



## Preliminary Ignition Investigation Report

<b>Ignition Database Index:</b>	20240448
<b>Electric Incident Investigation (EII) Number:</b>	N/A
<b>Incident Name:</b>	Raney
<b>PG&amp;E Facility Ignition?</b>	Yes
<b>CPUC Reportable Ignition?</b>	Yes
<b>Date &amp; Time of Incident:</b>	May 21, 2024 @ approx. 0605 hours
<b>Street Address:</b>	Near 11962 Raney Road
<b>City:</b>	Columbia
<b>County:</b>	Tuolumne
<b>Latitude/Longitude:</b>	38.0368079824, -120.3863482807
<b>State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)</b>	State Responsibility Area
<b>PG&amp;E Division:</b>	Yosemite
<b>High Fire Threat District (HFTD):</b>	Tier 2
<b>High Fire Risk Area (HFRA):</b>	Yes
<b>EPSS Buffer:</b>	No
<b>Fire Index Area (FIA):</b>	348
<b>Fire Potential Index (FPI) Rating: FIA</b>	R1
<b>Fire Potential Index (FPI) Rating: Circuit</b>	R1
<b>Was there a PSPS event at the time of ignition?</b>	No
<b>Suspected Initiating Event:</b>	Vegetation
<b>Failure Driver:</b>	Contact from Object
<b>Failure Sub-driver:</b>	Contact Vegetation
<b>Circuit:</b>	Curtis 1704
<b>Circuit Protection Zone:</b>	Curtis 1704-LR8140
<b>Nominal Voltage:</b>	17kV
<b>Pole SAP Equipment ID:</b>	101050291
<b>Subject to PRC 4292 Veg Pole Clearance:</b>	No
<b>PG&amp;E Equipment associated with ignition:</b>	4str copper overhead conductor
<b>EPSS enabled at time of ignition?</b>	No
<b>Fault Type:</b>	Force Out
<b>Wire Down (Primary)?</b>	Yes
<b>Lead Agency/Agency Having Jurisdiction:</b>	CAL FIRE
<b>Fire Size:</b>	1 meter - <3 meters

<b>FAS Field Remarks:</b>	responded to outage while in route it turned into a 911 and vegetation fire with wire down called distribution operator had them open source side LR made safe closed LR closed fuses one transformer remaining out with open jumpers two spans source side of wire down called for crew to replace span of wire this caused two small vegetation fires at either end of wire down caused by oak limb falling on phase and pushing it down to 1/0 triplex <sup>1</sup>
<b>HAWC Summary:</b>	Units responded report of power lines down to incident at Raney Road. Fire is being reported as forward progress stopped with a current size of 0.01 acre. OMT showing 2 outage (OIS# 2463936, 2463939) with 1,314 customers affected on the CURTIS 1704 , 163351704, EPSS not enabled. Notifications have been made to: DCC, PSS, HAWC Ops <sup>2</sup>
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No injuries, fatalities, property damage or media attention reported.
<b>Weather Conditions:</b>	At 06:10 near the Incident Location: Temperature: 51.2°F Relative Humidity: 54% Wind Speed: 1.3 mph from the north-northwest Wind Gust: 3.1 mph
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	Red Flag Warning (RFW) - No High Wind Warning (HWW) – No
<b>911 Standby Relief Time:</b>	36 minutes
<b>OIS #:</b>	2463939
<b>ILIS #:</b>	24-0068138
<b>FAS #:</b>	T006399139
<b>TOTL #:</b>	N/A
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	

## Executive Summary

On May 21, 2024, at approximately 0625 hours, PG&E troubleshooter was dispatched to a three-phased overhead section of the Curtis 1704 kV distribution circuit, near Rany Road and Yankee Hill Road in the city of Sonora, in response to a call from the fire department asking for expedited help with live wires on the ground and an ensuing vegetation fire. The incident was in a Tier 2 High Fire Threat District (HFTD) and High Fire Risk Area (HFRA) during R1 conditions. PG&E's Enhanced Powerline Safety Settings (EPSS) were not enabled for the circuit at the time of the incident.

<sup>1</sup> Statement is verbatim from FAS report.

<sup>2</sup> Statement is verbatim from HAWC Summary in Foundry.

The troubleshooter arrived on scene at approximately 0640 hours and observed a primary overhead wire down, source side, between pole SAP ID # 101050291 and 101050282, which resulted in a vegetation fire measuring between 1-3 meters in size. Initial observations indicates that a tree branch fell, bringing the overhead primary to the ground, causing the ensuing fire. CAL FIRE arrived at the scene to extinguish the fire with an assist from a nearby resident who first noticed the flames. A priority "A" Electric Overhead Tag Notification #128822443 was created on May 21, 2024 because of this incident. A PG&E crew replaced 150 feet of copper conductor damaged by the failed tree branch and 200 feet of AWAC triplex, which melted when struck by the primary wire, prior to falling to the ground. Power was restored to the affected customers on the same day.

As a result of the incident, Vegetation Management (VM) conducted an inspection of the location on May 24, 2024 and found two fallen limbs with burn marks on the ground near the burn scar. Both limbs were approximately 2 inches in diameter and 8-10 feet long and came from the subject tree; a Black oak, currently 74 feet tall and 113 inches DBH (diameter breast height). The VM Inspector states that the subject tree is a large, mature tree with significant canopy over the power lines (current tree to conductor clearance is 7 feet). The subject tree was last worked on February 17, 2023 (Work Request # YOYO1269415) by a PG&E contract crew (ArborWorks), which included removal of all dead limbs to 25 feet above the conductor and radial trim to 15 feet. The subject tree was last inspected on January 10, 2024 with Second Patrol inspection on June 1, 2024.

On May 23, 2024, VM conducted an extent of condition (XoC) inspection of the area, which included a total of 24 spans patrolled to the North, East and West of the Incident Location. VM identified a total of 14 trees which needed work consisting of mostly poor taper and overextended limbs over the power lines. VM indicates that CEMA inspection of the Curtis 1704 distribution circuit is open and active.

PG&E Meteorology data pulled from the MesoWest observation site that was approximately 1.43 miles southwest of the Incident Location indicates a mild day on May 21, 2024. At 0610 hours near the Incident Location, the temperature was 51.2 degrees Fahrenheit, with relative humidity of 54%. Winds were 1.3 miles per hour (mph) out of the north-northwest with gusts up to 3.1 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.

Prior to the incident, there were no outstanding electric or vegetation tags for pole SAP ID #101050291 or the adjacent pole SAP ID # 101050282.

## System Protection Analysis

Enhanced Powerline Safety Settings (EPSS) were not enabled for the Curtis 1704 circuit at the time of the ignition incident because the circuit was in an R1 Fire Potential Index (FPI) and did not meet the wind speeds, relative humidity, and/or fuel moisture enablement thresholds. Therefore, EPSS was not a factor in this incident.

## Ignition Impact

Two spot ignitions resulted in a vegetation fire 1-3 meters in size. A sustained outage lasting 327 minutes occurred, affecting 91 customers. No injuries, property damage or media coverage associated with this incident was identified.

## Sequence of Events

May 21, 2024

- 0601 hours – Partial voltage conditions detected by smart meter 1004898995 and three others which may indicate when vegetation first struck overhead conductor.
- 0604 hours – First Irwin Time
- 0605 hours – PG&E records First No Light.
- 0605 hours – One (Fuse 1257) of two fuse blown.
- 0625 hours – PG&E dispatches a troubleshooter to investigate.
- 0640 hours – PG&E troubleshooter arrives onsite and observed a wire down and a resulting vegetation fire.
- 0855 hours – PG&E crew dispatched.
- 1132 hours – PG&E crew complete repairs to damaged conductors and restored power to all affected customers.

## Corrective Notification Associated with Ignition

On May 21, 2024, a priority “A” Electric Corrective (EC) Notification # 128822443 was created because of this incident. A PG&E crew replaced 150 feet of copper conductor damaged by the failed tree branch and 200 feet of AWAC triplex, which melted when struck by the primary wire, prior to falling to the ground. All associated work was completed and power was restored power on the same day as the incident.

## 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				

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:	1996	40-foot Class 5 – Douglas Fir wood pole – per EDGIS
Inspection:	July 15, 2020	GO165 Compliance Inspection – Inspector identified condition of anchor and down guy and noted that EC Notification # 117211214 was still pending.
	Oct. 5, 2023	GO165 Compliance Inspection – Minor work performed at the location.
Patrol:	N/A	
Corrective History:	N/A	

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

Aerial Inspection Records:	Sept. 21, 2019	Per Sharper Shape - No compelling conditions could be identified in aerial photos.
VM Inspection:	N/A	
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	March 18, 2014	Pass – 100% wood strength
WSIP Inspection:	May 10, 2019	On May 10, 2019, a priority “E” EC Notification # 117211214 was created due to a buried anchor and a rusted down guy found during the WSIP inspection. The damaged identified in the notification was completed by a PG&E contract crew on December 5, 2022.

\*Incident Location: SAP ID: 101050282

Load Side Structure		
Info / Inspection	Most Recent Date	Findings
Install Date:	1982	40-foot Class 5 – Douglas Fir wood pole – per EDGIS
Inspection:	July 15, 2020	GO165 Compliance Inspection – No declarations items to report.
	Oct. 5, 2023	GO165 Compliance Inspection – No declarations items to report.
Patrol:	N/A	
Corrective History:	N/A	
Aerial Inspection Records:	Sept. 21, 2019	Per Sharper Shape - No compelling conditions could be identified in aerial photos.
VM Inspection:	Feb. 17, 2023	PG&E contract crew (ArborWorks) removed all dead limbs to 25 feet above the conductor and radial trim to 15 feet.
EVM Inspection:	May 19, 2024	EVM completed on CPZ before ignition. Unable to confirm inspection on property, but adjacent property does have completed work.
Equipment Test:	N/A	
Pole Intrusive Test:	Oct. 29, 2004	Pass – 100% wood strength
WSIP Inspection:	May 10, 2019	On May 10, 2019, a priority “E” EC Notification # 117211210 was created to replace a dry liquid fuse and a cracked secondary crossarm. A PG&E contract crew installed a new crossarm, cutouts, fuses, insulators, covered jumpers, bolt covers, bushing covers, high signs, guy markers, visibility strips on pole and guy marker, connectors, and new grounds on August 12, 2019.

\*Incident Location: SAP Pole ID: 101050291

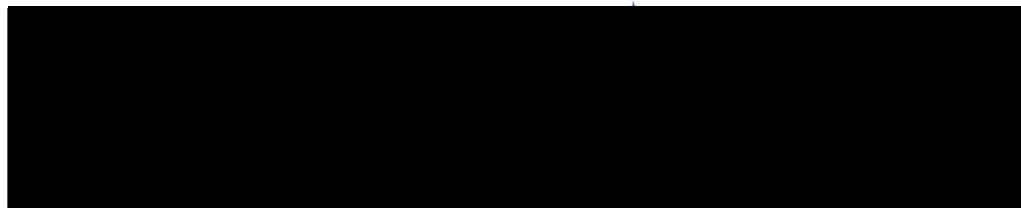
## Hazard Barrier Analysis:

Hazard	Vegetation Contact	Sub-Hazard	Fallen Branch
Target	Branch fell from Black Oak in HFTD resulting in an ignition with a fire size between 1 meter - <3 meters.		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See <a href="#">ICF Codes</a> )	Opportunity
Barriers that were Assessed as Opportunities			
Covered Conductor on Primary Conductors	Expected Performance: Limit the risk of ignition due to tree branch contact; Observed Performance: Barrier did not exist	[ A4B2C1D2 - Strategy: Program Strategies; Line Equipment-Related; Program limited to certain conductors]	Covered conductor may have prevented ignition when tree branch fell on the line
Enhanced Powerline Safety Settings - Downed Conductor Detection	Expected Performance: Automatically turn off power when a hazard is detected to reduce the risk of ignition in High Fire Risk Areas; Observed Performance: Barrier did not exist	[ A4B1C1D1 - Strategy: EPSS Strategies; HFTD-Related; Conditions did not meet EPSS enablement criteria]	Enhanced Powerline Safety Settings (EPSS) were not enabled for the Curtis 1704 circuit at the time of the ignition incident because the circuit was in an R1 Fire Potential Index (FPI) and did not meet the wind speeds, relative humidity, and/or fuel moisture enablement thresholds.

## Potential Next Steps / Associated CAP Items:

- No significant next steps or CAPs were identified because of this ignition.

## Single Line Diagram



### LEGEND



Substation



Fuse

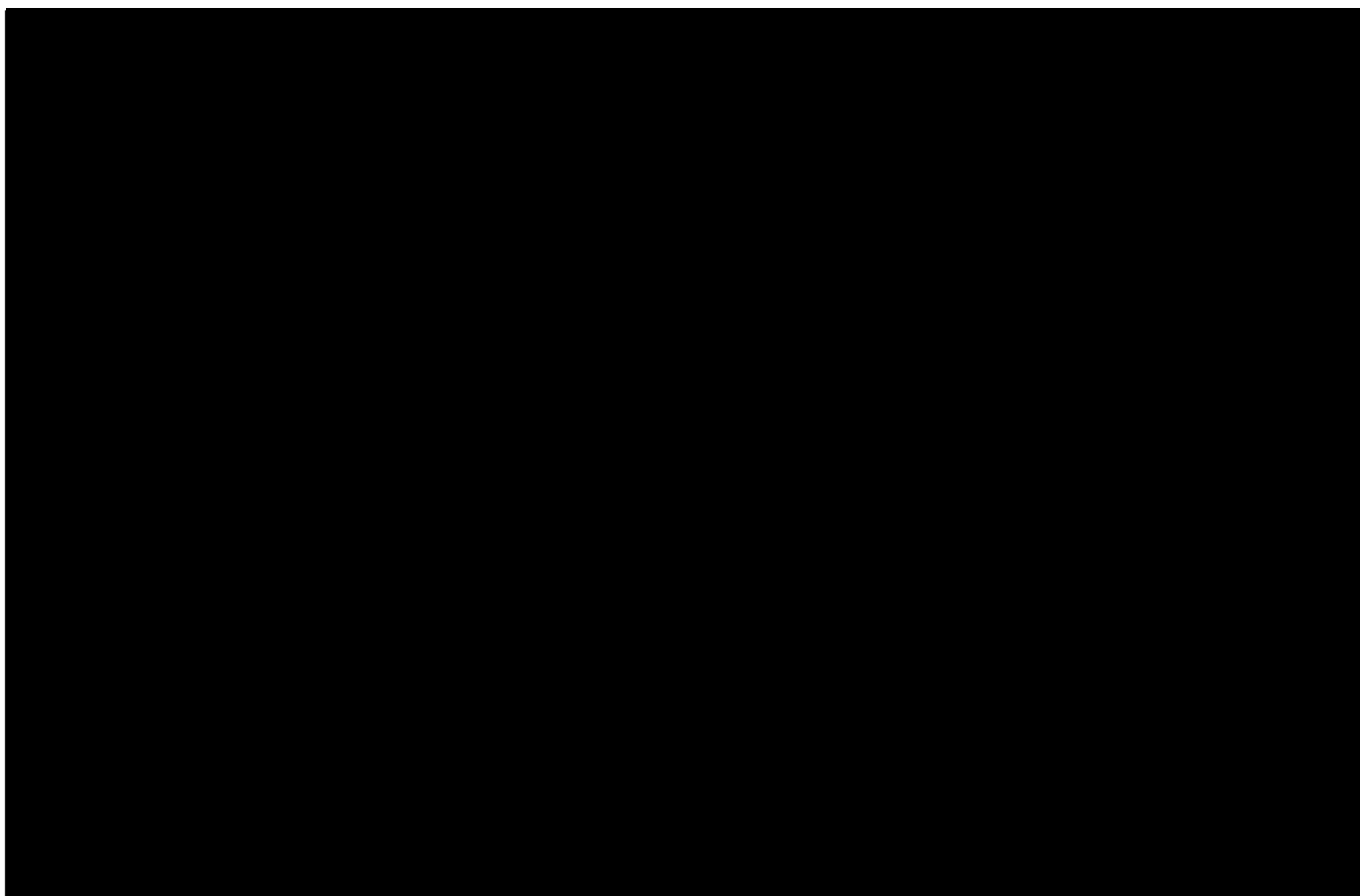


Line  
Recloser



Area of  
Interest

## Photos and Diagrams of Events



*Figure 1 Image of map from EC Notification # 126758207 depicting the ignition location. Fire started mid-span between pole SAP ID # 101050291 and 101050282.*





*Figure 2 Photo depicting burn area taken by troubleshooter.*





*Figure 3 Photo depicting more evidence of burnt vegetation due to down conductor taken by troubleshooter.*





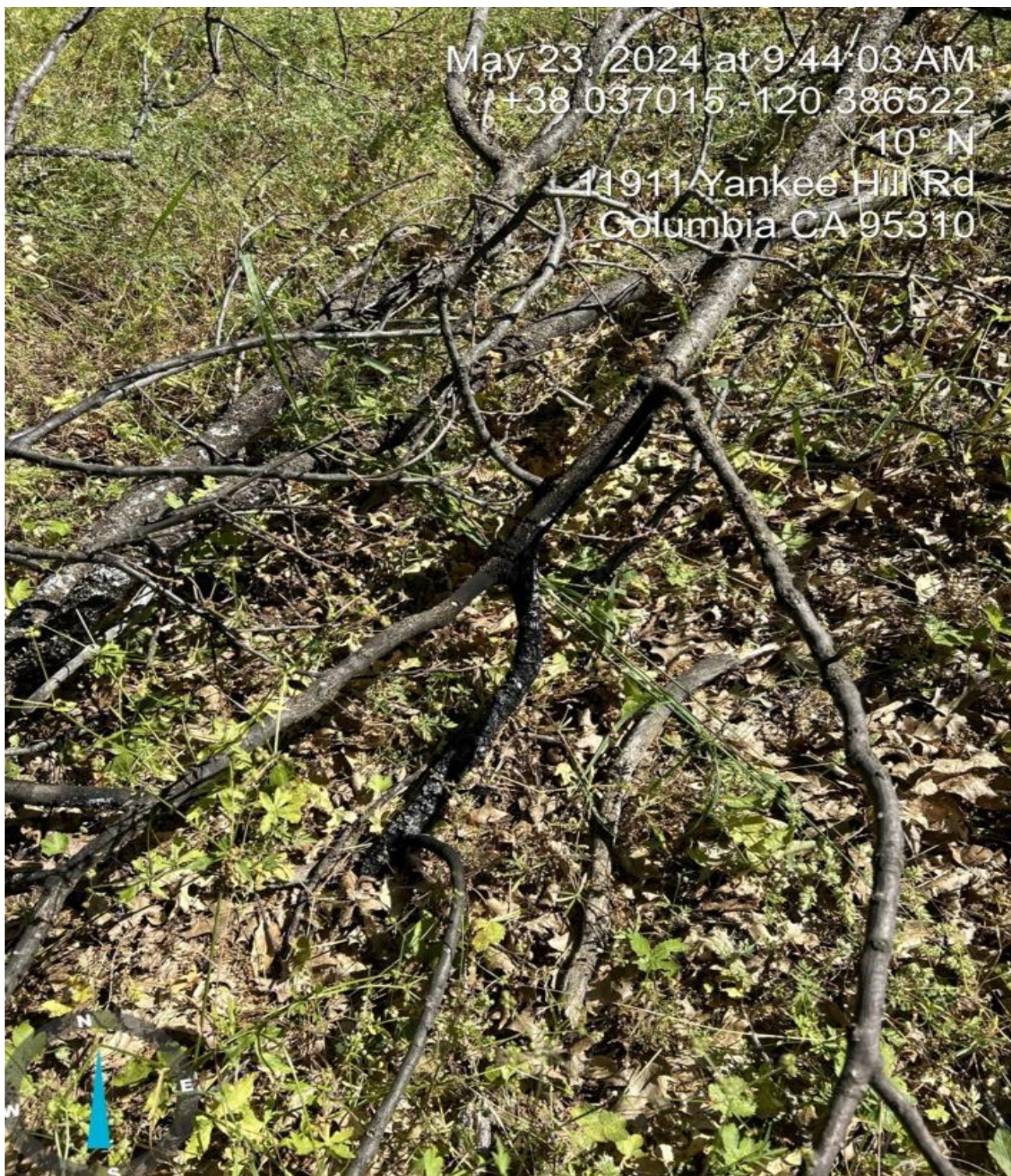
*Figure 4 Photo depicting south phase conductor cut in the clear near SAP Id #101050291 taken by troubleshooter.*





*Figure 5 Photo depicting south phase down conductor on SAP ID # 101050282 taken by troubleshooter.*





*Figure 6 Photo depicting fallen branches in the incident location near the broken conductor with burn marks taken by VM Inspector. Comments on photo were provided by VM.*



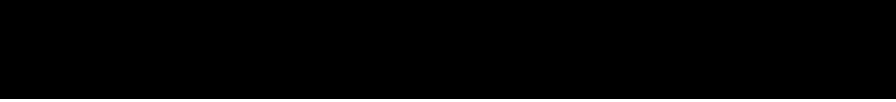


*Figure 7 Photo depicting area on subject tree where branch appeared to have failed. Comments on photo were provided by VM.*



## Attachments

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



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