



Bill Gibson  
Director  
Compliance  
Gas Operations

6111 Bollinger Canyon  
Road  
San Ramon, CA 94583  
Phone: 925.328.5799  
E-mail: [wlg3@pge.com](mailto:wlg3@pge.com)

July 11, 2014

Kenneth Bruno, Acting Program Manager  
Gas Safety & Reliability Branch  
Safety and Enforcement Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102-3298

Re: SED's 7/8/14 letter to PG&E's 7/7/14 Self-Report on Plastic Fusion Requalification Procedures

Dear Mr. Bruno:

Thank you for your July 8, 2014, letter in response to PG&E's self-report regarding our plastic fusion requalification process and procedures. With regard to the SED actions reflected below, PG&E provides the following responses.

1. *"It was observed by an SED investigator during the Fremont training qualification session on 7/3/14 that PG&E employees were not actually preparing the specimen fusion joint for saddle electro-fusion technique, rather they were just completing the steps leading up to the fusion consistent with PG&E's procedure. In accordance with 49 CFR §192.285 we direct PG&E to qualify / requalify all identified employees by having each individual perform the specimen fusion joint, including but not limited to the saddle fusion and make this change in PG&E's procedure consistent with 49 CFR §192.285."*

As a result of this identified action, on July 9, 2014, PG&E stopped all non-emergency heat fusion work (stand down) by employees as we reviewed your observations and evaluated our qualification procedures and practices. PG&E then convened, on the same day, a team consisting of PG&E qualification evaluators, the SED, and third-party qualification experts to deconstruct and analyze all heat fusion related procedures and practices in detail to identify any potential deficiencies and/or gaps. Based on feedback from that meeting, there were no further non-compliances identified for all of the other methods included as part of the heat fusion work.

With regard to the specific observations associated with the saddle electrofusion technique, PG&E believes that our Gas Standard D-34, and its application for qualifying and requalifying employees for electrofusion, complies with 49 CFR §192.285. Nevertheless, we acknowledge there is potential ambiguity in this regard and recognize that by adopting the SED's recommended practice along with feedback from the third-party experts, we can further clarify our procedure and enhance our practices. We appreciate the SED highlighting this continuous

improvement opportunity. Accordingly, beginning July 14, 2014, when PG&E resumes requalifications, we will fully fuse, visually test, and destructively test the electrofusion saddle, in addition to the electrofusion coupling. Moreover, those employees who were deemed to be qualified prior to the July 9, 2014, stand down will be requalified on electrofusion saddle using both the visual and destructive verification.

In addition, PG&E has retained Sunrise Engineering and representatives of the Northeast Gas Association (NGA), to lead our ongoing requalification efforts as well as provide quality control over the process. We will also be leveraging their expertise to continue to enhance our procedures and processes to meet industry best practices and thereby exceed the requirements of 49 CFR §192.285.

2. *"In addition to PG&E's stated "next steps" in your 7/7/2014 notification letter, PG&E should identify any and all employees whose performance on the requalification training was substandard and determine the number and locations of plastic fusions performed by that person in the service territory as well as PG&E's complete plan for assessing and mitigating the risk posed by the previous work being done by those employees as applicable."*

There have been approximately 450 employees who have been previously qualified or have been requalified since June 28, using both a visual and destructive verification. Of these 450 employees, there have been 33 employees who had performance that was substandard as part of the requalification process. All of the 33 instances were on a visual verification and none were associated with a destructive test after successfully passing a visual verification. This is generally consistent with industry observations made by NGA and Sunrise Engineering: employees who pass a visual inspection typically also pass a subsequent destructive test.<sup>1</sup> A list of those 33 employees is attached as "*Substandard Plastic Fusion.pdf*." This attachment includes the employee classification, yard location, and type of substandard requalification including the associated date and when the employee was last successfully qualified.

Even when an employee has successfully passed the fusion qualification process, there are added safeguards in place during field installations. Each time an employee performs a fusion in the field, that joint must first pass a visual inspection. If it passes that evaluation, it then must be pressure tested/soap tested to validate the integrity of the joint, and to ensure its fitness for service and safe operation including workmanship.

PG&E is currently researching the projects for the 33 employees with substandard performance during the requalification process, and where they may have performed work since their last successful qualification. Currently, not all employees are in positions that require them to perform heat fusions on a routine basis; therefore, PG&E will also interview each of the employees to determine if they have performed any relevant fusions since their last successful qualification. Once the list of projects has been narrowed to those projects where fusions may have been performed, PG&E's Distribution Integrity Management group will prioritize the projects for a special leak survey. This leak survey will confirm that leaks have not developed since the fusion was performed. The leak survey plan and schedule will be risk-informed and take the following factors into account: projects located in areas subject to external forces such

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<sup>1</sup> As explained in our self-report, while PG&E's prior requalification practices did not require destructive testing, they did include mandatory annual verifications via full visual inspection.

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as landslides or earthquake faults; prior fusion leaks; large projects which contain multiple fusion joints and; projects in the vicinity of areas of public assembly.

PG&E's Integrity Management group will monitor the results from the leak survey and investigate any resulting leaks determined to be at a fusion joint, which will be cut out and inspected. The results will subsequently be used to determine whether additional investigations or mitigations are warranted including pipe replacement.

PG&E will provide periodic updates on its current requalification effort and findings from its integrity management investigations.

Please contact [Redacted] at [Redacted] or [Redacted] for any additional questions you may have regarding this notification.

Sincerely,

**/S/**  
Bill Gibson  
Director, Compliance

cc: Denise Tyrrell, CPUC  
Dennis Lee, CPUC  
Liza Malashenko, CPUC  
Sunil Shori, CPUC

[Redacted], PG&E  
[Redacted], PG&E  
Shilpa Ramaiya, PG&E  
[Redacted], PG&E  
Sumeet Singh, PG&E  
Kevin Knapp, PG&E  
Sean Kolassa, PG&E