

CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division

Electric Safety and Reliability Branch

Report Date: August 19, 2020

Investigator: Matthew Yunge

Incident Number: E20191027-02

Regulated Entity Involved: PG&E.

Date and Time of the Incident: October 27, 2019 @13:30

Location of Incident: (37.8997379397, -122.0907714542), Along Camino Diablo Road, Lafayette

Summary of Incident: A fire occurred along Camino Diablo Road and damaging a nearby sports club. The Incident involved a broken pole, wires down and a failed transformer. Based on information from Contra Costa County Fire Protection District (CCCFPD), it is likely that the transformer failed, resulting in the fire and the downed wires/pole.

Fatality/Injury: None

Property Damage: Unspecified. PG&E has received three property damage claims, four wage loss claims, and two wage loss plus property damage claims.

Regulated Entity Facilities Involved: Transformer and associated pole.

Witnesses/Person(s) Involved: N/A

Evidence:

	Source	Description
1	PG&E	PG&E 20-Day Report and associated attachments
2	CCCYPD	Contra Costa Fire Protection District Report
3	CPUC	CPUC Site Visit Photographs
4	PG&E	PG&E Response to SED Data Request #1
5	AT&T	AT&T Response to SED Data Request #1
6	Comcast	Comcast Response to SED Data Request #1
7	Comcast	Comcast Response to SED Data Request #2

Observations and Preliminary Findings:

On October 27, 2020 at 13:30 hours, the transformer on Pole 1 (37.8997379397, -122.0907714542) experienced a fault. That fault caused circuit breaker CB 1104/2 to open. CCCYPD notified PG&E of a fire near Camino Diablo Road and Camino Court. Between 20:00 hours and 21:00 hours the responding troubleman performed switching to make the area safe. Wind speeds recorded by nearby weather stations at the time of the incident were approximately 5-15 mph, with gusts of up to 25 mph.

PG&E as part of the repair work from the fire replaced two wood poles, Pole 1 and Pole 2 along Camino Diablo Road. Pole 2 is the pole east of, and adjacent to, Pole 1. PG&E also replaced the two transformers on Poles 1 and 2, as well as the associated hardware from Poles 1 and 2.

Site Visits

On October 29, 2019 SED staff visited the incident site. PG&E had already replaced the incident poles and electric hardware at that time, although the communications facilities still needed to be replaced.¹

On June 23, 2020 SED staff viewed the evidence collected by PG&E at its service yard in Concord. During the evidence viewing SED noted that the segment of Pole 1 that had failed appeared to have a hollow cavity. However, it is unclear if that cavity shown in Figure 1 and Figure 2 was created by the pole's structural failure and burning, or if it was

¹ See SED Site Visit Observation Form, October 30, 2019.

present prior to the incident and was not detected during PG&E's inspections.²



Figure 1: Segment of Pole 1. This appears to be the point of failure.

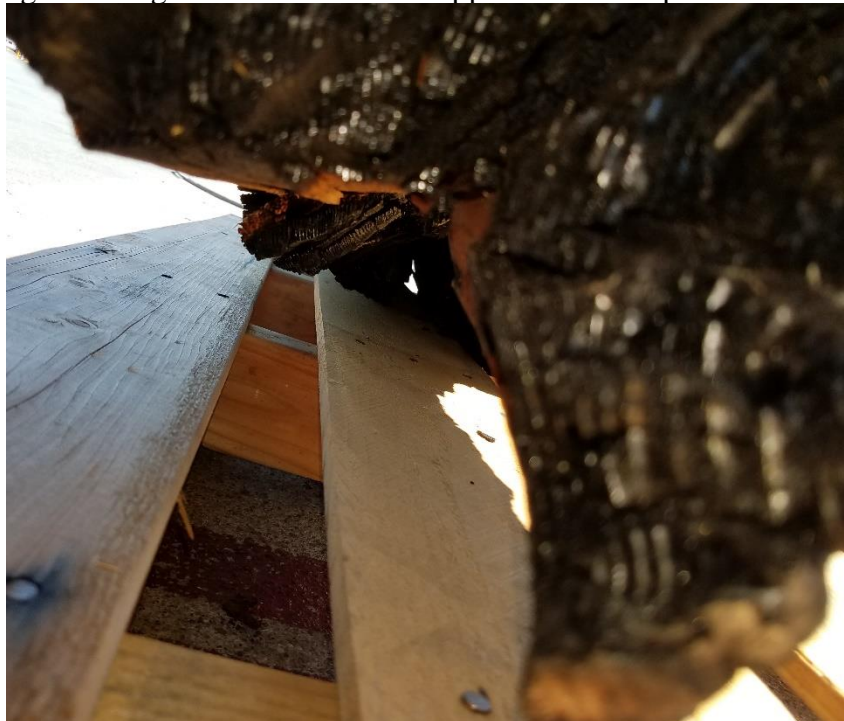


Figure 2: Interior view of failure point of Pole 1.

² See SED Evidence Viewing Report, June 23, 2020.

Camino Diablo Road, with the top of the pole landing close to the opposite side of the road. Pole 1 was located on the outside of a curve in Camino Diablo Road and the span heading eastward crossed Camino Diablo Road to Pole 2.

Records Review

Previous inspections and patrols of the Incident Poles showed no indication of issues with the Poles 1 and 2 or their respective equipment. PG&E inspected Pole 1 in September 2015 and August 2005. Both inspections were treat and test inspections. In the 2015 inspection, no issues were found with Pole 1 and the top of Pole 1 was deemed to be in “Fair” condition. Additionally, the Figures 3 and 4 above show that the pole’s external condition is in alignment with the latest test and treat inspection.



Figure 3: Google maps of Pole 1 dated April 2019

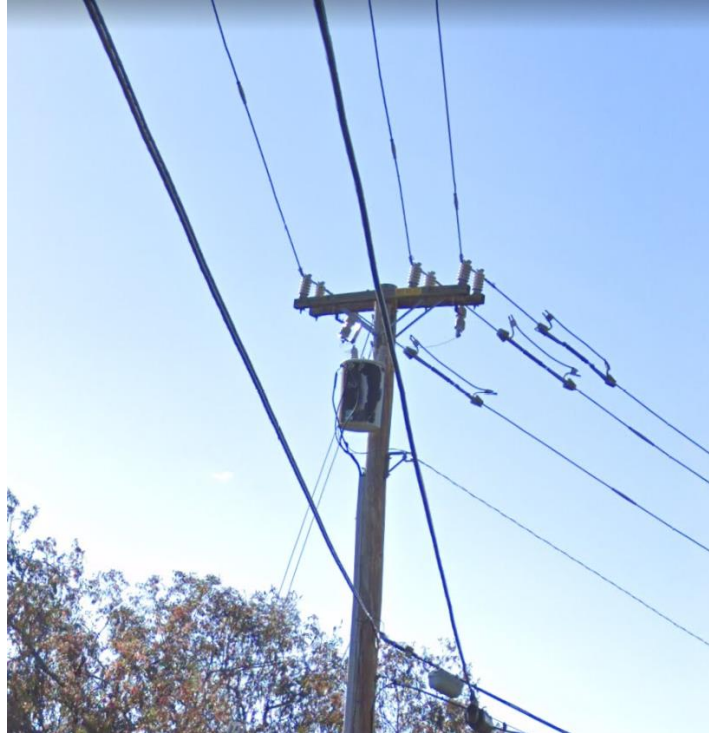


Figure 4: Google maps of Pole 1 dated April 2019

Pole load calculations performed in 2017 indicated that the addition of Comcast's facilities would bring the safety factor of Pole 1 to 3.38. No additional equipment has been added to the incident pole since Comcast attached its facilities to Pole 1. Per GO 95, Rule 44, Another load calculation later performed by MCI-Verizon (who subsequently cancelled its application to attach to Pole 1 and did not have equipment on Pole 1) determined that the pole factor of safety was 4.43, although it appears that MCI-Verizon used a significantly lighter weight for the PG&E transformer in its calculations.

Destructive Testing

On October 15, 2020 Exponent conducted disassembly and destructive testing of the incident transformer. The testing was not completed on October 15 and it is ESRB's understanding that the testing will be completed at a later date.

Failure Modes

It is likely that the failure of Pole 1 was caused by a failure of the transformer, which caused the fire at the incident location. In this case the fire may have reduced the integrity of the pole and guys to the point that the pole failed. This is based on the information

available from CCCFPD.³

Requirements: General Order 95, Rule 44.1

Conclusion: SED investigation did not reveal any violations of GO 95 by PG&E. If SED becomes aware of additional information from PG&E's destructive testing of evidence that could modify SED's findings in this Incident Investigation Report, SED may re-open the investigation and may modify this report or take further actions as appropriate.

³ See PG&E 20-day report, Attachment 8, CCCFPD Media Advisory.