



Preliminary Ignition Investigation Report

Ignition Index:	20241795N	Electric Incident Report (NR/EIR):	N/A
Incident Name:	Lake	Associated CAP:	129911042
Date of Incident:	December 9, 2024	Latitude/Longitude:	37.618261, -122.450116
Region:	Bay Area	County:	San Mateo
Division:	Peninsula	City:	San Bruno
Circuit:	Sneath Lane-Half Moon Bay 60kV	Voltage / Level / kV:	Transmission 60kV
HFTD:	Tier 2	HFRA:	Yes
FPI – Circuit:	R1	FPI – FIA:	R1
EPSS Enabled CPZ	No	EPSS Buffer:	No

Suspected Initiating Event:		Equipment- PG&E	
Failure Driver:	All types of equipment / facility failure	Failure Sub-driver:	Conductor failure – all
Veg Sub-driver:	N/A	Fire Size:	3 meters – 0.25 acres
PG&E Facility Ignition:	Yes	CPUC Reportable Ignition:	Yes
OEIS 29300 A/B:	A	OIS #:	2647450
Assigned Attorney:	N/A	ILIS #:	N/A
QC Investigator:	████	FAS #:	T006576379
PIIR Investigator:	████	TOTL #:	T24-017364

Synopsis:

On December 9, 2024, an all-aluminum transmission conductor failed on the Sneath Lane-Half Moon Bay 60kv line. The failure, occurring approximately 30 feet away from transmission structure # 000/006 (SAP ID #44384401), resulted in a brush fire measuring approximately 30 feet x 50 feet. Initial analysis revealed that the failure point of the transmission conductor displayed signs of corrosion. Applied Technology Services (ATS) theorizes that a Line-to-Line (L-L) fault, occurring minutes prior to the fire and several spans downstream of the ignition location, created a current surge and likely stressed the corroded conductor, leading to its ultimate failure. The San Bruno Fire Department responded to and extinguished the fire. No customer interruption. No injuries, property damage or media coverage associated with this incident were identified.

As a result of the incident, PG&E has implemented corrective actions, including asset maintenance and repair, line sensor deployment, and proactive support structure clearing, to mitigate the risk of ignition on the Sneath Lane-Half Moon Bay 60kV circuit.

Sequence of Events

December 9, 2024

- 0828 hours – Sneath Lane-Half Moon Bay 60kV transmission line relayed and tested okay.
- 0840 hours – PG&E received a customer call indicating that firefighting personnel were onsite responding to a brush fire that was impacting PG&E's equipment.
- 0845 hours – PG&E dispatched troubleshooter to investigate.
- 0854 hours – PG&E troubleshooter arrived onsite and observed transmission wire down and resulting grass fire.
- 0908 hours – Transmission line was forced out of service and a PG&E crew was assigned to complete repairs.

December 10, 2024

- 0708 hours – PG&E crews repaired broken transmission conductor. A portion of the failed transmission conductor was collected and sent to PG&E's Applied Technology Services (ATS) for further analysis on cause of the failure.

Hazard Barrier Analysis:

Hazard	Equipment Failure	Sub-Hazard	Transmission Conductor Failure
Target	Transmission conductor failure occurred causing an ensuing 30'x50' vegetation fire in a Tier 2 HFTD/HFRA.		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See ICF Codes)	Comments
Barriers that were Assessed as Opportunities ¹			
Enhanced Powerline Safety Settings	Expected Performance: Automatically turn off power when a hazard is detected to reduce the risk of ignition in High Fire Risk Areas.; Observed Performance: Unknown	[A4B1C1D1 - Strategy: EPSS Strategies; HFTD-Related; Conditions did not meet EPSS enablement criteria]	Enhanced Powerline Safety Settings (EPSS) were disabled for the Sneath Lane-Half Moon Bay 60kV transmission line at the time of the incident for the wildfire seasonal transition.
Pole Clearing Program	Expected Performance: Limit fire spread potential near poles for a PG&E equipment involved; Observed Performance: Barrier did not exist	N/A	Ignition occurred approximately 30 feet from closest pole which and may have benefited from support structure

			clearing, depending on clearing standard.
Early Fault Detection (EFD)	Expected Performance: Detect and locate equipment problems, such as loose or faulty connections, and line-to-line high-impedance faults.; Observed Performance: Barrier did not exist	N/A	Sneath Lane-Half Moon Bay 60kV, currently has clearance and plans to install EFD equipment between 6/9/25 – 6/18/25.

¹ The barrier was not in place but may be an effective mitigation in preventing an ignition or reducing the magnitude of an ignition. For various reasons, barrier opportunities may not be implemented in this or similar locations, but they can be evaluated in aggregate to inform PG&E's wildfire mitigation strategies.

Corrective Actions / Containment Plan:

Corrective Actions:		Title	Status	Comment	
CAP #129911042		Wire Down – Pole; 0-6, ETL 7212	Completed on March 20, 2025	T-Line Construction Supervisor created CAP to document this wire down incident.	
Corrective Notification Type	Notification Number	Description	Priority	Due Date	
LC	129909527	Repair to transmission conductor)	A	Completed on Dec. 10, 2024.	
LC	129908933	Drone patrol on trouble section of circuit. Burnt marks and pitting identified on adjacent span.	A	Completed on Dec. 9, 2024.	
LC	129928954	Install spacers to prevent conductor slap in the midspan of poles ?01/13 and ?02/0.	A	Completed on Dec. 16, 2024.	
LC	129928956	Install spacers to prevent conductor slap in the midspan of poles ?4/0 and ?4/1.	A	Completed on Dec. 16, 2024.	
LC	129951335	Structure ?1/13 needs to be replaced to mitigate GO95 clearance deviations.	E	Required end date is June 12, 2025.	
LC	129951338	Structure ?4/0 needs to be replaced to mitigate GO95 clearance deviations.	E	Required end date is June 12, 2025.	

Tactical Implementation Plan (TIP) item:	Category	Activity	Status	Comment
1.10	Prevent Failure	EFD Deployment Transmission	On Plan	Sneath Lane-Half Moon Bay 60kV, the clearances are currently planned for 6/9/25 – 6/12/25 and 6/16/25 – 6/18/25 for EFD installation.
2.2.1	Prevent Ignition	Transmission Support Structure Clearing	Not Yet Started	A referral was sent to the Asset Risk Reduction Program team for fire resilience work around pole location. SIPT crews have included the location in their work plan and will wait until the grass cures to properly mitigate.

Subject Matter Expert Analysis

ATS conducted a visual examination and identified melted strands on the failed conductor with a significant presence of corrosion products (See Figure 12). The cause of the failure was not determined; however, ATS identified a L-L fault several spans downstream of the ignition location occurring approximately two minutes prior to the incident. ATS theorizes that this L-L fault created a current surge and likely stressed the corroded conductor, leading to its ultimate failure. Asset Failure Analysis (AFA) engineers completed an Extent of Condition for the event. In addition to ATS' findings, AFA suspects that several L-L faults in the month of November on the span between poles 003/004 – 003/005 of the Sneath Lane-Half Moon Bay 60kV circuit may have also contributed to the weakening of the already corroded conductor. Additional detail from ATS and AFA's analysis can be found below:

ATS:

AFA:

A Safety Condition Assessment Review (SCAR) inspection was conducted in two parts (January 15, and February 6, 2025) for the Sneath Lane-Half Moon Bay 60kV transmission line. No additional risks were identified or emergency tags created for the transmission line by the SCAR Team.

Weather Conditions

PG&E Meteorology data pulled from the MesoWest observation site that was at an elevation of 798 feet and approximately 81 feet east from the Incident Location indicates a fair, dry, and breezy day on December 9, 2024. At 0830 hours near the Incident Location, the temperature was 51.3°F, with relative humidity of 44%. Winds were 9.5 miles per hour (mph) out of the east with gusts up to 16.0 mph. There were no Red Flag or High Wind Warnings in effect, nor did this ignition occur during a Public Safety Power Shutoff (PSPS) event.

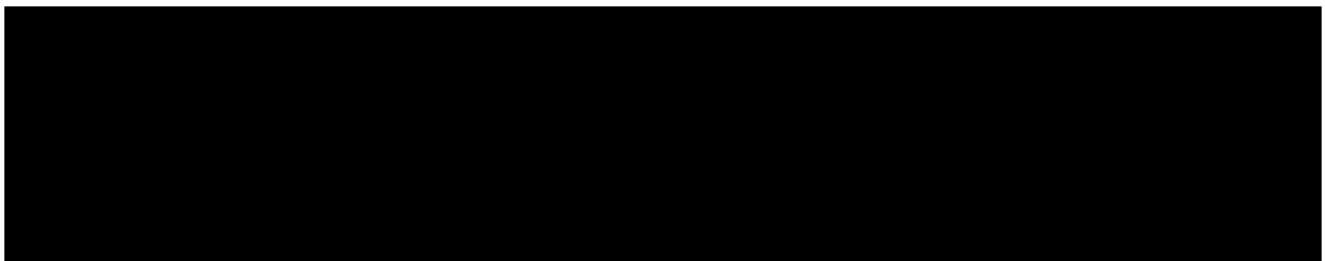
The transmission line spans over a long canyon. ATS worked with Meteorology to evaluate the wind speeds within the canyon. Meteorology determined that the canyon wind speed would be similar to the weather station speed noted above.

Based on the wind speeds measured on the date of incident, weather conditions do not seem to be a contributing factor in the ignition but cannot be ruled out altogether.

System Protection Analysis

Enhanced Powerline Safety Settings (EPSS) were disabled on November 19, 2024 for the Sneath Lane-Half Moon Bay 60kV transmission line at the time of the incident for the wildfire seasonal transition. Therefore, EPSS was not a factor in the ignition.

Single Line Diagram¹



Pending Work Pre-Ignition

Type	Number	Description / Open Tags	Priority	Date Identified	Due Date
EC/LC/COE	N/A	N/A			
Veg Work Order	N/A	N/A			

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

Asset Info & Inspections: Pre-Incident

Incident Location	Transmission Structure # 000/006 SAP ID: 44384401	
Info / Inspection	Most Recent Date	Findings
Install Date:	Mar 29, 1989	42.5-foot, 3-Pole Wood
Inspection:	Feb 12, 2020	Non-Steel Inspection – No compelling abnormal conditions identified.
	June 15, 2022	Non-Steel Inspection – No compelling abnormal conditions identified.
Corrective History:	N/A	N/A
Pole Intrusive Test:	N/A	N/A

¹ Single Line Diagram from AFA Extent of Conditions (XOC) analysis.

Photos and Diagrams of Events

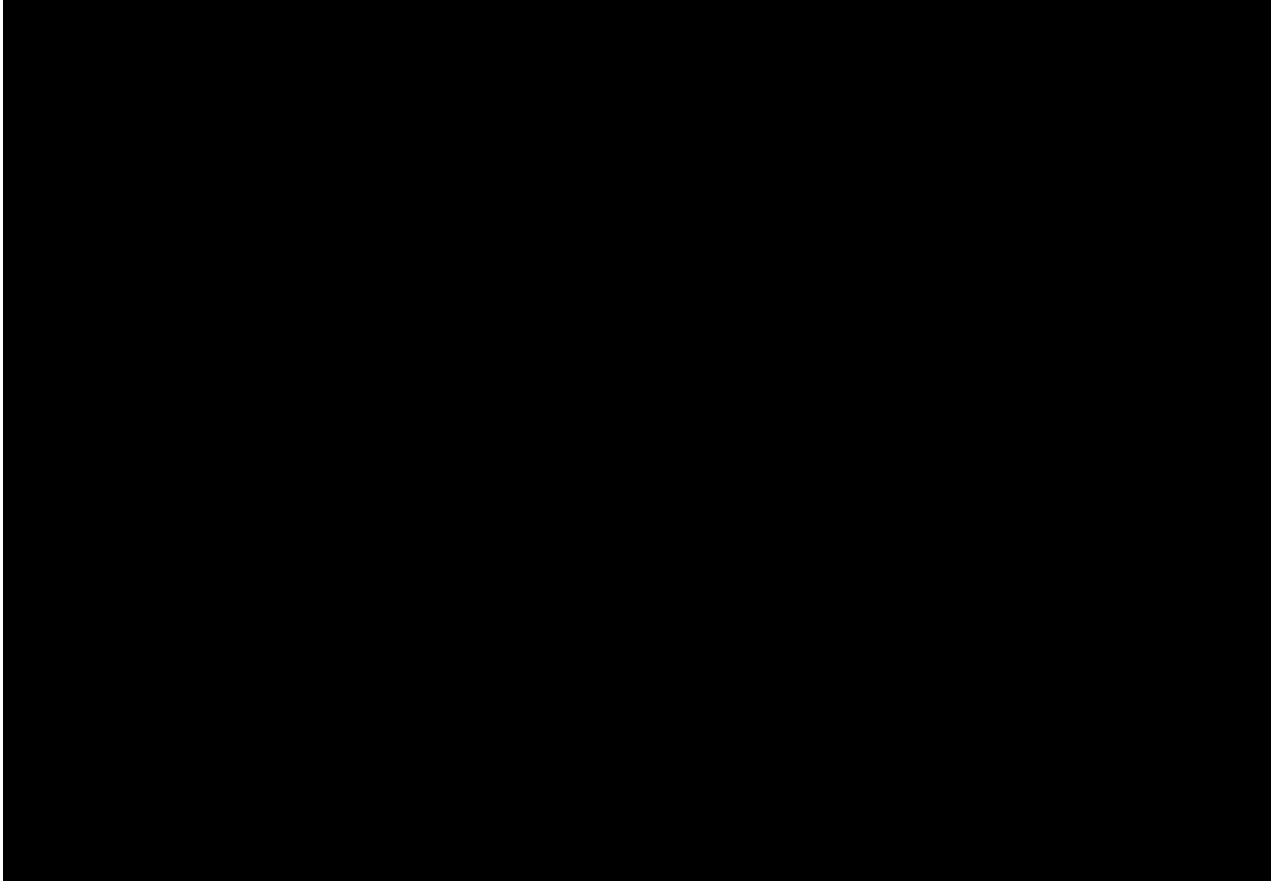


Figure 1 Google Earth image of fault location. The 30 feet x 50 feet burn area (depicted by the “fire” icon) is approximately 30 feet away from pole SAP ID # 44384401.

Pre-Incident Photo:



Figure 2 Image of pole SAP ID # 44384401 and associated assets taken during PG&E aerial inspection on May 20, 2024.

Incident Photos:



Figure 3 Photo of three-pole transmission structure where failed conductor occurred taken by troubleshooter on date of incident.



Figure 4 Photo of burn 30 feet x 50 feet burn area taken by troubleshooter on the date of incident.



Figure 5 Close up of failed transmission conductor taken by troubleshooter on the date of incident.

Post-Incident Photos:

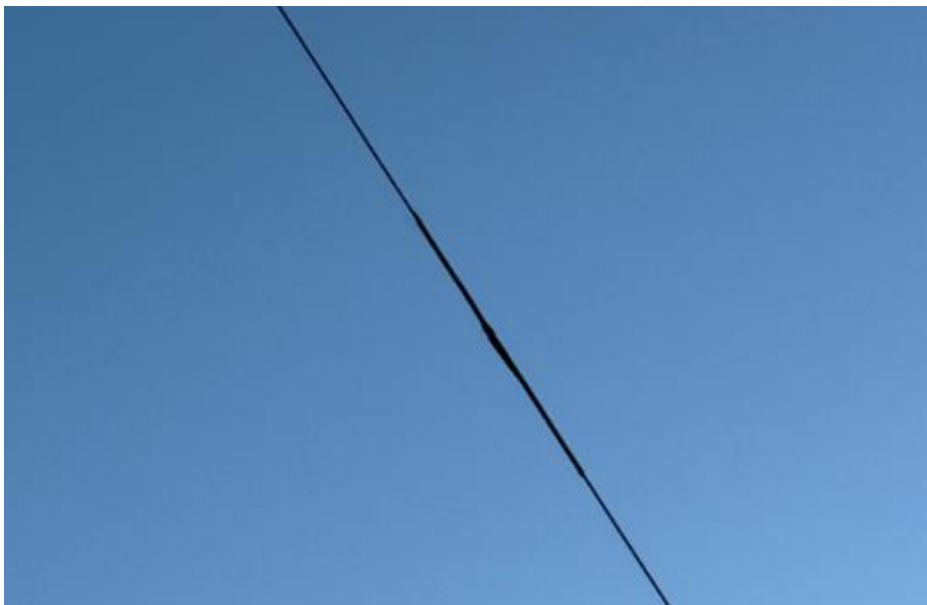


Figure 6 & 7 post-repair photos taken by PG&E contract crew taken on December 10, 2024.



Figure 8 & 9 Photos from LC Notification 129928954 showing spacers that were installed between poles ?01/13 and ?02/0 to temporarily mitigate conductor midspan on December 16, 2024.



Figure 10 & 11 Photos from LC Notification 129928956 showing spacers that were installed between poles ?4/0 and ?4/1 to temporarily mitigate conductor midspan on December 16, 2024.

ATS Images:

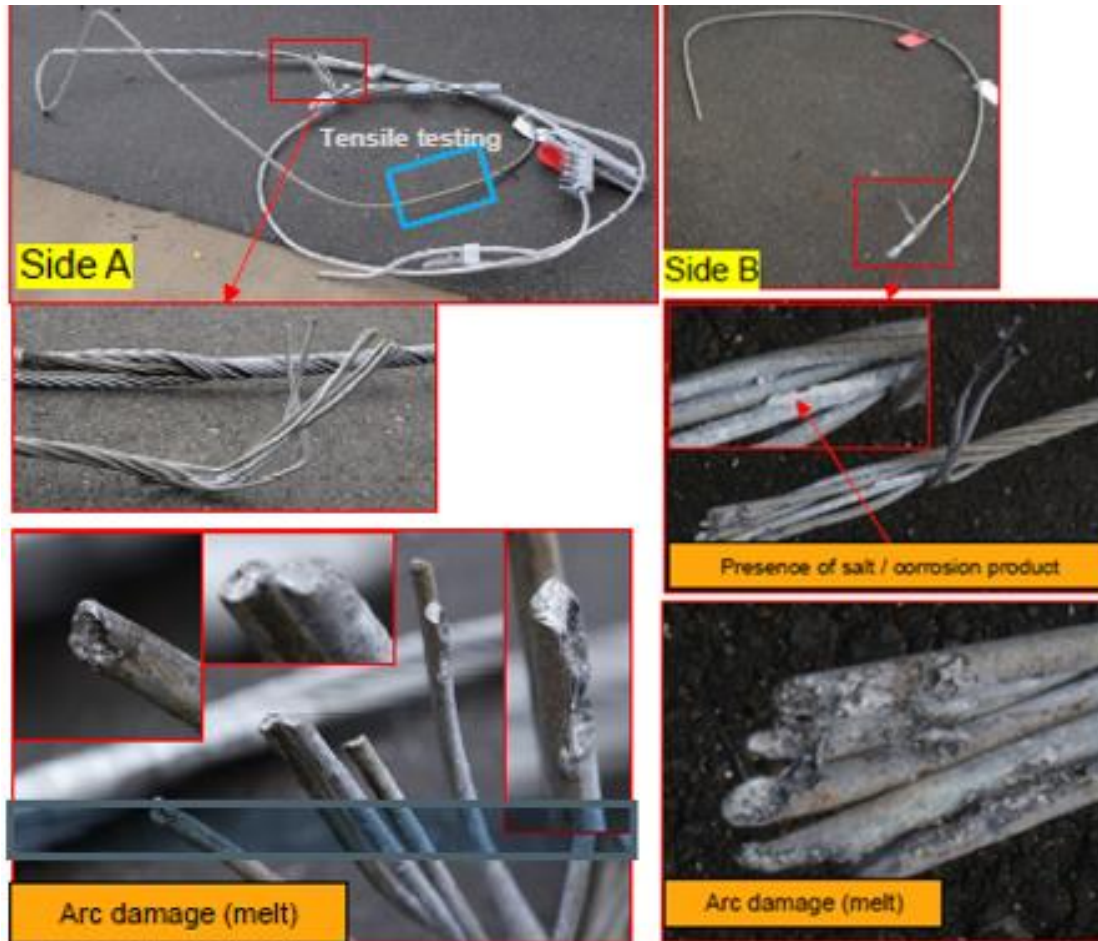


Figure 12 Images from ATS report. ATS' visual examination revealed that the failed conductor showed melted strands with a significant presence of corrosion products.

Ignition File and Additional Data

Attachments and references located in the ESA folder:

[REDACTED]

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