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April 22, 2016

Mr. Ken Bruno  
Gas Safety and Reliability Branch  
Safety and Enforcement Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

Re: State of California – Public Utilities Commission  
General Order 112 2015 Audit of PG&E's Operator Qualification Program

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112 audit of PG&E's Operator Qualification Program from November 2 - 10, 2015. On March 23, 2016, the SED submitted their audit report, identifying fourteen areas of concern and observations. Attached is PG&E's response to the CPUC audit report.

Please contact Gary F. Guerrero at (925) 328-5737 or gfg2@pge.com for any questions you may have regarding this response.

Sincerely,

/S/  
Michael Falk

Attachments

cc: Sikandar Kharti, CPUC  
Aimee Cauguiran, CPUC  
Dennis Lee, CPUC

Susie Richmond, PG&E  
Larry Deniston, PG&E

AOC Finding	Response	Associated Attachment
<p>1. Title 49 Code of Federal Regulations, §192.805(c) allows individuals that are not qualified to perform a covered task if directed and observed by an individual that is qualified. SED staff reported an observation made during a PG&amp;E's Division audit. An individual who was not qualified performed a task and signed the required paperwork and therefore the impression that he was OQ qualified. The review of Operator Qualification (OQ) record revealed that he was not OQ qualified and was under training. Hence, SED recommended that only qualified people should sign the paperwork with notes for the individual who works under the direction and observation of the qualified person. It was suggested that PG&amp;E should provide clear instructions in this regard in its relevant standards and procedures.</p> <p>PG&amp;E agreed with the recommendation. They produced a recent copy of Job Aid for additional leak repair form (A-form) which had instructions to employees in this regard. PG&amp;E also mentioned that gradually these instructions would be included in other documents. PG&amp;E further provided an update through email on 12/21/2015 that instructions in GAS-0134 Annual OQ Training curriculum would be included to reinforce the requirement. Please provide status update on this and any other document changes.</p>	<p>PG&amp;E has added material to GAS-0134 Annual Operator Qualification Review to ensure that Qualified persons understand that in situations pertaining to work performed under Span-of-Control, that the Qualified person is to initial or sign or otherwise indicate their participation in the performance of the task. In the attached Power Point see, for example, slide 27 in the notes section, where there is an added additional discussion point: When individual is working under span-of-control, ensure the Qualified person should be the individual signing forms; see also slide 32, where the same statement on slide 27 has been to the actual slide viewed by audience.</p>	<p>See attached GAS-0134 curriculum material</p>
<p>2. SED in previous OQ audit conducted in 2012, pointed out in violation # 2 that PG&amp;E did not identify some applicable covered tasks in its OQ plan. PG&amp;E agreed with this finding, and submitted that all tasks meeting four point criteria as outlined in Title 49 CFR, Part 192, Subpart N would be added to the OQ plan. PG&amp;E in a presentation during this audit submitted that tasks related to service meter and regulator installation and maintenance, Non-Destructive Examination (NDE) and excavation safety are in development and will be completed by 12/31/2015. Additionally, "New Construction" tasks are also under development. SED stressed that tasks related to welding, compressor station maintenance, transmission station maintenance, plastic joining, Inline Inspection (ILI) and others that meet the criteria outlined in §192.801(b) need to be included. PG&amp;E agreed with this observation. Please provide an update on all relevant tasks that have been developed and those that are in the process of development together with their completion dates.</p>	<p>PG&amp;E has added Non-Destructive Examination tasks to its covered task list. These exams were developed and administered by the PG&amp;E NDE group, adhering to or exceeding the Level II requirements set forth in ASNT SNT-TC-1A and CP-189 standards. This is best practice as identified in ASME B31-Q, specifically tasks 0601, 0611, 0621, 0631. Excavation Safety and Meter/Regulator Installation and Maintenance have not yet been completed, as the Qualifications department chose to overhaul its exam material development process in advance of building any new exams. This process was piloted in Q1 of 2016, and is now in production. The development of both Excavation Safety and Meter/Regulator Installation and Maintenance has been assigned a Task #, and questions have been developed; the exam is not yet in-service. Meter/Regulation Installation and Maintenance has been scheduled in Sprint 3 of the new exam development process, which is slated to be kicked-off the week of April 25th, 2016. PG&amp;E Qualifications felt that significant improvement could be made to the exam material development process, taking into consideration discussions held with the CPUC during the 2015 OQ Audit, prior to building exams from scratch.</p>	<p>See attached draft TD-4008S Attachment 1: Covered Task List</p>

AOC Finding	Response	Associated Attachment	
3	<p>3. SED observed that PG&amp;E evaluates knowledge and performance of employees to qualify them for covered tasks initially and for subsequent requalification. However, it is important to make sure that the candidates are "fit-for-service", meaning they have physical ability such as strength to perform heavy duty jobs if required, appropriate vision, agility and mental ability to perform the task to the required standard. These abilities naturally change with time, and are important for both initial qualification and subsequent requalification. SED recommended assessing these components to avoid danger to employees and public. PG&amp;E agreed with this observation. Please provide an update on what measures are being taken to address this.</p>	<p>PG&amp;E considers the physical ability of a person to perform a task to be identified within the definition of "Knowledge, Skills and Abilities" as provided in the federal code. PG&amp;E, through its revised exam material review and development process, will be ensuring that all tasks adequately assess all three of these categories to ensure qualified personnel are mentally and physically able to perform the task(s). This may include such components as visual acuity or physical strength depending on the task.</p>	
4	<p>4. TD-4008P-06 Section 2.2 states, "Ensure that the written portion of the evaluation (if one exists) was completed within 30 calendar days prior to administering the performance evaluation". Similarly, a NOTE in TD-4008P-04, Section 6.1. states, "If the participant fails the written test, they cannot move on to the performance evaluation." The same is stated in Sections 6.3 and 6.4.</p> <p>However, during the field visit and in office, SED was told that candidates could take written and performance tests in any order, meaning that performance test could be taken before the written test. SED recommended that as outlined in PG&amp;E procedures, written test must be given first to evaluate the required knowledge before the performance test. Please provide an update on measures taken to address this observation.</p>	<p>PG&amp;E Qualifications determined that the order in which a candidate completes components of an exam does not impact the rigor or defensibility of the exams, and thus will not be requiring the physical or written exams to be taken in a particular order.</p> <p>With regards to safety while performing physical evaluations: 1) a candidates' score on a written assessment does not predict the unsafe behavior during a physical demonstration, and 2) PG&amp;E Evaluators are charged with halting any unsafe or potentially unsafe activities during physical qualifications to prevent injury to the candidate, evaluator or third parties. Unsafe behavior results in an immediate halt of the test, and is recorded as an unsuccessful attempt.</p>	
5	<p>5. SED staff visited OQ qualification sessions conducted at Stockton Division yard. It was observed that for tapping, two candidates were being qualified at the same time for performance component. PG&amp;E explained that since it is a heavy job, and usually in practice also two people work together to perform the tapping, hence it allows the same for OQ qualification purpose. It was also explained that evaluator will ask questions from each candidate alternatively and confirm with the other candidate that whether the question was answered correctly. SED staff pointed out that span-of-control ratio required for this task is 1:1; hence, only one candidate should be tested at a time. If another person is needed for assistance, he/she must already be qualified for that task. Hence, the person taking the test can answer all the questions. It is also important that although, helper can be a non-qualified person, but having a person qualified in the same task will be more appropriate to provide better assistance. PG&amp;E agreed with this observation and responded that this will be addressed. Please also look into all other tasks with similar situation, and provide an update on the action(s) taken to address this issue.</p>	<p>Span-of-control, which is the practice of qualified personnel directing and observing unqualified personnel performing a covered task has no correlation to the practice of testing two employees at one time. Furthermore, PG&amp;E feels that the test questions, evaluator scripts, and testing practices have ensured that both candidates receive a rigorous evaluation. PG&amp;E has agreed to review this recommendation, and plans to do so when the exam materials for Tapping and Plugging OQs are reviewed. With regards to the change recommended by the CPUC, it is not always practical to provide a qualified employee to assist the candidate that is testing. There are no other tasks delivered in a multi-person format.</p>	

AOC Finding	Response	Associated Attachment
6	<p>6. Title 49 Code of Federal Regulation, §192.805(c) states that:</p> <p>“Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified”</p> <p>PG&amp;E procedure TD 4008P-03, Section 1.1. states, “Unqualified personnel may perform a covered task under the direct observation of qualified personnel ...”</p> <p>SED recommended that the language should be changed to “if directed and observed” as in §192.805(c). A similar change is required in all PG&amp;E documents where it is meant to be that. Please provide an update.</p>	<p>This recommendation will be taken into account during PG&amp;E's revision of TD-4008S and its attachments, which has not yet been completed. TD-4008S and its attachments and procedures are currently under review, with the intention of revising and publishing an update in Q3 of 2016; this date may be affected by other tasks prioritized by risk.</p>
7	<p>7. PG&amp;E has developed procedures TD-4008P-04 and TD-4008P-05 to provide guidelines on conducting written and oral examinations respectively. PG&amp;E as explained and demonstrated that a “digital” examination is being conducted for written portion of the examination for some of the tasks starting September 2015, and it is gradually implementing it for all covered tasks. SED recommended that PG&amp;E should prepare guidelines for the digital examination. Please provide an update.</p>	<p>This recommendation has been accepted, and a rough draft of this process has been created, with the intention of including relevant components into the next revision of TD-4008S and its attachments.</p>
8	<p>8. The attachment 1 of PG&amp;E standard TD-4008S has a column that is labeled as “I/S Eval Methods” which provides information that whether a covered task examination includes knowledge or performance or both evaluations. PG&amp;E explained that in order to avoid confusion, the word “knowledge” would be replaced with “written” in this column. In addition, PG&amp;E has made other changes to some tasks in terms of whether these will have written, performance or both evaluations; for example, covered task 03-09 now has “written” examination only compared to earlier version that states knowledge/performance evaluation. Therefore, attachment 1 needs to be updated. PG&amp;E provided a draft document that was termed as “living document” for any changes that are made, however, agreed to update the Attachment 1.</p> <p>SED also pointed out that for the covered tasks designated having “performance” only evaluation; it appears that this examination is hands-on only. However, some of the examination material reviewed indicated that these examinations include “scripts” (oral examination). Therefore, PG&amp;E should make it clear in its standards and procedures the presence of knowledge component in “performance” only examinations.</p> <p>Please provide an update on revision of Attachment 1, and status of including language for oral examination in performance part of OQ examination.</p>	<p>PG&amp;E recognizes this recommendation, and will be clarifying the language to indicate the format of the evaluation. “Knowledge” is not the most appropriate word, as knowledge can be assessed through either a written examination (delivered via paper or digitally), or during a scripted performance exam. Instead, PG&amp;E will be using terms including, but not limited to “Written” and “Performance” in the next revision of TD-4008S and its attachments to denote the testing format.</p>

AOC Finding	Response	Associated Attachment
<p>9. The attachment 1 of PG&amp;E standard TD-4008S presents list of covered tasks and the examinations whether knowledge, performance (the word 'knowledge' to be changed to 'written' as PG&amp;E stated) or both are required to qualify for a covered task. However, it does not provide information that what training and method of providing requisite knowledge is used to prepare the employees for qualification. For example, On-Job-Training, formal class instructions, Subject Matter Experts (SME) or others. SED recommended adding this information. Please provide an update.</p>	<p>PG&amp;E is currently identifying the appropriate channels for training for each covered task in PG&amp;E's program. Many, but not all tasks are supported by PG&amp;E Academy training materials and/or apprenticeships and/or JPMs; not all tasks have been identified as requiring formal training, and may instead utilize on-the-job-training. The Qualifications group is currently working on the development of Study Guides, and OJT Guides to supplement existing training materials for each task. The training requirements, once identified, will be communicated to affected personnel through a media not yet determined, but most likely in TD-4008S Attachment 1: Covered Task List or in the individual Study Guides. For example, see the attached <u>draft</u> Study Guides and OJT Guides which are subject to further revision.</p>	<p>See attached <u>draft</u> Study Guides and OJT Guides</p>
<p>10. SED during its audit in 2012, via NOV #5 expressed concern that PG&amp;E standards and procedures do not address communicating changes to the contractor personnel. During this audit, PG&amp;E submitted that section 7.2. of its standard TD-4008S covers it which states, "...THEN the changes are communicated to affected personnel and supervisors before the changes become effective." The definition of personnel in the same standard is "Individuals who perform covered tasks". SED recommended that to make it clearer, the definition should say PG&amp;E employees, contractor staff and others who perform the covered tasks.</p>	<p>The definition of "personnel", which PG&amp;E considers to be all qualified persons, whether they be employees or contractors, will be clarified in the next revision of TD-4008S.</p>	
<p>11. SED inquired about the credentials of evaluators who qualify the employees for covered tasks. PG&amp;E provided a document GA-0137 "PG&amp;E OQ Evaluator Training". This document covers instructions/procedure for evaluator to follow during the qualification of employees. However, it does not outline the requirements for being an evaluator for a given covered task. Although Title 49 Code of Federal Regulations, Part 192, Subpart N does not require evaluators to be OQ qualified, however they must possess knowledge, experience and/or other qualifications/training to act as an evaluator for a covered task. Please confirm that PG&amp;E has established requirements and a process to assess the required knowledge, training and experience to designate evaluators for each covered task. Please confirm that this information is available in relevant PG&amp;E documents.</p> <p>Please also provide the PG&amp;E requirements for designating evaluators for the covered tasks 02-03 and 06-01.</p>	<p>PG&amp;E recruits Evaluators from within the Gas Line of Business and externally based on the experience and training that they have received. Evaluators are then run through a training session by the Qualifications Supervisors to ensure that the candidates possess the requisite knowledge, experience and communication skills necessary to perform evaluations at PG&amp;E. This program was reviewed and updated in March 2016. Contractor evaluators, when used, are sourced based on their work experience and training, and are required to demonstrate proficiency in evaluating a given task to the PG&amp;E Qualifications staff prior to participating in the production environment.</p>	

AOC Finding		Response	Associated Attachment
12	12. SED inquired about the continuous education of evaluators to apprise them of updates in methods/tools and others relevant to their covered tasks. PG&E informed that evaluators do attend workshops and engage in other activities. Please provide a list of activities followed, and add the same information in relevant PG&E OQ documents.	PG&E Evaluators are generally involved in changes to Standards and Procedures pertaining to covered tasks and pipe joining processes, ensuring alignment with internal changes. Additionally, PG&E periodically sends its evaluators to external training and workshop opportunities such as those hosted by vendors, industry groups, and committees to ensure awareness of, and potentially alignment with, industry at large and best practices.	
13	13. SED inquired about the minutes of OQ committee meetings. PG&E provided roster and overview of some meetings. However, detailed minutes of meetings were not available. SED recommends to record detailed minutes of future meetings.	PG&E Qualifications has committed to taking minutes at its Committee meetings. One has not been held since this recommendation has been made.	
14	14. SED observed that the titles of some of covered tasks such as 02-07 'Pipe Replacement' are too broad and do not provide enough information about the contents covered under the task. SED recommended that titles should be more explicit reflecting the scope of the area(s) covered. Please provide an update on steps taken to address this.	PG&E recognizes this recommendation, and will be reviewing all current tasks using the newly developed exam materials development process to ensure that the title a) matches the scope of the task, and b) is as clear as possible as to the intent of the task. For example, PG&E has recently revised its Coating tasks, and has chosen titles that the Qualifications group feel are simple, self-explanatory and appropriate for how work is conducted at PG&E.	