

From: Yura, Jane  
Sent: 12/20/2013 5:01:53 PM  
To: Malashenko, Elizaveta I. (elizaveta.malashenko@cpuc.ca.gov)  
(elizaveta.malashenko@cpuc.ca.gov)  
Cc: Doll, Laura (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=LRDD);  
Gibson, Bill (Codes) (/o=PG&E/ou=Corporate/cn=Recipients/cn=WLG3); Clanon,  
Paul (paul.clanon@cpuc.ca.gov); ejh@cpuc.ca.gov (ejh@cpuc.ca.gov); [Redacted]  
[Redacted]; Thierry,  
Raymond (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=RXT5)  
Bcc:  
Subject: RE: 12/16/13 PG&E Oakland Incident - Update

Liza,

Please find attached additional information on the root cause analysis of the 12/10/13  
[Redacted] distribution main incident.

The metallurgic analysis finds that external forces acting on the pipeline resulted in stresses that caused the fracture. Additionally, available information from the USGS on the rate of creep of the Hayward fault in this area supports a fair amount of displacement of the fault at this location over time. A systematic review of ignition sources was also performed--- the most probable source of ignition is a transitory ignition source such as a passing vehicle, static discharge or, dropped cigarette.

We will provide the next update in conjunction with the final report unless there are additional material issued identified.

Thanks,

Jane

**From:** Yura, Jane  
**Sent:** Monday, December 16, 2013 12:45 PM  
**To:** Malashenko, Elizaveta I. (elizaveta.malashenko@cpuc.ca.gov)  
**Cc:** 'ejh@cpuc.ca.gov'; Clanon, Paul; Doll, Laura (LRDD@pge.com); Gibson, Bill (Codes); [Redacted],

[Redacted]; Thierry, Raymond  
**Subject:** 12/16/13 PG&E Oakland Incident - Update

Liza, the attached information provides an update on the 12/10/13 gas distribution system incident in Oakland, and the ongoing root cause analysis.

The investigation thus far, with the support of Exponent Engineering, indicates that the failure of the 4-inch steel elbow resulted from a single, significant external force to the pipeline. As one of our interim safety measures, PG&E plans to conduct a special leak survey of the area surrounding the failure to monitor for any leaks as we continue to perform the root cause analysis.

We will continue to provide updates as the analysis progresses.

Jane

**From:** Yura, Jane  
**Sent:** Wednesday, December 11, 2013 5:40 PM  
**To:** Malashenko, Elizaveta I. ([elizaveta.malashenko@cpuc.ca.gov](mailto:elizaveta.malashenko@cpuc.ca.gov))  
**Cc:** 'ejh@cpuc.ca.gov'; Clanon, Paul; Doll, Laura ([LRDD@pge.com](mailto:LRDD@pge.com)); Gibson, Bill (Codes); [Redacted]  
[Redacted]; Thierry, Raymond  
**Subject:** PG&E Oakland Update

Liza, here is an update on the 12/10/13 gas incident on [Redacted] in Oakland, including information on the previous gas leak survey, as well as the CPUC reportable incident form that was submitted earlier.

Please let me know if you need additional information, and we will keep you informed on the failure analysis of the pipe.

Jane

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Jane Yura

PG&E Gas Operations

Asset & Risk Management

(415) 308-6985