

James T. Cheung
Safety and Enforcement Division
California Public Utilities Commission

Mr. Cheung:

We are in receipt of your April 29, 2014, incident report regarding the safe operation of the tram at PG&E's Spaulding Powerhouse. We take the safety concerns discussed in your report very seriously and have taken a number of actions following the November 15, 2013 incident to address these issues. These actions are discussed below in response to the specific concerns raised in your report. Many of the issues you raise are with OSHA's jurisdiction and have been reviewed and addressed by OSHA. Where OSHA has identified a violation, we have addressed and mitigated the issue. You have raised several concerns that are within OSHA's scope of review where OSHA has not identified a violation. On this basis, PG&E disagrees with your characterization of many of these issues being a "safety violation". The Commission's jurisdiction over hydroelectric facilities is defined in General Order 167 and, as set forth in Section 3.5, hydroelectric facilities licensed by the Federal Energy Regulatory Commission are exempt from Sections 7.0, 8.0, 9.0, 10.3, 10.4 and 15.1 of G.O. 167. G.O. 167 Section 12.1 defines a "violation" as "a failure of a Generating Asset Owner to comply with a requirement of this General Order. Your incident report refers to "violations" in a general sense but does not identify any violations of applicable provisions of G.O. 167 or other Commission rules or regulations.

In the spirit of full cooperation, PG&E responds to each of the issues raised in your incident report. We believe we have addressed all of the concerns raised in your letter or have plans in place to address them. Please let us know if you have any follow-up questions.

1. At the time of the accident the tram was "overloaded" with personnel and equipment. This overloaded situation could reoccur since the Tram Operating Procedure does not specifically give authority to anyone to enforce load restrictions or proper behavior on the tram.

PG&E Response (1):

OSHA did not cite PG&E with exceeding the weight limit on the Tram, furthermore the crane mechanism attached to the Tram has been load tested to handle up to 10,000 pounds, which is well above the internal PG&E procedure limits. In light of this incident we have revised our training tailboards and procedure to provide further clarity to personnel as described in the corrective actions below.

Corrective Actions Implemented to date:

PG&E Utility procedure PG-3514P-01 Rev1, dated 2/25/2014 Section 1.22 has been revised to establish the internal requirement for the tram operator to conduct a tailboard for all passengers who are not documented as a qualified tramway operator. Additionally, the tailboard, which is part of the Utility Procedure, clearly details the operator responsibilities as well as provides detailed load requirements and additional guidance regarding passenger loading and behavior. Adherence to this procedure goes above and beyond current regulatory requirements and will reduce the risk of a reoccurrence of this type of incident. [See attached procedure, PG-3514P-01]



PG-3514P-01
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2. The injured employee was allowed to sit in an unsafe manner and at a location that was not a designated passenger seat (abated).

PG&E Response (2):

OSHA did not cite PG&E with unsafe passenger seating on the Tram. To further mitigate unsafe usage of the Tram we have revised our training tailboards and procedure as described in the corrective actions below.

Corrective Actions Implemented to date:

It is PG&E's goal to keep our employees safe at all times. The recent revisions to the PG&E procedures and tailboards include specific details regarding internal operating requirements for load limits and passenger loading behaviors. Current procedure, PG-3514P-01 was revised on 2/25/14. PG&E believes adherence to this procedure will reduce the risk of a reoccurrence of this type of incident. [Refer to current procedure attached in #1]

3. Safety signage on the tram was not present (abated). This has been abated but still lacks OSHA compliance.

PG&E Response (3):

OSHA did not cite PG&E with improper or inadequate safety signage on the tram.

Corrective Actions Implemented to date:

The signage has been updated since the site visit and now meets all safety signage requirements, including ANSI and Cal OSHA. [See attached photo, Spaulding Tram Safety Signage]



Spaulding_Train_Safety_Signage.jpg

4. There was no guard rail on the tram car to protect workers from fall hazards. There was an attempt to abate this, but the guard rail is still not Cal-OSHA compliant.

PG&E Response (4):

PG&E has implemented guard rails in compliance with the OSHA standard and has received written approval for the confirming abatement as of 04/29/14.

Corrective Actions Implemented to date:

Handrail modifications were installed on the Tram in compliance with OSHA Standard T8-3210(b) as of 4/29/2014, OSHA has confirmed abatement. [See attached signed OSHA Letter]



OSHA Signed Statement of Abatement

5. The upper tram loading platforms are missing guard rails.

PG&E Response (5):

OSHA did not cite PG&E with unsafe loading platforms around the Tram. The Tram loading platform is 3 feet above ground and is not subject to any regulatory ruling related to fall protection. We will evaluate additional modifications beyond the requirements for feasibility and applicability in accordance with safety best practices.

6. Safety orientation lacks emphasis on rider safety and behavior.

PG&E Response (6):

OSHA did not cite PG&E regarding rider safety and behaviors while riding the Tram. To further mitigate unsafe usage of the Tram we have revised our training tailboards and procedure as described in the corrective actions below.

Corrective Actions Implemented to date:

PG&E Utility procedure PG-3514P-01 Rev1, dated 2/25/2014 section 1.22 has been revised to establish the internal requirement for the tram operator to conduct a tailboard for all passengers who are not documented as a qualified tramway operator. Current procedure, PG-3514P-01 was published on 2/25/14. [Refer to current procedure attached in #1]

7. Tram operators are not required to document daily equipment inspections. This written component should be part of the tram operating procedures.

PG&E Response (7):

OSHA did not cite PG&E regarding the routine equipment inspections. Annual equipment inspections occur and are documented as required per the transportation authority. Current procedure, PG-3514P-01 published on 2/25/14 section 2 "Daily Inspection and Functional Test" requires the operator of the Tram to perform a complete trial run and visual inspection for all functional mechanisms before use each day. Operators are not required to maintain documented evidence of the Daily Inspection; documenting and retaining such inspections would be unduly burdensome. [Refer to current procedure attached in #1]

8. Management was ignoring and tolerating employee behavior leading to complacency and the acceptance of unsafe working conditions.

PG&E Response (8):

PG&E strongly disagrees with this statement. Power Generation has a long standing process that provides a mechanism for reporting and resolving issues. Power Generation's incident reporting procedure formally in place since 1/31/2001 with the current version in place since 4/18/13.

9. The Employee's training records showed that required annual recertification training such as CPR or the use of AED's (among others) are not being performed.

PG&E Response (9):

PG&E disagrees with this statement; the injured employee was current in his CPR/First Aid training. PG&E utilizes an approved combined First Aid/CPR and AED course which provides a two year certification.

10. Tram operator proficiency is not clearly tracked.

PG&E Response (10):

OSHA has not cited PG&E with Tram operator proficiency. In response to your suggestion we have revised our training practices as described in the corrective actions below.

Corrective Actions Implemented to date:

Current procedure, PG-3514P-01 published on 2/25/14 section 9 "Training" implements training requirements for authorized tramway operators. PG&E learning services has developed course code **PGEN-T902** to document and track qualified tramway operators. [Refer to current procedure attached in #1]

11. The tram car surface continues to pose a significant slip and fall hazard. The angle of the tram car is significant and under wet or icy conditions the wooden floor can be very slick and hazardous.

PG&E Response (11):

OSHA has not cited PG&E with unsafe operating of the Tram. In response to your suggestion we have made modifications to the Tram deck as described in the corrective actions below.

Corrective Actions Implemented to date:

To further protect our employees, PG&E has implemented a non-skid surface coating to the tram deck as of 05/01/2014. Horizontal battens were added to provide an additional stepping surface to assist passengers in getting to their seat.

[See attached photo, Spaulding Tram non-skid surface]



Spaulding_Tram
non-skid surface.jpg

12. Employees are expected to perform routine snow removal tasks exposing them to heights of 14 feet without proper fall protection.

PG&E Response (12):

PG&E disagrees with this statement; snow conditions were not present at time of the incident or at the time of the inspections. Fall protection training is required for all Tram operators performing snow removal on the Tram. Additionally the current procedure, PG-3514P-01 published on 2/25/14 section 6 "Tram Operation When Removing Snow from Tracks" was updated to specifically include additional instruction for personnel performing snow removal and reiterates the fall protection requirement.

13. Annual fire drills have not been performed for the facilities in violation of NFPA Standards.

PG&E Response (13):

PG&E disagrees with this statement; there is no requirement to perform annual fire drills at this location. This is based on the fact that this location is not a staffed facility and is not a high-rise building.

14. There are no "Tram" specific emergency rescue procedures.

PG&E Response (14):

PG&E disagrees with this statement, Spaulding Tram procedure instructs any problems or operational failures to be immediately reported to the Drum Switching Center. PG&E has met with Cal Fire to review emergency response preparedness plans for the Spaulding Tram and Power house and will look to industry best practices for opportunities to improve our current plans.

15. Contingencies are not in place; such as emergency extrication, evacuation or sheltering in place for seismic or fire emergencies where the tram, stairs or trail become unavailable due to instability or inaccessibility.

PG&E Response (15):

PG&E disagrees with this statement, Spaulding Tram procedure instructs any problems or operational failures to be immediately reported to the Drum Switching Center. PG&E has met with Cal Fire to review emergency response preparedness plans for the Spaulding Tram and Power house and will look to industry best practices for opportunities to improve our current plans.

16. The Tram does not meet industry standards for safety. For example:

- a. The tram car does not have any emergency braking system
- b. There is no runaway arrest mechanism for the unlikely event of cable separation
- c. There is no safe emergency egress from the tram car
- d. The tram car has no auxiliary power unit or winch to convey passengers to safety in the case of controller failure, power loss or primary motor failure

PG&E Response (16):

PG&E disagrees with this statement; the existing ANSI Standard B77.1 does not apply to the Spaulding Tram. There are currently no regulatory standards that mandate the items referenced in #16. We are taking every precaution to protect our employees and have restricted use of the Tram until every planned corrective action is completed.