

# Gas Transmission Pipeline Presentation

City of Carpinteria  
May 14, 2012



# Contents

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- Background
- Regulatory Agencies
- NTSB Report
- Transmission vs. Distribution
- Carpinteria Transmission Pipelines
- Analysis
- Regulatory Changes
- Mitigation Actions

# Background

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- A 30-inch diameter segment of an intrastate natural gas transmission pipeline, owned and operated by PG&E, ruptured in a residential neighborhood.
- 38 homes destroyed, 70 homes damaged, 8 people lost their lives.

***Are the gas transmissions pipelines in our community safe?***

# Regulatory Agencies

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- Department of Transportation's Pipeline and Hazardous Material Safety Administration (PHMSA)
  - *"Primarily responsible for developing, issuing, and enforcing pipeline safety regulations" ~PHMSA*
- California Public Utilities Commission
  - *Responsible for the regulation and inspection of intrastate gas transmission pipelines in the State of California.*

# NTSB Report

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According to the NTSB, the probable cause of the San Bruno accident was:

- Inadequate quality assurance and quality control during a past line relocation project, which allowed installation of substandard and poorly welded pipe section with a visible seam weld flaw.
- Inadequate pipeline integrity management program, which failed to detect and repair/remove the defective pipe section.

# NTSB Report

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The NTSB made several recommendations to the PHMSA and CPUC as a result of the San Bruno accident:

- Require operators of natural gas transmission pipelines to provide system-specific information about their pipeline systems to jurisdictions and emergency response agencies.
- Require automatic or remote control shutoff valves.
- Require all natural gas transmission pipelines be configured to accommodate in-line inspection tools.

# NTSB Report

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NTSB recommendations continued:

- Revise integrity management inspection protocols at the PHMSA.
- Develop and implement standards for integrity management that require pipeline operators to regularly assess the effectiveness of their program.
- Assess the effectiveness of oversight programs at the CPUC and correct deficiencies.

# Carpinteria Transmission System



High Pressure Gas Pipeline

- DOT Transmission
- Distribution High Pressure

Southern California Gas Co.  
Operations Technology - GIS  
Created: September 27, 2010

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**Southern California Gas Company**  
**High Pressure and Transmission System**



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# Transmission vs. Distribution

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## According to the American Gas Association:

- Gas Transmission Pipelines
  - *Larger diameter operating at a higher operating pressure – transports between cities, states, etc.*
- Gas Distribution Pipelines
  - *Smaller diameter at lower operating pressures – deliver directly to homes and businesses.*

# Carpinteria Transmission Pipelines

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To address concerns regarding the safety of the gas transmission pipelines that pass through Carpinteria, the City:

- Reviewed **the NTSB's San Bruno Accident** Report to gather information on factors leading to the accident.
- Developed and submitted questions to SoCalGas and the CPUC regarding the maintenance and safety of the gas transmissions lines in Carpinteria.
- Invited representatives from SoCalGas and the CPUC to provide a presentation.

# Carpinteria Transmission Pipelines

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- City drafted 26 questions that were divided to three categorical areas: General Pipeline Information, Integrity Management Practices and Future Action

Sample question and response:

Have leak survey inspections been conducted on pipelines that pass through Carpinteria? If so, when? Were any pipeline defects found?

- *SoCalGas & CPUC Response: As part of our regular maintenance practices, we leak survey our lines. As part of our safety program, we are leak surveying the high pressure transmission lines every two months. No leaks were found.*

# Carpinteria Transmission Pipelines

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- Three high pressure gas transmission pipelines.
- Installed in 1930, 1944 and 1950.
- Made of steel.
- Transport odorized natural gas.
- **Automatic shutoff valves installed in the 1980's.**
- Two lines are in-line serviceable – one line is not, but it has had its pressure lowered.
- Lines are leak surveyed every two months – no leaks were detected.
- Line integrity assessment occurs every 7 years.
- Two odorant stations also located in Carpinteria.

# Analysis

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- ***Even if the system is working at its best, there is still risk.***
- Mechanisms in place, such as safety and integrity management programs, to mitigate associated risks.
- New safety and reliability regulations will most likely be adopted in the near future.

# Regulatory Changes

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- Senate Bill No. 216
  - Would require the installation of automatic shutoff or remote controlled sectionalized block valves on certain intrastate transmission lines that are located in high consequence areas.
- Natural Gas Transmission Pipeline Comprehensive Pressure Testing Plan
  - CPUC required all gas companies to develop and submit a plan last fall.
- Gas Pipeline Safety Proceeding

# Mitigation Actions

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- Law requires pipeline operators to establish continuing education programs on pipeline safety issues.
- City staff receive training on pipeline safety, including the identification and prevention of problems.
- Participate in hazardous materials emergency planning.
- Proactively dialogue with SoCalGas and the CPUC to create a greater level of transparency.