

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



July 3, 2012

Mr. Mohammed Nuru  
Director of Public Works  
City and County of San Francisco  
1 Drive Carlton B. Goodlett Place  
City Hall, Room 348  
San Francisco, CA 94102

**Subject:** PG&E's Cast-Iron Pipeline Replacement Program in San Francisco, California

Dear Mr. Nuru:

In 1985, the California Public Utilities Commission (CPUC) approved plans for Pacific Gas and Electric Company (PG&E) to implement its multi-year Gas Pipeline Replacement Program (GPRP). Through the program, PG&E has worked to replace or rehabilitate hundreds of miles of pipelines constructed with materials of low ductility which present a higher likelihood of failure during certain seismic events or other events occurring near the pipelines. PG&E had 829 miles of cast-iron pipelines existing at the beginning the program. PG&E has deactivated over 781 miles of the cast-iron pipelines leaving approximately 48 miles of cast-iron pipeline remaining in its system.

Cast-iron pipelines, typically installed over 60 years ago, are still in use providing natural gas to homes and businesses in many towns and cities throughout the nation, including San Francisco. While cast-iron pipelines are generally able to operate safely as long as the surrounding soil is left undisturbed, the material properties of cast-iron can degrade over time and are not immune to environmental changes. Activities occurring near the pipeline that disturb the soil can create stresses in the pipeline that, over time, work to increase the likelihood of such pipelines failing. Moreover, because much of the cast-iron pipeline mileage tends to exist in higher population density areas, the consequences will be greater should these pipelines fail.

In 2011, a natural gas leak from a 12-inch cast-iron main pipeline, installed in 1928, caused an explosion that resulted in five fatalities and destruction of several buildings in Allentown, Pennsylvania. Failure incidents, such as this, involving loss of life and property, only highlight the urgency to replace these pipelines with modern materials that reduce the overall risks presented by cast-iron natural gas pipelines.

At this point in time, PG&E is the only utility regulated by the CPUC that has any remaining cast-iron pipelines still being used for natural gas service. From among PG&E's remaining mileage of approximately 48 miles of cast iron natural gas pipelines, the primary amount of the remaining mileage, approximately 43 miles, is located within the City of San Francisco.

We understand that the City and County of San Francisco's Public Works Department (SFPWD) has been working with PG&E over the years to coordinate the re-paving, infrastructure upgrade, and other activities involving PG&E's efforts to replace cast-iron pipelines in San Francisco. However, due to the SFPWD's excavation moratorium ordinances, the SFPWD can deny permits for PG&E to replace cast-iron pipelines in certain streets until the excavation moratorium expires.

We are seeking to find ways to accelerate PG&E's efforts to replace all remaining cast-iron natural gas pipelines throughout its system. To that effect, we encourage SFPWD to work with PG&E to determine what actions can be taken to allow PG&E to complete this work as quickly as practicable so that the increased risk, presented by the remaining cast-iron natural gas pipelines in San Francisco, can be mitigated.

We would like to thank the SFPWD and the City of San Francisco for your continued focus on gas pipeline safety. We hope that your department's existing cooperation with PG&E, on activities related to its GPRP, will work to find successful ways that allow PG&E to accelerate its efforts to quickly replace the 43 miles of cast-iron gas pipelines remaining in San Francisco.

If you have any questions related to this matter, please contact Sunil Shori at (415) 703-2407 or by email at [SKS@cpuc.ca.gov](mailto:SKS@cpuc.ca.gov).

Sincerely,



Michael Robertson, P.E.  
Program Manager  
Gas Safety and Reliability Branch  
CPSD/CPUC

cc: Paul Clanon, Executive Director, CPUC  
Brigadier General Jack Hagan, Director, CPSD  
Sunil Shori, Interim Program and Project Supervisor – GSRB/CP