

CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division
Electric Safety and Reliability Branch

Incident Investigation Report

Report Date: 3/24/2020

Incident Number: E20191027-01

Utility: Pacific Gas and Electric Company (PG&E)

Date and Time of the Incident: 10/27/2019, 1330 hours

Location of the Incident: Pleasant Hill and Condit Road
(2 spans south of 1003 Pleasant Hill Road)
Lafayette, CA
County: Contra Costa County

Summary of Incident:

At approximately 1330 hours on October 27, 2019, PG&E responded to a possible electrical fire near the intersection of Pleasant Hill Road and Condit Road in Lafayette, Contra Costa County. At the location, PG&E observed broken lash wire on a communication cable near PG&E's conductors. The broken wire unwound itself and contacted the conductors. ESRB determined the communication cable did not have proper clearance from the conductors. After PG&E became aware of the problem, PG&E failed to notify the communication company of the violation and safety hazard in a timely manner. ESRB found PG&E in violation of General Order 95 Rule 18.A(2).

Fatality / Injury: None reported

Property Damage: PG&E received one liability claim on property damage to retaining wall, landscape, and fence. Damage cost is estimated to be less than \$50,000.

Utility Facilities involved: Rossmoor 1104, 12 kV Circuit

Witnesses and Investigators:

	<i>Name</i>	<i>Title</i>
1	Rickey Tse	CPUC Investigator
2	Matthew Yunge	CPUC Investigator
3	Jena Tepe	PG&E Incident-Event Lead
4	Shane Granberg	PG&E Incident-Event Lead

Evidence:

	<i>Source</i>	<i>Description</i>
1	PG&E	Initial Utility Report
2	PG&E	Final Utility Report
3	CPUC	Data Request #1
4	PG&E	Data Request #1 Response – DR1912202
5	CPUC	Data Request #2
6	PG&E	Data Request #2 Response – DR2002051
7	CCCFPD	Supplemental Report
8	PG&E	Photographs

Observations and Findings:

On October 27, 2019, at approximately 1330 hours, PG&E received a call from the Contra Costa County Fire Protection District (Fire Department) requesting PG&E’s assistance on a possible electrical fire near the intersection of Pleasant Hill Road and Condit Road in Lafayette, Contra Costa County (Pleasant Fire-South). At approximately 1645 hours, a PG&E troubleman arrived on scene. At the time, the Fire Department had blocked off access to Pleasant Hill Road. PG&E observed the fire crew had just extinguished the fire and was rolling up fire hoses.

At the location near where the fire started, PG&E observed broken lash wire on a communication cable. The wire was broken and in pieces. The troubleman removed several small pieces of the wire that had melted onto the secondary conductor throughout the span (see Figures 1, 2, and 3). He then trimmed and removed excess lash wire to prevent further contact and used zip-tie to re-lash the cable.¹

¹ During my field visit on October 29, 2019, I observed zip ties installed on several sections of the communication cable.



Figure 1. Incident location where the communication lash wire broke loose and contacted PG&E's Rossmoor 1104 12 kV secondary conductors.



Figure 2. Photo showing broken/loose lash wire on communication cable.



Figure 3. Photo showing pieces of lash wire strand fused to the secondary conductors where they made contact.

The lash wire evidently contacted PG&E's Rossmoor 1104 12 kV secondary conductors at multiple places along the conductor span. However, PG&E stated that no protective device operated on the circuit and no customers lost service from the incident, i.e. there was no outage.² Because no protective device operated and lash wires are typically of small diameters (0.038" to 0.045" diameter), I inferred that the contact was short-lived, i.e. the wire burned and shorted itself before the fault current was able to travel a conducive path to ground, which would have resulted in a ground fault and opened fuse.

On November 7, 2019, the Fire Department released a statement saying it had eliminated all competent ignition sources for the Pleasant Fire-South. Instead, it concluded the fire to be a spot fire driven by wind and traveled from the Pleasant Fire-North at the Lafayette Tennis Club, which was approximately one mile to northeast and occurred at around the same time.

However, PG&E's records indicate its facilities were involved and could have been the ignition source.³ PG&E's report from its Outage Information System (OIS) states that the communication cable was "*pulled in too high and is at same height as secondary rack open wire. Lashing on phone line came loose and with wind pushed into secondary causing arc and grass fire under span*". This statement is consistent with the physical evidence that PG&E troubleman observed onsite, e.g. broken/loose lash wire and wire strands fused onto the conductors. In response to a data request, PG&E estimated there was less than approximately 1 ½ feet of horizontal clearance (and no vertical clearance) between its secondary conductors and the communication cable where the two made contact.⁴ The 12 kV energized conductors were essentially at the same height as the communication cable. Further, the vertical distance between their attachment points on the southern pole is only approximately **4 feet** (the southern pole is the pole nearest to the location where the lash wire contacted the conductors and is identified by Pole #110458878).

Per General Order 95, Rule 38, Table 2: Basic Minimum Allowable Clearance of Wires from Other Wires at Crossings, in Midspans and at Supports, Case No. 8 (Communication Conductors and Service Drops), Column F (7,500 - 20,000 Volts), the vertical clearance required between the 12 kV conductors and the communication cable is 72 inches or 6 feet.⁵

² 20-Day Report and DR1912202 Response (Questions No. 2 and 5)

³ PG&E OIS Dispatch Report 4170595 (Attachment 5 of 20-day Report)

⁴ PG&E Data Request #1 Response – DR1912202 (Question No. 3)

⁵ Page III-29 of General Order 95 - May 2018 Version



Figure 4. Photo showing the secondary conductors and communication cable are at the same height where the two made contact.

Irrespective of whether PG&E’s facilities caused the fire, ESRB’s investigation focused on whether the incident was a result of failures to comply with Commission General Orders. ESRB determined the communication cable belongs to Verizon and was installed sometime between June 26, 2019 (date of PG&E’s Approval-To-Attach) and October 27, 2019 (date of the incident).⁶ PG&E’s most recent patrol inspection on the line occurred on April 15, 2019 (approximately two month prior to when the cable should have been installed). Google Street View images captured in April and June 2019 also confirmed the cable had not yet been installed during those times (see Figures 5 and 6). Therefore, PG&E would not had been able to detect the clearance violation in its April 15, 2019 inspection because the cable was not installed at the time.

⁶ During my field visit on October 29, 2019, I observed the communication crossarms on Pole #110458878 (southern pole) were newly installed.



Figure 5. Google Street View image captured in **April 2019** confirmed the communication cable had not yet been installed at the time.
Source: Google Maps



Figure 6. Google Street View image captured in **June 2019** confirmed the communication cable had not yet been installed at the time.
Source: Google Maps

ESRB reviewed PG&E's patrol records for 2018 and 2019. The records showed that PG&E had inspected the incident circuit and poles on March 20, 2018, and again, on April 15, 2019 (its most recent inspection). However, PG&E did not find any non-conformances at the incident location during those patrol inspections.

ESRB also reviewed records for detailed inspections conducted in 2010 and 2015. While those inspections had identified defects that resulted in work order tags, PG&E, again, did not

find any non-conformances at the incident location.

After the incident when PG&E became aware of the clearance violation, PG&E failed to provide third-party notification to the communication company in a timely manner. The incident occurred on October 27, 2019. But PG&E did not notify Verizon until January 24, 2020, nearly three months after the incident occurred.

Per General Order 95, Rule 18.A(2), “where a communications company’s or an electric utility’s (Company A’s) actions result in potential violations of GO 95 for another entity (Company B), that entity’s (Company B’s) remedial action will be to transmit a single documented notice of identified potential violations to the communications company or electric utility (Company A) within a reasonable amount of time not to exceed 180 days after the entity discovers the potential violations of GO 95. **If the potential violation constitutes a Safety Hazard, such notice shall be transmitted within ten (10) business days after the entity discovers the Safety Hazard.**” [Emphasis Added]

Therefore, my investigation found PG&E in violation of General Order 95, Rule 18.A(2) for failing to provide a third-party notification to Verizon on the safety hazard within the required 10 business days.

Preliminary Statement of Pertinent General Order, Public Utilities Code Requirements, and/or Federal Requirements:

	<i>Requirement</i>	<i>Rule</i>	<i>Violation</i>
1	GO 95	18.A(2)	Yes

Conclusion:

My investigation determined that PG&E is in violation of General Order 95 Rule 18.A(2) because PG&E failed to provide a third-party notification to Verizon on the safety hazard within the required 10 business days.