miles
Distribution Pipelines	-	42,203 miles
Services	-	3,331,464

*Per FERC gas transmission definition. PG&E gas transmission mileage reported via CPUC statistical report (>60 psig) is 6,736 miles.

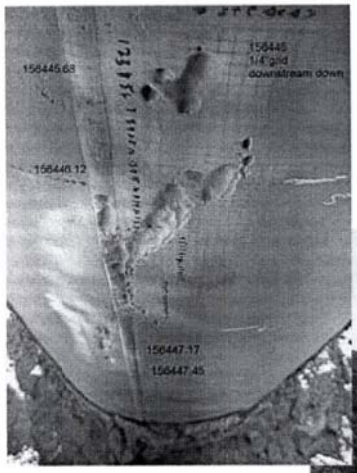
Transmission Pipeline Integrity Management (TIMP) Rule

- President Bush signed Pipeline Safety Law – 12/17/02
- PHMSA published 49 CFR Part 192, Subpart O - Transmission Pipeline Integrity Management
- Identification of High Consequence Areas (HCA's)
- Identification of Threats for each HCA pipe segment, B31.8S
- Threat assessment technologies:
  - In-Line Inspection (Smart Pigging)
  - Direct Assessment
  - Pressure Test
  - New Technology approved by Pipeline & Hazardous Materials Safety Administration (PHMSA)
- 10 years to complete baseline assessments
- 5 years to complete 50% of the highest risk segments
- Must re-assess HCA pipelines every 7 years

Threats to Pipeline Integrity

ASME B31.8S Threats

- Third Party/Mechanical Damage
- External Corrosion
- Weather Related and Outside Force
- Welding/Fabrication Related
- Internal Corrosion
- Equipment
- Incorrect Operations
- Stress Corrosion Cracking
- Manufacturing Related Defects



Integrity Management Program

- Within 10 years (2002-2012) approximately 1000 miles of HCA segments must be assessed
- In order to meet the 10-year baseline assessment requirements of Sub-Part 0, PG&E will have assessed a total of 1,521 miles pipelines to assess 1,021 HCA miles of pipeline
- Met 50 percent milestone as of December 17, 2007
- On track to complete 10-year baseline assessment by December 17, 2012
- Ongoing monthly performance tracking

Regulatory Framework

- Perspectives on CPUC "black box" settlement process
- Perspectives on CPUC Graduated Enforcement program

PG&E Regulatory Framework Overview

- Gas Transmission operations, maintenance and capital expenditures are authorized by the CPUC through a rate case, which generally approves expenditures for a 3-4 year period.
- PG&E's Gas Transmission rate cases in the last several years have been adopted as settlements by the CPUC.
- Settlements must be:
  1. Reasonable in light of record,
  2. Consistent with law, and
  3. In the public interest
- Settlements allow parties to ensure their needs are met while allowing PG&E the flexibility to manage the work.
- While the settlement generally provides a dollar amount, it does not mean that PG&E will not have to spend more to address system needs during that year. Utility is still responsible to build, maintain and operate the system in a safe reliable manner.
- Graduated Enforcement provides an incentive for PG&E to constantly review its system to identify issues early. PG&E believes the overall approach to be effective.

San Bruno Event

- Integrity management efforts pertaining to affected infrastructure
- Response efforts at time of event
- Actions taken in aftermath
- Effectiveness of current state and federal regulations regarding pipeline integrity

Pipeline 2020 Program

Pipeline 2020 Vision

Pipeline 2020 is a new PG&E program to guide the utility's efforts to strengthen the natural gas transmission system and advance industry best practices over the coming decade.

- **Objectives**
  - Expeditiously ensure the integrity and quality of our gas transmission pipelines
  - Our focus on quality and pipeline integrity will ensure the safety of the system, but we are at all times prepared for unplanned events

- **Five Key Focus Areas**
  - Modernize Critical Pipeline Infrastructure
  - Expand the Use of Automatic or Remotely Operated Shut-off Valves
  - Spur Development of Next-Generation Inspection Technologies
  - Develop Industry-Leading Best Practices
  - Enhance Public Safety Partnerships