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**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



October 28, 2013

Jane Yura  
Vice President  
Gas Operations Standards & Policies  
Pacific Gas and Electric Company

Subject: CPUC Risk Assessment Section Plastic Pipelines Data Request 1

Dear Ms. Yura:

The Risk Assessment Section of the California Public Utilities Commission is performing a status review of older vintage plastic pipes among its regulated gas utilities. Data Request 1 in connection with this review is attached. Please furnish responses to this data request by November 8, 2013. If you have any questions, please do not hesitate to contact me. Thank you.

Sincerely,

**Steven Haine**, P.E.

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Risk Assessment Section  
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## **CPUC Risk Assessment Section Plastic Pipelines Data Request 1**

1. For its plastic pipes, does PG&E vary the leak survey frequency/interval according to any of the following pipeline characteristics : Pipeline manufacturer, manufacturing vintage, ASTM testing standards, operating temperature and pressure, pipe diameter, types of joints and fittings present, type of fill and surrounding soil type, existing pipe depth, stress on the pipe due to topography and soil movement, repair history and repair procedures to which the pipe segment was subjected, and the constitution resin materials of the plastic pipes? If the answer is yes, please provide details on the different frequencies/intervals for the above pipeline characteristics.

2. Does PG&E's databases of installed plastic pipes contain information on the following: Pipeline manufacturer, manufacturing vintage, lot number, ASTM testing standards, resin type for each pipe section, type and size of fill used, version of installation procedures employed? Please provide a comprehensive listing of the fields in each of the databases. Please also provide a listing of the miles of all plastic pipes currently in PG&E's system in tabular format according to manufacturer, manufacturing vintage, and resin material. Please also highlight which materials are considered to have low ductile inner wall characteristics.

3. Does PG&E's databases of installed plastic pipes contain information on the type and size of protective sleeves used on steel tapping tees? Please provide a comprehensive listing of the fields in each of the databases.

4. What databases does PG&E maintain to detect trends in failure due to flaws in materials or installation procedures? Do the databases contain sufficient details to allow for identification of such trends? Are data categories in databases sufficiently granular to allow PG&E to determine what exactly is causing the failures? For each of the databases identified, please provide a comprehensive listing of all the fields.

In cases of older plastic pipelines where PG&E did not keep sufficient details for newly added fields that came about as a result of new knowledge about the risk with older plastic pipes, how does PG&E deal with the missing data points?

5. Does PG&E maintain databases of plastic pipelines meeting any of the following criteria: Pipelines manufactured by Century Utility Products, pre-1973 Aldyl A plastics made by DuPont, pipelines with low ductile inner wall characteristics, plastic pipelines made of PE 3306 resin, pipelines with Delrin tapping tee inserts, and Plexco service tee Celcon (polyacetal) caps? What are the names of these databases? Please also provide a comprehensive listing of the fields in these databases.

6. Does (and did) PG&E keep comprehensive records of all its plastic pipelines in service to indicate whether a pipe segment was previously subjected to squeeze-off?

7. On its plastic pipes, does (and did) PG&E keep comprehensive records of all its plastic pipes in service to indicate the types of fill used during installation and in subsequent repairs?

8. For its plastic pipes, does PG&E have different squeeze-off procedures according to any of the following: Manufacturer, manufacturing vintage, ASTM testing standards, operating temperature and pressure, pipe diameter, and the constitution resin materials of the plastic pipes? If the answer is yes, please provide details on the different squeeze-off procedures for the above characteristics.

9. For its plastic pipes, does PG&E vary the use of mechanical fittings and procedures for any of the following: Manufacturer, manufacturing vintage, operating temperature and pressure, pipe diameter, type of fill and surrounding soil type, stress on the pipe due to topography and soil movement, existing pipe depth, and the constitution resin materials of the plastic pipes? If the answer is yes, please provide details on the different mechanical fittings and procedures for the above variables.

10. For its plastic pipes, does PG&E vary the permissible bending radius of its plastic pipelines for any of the following: Manufacturer, manufacturing vintage, operating temperature and pressure, type of fill and surrounding soil type, stress on the pipe due to topography and soil movement, pipe depth, and the constitution resin materials of the plastic pipes? If the answer is yes, please provide details on the different permissible bending radius for the above characteristics.

11. What other older vintage plastic materials, besides those made of polyethylene resins, are still in operation in PG&E's gas system?