

From: Doll, Laura  
Sent: 4/12/2014 3:44:17 PM  
To: Shori, Sunil (sunil.shori@cpuc.ca.gov) (sunil.shori@cpuc.ca.gov)  
Cc: Singh, Sumeet  
(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=S1ST56905772)  
Bcc:  
Subject: FW: Notification about PG&E's Tapping Work Restart Procedures

Sunil

Thanks again for the discussion yesterday.

Thought you might be interested in the revised process and associated protocols we developed in response to the Carmel gas incident. The first attachment is the checklist Sumeet talked about.

We know there's more work to be done, but this provides an indication of our direction.

All the best,

Laura

**From:** Doll, Laura  
**Sent:** Monday, March 24, 2014 8:50 AM  
**To:** Tyrrell, Denise (denise.tyrrell@cpuc.ca.gov); elizaveta.malashenko@cpuc.ca.gov; 'Mike Robertson'  
**Cc:** Knapp, Kevin; Singh, Sumeet; Gibson, Bill (Codes); Gas Ops Support  
**Subject:** Notification about PG&E's Tapping Work Restart Procedures

Denise, Liza and Mike

As I mentioned last week, attached are documents that will guide the revised process we intend to use this week as we resume gas distribution tapping work on our system, *exclusive of tapping work in Carmel*. In Carmel we have committed to the Mayor and City Council that we will hold off on performing tapping work there until we are able to review with the City the results of the independent investigation being prepared by Exponent. We expect that analysis

to be complete in the next 2-3 weeks.

Since the incident occurred on March 3 we have been working on 4 key issues:

1. **Investigating the incident.** In addition to our own review, we retained Exponent as a third party independent expert to prepare a root cause analysis. We are also responding to the CPUC's own investigation.

In terms of the root cause analysis, the Exponent team is working to determine both the cause of the leak and how the gas migrated into the home. The *preliminary* results show that the potential migration path to the house could have been through the upstairs bathroom and the potential ignition source could have been a gas stove in the kitchen that is adjacent to the bathroom.

We have completed video inspection of the sewer system at the location, and found that the sewer line to the house was disconnected from the main sewer line in close proximity to the gas service line. This also could be a potential path of gas migration, but again, these are *preliminary* indications. The team is conducting additional testing using helium injection at the point of gas escape to confirm the path of migration.

2. **Reaching out to the community.** We have gone door to door to speak with residents in the surrounding neighborhood. We relocated one resident for approximately a week while a third party contractor for PG&E performed clean-up work to the home and completed property inspections for safe re-entry. We have responded to multiple inquiries from residents about potential sewer line damage from previous work and, where needed, will complete repair work. That repair work requires excavation and we are waiting for City approval to proceed. A PG&E team including Kevin Knapp, VP of Gas T&D Operations, has spoken at three City Council meetings since the incident, and we are in near-daily contact with officials of Carmel, including the Police and Fire Chiefs and Mayor. We have scheduled a community Open House this week on March 26 to respond to community concerns and discuss upcoming repair work and paving restoration plans.

3. **Implementing new safety protocols for distribution tapping work.** We have developed new safety protocols that we are employing for field operations starting tomorrow to

prevent this type of incident in the future. These protocols, in conjunction with a new work procedure, “*TD-4150P-110 - Continental Steel to PE Mechanical Bolt-On Saddle Punch Tee*,” will provide an added level of safety. These protocols and procedures guide our crews to use process safety principles to review and validate job documents, field check for signs of recent work activities, and use the new work procedure to ensure that we know what is inside the pipe before it is cut. In addition, PG&E is continuing to review Non-Destructive Examination (NDE) techniques and other tools that will further improve the safety of our work methods. We’re including four attachments with this email:

- A “5 Minute Meeting” (5MM above) is a tool we use with field personnel to introduce significant changes for further communication. This guidance is being communicated to the field organizations today to introduce new measures to be taken to identify whether or not steel pipe has been inserted. This guidance walks employees through three successive steps, each adding another level of confidence regarding possible insertions before work begins. The first step is to review associated documentation, looking specifically for indications that documents match. The second step is to look at the job site to “read the street,” checking that facilities match documentation. The final step is to perform a physical verification for plastic or to utilize existing fittings to determine if a previous insertion exists.
- The Gas Carrier Pipe Checklist is an interim step to document the actions field personnel must take before work begins. This is intended to reinforce the actions outlined in the 5 minute meeting and will become part of each work package. The information in this checklist will also be incorporated into the notes of the design drawings provided for associated field work.
- A new work procedure, “*TD-4150P-110 - Continental Steel to PE Mechanical Bolt-On Saddle Punch Tee*” provides field personnel detailed procedures about how to use a bolt-on saddle punch tee as a further validation step that steel pipe has not been previously inserted. This is a technique that can be used to fulfill the physical verification noted in the 5 Minute Meeting if other fittings are not available.

4. **Developing and implementing a field QA/QC plan** to verify that these steps are being uniformly applied by field personnel. These quality verification activities are also expected to identify further safety enhancements.

We would be very pleased to have SED staff come into the field this week or in the future to observe crews using the protocols and procedure. We will continue to keep you informed about our progress in Carmel over the next few weeks as well.

Thanks

Laura