

REPLACEMENT OF CAST IRON NATURAL GAS PIPELINE



Dennis Lee

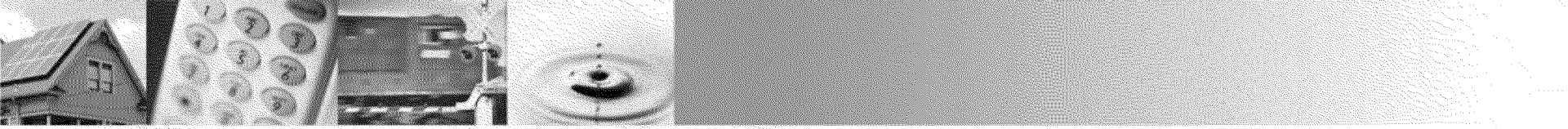
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Overview

- Background on Cast Iron Gas Pipeline
- Pennsylvania Gas Pipeline Explosion
- Existing Cast Iron Gas Pipelines in California
- PG&E's Gas Pipeline Replacement Program (GPRP)
- CPUC's Role Related to Cast Iron Pipeline





Background on Cast Iron Gas Pipeline

- Cast iron pipe installed over 60 years ago
- Operates safely if left undisturbed
- Can degrade over time
- Cast iron pipe is no longer installed





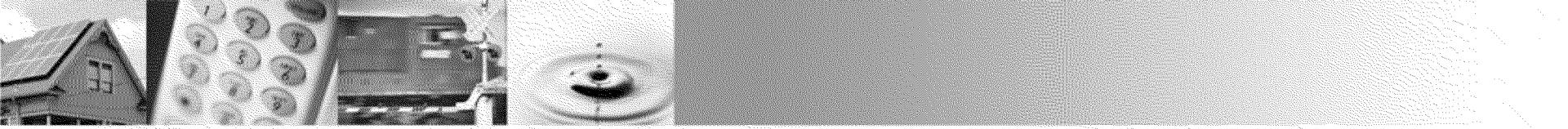
Pennsylvania Gas Pipeline Explosion



February 2011

Photo Courtesy of AP





Consequences

5 Fatalities and 3 Injuries

Photo Courtesy of AP





Consequences (cont.)



8 Homes Destroyed

Photo Courtesy of Rob Kandel





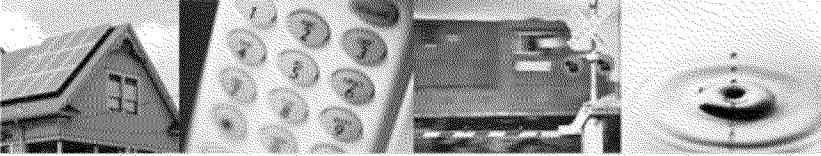
Consequences (cont.)



\$2.5 Million In Damages

Photo Courtesy of Rob Kandel





12" Cast Iron Gas Main Leak



Crack Found in 12" Cast Iron Main

Photo Courtesy
of Rob Kandel





Penalties

- Pennsylvania PUC fined UGI Utilities \$386,000
 - Maximum civil penalty allowed by law
- UGI found in violation of various codes:
- 49 CFR 192.625(a) - Maintain odorant sampling program
- 49 CFR 192.489 - Remediate cast iron pipelines
- 49 CFR 192.755(a) - Protect cast iron pipelines
- 49 CFR 192.615 - Comply with emergency procedures





Existing Cast Iron Gas Pipelines in California

- PG&E still has cast iron gas pipe in its system
- Approximately 48 miles remain in California
 - 43 miles located within the City of San Francisco
 - 3.5 miles located within the City of Fresno
 - 1.5 miles located in five other cities

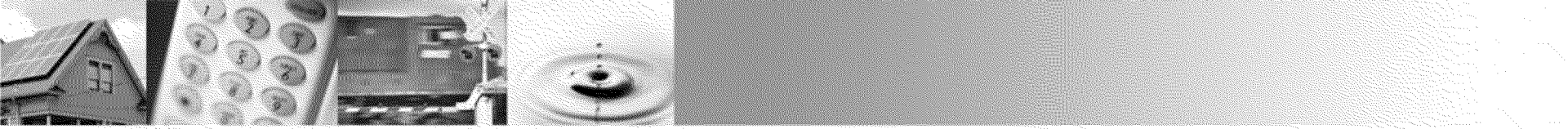




PG&E's Gas Pipeline Replacement Program (GPRP)

- Initiated in 1985 to replace certain gas distribution and transmission pipe
- Cast iron targeted for replacement in GPRP
- PG&E had 829.2 miles of cast iron mains in CA
- PG&E has replaced 781.4 miles of cast iron
- Replaced 30 miles of cast iron pipe per year

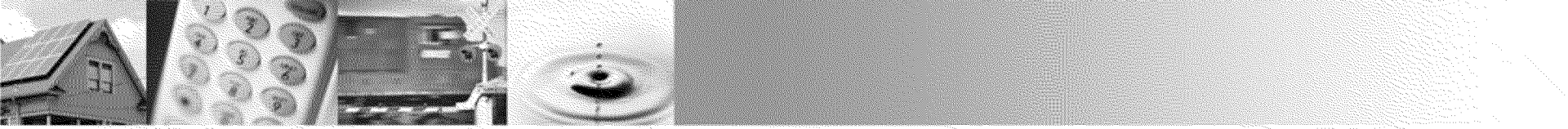




PG&E's Plan

- Replacing the remaining cast iron by 2014
- Exception of those locations subject to street moratoria

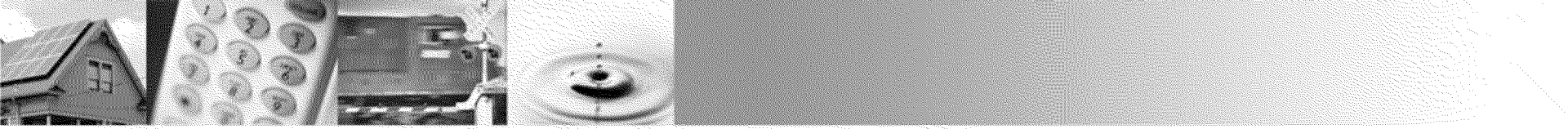




Issues

- San Francisco's excavation moratorium ordinances
 - Prohibits street excavation when reconstructed, repaved, or resurfaced
- In 1985, San Francisco had a total of 487.5 miles
- Other cities in California had a total of 341.5 miles

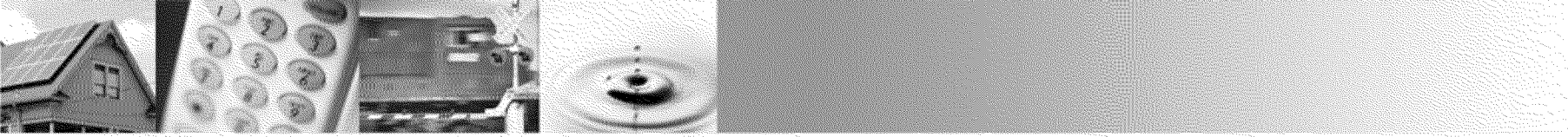




CPUC's Role Related to Cast Iron Pipeline

- Monitor progress
- Confirm replacement continues on schedule
- Seek ways to accelerate replacement in San Francisco
 - CPSD sent letter to San Francisco Public Works Department (SFPWD)
 - Encourages SFPWD to work with PG&E to determine what actions can be taken to accelerate replacement in San Francisco





Questions?

