



## Preliminary Ignition Investigation Report

|   |   |
|---|---|
| Ignition Database Index:  | 20241201  |
| Electric Incident Investigation (EII) Number:   | N/A   |
| HAWC Incident Name:   | Far – 23 August 2024  |
| PG&E Facility Ignition?   | Yes   |
| CPUC Reportable Ignition?   | Yes   |
| Date & Time of Incident:  | August 23, 2024, at 0353 hours  |
| Street Address:   | [REDACTED]  |
| City:   | Lincoln   |
| County:   | Placer  |
| Latitude/Longitude:   | [REDACTED]  |
| State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA) | State Responsibility Area   |
| PG&E Division:  | Sierra  |
| High Fire Threat District (HFTD):   | Tier 2  |
| High Fire Risk Area (HFRA):   | Yes   |
| EPSS Buffer:  | No  |
| Fire Index Area (FIA):  | 300   |
| Fire Potential Index (FPI) Rating: FIA  | R3  |
| Fire Potential Index (FPI) Rating: Circuit  | R3  |
| Was there a PSPS event at the time of ignition?   | No  |
| Suspected Initiating Event:   | Utility work operation  |
| Failure Driver:   | Contact from object   |
| Failure Sub-driver:   | Re-energized into fault after patrol  |
| Circuit:  | LINCOLN 1104  |
| Circuit Protection Zone:  | LR997576  |
| Nominal Voltage:  | 12kV  |
| Pole SAP Equipment ID:  | 104192102   |
| Subject to PRC 4292 Veg Pole Clearance:   | No  |
| PG&E Equipment associated with ignition:  | None  |
| EPSS enabled at time of ignition?   | Yes   |
| Fault Type:   | Line to Line  |
| Wire Down (Primary)?  | No  |
| Lead Agency/Agency Having Jurisdiction:   | CAL FIRE  |
| Fire Size:  | 12.6 acres  |
| FAS Field Remarks:  | Mylar balloons contact with primary caused veg fire 1/p/w/o CGC 221966949823. no damage to PG&E facilities. |

|   |   |
|---|---|
| <b>HAWC Summary:</b>  | Resources responded to a vegetation fire at 9711 McCourtney Road in a Tier 2 area. The fire was last reported as having a wet line around it and was holding at approximately 12.6 acres. Resources will be committed to an extensive mop-up. There was a single customer outage on the EPSS-enabled Lincoln 1104. OIS # 2548830. Per the FAS report, mylar balloons came in contact with the primary and caused the vegetation fire. No damage to assets per Tman. Notifications were made to HAWC Ops, PSS, DCC, and GCC. Closing incident barring any significant changes. |
| <b>Injuries / Fatalities / Property Damage / Media Attention:</b> | No/No/No/No   |
| <b>Weather Conditions:</b>  | At 0610 hours near the incident location:<br>Temperature: 58.0°F<br>Relative Humidity: 75%<br>Wind Speed: 7.8 mph.<br>Wind Gust: 12.4 mph out of the south-southeast  |
| <b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>          | No high wind or red flag warning was issued.  |
| <b>911 Standby Relief Time:</b>                                   | 30  |
| <b>OIS #:</b>   | 2548830, 2548751  |
| <b>ILIS #:</b>  | 24-0102211  |
| <b>FAS #:</b>   | T006481745, T006481759  |
| <b>TOTL #:</b>  | N/A   |
| <b>Assigned Attorney:</b>   | N/A   |
| <b>Ignition Investigator &amp; Phone:</b>                         |   |

## Executive Summary

On August 23, at 0610 hours, PG&E received a call reporting a pole fire on [REDACTED]. The pole SAP Equipment ID 104192102, located in a Tier 2 High Fire Threat District (HFTD) and High Fire Risk Area (HFRA), with a Fire Index Rating of R3 on Sierra division on the ignition date, carried a 60kV transmission circuit McCall-Kingsburg #1 (60kV) along with a three-phase 12kV distribution circuit Lincoln 1104 under-build. A Distribution troubleshooter was dispatched at 0614 hours and discovered that a mylar balloon had contacted the primary conductor on the distribution circuit, causing a vegetation fire that burnt approximately 12.6 acres of annual dry grasses. The transmission circuit McCall-Kingsburg #1 were not impacted. The troubleshooter inspected the line on distribution circuit Lincoln 1104 and found no damage to the equipment or conductor. A priority B Electrical Corrective (EC) notification was submitted for a more thorough inspection. The incident did not result in any customer outages and CAL FIRE successfully extinguished the fire.

On the night before the ignition, August 22, 2024, at approximately 2338 hours, the control center received abnormal alarms from Line Recloser (LR) 997576 and LR 51756 which protect the Lincoln 1104 circuit. LR 997576 tripped in Hot Line Tags (HLT) mode, and LR 51756 indicated an abnormal state above the Minimum to Trip (MTT) threshold while configured in the EPSS ALT#3 profile mode.

Protection analysis indicates that LR 997576 tripped due to a fault with a peak current of approximately 540 amps, lasting 34.9 milliseconds. The control response time of 11 milliseconds resulted in a power outage affecting A and B phases, impacting 113 customers.

A Distribution troubleshooter was dispatched to inspect the line, but due to the nighttime darkness and the similarity in color between the rose gold balloon and the steel pole hindered the immediate identification of the cause. Following standard procedures, the control center disabled the Hot Line Tag (HLT) mode on LR 997576 and ALT#3 mode on LR 51756. The line was re-energized manually by the control center at 0353 hours on August 23<sup>rd</sup>. However, a similar fault occurred shortly after on both LRs. A fault was detected at 0356 hours, and self-cleared without requiring any action. Based on EPSS data, the ignition was caused by this test-in procedure.

According to the PG&E Meteorology report, it was an unseasonably cool and mostly dry day on August 23, 2024, near the Incident Location as a low-pressure system moved into northern portions of the territory. No rain was reported at the incident time. The high temperature for the day was 73.5°F at 1410 hours and the low temperature was 57.4°F at 0640 hours. The relative humidity was as high as 79% at 0700 and as low as 37% at 1440 hours. The strongest wind speed was 19.1 miles per hour (mph) out of the south-southeast at 0220 hours.

California Assembly Bill AB-847, Electrically Conductive Balloons, was passed and signed into law by the California Governor on September 18, 2022. The law states that a person who manufactures a balloon in this state, that is constructed of electrically conductive material, to permanently mark each balloon with, among other things, a statement warning consumers about the dangerous risk of fire if the balloon comes in contact with an electrical power line. Section 22942 of the Business and Professions Code (D)(2) [here](#) specifies that one hundred percent of the person's foil balloons shall comply no later than four years from the commencement date which is September 18, 2026.

Additionally, as of May 22, 2024, PG&E continues to educate the public by providing additional safety tips on helium-filled metallic balloons [here](#) and [here](#).

### System Protection Analysis

The Lincoln 1104 circuit was enabled with the Enhanced Powerline Safety System (EPSS) on August 22, 2024. The circuit was protected by Fuse 2387, LR 997576 EPSS HLT, and LR 51756 EPSS Alt#3. On August 22, when a Mylar balloon made contact with the line, LR 997576 tripped on HLT with a fault current of 540-amp peak, lasting 34.9 milliseconds with a control response time of eleven milliseconds that impacts phases A and B. A patrol team inspected the line but could not locate any faults. On August 23, the line was re-energized at 0356 with the HLT and MMT mode disabled. However, the same fault occurred and cleared by itself. The ignition happened during a test-in procedure conducted at that time.

### Ignition Impact

The ignition event on August 23, 2024, resulted in a grass fire that measured approximately twelve and a half acres in size. There were no reported power outages, injuries, fatalities, property damages, or significant media attention associated with this event.

### Sequence of Events

August 22, 2024

- 2337 Hours: First SmartMeter Auto-Generated Outage reports.
- 2338 Hours: LR 997576 detected the line-to-line fault and opened.
- 2346 Hours: First Troubleshooter dispatched.

August 23, 2024

- 0353 Hours: Switch 997576 closed.
- 0358 Hours: LR 997576 detected a fault, and self-cleared.
- 0358 Hours: LR51756 detected a fault, and self-cleared.
- 0614 Hours: A grass fire was reported near CGC 221966949823 with no customer outage.

### Corrective Notification Associated with Ignition

A priority “B” EC tag (#129428182) was created to inspect the condition of the #6 copper conductor where the mylar balloon came into contact with the power line. The tag is currently pending completion with a due date of November 23, 2024.

### Pending Work

| Type             | Number    | Description                                 | Priority | Date Identified | Due Date   |
|------------------|-----------|---|----------|-----------------|------------|
| EC Notification  | 129428182 | Check #6 copper conductor, splice if needed | B        | 08/23/2024      | 11/23/2024 |
| COE Notification | N/A       |   |          |                 |            |
| LC Notification  | N/A       |   |          |                 |            |
| Veg Work Order   | N/A       |   |          |                 |            |

Please note this may not include pending major program or project work at the incident location.

### Asset Info & Most Recent Inspections and Tests

|                       |  |
|-----------------------|--|
| Source Side Structure |  |
|-----------------------|--|

| Info / Inspection          | Most Recent Date | Findings  |
|----------------------------|------------------|---|
| Install Date:              | 2023             | Steel 60', H1 Class Pole  |
| Inspection:                | July 26, 2024    | No structure damage or compelling abnormal conditions to report |
| Patrol:                    | N/A              |   |
| Corrective History:        | N/A              |   |
| Aerial Inspection Records: | N/A              |   |
| VM Inspection:             | N/A              |   |
| EVM Inspection:            | N/A              | (Note: document if "not previously in EVM Scope")               |
| Equipment Test:            | N/A              |   |
| Pole Intrusive Test:       | N/A              | N/A   |
| WSIP Inspection:           | N/A              | N/A   |

\*Incident Location: SAP Pole ID: 104192102

#### Hazard Barrier Analysis:

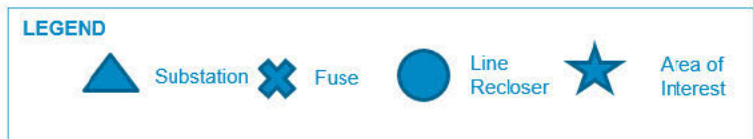
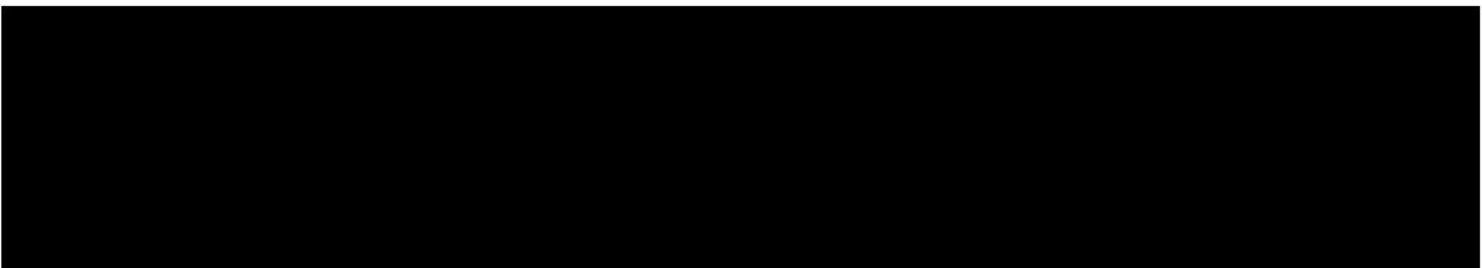
| Hazard                                     | Third-Party Contact  | Sub-Hazard   | Balloon Contact  |
|--|--|--|--|
| Target                                     | Mylar balloon contact with the primary and subsequent re-energization into fault resulting in a 12.6-acre grass fire in a Tier 2 HFTD.   |  |  |
| Barrier                                    | Expected vs. Observed Performance  | Why did the barrier not prevent the ignition event? (See <a href="#">ICF Codes</a> ) | Opportunity  |
| Barriers Assessed as Opportunities         |  |  |  |
| Fault Indicator                            | Expected Performance: Locate faults more easily during patrol.<br><br>Observed Performance: Barrier did not exist  | N/A  | This may have enabled faster identification of the fault location and potentially identification of the balloon on the line. |
| AB 847 - Electrically Conductive Balloons  | Expected Performance: Transition CA away from the use of electrically conductive foil balloons in an effort to reduce balloon contact overhead power line safety incidents.; Observed Performance: Barrier did not exist | N/A  | Implementation may prevent balloon contacts moving forward.  |
| Barriers that Negatively Impacted Ignition |  |  |  |

|                        |   |   |  |
|------------------------|---|---|--|
| Post-Outage Patrol     | <p>Expected Performance: Identify and locate the cause of an outage</p> <p>Observed Performance: Barrier did not perform as expected</p>                                | A1B1C2D3 - Fatigue damage not visually apparent                                 | Due to the nighttime darkness and the similarity in color between the rose gold balloon and the steel pole, Patrol missed the balloon. Re-energizing the line section by section would be a better approach to prevent inrush. |
| Public Safety Outreach | <p>Expected Performance: More public awareness about the risks of mylar balloons near power lines.</p> <p>Observed Performance: Barrier did not perform as expected</p> | A1B3C2D2 – Lack of customer awareness or customer disregard for program/service | Insufficient public awareness of mylar balloon hazards to power lines.   |

#### Potential Next Steps / Associated CAP Items:

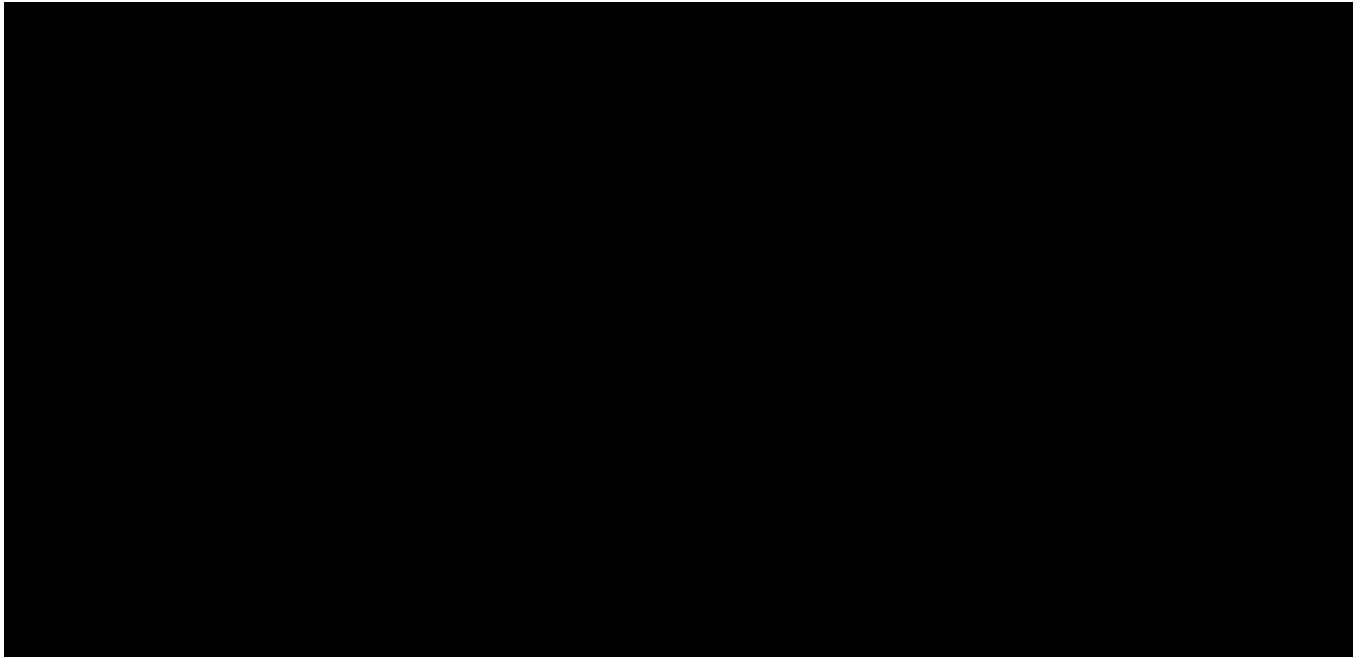
- The EPSS Field Operation team submitted a CAP #[129697652](#) to the Electric Operations team, North Coast, to emphasize the importance of post-outage patrols to mitigate the risk of similar incidents in the future.

#### Single Line Diagram



#### Photos and Diagrams of Events



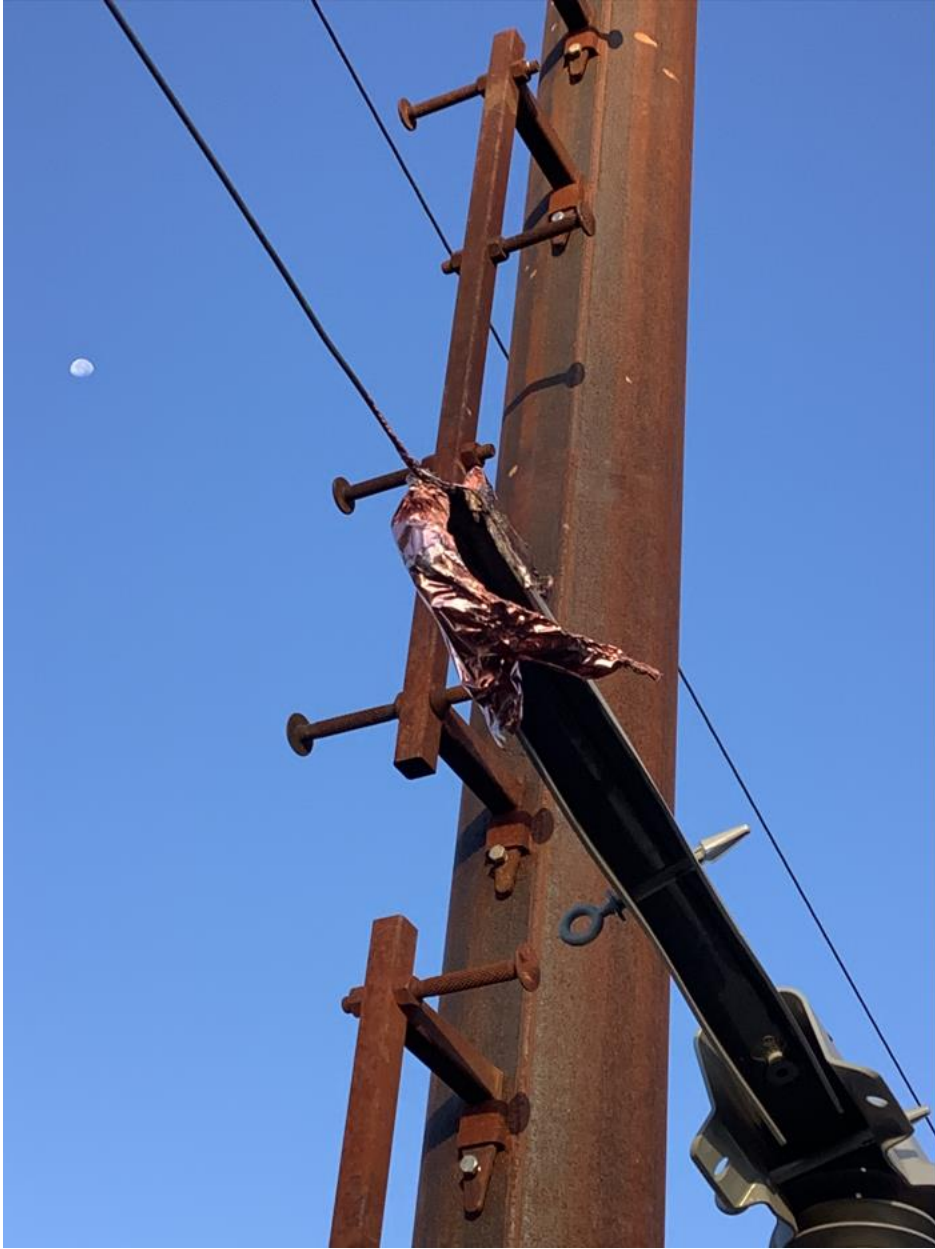


*Photo 1: Google Earth Photo of Incident Location.*



*Photo 2: Photo taken by troubleshooter from SAP 104192102 on ignition date.*





*Photo 3: Photo of balloon taken by troubleshooter on ignition date.*



*Photo 4: Photo of balloon taken by troubleshooter on ignition date.*



*Photo 5: Google Photo of the Incident Location.*

## Attachments

Attachments and references can be located in the ESA folder, located below:

[Redacted]  
[Redacted]

-----END of REPORT-----