



Preliminary Ignition Investigation Report

Ignition Database Index:	20241048
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Spruce
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	July 29, 2024 at approximately 1149 hours
Street Address:	Near [REDACTED]
City:	Meadow Vista
County:	Placer
Latitude/Longitude:	[REDACTED]
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	SRA
PG&E Division:	North Valley
High Fire Threat District (HFTD):	Tier 2
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	340
Fire Potential Index (FPI) Rating: FIA	R5
Fire Potential Index (FPI) Rating: Circuit	R4
Was there a PSPS event at the time of ignition?	No
Suspected Initiating Event:	Contact – 3 rd Party
Failure Driver:	Contact from Object
Failure Sub-driver:	Com-Line Strike
Circuit:	Weimar 1102, 15249-1102
Circuit Protection Zone:	Weimar 1102 LR 2038
Nominal Voltage:	12kV
Pole SAP Equipment ID:	100023690
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	4 Aluminum Conductor Steel Reinforced (ACSR)
EPSS enabled at time of ignition?	Yes
Fault Type:	Line to Ground
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	Colfax Fire Department
Fire Size:	20 x 30-feet
FAS Field Remarks:	Loose lasing on cable line contacted primary. Phone line on ground. No damage to primary but crew re-

	sagged primary conductor to gain greater clearance.
HAWC Summary:	<p>Resources responded to the Spruce Incident located at Spruce Drive near Placer Hills Road, Meadow Vista regarding a report of a vegetation fire. This is a Tier 2 area and in the immediate vicinity of the following assets:</p> <ul style="list-style-type: none"> • Electric Distribution: Halsey 1102 (EPSS Enabled) • Electric Distribution: Weimar 1102 (EPSS Enabled) • Electric Distribution: Halsey 1101 (EPSS Enabled) • Electric Transmission: Weimar-Halsey-60kV <p>Incident Command (IC) arrived on scene and advised there was a small spot fire (unknown acreage) and forward progress had been stopped. While monitoring OMT, an outage appeared on Distribution Circuit Weimar 1102 (EPSS Enabled), impacting (292) customers. Per radio traffic, IC advised there was possibly a transformer explosion and request PG&E to respond. Refer to OIS#: 2529265 for further details.</p> <p>SIPT did not respond to this incident.</p> <p>Notifications were not made regarding this incident due to rapid containment and extinguishment. HAWC Operations Supervisor was notified and subsequently sent out the necessary Everbridge notifications.</p> <p>Closing incident barring any significant change in conditions.</p>
Injuries / Fatalities / Property Damage / Media Attention:	No Injuries/Fatalities/Property Damage/Media Attention
Weather Conditions:	Dry and seasonably cool at 80.4°F
Red Flag Warning (RFW) / High Wind Warning (HWW):	RFW – No HWW – No
911 Standby Relief Time:	27 minutes
OIS #:	2529265
ILIS #:	24-0093203
FAS #:	T006461701 T006461705 – Assist T006461738 – Assist

This report is preliminary and based on available information as of **August 14, 2024**; event data is subject to change based upon subsequently discovered information.

TOTL #:	N/A
Assigned Attorney:	N/A
Ignition Investigator & Phone:	[REDACTED]

Executive Summary

On July 29, 2024 at approximately 1149 hours, an outage occurred when the dynamic protective device Line Recloser (LR) 2038 tripped open on a Line to Ground fault to the two-phase primary overhead segment of the Weimar 1102 12kV distribution circuit near Spruce Drive and Placer Hills Road in the City of Meadow Vista (see Figure 1). Shortly after, PG&E received a customer call about an explosion heard, an outage and reports of a fire. A 911 standby call from the Colfax Fire Department also was directed to PG&E requesting assistance with a potential wire down. PG&E dispatched two troubleshooters (Troubleshooter #1 and #2) at approximately 1156 hours to patrol the Incident Location between Pole SAP ID 100023690 and 100025910. At 1306 hours, Troubleshooter #1 reported to the Distribution Operator (DO) that communication lines (not PG&E conductors) were down two spans load-side of Fuse 6515 and likely that the communication line was snagged, ripped down and thrown up and into direct contact with the 12kV primary conductor, thus sparking the fire. The primary conductor was noted as not damaged. Troubleshooter #1 confirmed he opened Fuse 6515 and that a PG&E crew was on scene waiting to re-sag the primary for clearance and that he would continue his patrol to LR 2038. At 1337 hours, the patrol by the troubleshooters and work by the crew were completed and Fuse 6515 was closed, followed by LR 2038 closing.

Initial analysis indicates that an unknown third-party vehicle (potentially a box delivery truck)¹ drove under the communication line near Spruce Drive, hooked and forcefully brought down the phone cables. The resulting broken tie wires from the phone cables (see Figure 2 and 3) was sent upward into the primary conductors and started an arcing event that sparked and ignited a fire on the ground below. The fire burned approximately 20 x 30-feet (see Figure 4) and was extinguished by the Colfax Fire Department prior to the arrival of the troubleshooters.

A historical corrective search into both Pole SAP ID 100023690 and 100025910 does not identify any pending issues or concerns with PG&E assets. There are Third-Party notifications (#121714086 and #121777847) associated to Pole SAP ID 100023690 for loose molding from July 2021, but no issues related to the communication line or its clearance.

The Asset Failure Analysis (AFA) team is conducting an extent of condition on ignitions caused by vehicles striking low communication lines. Although Light Detection and Ranging (LiDAR) data indicates the communication lines from this incident were greater than 12-feet above a private driveway (conformant per General Order 95, Section III), low communication lines are an ongoing issue and tend to cause consequential ignitions that are over three meters in size at a much higher rate than other ignition drivers. AFA is working closely with multiple stakeholders, including communication companies, to align on how to best identify and mitigate the wildfire risk posed by low communication lines.

PG&E Meteorology data pulled from the MesoWest observation site approximately 3.0 miles east northeast of the Incident Location indicates a dry and seasonably cool day with temperatures at 80.4°F and relative humidity at 30%. Winds registered 6.2 Miles Per Hour (MPH) with gusts up to 11.8 MPH near the approximate time of the

¹ The customer at this location indicated a box of animal product with the Chewy brand was left in their driveway.

ignition event. The strongest wind speed recorded was 16.2 MPH at approximately 1320 hours. There were no Red Flag or High Wind Warnings in effect nor did this ignition occur during a Public Safety Power Shutoff (PSPS) event.

System Protection Analysis

The Weimar 1102 distribution circuit is located within a Tier 2 High Fire Threat District and High Fire Risk Area. PG&E Distribution Asset Planning team confirmed that EPSS was enabled for the Weimar 1102 and per engineering, LR 2038 was set to Mode 3 with both Sensitive Ground Fault (SGF) and Down Conductor Detection (DCD) enabled. Although no partial voltage alarms were received, LR 2038 operated as intended when a Line to Ground fault registered 302 amps to C-phase and 323 amps to ground (that would increase to a max of 739 amps to C-phase and 766 amps to ground) and tripped within 0.004 seconds. Although DCD was enabled on LR 2038, it did not operate as LR 2038 detected the low impedance fault.

Ignition Impact

The ignition event on July 29, 2024 resulted in a small fire measuring approximately 20 x 30-feet in size and was extinguished by the Colfax Fire Department. A total of 292 customers were de-energized for a total of 114 minutes. There were no reported injuries, fatalities, property damages or significant media attention associated to this event.

Sequence of Events

July 29, 2024

- 1149 Hours: LR 2038 opens. No partial voltage alarms.
- 1154 Hours: Troubleshooter #1 dispatched.
- 1156 Hours: Troubleshooter #2 dispatched.
- 1246 Hours: Troubleshooter #2 arrives on scene.
- 1256 Hours: Troubleshooter #1 arrives on scene.
- 1306 Hours: Troubleshooter #1 opens Fuse 6515 to de-energize and make safe for EPSS patrol and crew on-site.
- 1337 Hours: EPSS patrol and work by crew completed. Troubleshooter #1 closes Fuse 6515.
- 1343 Hours: LR 2038 closed, power restored to all customers.

Corrective Notification Associated with Ignition

No corrective notifications were required after this ignition event. However, PG&E crew was on scene and were able to create greater clearance by re-sagging the primary conductor (see Figure 5).

Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	N/A				
COE Notification	N/A				
LC Notification	N/A				

Veg Work Order	N/A				
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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	100023690 (Incident Pole)	
Info / Inspection	Most Recent Date	Findings
Install Date:	January 1, 1978	45-foot, Class 4, Douglas Fir
Inspection:	July 6, 2023	GO165 Inspection identified missing high sign and noted that transformer is suspected of containing PCBs. Refers to existing EC tag (#124049395) and (#121714124). See Corrective History below for further details.
	July 10, 2022	GO165 Inspection identified splices tied in proximity to insulator preventing free movement of splice with conductor. Also noted high sign missing. Created EC tag (#121714124).
Patrol:	N/A	
Corrective History:	July 10, 2022	Priority "E" EC tag (#124049395) created to install new high sign (damaged) and to adjust conductor so that splices are within two feet of insulator. Tag was eventually cancelled after multiple Field Safety Reassessments (FSR). Appears issues were addressed and no longer compelling.
	July 12, 2021	Priority "F" EC tag (#121714124) created to remove pole step as it is below 86 inches. Tag was eventually cancelled after multiple FSRs. Appears pole step was within 86 inches.
Aerial Inspection Records:	October 6, 2019	Aerial photo of Incident Pole in Sharper Shape.
	January 19, 2024	Aerial photo of Incident Pole in iHawk (see Figure 6 and 7).
VM Inspection:	N/A	
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	May 2, 2016	Passing results with the following: Fair pole top and pole bottom conditions. Noted excessive checking or cracked. Wood strength testing at 100%.
WSIP Inspection:	March 12, 2019	No compelling abnormal conditions for the pole, equipment and its associated spans. Noted two bolted PG connectors and two auto splices west of Incident Pole.

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Load Side Structure	100025910	
Info / Inspection	Most Recent Date	Findings
Install Date:	January 1, 1978	50-foot, Class 4, Douglas Fir
Inspection:	June 27, 2023	GO165 Inspection identified woodpecker damage to pole and loose guy. EC tag (#126459349) created. See Corrective History below for further details.
Patrol:	N/A	
Corrective History:	June 27, 2023	Priority "F" EC tag (#126459349) created to assess/repair damage pole (woodpecker), adjust loose guy and to replace damaged high sign. Work completed on June 26, 2024.
Aerial Inspection Records:	October 6, 2019	Aerial photo of pole in Sharper Shape.
	January 19, 2024	Aerial photo of pole in iHawk.
VM Inspection:	N/A	
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	February 13, 2024	Passing results but noted shell rot/decay. Wood strength testing at 100%.
WSIP Inspection:	March 15, 2019	Inspection noted six bolted PG connectors. Minor work regarding visibility strips performed during inspection.

*Incident Location: Between Pole SAP ID 100023690 and 100025910

Hazard Barrier Analysis:

Hazard	Third Party Contact	Sub-Hazard	Com-Line Strike
Target	Third Party Contacting Communication Line		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See ICF Codes)	Opportunity
Barriers that were Assessed as Opportunities			
Covered Conductor on Primary Conductors	Expected Performance: Covered conductor should lower the risk of a wildfire upon contact with communication lines. Observed Performance: Barrier did not exist	A4B2C1D2 – Program limited to certain conductors	Covered/insulated conductor may have prevented arcing event with communication cables.

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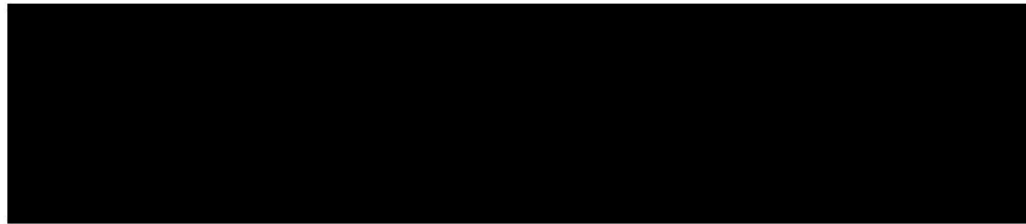
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Potential Next Steps / Associated CAP Items:

- None at this time. The incident span is conformant. However, AFA is working closely with legal, other utility companies as well as third-party/telecom utilities to improve the general process of identifying, addressing and closing out issues regarding communication lines.

Single Line Diagram



LEGEND



Substation



Fuse



Line
Recloser



Area of
Interest

Photos and Diagrams of Events

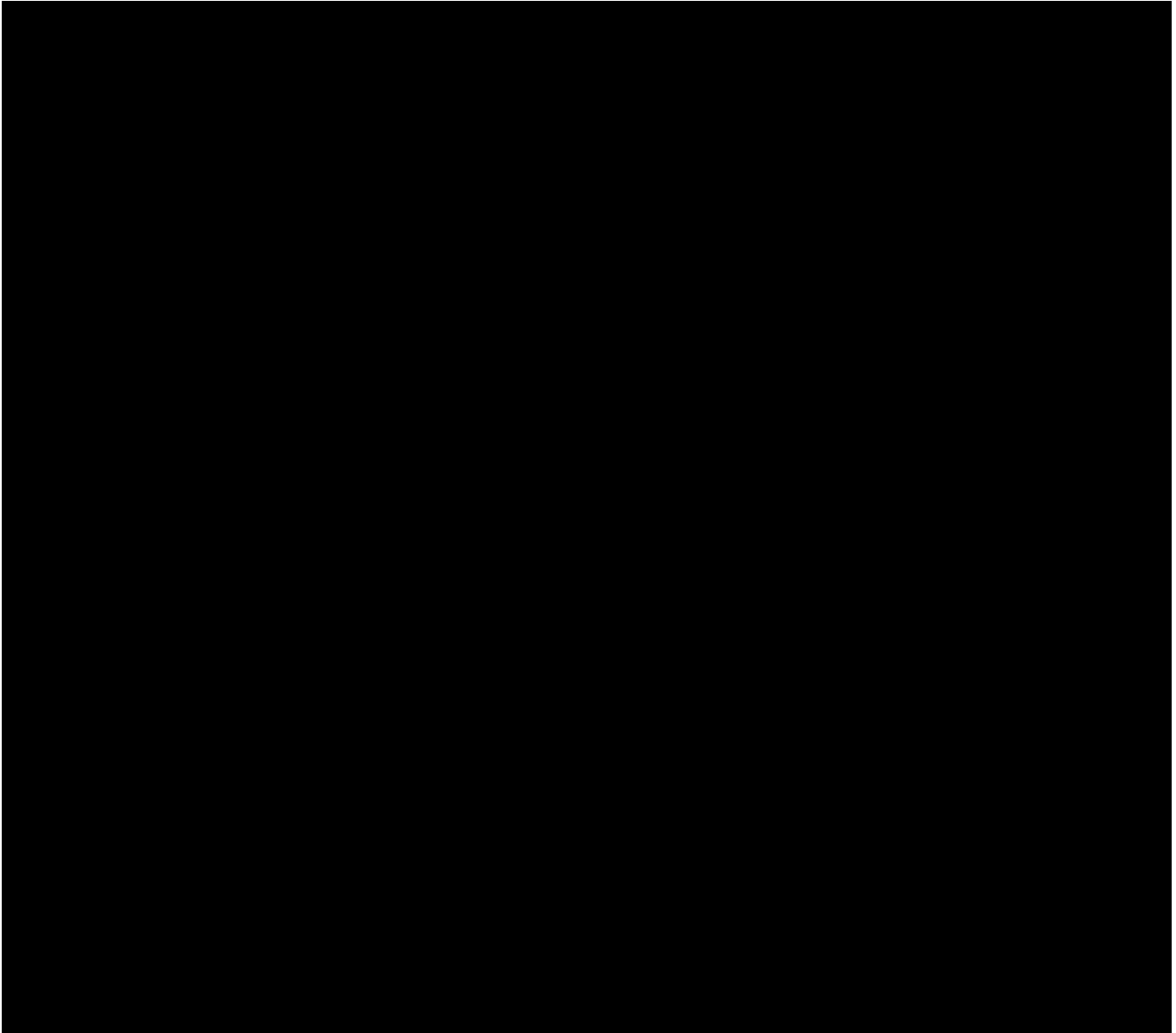


Figure 1 – Google Earth view of the Weimar 1102 12kV distribution circuit and the incident span. Approximate location of fire is designated by a white X.



Figure 2 – View of broken tie wire on the phone cables on July 29, 2024. Photo taken by the troubleshooter.



Figure 3 – Additional view of loose phone cable on July 29, 2024. Photo taken by the troubleshooter.



Figure 4 – View of the fire footprint on July 29, 2024. Photos taken by the troubleshooter.

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Internal



Figure 5 – Post-incident view of the incident span on July 30, 2024. Photo taken by Ignitions Investigator.



Figure 6 – Pre-incident aerial view of incident span on January 19, 2024. Photo taken from iHawk.



Figure 7 – Additional pre-incident view of phone cables and incident span on January 19, 2024. Photo taken from iHawk.

Attachments

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



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