

September 29, 2011

Christopher Johns, President  
Pacific Gas and Electric Company  
P.O. Box 770000  
Mail Code B32  
San Francisco, California 94177

**RE: Plastic Distribution Pipe Performance**

Dear Mr. Johns:

The recent leaks and fires in Cupertino and in Roseville California have once again highlighted deficiencies within the utility's system. Both the Roseville and Cupertino fires are the result of leaks on a type of pipe known to be vulnerable to brittle-like cracking.

Prior to the mid-1990's, plastic piping had generally been accepted as a safe and economical alternative to piping made out of other materials. In 1998, however, after several major explosions involving plastic piping, the National Transportation Safety Board (NTSB) conducted a special investigation [(NTSB/ SIR-98/01), *Brittle-like Cracking in Plastic Pipe for Gas Service*] and concluded that plastic pipe installed in the natural gas distribution system from 1960's through the early 1980's was vulnerable to brittle-like cracking which could result in gas leakage and was a hazard to public safety.

Following the NTSB recommendations, the Research and Special Programs Administration (RSPA), US Department of Transportation issued the 2002 advisory bulletin (*ADB-02-07, Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe*) recommending that operators of natural gas do all of the following:

1. Review system records to determine if any known susceptible materials have been installed in the system. Both engineering and purchasing records should be reviewed. Based on the available records, identify the location of the susceptible materials. More frequent inspection and leak surveys should be performed on systems that have exhibited brittle-like cracking failures of known susceptible materials.
2. Establish a process to identify brittle-like cracking failures. Identification of failure types and site installation conditions can yield valuable information that can be used in predicting the performance of the system.

3. Use a consistent record format to collect data on system failures. The AGA Plastic Failure Report form (Appendix F of the AGA Plastic Pipe Manual) provides an example of a report for the collection of failure data.
4. Collect failure samples of polyethylene piping exhibiting brittlelike cracking. Evidence of brittle-like cracking may warrant laboratory testing. Although every failure may not warrant testing, collecting samples at the time of failure would provide the opportunity to conduct future testing should it be deemed necessary.
5. Whenever possible record the print line from any piping that has been involved in a failure. The print line information can be used to identify the resin, manufacturer and year of manufacture for plastic piping.
6. For systems where there is no record of the piping material, consider recording print line data when piping is excavated for other reasons. Recording the print line data can aid in establishing the type and extent of polyethylene piping used in the system.

Please describe what PG&E has done since 2002 to comply with each recommendation and to ensure the mitigation of any risk to public safety associated with cracking problems in polyethylene piping.

The Pipeline and Hazardous Materials Safety Administration and RSPA have specifically identified the older polyethylene pipe materials susceptible to premature brittle-like cracking:

1. Century Utility Products, Inc. products
2. Low-ductile inner wall ‘‘Aldyl A’’ piping manufactured by DuPont Company before 1973
3. Polyethylene gas pipe designated PE 3306.
4. Delrini insert tap tees; and,
5. Plexco service tee Celcon (polycetal) caps.

Of the materials listed above, are any of these used through the Peninsula? If so, does PG&E know where these pipes and fittings are? In light of the recent fires, what are PG&E’s plans to phase out these materials?

Sincerely,

Jerry Hill  
Assemblymember, 19<sup>th</sup> District

CC: Nick Stavropoulos, Executive Vice President, Gas Operations  
Kent Kauss, Manager State Government Relations  
Paul Clanon, Executive Director California Public Utilities Commission  
Edward Randolph, Director of Governmental Affairs and Senior Policy Advisor