

From: Redacted
Sent: 8/17/2013 5:13:42 PM
To: 'Malashenko, Elizaveta I.' (elizaveta.malashenko@cpuc.ca.gov)
Cc: Doll, Laura (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=LRDD);
Robertson, Michael (michael.robertson@cpuc.ca.gov); Solis, Maria
(Maria.Solis@cpuc.ca.gov)
Bcc:
Subject: RE: PSEP L-114 Pipe Replacement Project (Brentwood) - re-inspection of welds

Liza,

Thanks for your email - we are working to provide answers on this information within your timeline.

To ensure that we are responsive can you please confirm our understanding of the following terminologies within the questions.

Question	PG&E understanding
Is using a pig instead of Radiographic Testing considered an equivalent validation?"	<u>Pig</u> refers to the AUT 'crawler' inline inspection tool being used to re-inspect certain welds on Line 114.
Is a concern that inspection of welds using a pig "will not show inspectors if there are bubbles inside the welds" and that only X-ray can provide sufficient certainty of a weld's safety?	- Use of <u>pig</u> consistent with above. - <u>Bubbles</u> refers to porosity within AP1104 acceptance criteria on discontinuities.
What other contactors that PG&E uses to perform weld examination? WIX and anyone else?	<u>Weld examination</u> using radiographic testing (x-ray).

Regards

Redacted

From: Malashenko, Elizaveta I. [mailto:elizaveta.malashenko@cpuc.ca.gov]
Sent: Friday, August 16, 2013 3:40 PM
To: [Redacted]
Cc: Solis, Maria; Robertson, Michael; Doll, Laura
Subject: RE: PSEP L-114 Pipe Replacement Project (Brentwood) - re-inspection of welds

[Redacted]

Thank you for the information. I have some follow-up questions to make sure that I completely understand what's going on.

Project site L-114

- [] I understand that this project is installing four miles of a new 24-inch natural gas pipeline. Correct?
- [] When did this project begin?
- [] When did the welding process start & end?
- [] How many total welds are there on L-114?
- [] What is the current status of the project? What is the work that's being performed, other than re-validation of the welding?

Weld Inspection Procedure

- [] Is the exposure angle of 120 degrees set by the API 1104 or PG&E procedure?
- [] Is it technically correct to refer to Radiographic Testing as X-ray testing (and if not, what's the difference)?
- [] How long does it usually take for the Radiographic Testing images to become available after the

images were taken in the field?

- Is using a pig instead of Radiographic Testing considered an equivalent validation?
- Is a concern that inspection of welds using a pig “will not show inspectors if there are bubbles inside the welds” and that only X-ray can provide sufficient certainty of a weld’s safety?

Contact with TCI

- How long has TCI been under contact with PG&E to perform weld examination?
- Out of total number of welds on L-114, how many of those were validated by TCI?
- What projects, other than L-114, has TCI been used to validate welds?
- Are any of the lines that TCI was used for in weld examination currently in service?
- What other contactors that PG&E uses to perform weld examination? WIX and anyone else?
- What’s the name of the contactor that’s performing the actual welding (or is it done by PG&E employees)?

Non- Destructive Examination (NDE) inspector

- What is the relationship of the NDE Services Group of PG&E’s Applied Technology Services (ATS) Division and the Quality Improvement group in Gas Operations?
- Did the NDE inspector observe the incorrect Radiographic Testing procedure as it was being done in the field or after the fact?
- What is the PG&E QA/QC process for Radiographic Testing in the field and the subsequent images?

Corrective action for issues on L-114

- To your knowledge, when was CPUC first notified of the issue with TCI?
- How many welds that TCI validated have been re-validated to date?
- What process was used to re-validate the welds?
- Out of the re-validated welds, how many of those had issues that were identified upon re-examination?

- What steps has PG&E taken to ensure that there isn't the same quality issue with other welding validation contactors?
- What has been the impact on the project from this issue? Both in terms of schedule and cost?
- When is PG&E planning to submit the corrective action/quality review plan to the CPUC?

I have some of the answers to these questions from my staff already, but I would like to get them from you as well, just to re-validate my understanding. I would appreciate a short turn-around on these questions - in the next couple of days.

Thank you!

Liza

Elizaveta Malashenko

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California Public Utilities Commission

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From: [Redacted]

Sent: Friday, August 16, 2013 2:47 PM

To: Solis, Maria

Cc: Malashenko, Elizaveta I.

Subject: PSEP L-114 Pipe Replacement Project (Brentwood) - re-inspection of welds

Maria,

This email follows-up on questions posed at our August 5, 2013 meeting in Bishop Ranch where we reviewed weld re-inspection documentation and activities for the PSEP pipe replacement project on L-114 in Brentwood.

On March 26, 2013 at project site L-114 and as part of a routine unannounced job observation, a Non-Destructive Examination (NDE) inspector (PG&E employee) observed TC Inspection (TCI) performing Radiographic Testing (RT) in a manner not in compliance with API 1104, Section 11 (20th ed.) or their own method procedure. Specifically, the TCI two-man RT crew was producing double wall exposure/single wall viewing (DWE/SWV) radiographic images with a total of only two exposures and at exposure angles which exceeded the maximum exposure angle of 120 degrees. Please note that these inspection process failures were on new pipeline in construction, not in operation.

The PG&E NDE inspection activity noted above is part of an ongoing series of job observations of NDE vendors performing inspections across the PG&E system, and is being conducted by the NDE Services Group of PG&E's Applied Technology Services (ATS) Division as part of PG&E's Gas NDE Process Improvement Initiative, which commenced in 2012.

As a result of the observation findings, PG&E took immediate action to terminate all further TCI inspection activities on March 28, 2013. Through that date, TCI had completed the inspection of 173 welds on L-114, since the commencement of their inspections at the project site on February 18, 2013 (note: TCI inspected 9 welds on March 27, 2013 using a different TCI RT crew under the supervision of PG&E NDE inspectors. These weld inspections produced by TCI on March 27, 2013 were all completed in a code compliant manner). Weld inspection at the L-114 project site continued on March 28, 2013 with a WIX crew under PG&E NDE staff's supervision. PG&E has since removed TCI as a PG&E-approved NDE vendor.

As an immediate corrective action, PG&E has commenced re-inspection of all affected TCI-inspection at the L-114 project site and is in the process of completing analysis on this re-inspection information.

In addition, PG&E's Gas Operations has completed a detailed assessment of all RT work performed by TCI during 2012 through the termination of their services and has found additional work not in compliance with TCI's procedures or the API 1104 standard. PG&E is in the process of evaluating the radiographic images produced by TCI and developing a quality review plan for conducting redigs of some locations.

As stated above, PG&E's internal Quality Control process identified the contractor's RT non-compliance on L-114. L-114 is not in service, and the welds upon completion of re-examination will adhere to the requirements of all applicable codes and standards.

PG&E will be reaching out to SED shortly with more information on this issue as it is finalized, including our quality review plan for the additional noncompliant RT work performed by TCI that has been identified. In the meantime, please let me know if you need any further information.

Regards

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