

From: Dowdell, Jennifer
Sent: 7/26/2011 2:52:37 PM
To: 'Shori, Sunil' (sunil.shori@cpuc.ca.gov)
Cc: Hogenson, Todd (GT&D)
(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=TRH4); Horner, Trina
(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=TNHC); Ramaiya, Shilpa R
(/o=PG&E/ou=Corporate/cn=Recipients/cn=SRRd)
Bcc:
Subject: RE: Response to your July 12 question regarding valve shut-off times

Sunil,

Sorry this figure didn't come through in the original email.

As we mentioned in yesterday's conversation, the feedback from these individuals was just one of the pieces of data we considered in developing PG&E's valve automation strategy and implementation plan.

Following a pipeline event, there are four key elements that must occur before the fuel source is eliminated:

- Detection (where is event located),
- Decision (how and where to isolate),
- Isolation (close valves either manually or automated)
- Venting, de-pressurization

PG&E's valve automation vision is to automate key valves so they can be closed in minutes,

- Give operators the information to make isolation decision, or have local control in place to automatically trip the valves,
- Ensure valves are spaced so that in case of a full pipeline rupture, pressure in the pipe will dissipate in minutes, and
- Employ leading-edge seismic protocols

During our discussion today, we discussed pipeline blow-down times and valve spacing. The attached excel figure displays pipeline isolation blow-down time vs. valve spacing mileage for a full pipeline rupture at 500 psig.

Best regards,

Jennifer

From: Shori, Sunil [mailto:sunil.shori@cpuc.ca.gov]
Sent: Monday, July 25, 2011 5:17 PM
To: Dowdell, Jennifer
Subject: RE: Response to your July 12 question regarding valve shut-off times

Jennifer:

I noticed that the blow-down vs. valve spacing diagram may have been inadvertently left out of your e-mail. If you want to provide that tomorrow, that would be fine.

Thanks, Jennifer.

Sunil

From: Dowdell, Jennifer [mailto:JKD5@pge.com]
Sent: Monday, July 25, 2011 5:09 PM
To: Shori, Sunil
Cc: Hogenson, Todd (GT&D); Dickson, Joel; Horner, Trina; Ramaiya, Shilpa R
Subject: RE: Response to your July 12 question regarding valve shut-off times

Sunil,

Per our discussion, during PG&E's outreach with emergency responders, we strove to identify ideas, tools and resources needed to create partnerships between PG&E, emergency responders, and city/county agencies during emergency situations.

Their feedback has helped PG&E better understand how a first responder would manage an emergency pipeline situation. Fuel control and isolation is key.

Below are individuals PG&E spoke with concerning improvements to enhance public safety in regard to natural gas transmission pipeline events.

- Fremont Fire Chief Bruce Martin (Current Chair Alameda County Fire Chief Association) 510-494-4204
- Milpitas Battalion Chief Americo Silvi 408-586-2827
- Livermore-Pleasanton Deputy Fire Chief Joseph Rodondi 925-454-2301
- San Mateo Battalion Chief/Training Officer Carl Levon Kustin 650-522-7910

As we mentioned in today's conversation, the feedback from these individuals was just one of the pieces of data we considered in developing PG&E's valve automation strategy and implementation plan.

Following a pipeline event, there are four key elements that must occur before the fuel source is eliminated:

- Detection (where is event located),
- Decision (how and where to isolate),
- Isolation (close valves either manually or automated)
- Venting, de-pressurization

PG&E's valve automation vision is to automate key valves so they can be closed in minutes,

- Give operators the information to make isolation decision, or have local control in place to automatically trip the valves,
- Ensure valves are spaced so that in case of a full pipeline rupture, pressure in the pipe will dissipate in minutes, and
- Employ leading-edge seismic protocols

During our discussion today, we discussed pipeline blow-down times and valve spacing. The figure below displays pipeline isolation blow-down time vs. valve spacing mileage for a full pipeline rupture at 500 psig.

Pacific Gas and Electric Company
Blowdown Times VS. VALVE SPACING For FULL Pipeline Ruptures

Please do not hesitate to call me if you have concerns or require additional information.

Best regards,

Jennifer

415-973-2904