

Incident Investigation Report

Incident Number: E20191030-02

Date of report: 6/4/20

Engineer: Oge Enyinwa

Utility: PG&E

Incident Address: 4901 Bethel Island Rd

City: Oakley

County: Contra Costa

Brief description of incident: On October 27, 2019, at 0500 hours, PG&E was informed through its SCADA alerts that Recloser K504R, which protects portions of the Brentwood 2112 (21kV) Circuit, had opened, closed, and reopened again. This resulted in the loss of power to approximately 1,610 customers. The East Contra Costa Fire Protection District (ECCFPD) received a call at approximately 0500 hours for a grass fire in the vicinity of the intersection of Bethel Island Road and E. Cypress Road in Oakley. ECCFPD completely extinguished the fire at 0700 hours and issued Incident Report # 19114821.

Findings: I reviewed the 2015 and 2017 patrol records and did not find any problems or issues reported in those documents. The 2014 and 2019 inspection records, however, had new poles installed, missing guys replaced, and grounding fixed via various Work Orders. PG&E is yet to complete a failure analysis or root cause analysis report for this incident.

Around 0500 hours on October 27, 2019, in Oakley, a wildland fire resulting in 1,610 customer outages on PG&E's Brentwood 2112 circuit occurred. The areas affected were portions of the Brentwood 2112 line that are protected by recloser K504R, which include sections of the line that extend along Bethel Island Road and transition to underground at a location approximately 1,000 feet north of E. Cypress Road, with aboveground facilities located to the north of the riser location. PG&E's 20-Day Report states:

“As reported by ECCFPD, the wind that morning was blowing from the northwest with wind gusts of up to 75 miles per hour. Prior to the fire, a passerby (Eyewitness #1) reported hearing loud noises and seeing sparks coming from the PG&E power lines and landing on vegetation below. Eyewitness #1 was driving on E. Cypress Road at the time and approaching an intersection to turn onto Bethel Island Road. They observed electrical activity on Bethel Island Road and reported seeing two showers of sparks coming from Distribution facilities on a PG&E pole approximately 20 seconds apart. After the second shower of sparks hit the ground, they observed a grass fire that started and spread rapidly. Eyewitness #1 then called 911.”

PG&E dispatched a Troublemaker to the scene of the incident when it became aware of the incident. On his arrival, the Troublemaker observed indications that the center phase conductor had faulted to the street side phase conductor. He also observed that a pole located in a Raptor Concentration Zone and a bird guard on the center phase conductor were discolored. The Troublemaker created a tag for

a construction crew to make repairs to the pole, including replacement of jumpers, connectors, and re-tightening of the conductor span. The repairs also included adding a king pin, lifting the conductor, and increasing the separation between the three jumpers along with the conductors going across Bethel Island Road. PG&E restored power to the 1,610 customers after repairs were completed on October 30, 2019, at 1150 hours.

Analysis: Based on the above findings, it appears there was a line-to-line fault due to high winds which caused the slapping between two jumpers. This fault may have provided the ignition source which led to a shower of sparks that caused the vegetation fire. For this investigation, the assigned engineer reviewed meteorological data, ILIS report, ECCFPD's report, and PG&E's data request responses. One of PG&E's data responses indicated that the clearance between the jumpers meets the minimum allowable vertical clearance of 24 inches on the Incident Pole.

Based on the review of all data and documentation received from PG&E, the assigned engineer has determined that the cause of the outage was due to a line-to-line fault on PG&E's distribution circuit. Therefore, the incident is closed, and no other report will be prepared at this time.

While investigating this incident, I did not find any GO 165 or GO 95 violations.

Documents obtained: ECCFPD Report; Utility Initial and Final Report; Data Requests Response; 2014 and 2019 Inspection Records; 2015 and 2017 Patrol Records; photos; Job completion record for post-incident repairs; and ILIS Report.

Conclusion: The Assigned Engineer has reviewed the evidence and discussed the incident with the supervisor, who has concluded that the incident does not warrant a thorough investigation. Therefore, the incident is closed, and no other report will be prepared at this time.