

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Safety and Enforcement Division

**Resolution SED-13
August 13, 2026**

RESOLUTION

**RESOLUTION SED-13 APPROVING ADMINISTRATIVE CONSENT
ORDER AND AGREEMENT OF THE SAFETY AND ENFORCEMENT
DIVISION AND PACIFIC GAS AND ELECTRIC COMPANY REGARDING
THE 2022 MOSQUITO FIRE PURSUANT TO RESOLUTION M-4846**

SUMMARY

In this Resolution, the California Public Utilities Commission (Commission) approves an Administrative Consent Order and Agreement (ACO) between the Commission's Safety and Enforcement Division (SED) and Pacific Gas and Electric Company (PG&E) to resolve all issues involving the 2022 Mosquito Fire. PG&E agrees to a \$22 million penalty, consisting of a \$21 million fine to the General Fund of the State of California, and up to \$1 million in shareholder funding for a third-party review of PG&E's Transmission Centralized Inspection Review Team (CIRT).

BACKGROUND AND DISCUSSION

Resolution ESRB-4, issued in June 2014, directs all investor-owned electric utilities, including PG&E, to take remedial measures to reduce the likelihood of fires started by or threatening utility facilities.

In 2022, the Mosquito Fire occurred in PG&E's service territory. SED conducted an investigation of the Mosquito Fire and in its investigation report identified possible violations by PG&E of provisions of the California Public Utilities Code and the Commission's General Orders. SED's investigation report is attached as Attachment B.

Resolution M-4846, issued in November 2020, adopted the Commission Enforcement and Penalty Policy (Enforcement Policy) and authorized Commission staff to negotiate and propose an Administrative Consent Order to resolve an enforcement matter, subject to review and consideration by the Commission.¹ SED and PG&E executed the attached

¹ Resolution M-4846, Findings and Conclusions #8; Enforcement Policy, p. 11.

ACO,² pursuant to and consistent with the Enforcement Policy, which resolves all issues related to SED’s investigation of the 2022 Mosquito Fire and any enforcement action SED might have brought related to or arising from the 2022 Mosquito Fire. In accordance with the Enforcement Policy, the proposed settlement between SED and PG&E (collectively, Parties) is memorialized in the attached Administrative Consent Order and Agreement.

The Enforcement Policy provides that “the following general considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: (1) Equitable factors; (2) Mitigating circumstances; (3) Evidentiary issues; and (4) Other weaknesses in the enforcement action[.]”³ The Parties explicitly considered these factors in their confidential settlement communications under Rule 12.6 of the Commission’s Rules of Practice and Procedure. SED acknowledges PG&E’s cooperation with SED on the negotiation of the Administrative Consent Order and Agreement, and SED explicitly considered a range of evidentiary and other matters that would bear upon its pursuit of enforcement actions seeking penalties or citations on disputed issues of fact and law. When taken as a whole, the Parties agree that the ACO amounts are within the range of reasonable outcomes had the matters proceeded to formal litigation.

The Penalty Assessment Methodology sets forth five factors that staff and the Commission must consider in determining the amount of a penalty for each violation: “[s]everity or gravity of the offense, conduct of the regulated entity, financial resources of the regulated entity, including the size of the business, totality of the circumstances in furtherance of the public interest, and the role of precedent.”⁴ These factors are addressed here.

A. Severity or Gravity of the Offense

The Commission has stated that the severity of the offense includes several considerations, including economic harm, physical harm, and harm to the regulatory process.

1. Physical and Economic Harm

The Commission has described the physical and economic harm criteria as follows:

Economic harm reflects the amount of expense which was imposed upon the victims. In comparison, violations that cause actual physical harm to people or property are generally

² The ACO is attached as Attachment A.

³ Enforcement Policy, p. 15.

⁴ Enforcement Policy, pp. 16-21.

considered the most severe, followed by violations that threaten such harm.⁵

The Mosquito Fire burned over 76,000 acres of land, resulted in the destruction of approximately 78 structures and damaged 13 others, before it was fully contained. The ACO acknowledged and reflected the significant economic harm arising from the Mosquito Fire.

2. Harm to the Regulatory Process

As part of the severity of the offense factor, the Commission has described the harm to the regulatory process criterion as follows:

“Every public utility shall obey and comply with every order, decision, direction, or rule made or prescribed by the Commission in the matters specified in this part, or any other matter in any way relating to or affecting its business as a public utility, and shall do everything necessary or proper to secure compliance therewith by all of its officers, agents, and employees.” (Public Utilities Code § 702).

Such compliance is essential to the proper functioning of the regulatory process. For this reason, disregarding a statutory or Commission directive, regardless of the effects on the public, will be accorded a high level of severity.⁶

PG&E complied with SED during the investigation of the Mosquito Fire and in the negotiation and presentation of the ACO. There were no allegations of Rule 1.1 violations and no allegations of other ethical violations or any deliberate misconduct associated with the Mosquito Fire. Accordingly, this was not a significant factor in determining the basis for the penalty imposed pursuant to the ACO.

B. The Conduct of the Utility

In evaluating the conduct of the utility, the Commission has described the following considerations in evaluating the utility’s conduct: (1) actions taken to prevent a violation; (2) actions taken to detect a violation; (3) actions taken to disclose and rectify a violation; (4) actions taken to conceal, hide or cover up a violation; and (5) prior history of violations.⁷

⁵ Enforcement Policy, p. 16.

⁶ Enforcement Policy, p. 17.

⁷ Enforcement Policy, p. 17.

This was the primary area of disagreement between the Parties. SED alleged that PG&E violated Commission General Order (GO) 95, Rule 19 in its failure to preserve evidence that consisted of Pole 09/131 and its attached equipment, and when PG&E disposed of the removed pole and attached equipment. SED further alleged that PG&E violated GO 95, Rule 18 in its failure to correct repair work related to loose tie wires. SED alleged that PG&E violated GO 95, Rule 31.1 for failing to complete switch maintenance at the Oxbow Junction Pole at Switch 47 and 49, and for cancelling repair work in the Oxbow Junction area. SED further alleged that PG&E violated GO 95, Rule 31.1 in its failure to clear vegetation around the Oxbow Junction Pole in May 2022. For purposes of the ACO, PG&E has agreed to one alleged violation of GO 95, Rule 18; GO 95, Rule 19; GO 95, Rule 31, and GO 95, Rule 37. PG&E agrees not to contest one alleged violation of GO 95, Rule 31.1. However, PG&E disagrees with one violation of GO 95, Rule 18 and one violation of GO 95, Rule 31.1.

Accordingly, the details of this factor, such as the Parties' evaluations of their respective litigation risk, were the focus of negotiations subject to the confidentiality provisions of Commission Rule 12.6 and are not described here. This is consistent with the Enforcement Policy, which states:

The Policy does not list the full range of considerations that may be relevant to negotiating a proposed settlement. However, the following general considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: 1. Equitable factors; 2. Mitigating circumstances; 3. Evidentiary issues; and 4. Other weaknesses in the enforcement action that the division reasonably believes may adversely affect the ability to obtain the calculated penalty.⁸

Nevertheless, PG&E's conduct in preventing the violation, detecting the violation, and disclosing and rectifying the violation were expressly considered in negotiating and resolving the ACO.

In consideration of the disagreement over the alleged violations relating to the cancelled repair work and pursuant to the ACO, PG&E shareholders will fund \$1 million to provide a third-party review of PG&E's CIRT. The scope of the review will evaluate CIRT's policies and procedures to assess organizational redundancy, effectiveness, and efficiency, examine whether CIRT's practices are properly documented and CIRT's compliance with GO 95, and develop actionable recommendations regarding CIRT's structure, responsibilities, and/or practices going forward. SED will approve PG&E's

⁸ Enforcement Policy, p. 15.

selection of the third-party contractor to perform the review and will have oversight and approval of the scope of work. Pursuant to Resolution M-4846, SED has the right to initiate any separate enforcement actions relating to CIRT following its review of the third-party report.

C. Financial Resources of the Utility

The Commission has described this criterion as follows:

Effective deterrence also requires that staff recognize the financial resources of the regulated entity in setting a penalty that balances the need for deterrence with the constitutional limitations on excessive penalties. . . . If appropriate, penalty levels will be adjusted to achieve the objective of deterrence, without becoming excessive, based on each regulated entity's financial resources.²

PG&E provided SED with information about its financial resources over the course of its negotiations leading to the ACO, and SED took that into consideration. PG&E is the largest electric utility in the state of California in terms of customers and revenue. According to PG&E, its current financial situation is characterized by the parent company's sub-investment grade credit ratings by both S&P and Moody's and a heavily discounted common stock valuation (around 50% below the regulated utility peer group).

The Commission itself is aware of most of the details of PG&E's significant financial obligations, but for clarity they are summarized here. PG&E has entered into settlement agreements in other venues pursuant to which it has total financial obligations of \$25.5 billion to settle claims related to the 2017 and 2018 wildfires as part of its Plan of Reorganization. In addition, the Commission's approval of the Settlement of the 2017 and 2018 Wildfire OII, with modifications, imposed additional penalties on PG&E of \$2.137 billion (with \$200 million permanently suspended). Further, PG&E has entered into settlement agreements with the Sonoma District Attorney under which it has total financial obligations of \$20.25 million to settle the civil complaint relating to the Kincade Fire and with the District Attorneys of Plumas, Lassen, Tehama, Shasta, and Butte Counties under which it has total financial obligations of \$34.75 million to settle civil complaints relating to the Dixie and Fly Fires filed by those district attorneys. In 2023, the Commission approved a settlement agreement between SED and PG&E in connection with the Zogg Fire.¹⁰ In that agreement, PG&E agreed to pay a \$150 million penalty, consisting of a \$10 million penalty to the State's General Fund and \$140 million in permanent disallowances targeted to PG&E's vegetation management program to help

² Enforcement Policy, p. 19.

¹⁰ See Resolution ALJ-439, issued May 24, 2023.

mitigate the risk of similar incidents or harm to the public in the future. Most recently, the Commission approved a settlement agreement between SED and PG&E in connection with the Dixie Fire.¹¹ In that agreement, PG&E agreed to pay a \$45 million penalty, consisting of a \$2.5 million penalty to the State’s General Fund, \$2.5 million penalty to tribes impacted by the Dixie Fire for remediations of the impacts of the Dixie Fire on tribal lands, and \$40 million in shareholder funding for capital expenditures for the initiative to transition from hard copy records to electronic records for distribution patrols and inspections.

The \$22 million combination of amounts for which PG&E will pay penalties or not seek cost recovery pursuant to the ACO is reasonable and appropriate in light of PG&E’s financial condition.

D. Totality of Circumstances in Furtherance of Public Interest

The Commission has described this criterion as follows:

Setting a penalty at a level that effectively deters further unlawful conduct by the regulated entity and others requires that staff specifically tailor the package of sanctions, including any penalty, to the unique facts of the case. Staff will review facts that tend to mitigate the degree of wrongdoing as well as any facts that exacerbate the wrongdoing. In all cases, the harm will be evaluated from the perspective of the public interest.

An economic benefit amount shall be estimated for every violation. Economic benefit includes any savings or monetary gain derived from the act or omission that constitutes the violation.¹²

In SED’s estimation, PG&E derived relatively minimal “economic benefit” in the form of cost savings or monetary gain as a result of the act or omission that constituted the violation. The package of sanctions, including remedial actions and a monetary penalty, were tailored to the unique facts of this case.

The totality of the circumstances in furtherance of public interest supports approval of the ACO. First, it provides a significant resolution of the issues identified here. PG&E agrees to pay \$21 million in penalties, and \$1 million in shareholder-funded costs for funding for a third-party review of PG&E’s CIRT’s policies and procedures. By reaching

¹¹ See Resolution SED-8, issued February 2, 2024.

¹² Enforcement Policy, p. 19.

a settlement, SED and PG&E have implicitly agreed that the total shareholder costs of \$22 million are not constitutionally excessive.

Second, with an appropriate resolution having been reached, it is in the public interest to resolve this proceeding now. The ACO obviates the need for SED to initiate an enforcement proceeding and for the Commission to adjudicate the disputed facts, alleged violations, and appropriate penalty. Approval of the ACO promotes administrative efficiency so that the Commission and parties are not required to expend substantial time and resources on continued litigation for a matter that has been satisfactorily resolved.

E. Consistency with Precedent

The Commission has described the role of precedent as follows:

Penalties are assessed in a wide range of cases. The penalties assessed in cases are not usually directly comparable. Nevertheless, when a case involves reasonably comparable factual circumstances to another case where penalties were assessed, the similarities and differences between the two cases should be considered in setting the penalty amount.

The ACO is reasonable when compared to the outcome of other settlements and outcomes in Commission proceedings. The following are examples of approved settlements and enforcement decisions involving electric utilities and safety issues.

1. Dixie Fire ACO Settlement (Resolution SED-8)

The Dixie Fire ignited on July 13, 2021, when a tree fell and contacted electrical distribution lines owned and operated by PG&E. The Dixie Fire burned more than 960,000 acres, destroyed approximately 1,300 structures, and damaged 94 others, before it was fully contained. The California Department of Forestry and Fire Protection (CAL FIRE) determined that the Dixie Fire was caused by a Douglas fir tree contacting PG&E's electrical distribution lines. SED issued a Notice of Violation (NOV) where it alleged that PG&E violated GO 95, Rule 18, Rule 19, Rule 31.1, Rule 27, and Resolution 4184-E. SED and PG&E entered into an ACO and agreed to a settlement of \$45 million for the Dixie Fire, including a \$2.5 million penalty to the General Fund, a \$2.5 million payment to tribes impacted by the Dixie Fire for remediations of impacts of the Dixie Fire on tribal lands, and \$40 million in shareholder funding for capital expenditures for the initiative to transition from hard copy records to electronic records for distribution patrols and inspections. The Commission approved the settlement in Resolution SED-8.

**2. Zogg Fire Administrative Enforcement Order
(Resolution ALJ-439)**

The Zogg Fire ignited on September 27, 2020, when a tree fell on energized conductors owned and operated by PG&E in Shasta County. The fire burned more than 56,000 acres, caused four fatalities and one injury, destroyed 204 structures, and damaged 27 structures. SED issued an Administrative Enforcement Order alleging that PG&E had violated PU Code section 451, GO 95, and GO 165. PG&E disputed each violation and/or proposed penalty. SED and PG&E agreed to a settlement of \$150 million for the Zogg Fire, including a \$10 million penalty payable to the General Fund and \$140 million in shareholder funds for new wildfire initiatives designed to mitigate the risk of similar events occurring in the future. The Commission approved the settlement in Resolution ALJ-439.

**3. Kincade Fire ACO Settlement (Resolution SED-6 and
SED-6A)**

The Kincade Fire ignited on October 23, 2019, in Sonoma County. According to CAL FIRE, the fire burned more than 77,000 acres, destroyed nearly 374 structures, and caused four non-fatal injuries with zero fatalities. CAL FIRE determined that the fire was caused by PG&E's electrical transmission lines. SED alleged that PG&E had violated PU Code section 451 and GO 95. SED and PG&E entered into an ACO and agreed to a settlement of \$125 million for the Kincade Fire, including a \$40 million penalty payable to the General Fund and an \$85 million permanent disallowance for cost recovery for removal of abandoned transmission lines within PG&E's service area. The Commission approved the settlement in Resolution SED-6, as modified by Resolution SED-6A.

4. The 2017 and 2018 Wildfire Settlement (D.20-05-019)

In October 2017 and November 2018, multiple wildfires occurred across PG&E's service territory in Northern California. The 2017 and 2018 wildfires were unprecedented in size, scope, and destruction. The Commission's decision states that at the peak of the 2017 wildfires, there were 21 major wildfires that, in total, burned 245,000 acres and caused 44 fatalities, 22 of which are attributed to fires started by PG&E facilities. PG&E's equipment failure started the 2018 Camp Fire, which burned approximately 153,336 acres, destroyed 18,804 structures, and resulted in 85 fatalities. The Commission imposed penalties totaling \$2.137 billion on PG&E, which consisted of \$1.823 billion in disallowances for wildfire-related expenditures, \$114 million in system enhancement initiatives and corrective actions, and \$200 million fine payable to the General Fund (which was permanently suspended).

5. Long Beach Power Outages OII Decision (D.17-09-024)

In this proceeding, the CPUC approved a settlement between Southern California Edison Company ("SCE") and SED related to multiple power outages on SCE's secondary network system, which serves Long Beach. The electric facility failures caused fires in

several underground structures and explosions. No fatalities or injuries resulted from the power outages. SED alleged, among other things, that (1) SCE violated PU Code §§ 451 and 768.6 and GO 128, for failing to properly maintain, inspect, and manage the electrical system in Long Beach; (2) SCE violated a commitment to an earlier settlement by failing to provide accurate estimates of service restoration times during outages; and (3) the violations that caused or contributed to the power outages that resulted in fires, explosions, and property damage endangered the safety of the public. Under the settlement, SCE admitted to violations of Rule 17.1 of GO 128 and PU Code § 451. SCE agreed to pay a penalty of \$4 million to the General Fund. SCE also agreed to perform \$11 million worth of corrective actions, designed to prevent future outages, at shareholder expense.

**6. Malibu Canyon Fire OII Decision – Settlement 1
(D.12-09-019)**

In this proceeding, the CPUC approved a settlement between AT&T, Sprint, Verizon Wireless (the “Settling Respondents”), and SED related to three utility poles that fell during a Santa Ana windstorm and ignited the Malibu Canyon Fire. The poles were jointly owned by SCE, AT&T, Sprint, Verizon Wireless, and NextG. The power lines on the poles were owned and operated by SCE. There were no reported injuries or fatalities. SED alleged, among other things, that (1) one of the felled poles that ignited the Malibu Canyon Fire was overloaded in violation of GO 95 and PU Code § 451; (2) the safety factor of replacement poles did not meet the requirements of GO 95 for new construction; and (3) the Settling Respondents violated Rule 1.1 by submitting accident reports, data responses, and written testimony that contained incorrect information. The Settling Respondents denied all of SED’s allegations. Ultimately, the Settling Respondents agreed to pay \$12 million (divided equally between the three Settling Respondents). Of the \$12 million, \$6.9 million was to be allocated to the General Fund and \$5.1 million to the Enhanced Infrastructure and Inspection Fund (“EIIIF”), established pursuant to the settlement agreement. Funds paid to the EIIIF were to be used to strengthen utility poles in Malibu Canyon and to conduct a statistically valid survey of joint-use poles in the service territory for compliance with GO 95. Any funds leftover from the EIIIF would revert to the General Fund.

**7. Malibu Canyon Fire OII Decision – Settlement 2
(D.13-09-026)**

In the above-referenced Malibu Canyon Fire proceeding, the CPUC also approved a settlement between NextG Networks of California, Inc. (“NextG”) and SED. SED alleged the same violations of GO 95, PU Code § 451, and Rule 1.1. Under the settlement, NextG admitted noncompliance with GO 95, PU Code § 451, and Rule 1.1. NextG agreed to pay \$14.5 million in penalties. The penalties were comprised of \$8.5 million in fines to the General Fund and \$6 million allocated for a safety audit of all NextG poles and pole attachments in California. The settlement required NextG to complete the audit and any remedial work required following the audit within three years

from the start date of the audit. NextG agreed to pay any money left over from the \$6 million to the General Fund; that money could not be used for any remedial work related to substandard facilities identified in the audit.

**8. Malibu Canyon Fire OII Decision – Settlement 3
(D.13-09-028)**

In the above-referenced Malibu Canyon Fire proceeding, the CPUC also approved a settlement between SCE and SED. SED alleged the same violations of GO 95, PU Code § 451, and Rule 1.1. SCE admitted that: (1) one of the poles was overloaded in violation of GO 95; (2) it failed to take prompt action to prevent the pole from overloading, in violation of PU Code § 451; and (3) it withheld relevant information from SED and the CPUC in violation of Rule 1.1. Under the settlement, SCE admitted noncompliance with GO 95, PU Code § 451, and Rule 1.1. SCE agreed to pay \$20 million to the General Fund and provide \$17 million to assess utility poles in the Malibu area for compliance with GO 95 safety factors and SCE’s internal standards. SCE agreed to remediate all substandard utility poles. All \$37 million in fines were comprised of shareholder penalties.

9. The Witch/Rice and Guejito Fire Settlements (D.10-04-047)

In late October 2007, several severe fires occurred in the San Diego area. The Rice Fire ignited in Fallbrook, California, and the Witch Fire ignited in southern San Diego County near State Highway 78 and Santa Ysabel. The Guejito Fire started in the San Pasqual area of the county. In San Diego County, the fires burned more than 197,000 acres, over 1,100 residences were destroyed, and two people were killed. Under the terms of the approved settlement, San Diego Gas & Electric Company (“SDG&E”) paid \$14.35 million to the General Fund; CoxCom Inc., and Cox California Telcom LLC Agreement, CoxCom Inc. and Cox California Telcom LLC paid \$2 million to the General Fund; SDG&E was also required to reimburse SED up to an additional \$400,000 in order to implement a computer work module; and SDG&E was required to remit any unused balance of the \$400,000 to the General Fund.

COMMENTS ON DRAFT RESOLUTION

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS AND CONCLUSIONS

1. Resolution M-4846 authorized Commission staff to negotiate and propose an Administrative Consent Order to resolve an enforcement matter, subject to review and consideration by the Commission.
2. SED and PG&E have engaged in settlement negotiations and, consistent with Resolution M-4846 and the Enforcement Policy, have memorialized their proposed settlement in the attached Administrative Consent Order and Agreement.
3. SED and PG&E have agreed that the attached Administrative Consent Order and Agreement resolves all issues related to SED's investigation of and any enforcement action SED might have brought related to or arising from the 2022 Mosquito Fire.
4. The agreed-upon fines and remedial actions appropriately resolve all issues related to SED's investigation and any enforcement action SED may have brought, are reasonable in light of the circumstances, consistent with the law, and in the public interest.
5. Based on the analysis under the Penalty Assessment Methodology, the agreed-upon fines are reasonable in light of the circumstances.

THEREFORE, IT IS ORDERED that:

1. The Administrative Consent Order and Agreement between SED and PG&E relating to the 2022 Mosquito Fire is adopted.
2. This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on August 13, 2026; the following Commissioners voting favorably thereon:

Leuwam Tesfai
Executive Director

ATTACHMENT A

**Administrative Consent Order between SED and PG&E
relating to the 2022 Mosquito Fire**

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the matter of:

Pacific Gas and Electric Company – re
Mosquito Fire

[PROPOSED] ADMINISTRATIVE CONSENT
ORDER AND AGREEMENT

Issued pursuant to Commission Resolution
M- 4846 (adopting Commission Enforcement
Policy)

**[PROPOSED] ADMINISTRATIVE CONSENT ORDER
AND AGREEMENT**

Dated: July 10, 2026

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[PROPOSED] ADMINISTRATIVE CONSENT ORDER AND AGREEMENT

This Administrative Consent Order and Agreement (hereinafter “ACO” or Agreement”) is entered into and agreed to by and between the Safety and Enforcement Division (“SED”) of the California Public Utilities Commission (“CPUC” or “Commission”) and Pacific Gas and Electric Company (“PG&E”) (collectively, “Parties”) pursuant to Resolution M-4846, dated November 5, 2020, titled *Resolution Adopting Commission Enforcement Policy*.

WHEREAS:

- The Commission has authorized SED “to investigate, negotiate, and draft proposed Administrative Consent Orders, subject to review and consideration by the Commission” via resolution;¹
- The Commission’s Enforcement Policy requires that a “negotiated proposed settlement . . . be memorialized in a proposed Administrative Consent Order,” which requires certain items as set forth in Section 2, below;²
- Consistent with Resolution M-4846, this ACO is a product of direct negotiations between the Parties to resolve and dispose of all claims, allegations, liabilities and defenses related to the Mosquito Fire, and within the scope of the investigation into the Mosquito Fire, by SED and the Commission.
- This ACO is entered into as a compromise of disputed claims and defenses in order to minimize the time, expense, and uncertainty of an evidentiary hearing, any further enforcement proceedings, and/or any subsequent appeals, and with the Parties having taken into account the possibility that each of the Parties may or may not prevail on any given issue, and to expedite timely action on initiatives that benefit California consumers;
- The Parties agree to the following terms and conditions as a complete and final resolution of all claims which have been, or might have been, brought by SED related to or arising from the Mosquito Fire, and all of PG&E’s defenses thereto, based on the information available to the Parties, and without trial and adjudication of any issue of law or fact.

¹ Resolution M-4846 at 15 (Findings and Conclusions No. 8).

² Resolution M-4846, Enforcement Policy at 10.

NOW, THEREFORE it is agreed that this ACO is made and entered into as of this 10th day of July, 2026 (“Effective Date”) as follows:

I. PARTIES

The parties to this ACO and Agreement are SED and PG&E.

SED is a division of the Commission charged with enforcing compliance with the Public Utilities Code and other relevant utility laws and the Commission’s rules, regulations, orders, and decisions. SED is also responsible for investigations of utility incidents, including wildfires, and assisting the Commission in promoting public safety.

PG&E is a public utility, as defined by the Public Utilities Code. It serves a population of approximately 16 million in a 70,000-square-mile service area within Northern and Central California.

II. ELEMENTS REQUIRED BY SECTION III.A.7 OF THE COMMISSION’S ENFORCEMENT POLICY FOR ADMINISTRATIVE CONSENT ORDERS

This is a negotiated settlement of disputed matters, and PG&E specifically and expressly denies any fault, negligence, imprudence, or violation with respect to the Mosquito Fire and, except as explicitly specified, any other matters that SED identified in its investigation into the Mosquito Fire. Except as explicitly stated herein, the Parties expressly agree and acknowledge that neither this ACO nor any act performed hereunder is, or may be deemed, an admission or evidence of the validity or invalidity of any allegations or claims of SED, nor is the Agreement or any act performed hereunder to be construed as an admission or evidence of any wrongdoing, fault, omission, negligence, imprudence, or liability on the part of PG&E.

A. The law or Commission order, resolution, decision, or rule violated by the regulated entity and the facts that form the basis for each violation

Appendix A to this ACO contains the Notice of Violation (NOV) issued by SED to PG&E on July 14, 2025. The NOV includes a discussion of the Commission orders and decisions that PG&E allegedly violated, and the facts that form the basis for each alleged violation. PG&E submitted a response to the NOV (PG&E’s NOV Response), contained in Appendix B to this ACO, on August 13, 2025, which includes information from PG&E in response to each alleged violation by SED.

In light of PG&E's NOV response and settlement discussions, SED dismisses the following violation in the NOV:

Violation 8 – SED dismisses the NOV violation for the Resolution 4184-E requirement “within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside normal working hours, the utility shall provide notice to designate CPUC staff of the general nature of the incident, its cause and estimated damage.”

This ACO addresses and resolves the remaining alleged violations by SED as set forth in the NOV. For purposes of settlement of this ACO only, PG&E responds to each alleged violation as follows. Additional information from PG&E regarding each violation is reflected in its response to SED's NOV in Appendix B to this ACO:

Violation 1 – PG&E admits that the Level 2 line corrective (LC) tags identified as part of this alleged violation were not repaired in violation of the timelines in General Order (GO) 95, Rule 18. These tags were repaired prior to the Mosquito Fire ignition.

Violation 2 – PG&E disagrees that it failed to repair three loose tie wires in violation of GO 95, Rule 18. The identified tie wires were either repaired or PG&E's Transmission Centralized Inspection Review Team (CIRT) determined they did not need to be repaired under PG&E's standards. These tie wires were not associated with the Mosquito Fire ignition. The Parties disagree (See Section A.D.2 below).

Violation 3 – PG&E admits that it did not adequately preserve Pole 09/131 and its attached equipment as evidence due to an internal miscoordination during post-fire restoration work in violation of GO 95, Rule 19. This pole was not involved in the Mosquito Fire ignition. SED agrees that this miscoordination was unintentional and that PG&E notified SED staff upon discovery of the error. PG&E fully cooperated with SED's investigation into the Mosquito Fire.

Violation 4 – PG&E admits that it did not follow its written standard when it did not complete switch function tests for Switches 47 and 49 on Pole 014/191 (the Oxbow Junction Pole) during a six-year period prior to the Mosquito Fire, in violation of GO 95, Rule 31.1. The switches were operated properly in the weeks and months immediately preceding the Mosquito Fire ignition.

Violation 5 – PG&E does not dispute SED's alleged violation of GO 95, Rule 31.1 for failure to clear vegetation around the Oxbow Junction Pole in May 2022. This alleged violation is unrelated to the Mosquito Fire. Further, photographs taken in August 2022 showed intermittent vegetation growth on the rocks within the 10-foot cylinder that was de minimis and disconnected from the vegetation

upslope by the rock outcrop, which constituted a natural barrier to prevent fire spread.

Violation 6 – PG&E disagrees with this alleged violation of GO 95, Rule 31.1. PG&E’s Transmission CIRT properly documented the reasons for cancelling the six transmission notifications identified in this violation under PG&E’s standards. The Parties disagree (See Section A.D.2 below).

Violation 7 –PG&E admits that when it regained access to the area around the Oxbow Junction Pole on September 22, 2022, the jumper on the lowest phase of Switch 47 did not appear to have the proper clearance from the interconnection switch rod in violation of GO 95, Rule 37. PG&E notes that aerial photos from May 2022 show an appropriate clearance, and personnel at the location on two different occasions in August 2022 did not observe any issue with the jumper in question.

B. Information related to the potential for additional or ongoing violations

The Parties intend this Agreement to be a complete and final resolution of all claims which have been, or might have been, brought by SED related to the Mosquito Fire, based on the information known, or that could have been known by the Parties.

C. An agreement by the regulated entity to correct each violation

PG&E asserts and agrees that it has remediated any alleged violations that it has agreed to, or elected not to contest, for the purposes of this ACO. With respect to the remaining alleged violations, PG&E disputes that any such violations occurred.

D. An agreement by the regulated entity to pay any penalty by a date specified

PG&E agrees to a penalty and third-party contract amount totaling \$22,000,000 in shareholder funds as follows (hereinafter collectively “ACO Amounts,” as described more fully in corresponding sections below):

- \$21,000,000: Penalty to the General Fund of the State of California
- \$1,000,000: Funding for a third-party review of PG&E’s Transmission CIRT

The terms of the ACO reflect the Parties’ integrated agreement inclusive of the anticipated tax treatment of the ACO Amounts. Having considered the potential tax treatment applicable to the ACO Amounts, the Parties expressly agree that the ACO Amounts are fair, just, and reasonable without any adjustment to account for any tax benefits or liabilities that may be realized by PG&E or its shareholders.

1. Penalty to the General Fund

PG&E shall pay a monetary penalty of \$21 million to the California State General Fund within thirty (30) days after the date of Commission Approval (as defined in Section IV.E. below).

2. Funding for Third-Party Transmission CIRT Review

PG&E shall spend up to \$1 million to fund a third-party review of PG&E's Transmission CIRT's policies and procedures. This review is in consideration of the disagreement over Violations 2 and 6 but will focus on Transmission CIRT's general policies and procedures rather than the specific conduct described in SED's NOV. This review is not related to the ignition of the Mosquito Fire.

SED staff will approve PG&E's selection of the third-party contractor that will perform the review after this ACO has been approved. PG&E will manage the day-to-day activities of the review with SED's oversight and approval of the scope of work. The scope of the review will include, but is not limited to:

- Evaluating whether Transmission CIRT's functions may be consolidated or reorganized within existing PG&E operations for greater efficiency and effectiveness;
- Examining whether Transmission CIRT's practices are properly documented and confirm compliance with GO 95; and
- Developing recommendations regarding Transmission CIRT's structure, responsibilities, and/or practices going forward.

The third party performing the review shall produce a report of findings to SED staff following its review of the Transmission CIRT policies and procedures. The report may include actionable recommendations relating to the work performed by the Transmission CIRT or its policies and procedures. The third-party report shall be completed within 1 year of the selection of the third-party contractor that will perform the review. The Parties can agree to extend the timeline, if necessary. Within 90 days of receipt of the third-party report, SED staff and PG&E shall meet to discuss the report and whether or how to address the third party's recommendations, if any. SED reserves its right under Resolution M-4846 to initiate any separate enforcement actions relating to the Transmission CIRT following review of the third-party report, if necessary.

In the event the third-party review and report relating to the Transmission CIRT costs less than \$1 million, the remaining funds will be directed to the General Fund.

III. ADDITIONAL TERMS

A. Confidentiality and Public Disclosure Obligations

The Parties agreed to abide by the confidentiality provisions and protections of Rule 12.6 of the Commission's Rules of Practice and Procedure, which governs the discussions, admissions, concessions, and offers to settle that preceded execution of this ACO and Agreement and that were exchanged in all efforts to support its approval. Those prior negotiations and communications shall remain confidential indefinitely, and the Parties shall not disclose them outside the negotiations without the consent of both Parties. The Parties agree to coordinate as to the timing and content of mutual and/or individual public communications. Notwithstanding the foregoing, PG&E may make such disclosures as it reasonably determines are required to satisfy its obligations under applicable securities laws.

B. Future Proceedings

The Parties agree to avoid and abstain from making any collateral attacks on this ACO or taking positions in other venues that would undermine the settlement and effect or intent of the ACO.

Nothing in this ACO constitutes a waiver by SED of its legal obligations, authority, or discretion to investigate and enforce applicable safety requirements and standards (including, without limitation, provisions of GO 95 and GO 165) as to other conduct by PG&E unrelated to this ACO or the Mosquito Fire that SED may identify as the basis for any alleged violation(s). SED shall retain such authority regardless of any factual or legal similarities that other PG&E conduct, and any alleged violation(s), may have to PG&E's conduct/alleged violations related to the Mosquito Fire. Accordingly, any such similarities shall not preclude SED from using other conduct and alleged violation(s) as a basis for future enforcement actions.

C. Regulatory Approval Process

Pursuant to Resolution M-4846, this ACO shall be submitted for public notice and comment. Upon approval or ratification of this ACO, the final resolution will "validate[] the order, which becomes an act of the Commission itself."³

By signing this ACO, the Parties acknowledge that they pledge support for Commission Approval and subsequent implementation of all the provisions of this ACO. The Parties shall use

³ (Resolution M-4846 at 8.).

their best efforts to obtain Commission Approval of this ACO without modification, and agree to use best efforts to actively oppose any modification thereto. Should any Alternate Draft Resolution seek a modification to this ACO, and should either of the Parties be unwilling to accept such modification, that Party shall so notify the other Party within five business days of issuance of the Alternate Draft Resolution. The Parties shall thereafter promptly discuss the modification and negotiate in good faith to achieve a resolution acceptable to the Parties and shall promptly seek approval of the resolution so achieved. Failure to resolve such modification to the satisfaction of either of the Parties, or to obtain approval of such resolution promptly thereafter, shall entitle any Party to terminate this Agreement through prompt notice to the other Party. (*See also* Section IV.D. below.)

If Commission Approval is not obtained, the Parties reserve all rights to take any position whatsoever regarding any fact or matter of law at issue in any future enforcement action or proceeding related to the Mosquito Fire.

D. Admissibility

If this ACO is not adopted by the Commission, its terms are inadmissible for any evidentiary purpose unless their admission is agreed to by the Parties.

Nothing in this ACO shall be deemed to constitute an admission by either PG&E or SED that its position on any issue lacks merit or that its position has greater or lesser merit than the position taken by the other Party, unless otherwise stated.

In entering into this ACO, the Parties intend that neither the fact of this settlement nor any of its specific contents will be admissible as evidence of fault, imprudence, or liability in any other proceeding before the Commission, including for cost recovery related to the Mosquito Fire, or any other administrative body, any court, or any alternative dispute resolution proceeding, such as a mediation or arbitration. In this regard, the Settling Parties are relying on Evidence Code Section 1152(a) and Public Utilities Code Section 315. Furthermore, such use of this ACO or any of its contents in any other proceeding before the Commission, any other administrative body, or any court would frustrate and interfere with the Commission's stated policy preference for settlements rather than litigated outcomes.⁴ The Parties agree that by entering into this ACO, PG&E does not admit to any violations of the General Order provisions

⁴ See Public Util Code 1759(a).

or related statutory requirements identified in Section II.A to this ACO, unless explicitly stated, and SED does not concede that any of PG&E's defenses have merit.

E. Due Process

PG&E's waiver of its due process rights for the Commission to hear and adjudicate the alleged violations set forth in the Appendices to this ACO is conditioned on a final Commission resolution or order approving this ACO without modification, or with modifications agreeable to each of the Parties.

IV. GENERAL PROVISIONS

A. Full Resolution

Upon Commission Approval, this ACO fully and finally resolves any and all claims and disputes between SED and PG&E related to SED's investigation into the Mosquito Fire, and provides for consideration in full settlement and discharge of all disputes, rights, enforcement actions, notices of violations, citations, claims, and causes of action which have, or might have been, brought by SED related to the Mosquito Fire based on the information: (a) known, or that could have been known, to SED at the time that SED executes this ACO, or (b) substantially similar to the alleged PG&E violations set forth in the Appendices to this ACO.

B. Non-Precedent

This ACO is not intended by the Parties to be precedent for any other proceeding, whether pending or instituted in the future. The Parties have assented to the terms of this ACO only for the purpose of arriving at the settlement embodied in this ACO. Each of the Parties expressly reserves its right to advocate, in other current and future proceedings, or in the event that the ACO is not adopted by the Commission, positions, principles, assumptions, arguments and methodologies which may be different than those underlying this ACO. The Parties agree and intend that, consistent with Rule 12.5 of the Commission's Rules of Practice and Procedure, a final Commission resolution approving this ACO should not be construed as a precedent or statement of policy of any kind for or against either Party in any current or future proceeding with respect to any issue addressed in this ACO, including but not limited to PG&E's agreement to, and decision not to contest, certain alleged violations.

C. General Considerations for Settlement

Section III.B of the Commission's Enforcement Policy states that "the following general

considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: 1. Equitable Factors; 2. Mitigating circumstances; 3. Evidentiary issues; and 4. Other weaknesses in the enforcement action[.]”⁵ The Parties explicitly considered these factors in their confidential settlement communications. Without waiving the protections of Rule 12.6 of the Commission’s Rules of Practice and Procedure, the Parties represent that they took these factors into account, and each Party considered the risks and weaknesses of their positions. The Parties also considered the substantial commitment of shareholder funds for wildfire-related issues as a result of Assembly Bill 1054. SED recognizes PG&E’s cooperation and willingness to constructively engage with SED on the negotiation of this ACO, and SED and PG&E considered a range of evidentiary and other matters that would bear upon pursuit of an enforcement action seeking penalties on disputed issues of fact and law. When taken as a whole, the Parties agree that the ACO Amounts set forth in Section II are within the range of reasonable outcomes had this matter proceeded to formal litigation.

D. Incorporation of Complete ACO

The Parties have bargained in good faith to reach the ACO terms set forth herein, including in the Appendices. The Parties intend the ACO to be interpreted as a unified, integrated order and agreement, so that, consistent with Section III.C. above, if the Commission rejects or modifies any portion of this ACO or modifies the obligations placed upon PG&E or SED from those that the ACO would impose, each of the Parties shall have a right to withdraw. This ACO is to be treated as a complete package and not as a collection of separate agreements on discrete issues. To accommodate the interests related to diverse issues, the Parties acknowledge that changes, concessions, or compromises by a Party in one section of this ACO resulted in changes, concessions, or compromises by the other Party in other sections. Consequently, consistent with Section III.C. above, the Parties agree to actively oppose any modification of this ACO, whether proposed by any Party or non-Party to the ACO or proposed by an Alternate Draft Resolution, unless both Parties jointly agree to support such modification.

E. Commission Approval

“Commission Approval” means a resolution or decision of the Commission that is (a) final and no longer subject to appeal, which approves this ACO in full; and (b) does not contain

⁵ Resolution M-4846, Enforcement Policy at 15 (Section III.B.).

conditions or modifications unacceptable to either of the Parties.

F. Governing Law

This ACO shall be interpreted, governed, and construed under the laws of the State of California, including Commission decisions, orders and rulings, as if executed and to be performed wholly within the State of California.

G. Other

1. The representatives of the Parties signing this ACO are fully authorized to enter into this Agreement.
2. The Parties agree that no provision of this ACO shall be construed against either of the Parties because a particular party or its counsel drafted the provision.
3. This ACO constitutes the entire agreement between the Parties and, supersedes all prior or contemporaneous agreements, negotiations, representations, warranties, and understandings of the Parties with respect to the subject matter set forth herein.
4. The rights conferred and obligations imposed on either of the Parties by this ACO shall inure to the benefit of or be binding on that Party's successors in interest or assignees as if such successor or assignee was itself a party to this ACO.
5. Should any dispute arise between the Parties regarding the manner in which this ACO or any term shall be implemented, the Parties agree, prior to initiation of any other remedy, to work in good faith to resolve such differences in a manner consistent with both the express language and the intent of the Parties in entering into this ACO.
6. The Parties are prohibited from unilaterally filing a petition for modification or application for rehearing of the Commission resolution or decision approving this ACO with modification.
7. This ACO may be executed in counterparts.
8. Nothing in this ACO relieves PG&E from any safety responsibilities imposed on it by law or Commission rules, orders, or decisions.
9. The provisions of Paragraph III.C. shall impose obligations on the Parties immediately upon the execution of this ACO.

V. DISCUSSION OF PENALTY ASSESSMENT METHODOLOGY FACTORS

The Penalty Assessment Methodology appended to the Commission's Enforcement Policy sets forth five factors that staff and the Commission must consider in determining the amount of a penalty for each violation: (1) severity or gravity of the offense; (2) conduct of the

regulated entity; (3) financial resources of the regulated entity; (4) totality of the circumstances in furtherance of the public interest; and (5) the role of precedent.⁶ This ACO and Agreement was the result of arms-length negotiation between SED and PG&E, which was guided by the factors set forth in the Penalty Assessment Methodology. As discussed below, consideration of those factors supports a Commission finding that the ACO and Agreement is reasonable and in the public interest. The Appendices to this ACO includes stipulated facts, as well as facts in dispute, which provide a record basis for the Commission's determination.

Severity or Gravity of the Offense. The Commission has stated that the severity or gravity of the offense includes several considerations, including economic harm, physical harm, and harm to the regulatory process. Violations that caused actual physical harm to people or property are considered particularly severe.⁷

The Mosquito Fire, which burned more than 76,000 acres, resulted in the destruction of approximately 78 structures and damaged 13 others.⁸ The Mosquito fire resulted in no injuries or fatalities. Nonetheless, the ACO and Agreement acknowledge and reflects the economic harm arising from the Mosquito Fire.

The Conduct of the Utility. In evaluating the conduct of the utility, the Commission considers the utility's conduct in preventing the violation, detecting the violation, and disclosing and rectifying the violation.⁹

This factor is an area of disagreement between the Parties. As discussed in Section II.A, solely for purposes of this ACO, PG&E has agreed to one alleged violation of GO 95, Rule 18, one alleged violation of GO 95, Rule 19, one alleged violation of GO 95 Rule 31.1, and one alleged violation of GO 95, Rule 37. PG&E also agrees not to contest one alleged violation of GO 95, Rule 31.1. However, PG&E disagrees with one violation of GO 95, Rule 18 and one violation of GO 95, Rule 31.1. Except as explicitly stated herein, in agreeing to, or not contesting, SED's alleged violations, PG&E does not admit that the facts alleged by SED are

⁶ Resolution M-4846 (Nov. 5, 2020), Enforcement Policy, Appendix I; *see* D.22-04-058 at 3–4 (affirming that consideration of the Penalty Assessment Methodology provides a basis for the Commission to determine that a negotiated settlement under the Commission's Enforcement Policy is reasonable and in the public interest.)

⁷ D.20-05-019 at 20; Enforcement Policy at 16.

⁸ *See* Appendix A to this ACO.

⁹ Enforcement Policy at 17.

sufficient to show violations.

The details of this factor, such as the Parties' evaluations of their respective litigation risk, were the focus of negotiations subject to the confidentiality provisions of Rule 12.6 of the Commission's Rules of Practice and Procedure, and are not described here.¹⁰ Nevertheless, without waiving the protections of Rule 12.6, the Parties represent that they considered, among other things, PG&E's conduct in preventing the alleged violations, detecting the alleged violations, and disclosing and rectifying the alleged violations. Pursuant to the ACO, PG&E has agreed to a third-party review of the Transmission CIRT policies and procedures. This review is intended to address transmission maintenance corrective notifications identified in the field.

Financial Resources of the Utility. The Commission has described this criterion as follows:

Effective deterrence also requires that staff recognize the financial resources of the regulated entity in setting a penalty that balances the need for deterrence with the constitutional limitations on excessive penalties If appropriate, penalty levels will be adjusted to achieve the objective of deterrence, without becoming excessive, based on each regulated entity's financial resources.¹¹

PG&E is the largest electric utility in the state of California in terms of customers and revenue. According to PG&E, its financial condition limits its capacity to pay additional penalties. PG&E's current financial situation is characterized by the parent company's sub investment grade credit ratings by both S&P and Moody's and a heavily discounted common stock valuation (around 50% below the regulated utility peer group). In determining the reasonableness of the settlement, SED took PG&E's financial resources into consideration. The ACO Amounts described above, totaling \$22 million, are reasonable and appropriate in light of PG&E's financial condition.

Totality of Circumstances in Furtherance of Public Interest. The Commission has described this criterion as follows:

¹⁰ This is consistent with the Enforcement Policy, which states that a "range of considerations" may be relevant in negotiating a proposed settlement, including "[e]quitable factors," "[m]itigating circumstances," "[e]videntiary issues," and [o]ther weaknesses in the enforcement action that the division reasonably believes may adversely affect the ability to obtain the calculated penalty." Enforcement Policy at 15.

¹¹ Enforcement Policy at 19.

Setting a penalty at a level that effectively deters further unlawful conduct by the regulated entity and others requires that staff specifically tailor the package of sanctions, including any penalty, to the unique facts of the case. Staff will review facts that tend to mitigate the degree of wrongdoing as well as any facts that exacerbate the wrongdoing. In all cases, the harm will be evaluated from the perspective of the public interest.¹²

The Commission must evaluate penalties in the totality of the circumstances, with an emphasis on protecting the public interest. The ACO Amounts described above were tailored to the unique facts of the case and are reasonable. While PG&E disputes several of SED's alleged violations, PG&E acknowledges that there are areas in which it can work with the Commission to further enhance the safety and reliability of its electric facilities and mitigate the risks of wildfire in its service area. The Parties have negotiated in good faith and submit that the totality of the circumstances in furtherance of the public interest supports approval of this ACO.

First, the ACO resolves the issues identified here. Pursuant to the ACO, PG&E agrees to pay the ACO Amounts totaling \$22 million, which include a \$21 million penalty to the General Fund, and up to \$1 million to fund a third-party review of PG&E's Transmission CIRT. By reaching a settlement, SED and PG&E have implicitly agreed that the total cost of \$22 million is not constitutionally excessive. The total amount between the penalty and the third-party review is discretionary and appropriate here. The third-party review of the Transmission CIRT will help identify whether PG&E can achieve efficiencies in creating and addressing transmission maintenance corrective notifications. The review is intended to support continued improvement of PG&E's inspection and maintenance programs across PG&E's service territory. SED will monitor PG&E's performance through its approved oversight and enforcement mechanisms to ensure PG&E's actions comply with the General Orders and other relevant regulations.

Moreover, without waiving the protections of Rule 12.6 of the Commission's Rules of Practice and Procedure, the Parties represent that they took into account, among other things, the efforts PG&E has undertaken in recent years to reduce the risk of ignitions associated with its infrastructure and to address outstanding maintenance corrective actions across its service territory.

Second, the third-party review set forth in this ACO will directly further the public interest by facilitating the Commission's ongoing oversight of PG&E's Transmission CIRT program related to electric safety and supporting continued improvement of PG&E's inspection

¹² Enforcement Policy at 19.

and maintenance programs.

Third, it is in the public interest to resolve this matter now. Approving the ACO would obviate the need for SED to initiate an enforcement proceeding and for the Commission to hold evidentiary hearings to adjudicate the disputed facts, alleged violations, and appropriate penalty amounts related to SED's investigation into the Mosquito Fire. Approval of the ACO promotes administrative efficiency, preventing further expenditure of substantial time and resources on litigation of a matter that the Parties have satisfactorily and reasonably resolved.

The Role of Precedent. The Commission has described this criterion as follows:

Penalties are assessed in a wide range of cases. The penalties assessed in cases are not usually directly comparable. Nevertheless, when a case involves reasonably comparable factual circumstances to another case where penalties were assessed, the similarities and differences between the two cases should be considered in setting the penalty amount.¹³

While not binding precedent, prior settlements are useful for comparison, with the acknowledgement that settlements involve compromise positions. SED considered the following settlements in evaluating this incident and the ACO:

- The Dixie Fire started on July 13, 2021, in Plumas County, California. The Dixie Fire ignited after a Douglas fir tree fell and struck energized distribution conductors which were owned and operated by PG&E. According to CAL FIRE, the Dixie Fire burned more than 960,000 acres, destroyed approximately 1,300 structures, and damaged 94 others. SED alleged that PG&E violated GO 95, Rule 18.B, Rule 31.1, and Public Utilities Code Section 451. SED and PG&E entered into an ACO and agreed to a \$45 million settlement, consisting of a \$2.5 million fine to the General Fund of the State of California, a \$2.5 million payment to tribes impacted by the Dixie Fire, and \$40 million in shareholder funding for capital expenditures for an initiative to transition from hard copy records to electronic records for distribution poles and inspections. The Commission approved the ACO in Resolution SED-8.
- The Zogg Fire ignited on September 27, 2020, when a tree fell on energized conductors owned and operated by PG&E in Shasta County. The fire burned more than 56,000 acres, caused four fatalities and one injury, destroyed 204 structures, and damaged 27 structures. SED issued an Administrative Enforcement Order alleging that PG&E had violated Public Utilities Code section 451, GO 95, and GO 165. PG&E disputed each violation and/or proposed penalty. SED and PG&E agreed to a settlement of \$150 million for the Zogg Fire, including a \$10 million penalty payable to the General Fund and \$140 million in shareholder funds for new wildfire initiatives designed to mitigate the

¹³ Enforcement Policy at 21.

risk of similar events occurring in the future. The Commission approved the settlement in Resolution ALJ-439.

- The Kincade Fire ignited on October 23, 2019, in Sonoma County. According to CAL FIRE, the fire burned more than 77,000 acres, destroyed nearly 374 structures, and caused four non-fatal injuries with zero fatalities. CAL FIRE determined that the fire was caused by PG&E's electrical transmission lines. SED alleged that PG&E had violated Public Utilities Code section 451 and GO 95. SED and PG&E entered into an ACO and agreed to a settlement of \$125 million for the Kincade Fire, including a \$40 million penalty payable to the General Fund and an \$85 million permanent disallowance for cost recovery for removal of abandoned transmission lines within PG&E's service area. The Commission approved the settlement in Resolution SED-6, as modified by Resolution SED-6A.
- In October 2017 and November 2018, multiple wildfires occurred across PG&E's service territory in Northern California. The 2017 and 2018 wildfires were unprecedented in size, scope, and destruction. The Commission's decision in this proceeding states that at the peak of the 2017 wildfires, there were 21 major wildfires that, in total, burned 245,000 acres and causing 44 fatalities, 22 of which are attributed to fires started by PG&E facilities. PG&E's equipment failure started the 2018 Camp Fire, which burned approximately 153,336 acres, destroyed 18,804 structures, and resulted in 85 fatalities. The Commission issued an Order Instituting Investigation into these wildfires. SED, the Office of the Safety Advocate, the Coalition of California Utility Employees, and PG&E agreed to a settlement of \$1.675 billion. The settlement included disallowances and system enhancement initiatives and corrective actions. The Commission approved a modified version of this settlement in D.20-05-019, which increased the total settlement to \$1.937 billion, including disallowances and corrective actions. The decision also imposed a \$200 million penalty payable to the General Fund, with the obligation to pay permanently suspended given the unique circumstances of PG&E's bankruptcy.
- In 2015, multiple power outages occurred on Southern California Edison Company's ("SCE") secondary network system in the City of Long Beach. These outages and electric facility failures caused fires in several underground structures and resulted in explosions. There were no reported injuries or fatalities. SED alleged, among other things, that: (1) SCE violated GO 128 and Public Utilities Code sections 451 and 768.6 for failing to properly maintain, inspect, and manage the electrical system in Long Beach; (2) SCE violated a commitment to an earlier settlement by failing to provide accurate estimates of service restoration times during outages; and (3) the violations that caused or contributed to the power outages that resulted in fires, explosions, and property damage endangered the safety of the public. SCE admitted to violations of GO 128 and Public Utilities Code sections 451 and 768.6. SED and SCE agreed to a settlement of \$15 million, including a \$4 million penalty payable to the General Fund and \$11 million worth of Safety Enhancement Projects at shareholder expense. The Commission approved the settlement in D.17-09-024.

- The Malibu Canyon Fire ignited on October 21, 2007, when three utility poles fell to the ground during a Santa Ana windstorm. The fire burned more than 3,800 acres, destroyed 14 structures and 36 vehicles, and damaged 19 other structures. There were no reported injuries or fatalities. In D.12-09-019, the Commission approved a settlement between AT&T, Sprint, Verizon Wireless (“Settling Respondents”), and SED related to the three utility poles that ignited the fire.¹⁴ SED alleged, among other things, that: (1) one of the fallen poles was overloaded in violation of GO 95 and Public Utilities Code section 451; (2) the safety factor of replacement poles did not meet the requirements of GO 95 for new construction; and (3) the Settling Respondents violated Rule 1.1 by submitting accident reports, data responses, and written testimony that contained incorrect information. The Settling Respondents denied SED’s allegations. SED and the Settling Respondents agreed to a settlement of \$12 million (divided equally between the Settling Respondents), including a \$6.9 million penalty payable to the General Fund and \$5.1 million to the Enhanced Infrastructure and Inspection Fund (“EIIIF”) used to strengthen utility poles in Malibu Canyon and to conduct a statistically valid survey of joint-use poles in the service territory for compliance with GO 95. Any funds leftover from the EIIIF would revert to the General Fund.
- In D.13-09-028, another decision involving the above-referenced Malibu Canyon Fire, the Commission approved a separate settlement between SED and SCE. SED alleged the same violations of GO 95, Public Utilities Code section 451, and Rule 1.1. SCE admitted that: (1) one of the poles was overloaded in violation of GO 95; (2) SCE failed to take prompt action to prevent the pole from overloading, in violation of Public Utilities Code section 451; and (3) SCE withheld relevant information from SED and the Commission in violation of Rule 1.1. SED and SCE agreed to a settlement of \$37 million, including a \$20 million penalty payable to the General Fund and \$17 million in shareholder funds to assess utility poles in the Malibu area for compliance with GO 95 safety factors and SCE’s internal standards. SCE also agreed to remediate all substandard utility poles.
- In late October 2007, several severe fires occurred in the San Diego area: the Rice Fire, the Witch Fire, and the Guejito Fire. According to CAL FIRE, these fires burned more than 197,000 acres, caused two fatalities and 40 injuries, destroyed over 1,700 structures, and damaged 25 structures. SED alleged, among other things, that San Diego Gas & Electric Company (“SDG&E”), CoxCom Inc., and Cox California Telecom LLC (collectively, “Cox”) violated GO 95 and Public Utilities Code section 451 by failing to adequately design, construct, and maintain the affected lines and line clearances. SDG&E and Cox denied these allegations. Under the settlement, which the Commission approved in D.10-04-047, SDG&E paid \$14.35 million to the General Fund and Cox paid \$2 million to the General Fund. SDG&E was also required to reimburse SED up to an additional \$400,000 to implement a computer work module, with any unused balance of the \$400,000 remitted to the General Fund.

¹⁴ The poles were jointly owned by SCE, AT&T, Sprint, Verizon Wireless, and NextG. The power lines on the poles were owned and operated by SCE.

The precedents reflect outcomes that included a mix of penalties, shareholder funding of programs, and/or remedial action plans. The Parties believe that the ACO results in a reasonable outcome considering these precedents and the criteria discussed in this section.


The Parties mutually believe that, based on the terms and conditions stated above, this ACO is reasonable, consistent with the law, and in the public interest.

IT IS HEREBY AGREED.

[Signatures immediately follow this page]

DATED: July 9th, 2026

Pacific Gas and Electric Company

By: 

Peter Kenny
Senior Vice President, Chief Delivery Officer,
Electric Transmission and Distribution
Pacific Gas and Electric Company

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DATED: _____, 2026

Safety and Enforcement Division
California Public Utilities Commission

Leslie L Palmer

Digitally signed by Leslie L
Palmer
Date: 2026.07.09 13:53:51
-07'00'

By:

Leslie L. Palmer
Deputy Executive Director, Safety Enforcement,
Safety Policy, and Water California Public
Utilities Commission

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APPENDIX A

Notice of Violation

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



July 14, 2025

CPUC-ID: E20220908-02

Vincent Tanguay, Senior Director
Electric Compliance, Electric Engineering
Pacific Gas and Electric Company
3000 Lakeside Drive
Oakland, CA 94612

Dear Mr. Tanguay:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) issues the following **Notice of Violation (NOV)** to Pacific Gas and Electric Company (PG&E) as part of its investigation of an incident that occurred on September 6, 2022, near the Oxbow Junction reservoir in California. This incident resulted in the Mosquito Fire, which burned approximately 76,788 acres, destroyed 78 structures, and damaged 13 others.

SED's investigation of the Mosquito Fire identified the following violations:

- six (6) violations of General Order (GO) 95, Rule 18;
- one (1) violation of GO 95, Rule 19;
- three (3) violations of GO 95, Rule 31.1;
- one (1) violation of GO 95, Rule 37 (as modified by Rule 54); and
- one (1) violation of Resolution 4184-E.

A summary of the relevant code sections and SED's findings is attached.

Please provide a response to the violations no later than August 13, 2025. Include PG&E's corrective action plan and all preventative measures taken by PG&E to remedy and prevent the recurrence of such violations. If you have any questions concerning this NOV, please contact Ed Pike at (626) 255-9827 or Ed.Pike@cpuc.ca.gov.

Sincerely,

Nathan Sarian
Program and Project Supervisor
Wildfire Safety and Enforcement Branch
Safety and Enforcement Division

Enclosure

CC: Lee Palmer, Director, Safety and Enforcement Division
Anthony Noll, Program Manager, Wildfire Safety and Enforcement Branch
Ed Pike, Senior Utilities Engineer, Wildfire Safety and Enforcement Branch

Mosquito Fire Summary of Violations

General Order 95, Rule 18 – Maintenance Programs and Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below

Level 2: Any other risk of at least moderate potential impact to safety or reliability: Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District.

1. Violations 1A, B, and C: Three Instances of GO 95, Rule 18 Violations for Missing Maintenance Deadlines

PG&E corrected three separate Level 2 safety issues at poles in a Tier 3 HFTD after the GO 95, Rule 18 deadline:

- PG&E repaired a woodpecker hole at Pole 014/186(A) under transmission notification 121584079 on August 1, 2022, instead of the December 23, 2021, deadline.
- PG&E repaired a loose tie wire at Pole 014/186(C) under transmission notification 121584077 on August 2, 2022, instead of the December 17, 2021, deadline.
- PG&E installed guy wire insulation at Pole 014/186(C) under transmission notification 117783297 on May 7, 2020, instead of the February 20, 2020, deadline.

GO 95, Rule 18.B.1.a.ii. requires that PG&E correct Level 2 safety issues located in Tier 3 HFTD within six months from the time of identification. PG&E provided no documentation of why repairs were not completed within the required time frame. PG&E violated GO 95, Rule 18 for failing to complete the repairs by the required maintenance deadline.

2. Violations 2A, B, and C: Three Instances of GO 95, Rule 18 Violations for Failing to Correct Loose Tie Wires

PG&E's Electric Transmission Preventive Maintenance Manual¹ and PG&E's May 10, 2022, "Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps"² require the correction of loose tie wires to prevent unsafe conditions. The Five Minute Meeting Topic document highlights past examples of pole fires in PG&E's

¹ TD 1001M, Rev. 5, August 31, 2020.

² "Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps" at 1 ("Recent events involving pole fires and unplanned outages have identified the need to clarify construction and inspection standards related to tie wires and conductor attachments to transmission poles. Failure to properly secure conductor to insulators on wooden transmission can lead to hot spots at the hardware due to leakage currents, resulting in ignition on the pole.")

system caused by loose or broken tie wires. PG&E staff documented the following loose tie wires, but PG&E failed to repair these loose tie wires:

- A PG&E inspector and SME documented a loose tie wire at Pole 000/003 in a May 25, 2022, transmission notification.
- A PG&E inspector and SME documented a loose tie wire at Pole 009/130 in a June 22, 2022, transmission notification.
- A PG&E inspector and SME documented a loose tie wire at Pole 014/186A in a June 9, 2022, transmission notification 123833466. This notification was cancelled because PG&E expected that work on the loose tie wire would be completed under transmission notification 121584077. However, transmission notification 121584077 only documents repairs to Pole 014/186C and not the tie wire repair at Pole 014/186A.

PG&E violated GO 95, Rule 18 for failing to correct these three loose tie wires.

General Order 95, Rule 19 – Cooperation with Commission Staff; Preservation of Evidence Related to Incidents Applicability of Rules states in part:

Each utility shall provide full cooperation to Commission staff in an investigation into any major accident (as defined in Rule 17) or any reportable incident (as defined in CPUC Resolution E-4184), regardless of pending litigation or other investigations, including those which may be related to a Commission staff investigation. Once the scene of the incident has been made safe and service has been restored, each utility shall provide Commission staff upon request immediate access to: Any factual or physical evidence under the utility or utility agent’s physical control, custody, or possession related to the incident; The name and contact information of any known percipient witness; Any employee percipient witness under the utility’s control; The name and contact information of any person or entity that has taken possession of any physical evidence removed from the site of the incident

3. Violation 3: GO 95, Rule 19 Violation for Failing to Preserve Evidence

On September 23, 2022, SED instructed PG&E to preserve as evidence Pole 09/131, the cross-arms and insulators and other attachments and all jumpers and conductors within 50 feet of the pole. PG&E disposed of Pole 009/131 and attached equipment on October 22, 2022,³ and did not notify SED until November 1, 2022. PG&E’s failure to preserve evidence and provide full cooperation with SED’s investigation violated GO 95, Rule 19.

General Order 95, Rule 31.1 – Design, Construction and Maintenance states in part:

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.

³ See DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q050.pdf provided on June 16, 2023, in response to Data Request SED-PG&E-002, Question 50.

4. Violation 4: GO 95, Rule 31.1 Violation for Failing to Complete Switch Maintenance at Oxbow Junction Pole

In the absence of another specific, applicable CPUC rule, GO 95, Rule 31.1 requires that a utility follow its internal procedures because by adopting them, the utility has established that those procedures are accepted good practices. PG&E did not complete function testing required by PG&E’s “Switch Maintenance and Inspection Program for Electric Transmission,” (Utility Procedure TD 1006P 02) at Switches 47 and 49. Utility Procedure TD 1006P 02 includes function testing requirements and represents a “best practice” for these switches. PG&E’s history of operational problems involving Switch 47 emphasizes the importance of completing all maintenance and inspection requirements.⁴ Thus, PG&E violated GO 95, Rule 31.1 for failing to complete function testing for Switches 47 and 49.

5. Violation 5: GO 95, Rule 31.1 Violation for Failing to Clear Vegetation Around the Oxbow Junction Pole

PG&E’s “Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region”⁵ requires that PG&E clear vegetation within a 10-foot radius of the Oxbow Junction Pole, up to a height of 8 feet from the ground. The vegetation clearance section of PG&E’s O&M plan represents a “best practice” under GO 95, Rule 31.1. PG&E’s failure to comply with this plan, which left flammable vegetation near the Oxbow Junction Pole during the 2022 fire season, violated GO 95, Rule 31.1.

6. Violation 6: GO 95, Rule 31.1 Violation Because PG&E’s CIRT Failed to Adequately Justify Cancelled Repair Work

CIRT cancelled six repairs for PG&E equipment near the Oxbow Junction Pole without providing adequate justification as required by PG&E’s internal policies. CIRT’s failure to justify cancellation of the recommended repair work listed below violated Rule 31.1.

Table of six cancelled notifications found near Oxbow Junction pole

Pole 014/187 - Four wedge connectors (notification dated May 27, 2022)
Pole 000/003 - Chipped insulator (notification dated June 25, 2021)
Pole 009/131 - Cotter pin and key (notification dated May 26, 2022)
Pole 000/003 - Vegetation obscuring section of guys and anchors (notification dated May 25, 2022)
Pole 000/003 and Pole 009/130 - Loose tie wires (notifications dated May 25, 2022, and June 22, 2022, respectively)

General Order 95, Rule 37 – Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, etc. states in part:

. . . clearances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1, at a temperature of 60° F. and no wind.

⁴ For example, on April 25, 2022, PG&E found the lower phase of Switch 47 burned. Subsequently, on April 30, 2022, four attempts to open and close Switch 47 via SCADA failed. Later, PG&E staff suspected arcing at Switch 47 on August 26, 2022. However, PG&E staff did not find evidence of arcing in the field.

⁵ Issued December 2018 and updated August 2020.

General Order 95, Rule 54 – Conductors states in part:

. . . modifications of the basic clearances in Table 1 (see Rule 37) are contained in Rule 37 and sections of 54.4 (D), including 54.4 (D)(6) Deadended on Pole sub-section (b) which states in part, “Where conductors are supported on a climbable pole in vertical configuration, the energized portions of such conductors shall have clearances of not less than 15 inches from the surface of the pole for voltages between 750 and 7,500 volts and 18 inches from the surface of pole for voltages in excess of 7,500 volts.”

7. Violation 7: GO 95, Rule 37 as Modified by Rule 54 Violation – Lack of Clearance between Lower Phase Jumper and Pole

PG&E failed to maintain the required clearance between the Oxbow Junction Pole and the jumper cable connecting the lower phases of Switches 47 and 49 on September 6, 2022, and created an electrical fault path. PG&E violated GO 95, Rule 37 clearance requirements as modified by Rule 54.

Resolution 4184-E – Adoption of Web-Based Emergency Reporting System for Utilities and Generation Asset Owners states in part:

Within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside of normal working hours, the utility shall provide notice to designated CPUC staff of the general nature of the incident, its cause and estimated damage.

8. Violation 8: Resolution 4184-E Violation for Late Initial Notification

PG&E was required to file an initial notification regarding the Mosquito Fire by September 7, 2022, because PG&E staff were aware that the Oxbow Junction Pole ignited or potentially ignited the Mosquito Fire soon after the fire started at about 1800 hours on September 6, 2022. In addition, PG&E staff were present at the location at about 2000 hours on that date. PG&E did not provide this initial notification until September 8, 2022, in violation of Resolution 4184-E.

APPENDIX B

PG&E Response to Notice of Violation

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August 13, 2025

Nathan Sarina
Program and Project Supervisor
Wildfire Safety and Enforcement Branch
Safety and Enforcement Division

Reference: CPUC-ID: E20220908-02

Notice of Violation: General Order (GO) 95, Rule 18, Rule 19, Rule 31.1, Rule 37; and Resolution 4184-E

Dear Mr. Sarina:

This letter is in response to the above referenced Notice of Violation (NOV) dated July 14, 2025, regarding the investigation of the Safety and Enforcement Division (SED) into the Mosquito Fire, which ignited on September 6, 2022, near the Oxbow Junction Reservoir in Placer County, California (the Incident Location).

The NOV cites six violations of General Order (GO) 95, Rule 18; one violation of GO 95, Rule 19; three violations of GO 95, Rule 31.1; one violation of GO 95, Rule 37 (as modified by Rule 54); and one violation of Resolution E-4184.

The SED investigation identified the following violations:

General Order 95, Rule 18 – Maintenance Programs and Resolution of Potential Violations of General Order 95 and Safety Hazards, which states in part:

“Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below

Level 2: Any other risk of at least moderate potential impact to safety or reliability: Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District.”

General Order 95, Rule 19 – Cooperation with Commission Staff; Preservation of Evidence Related to Incidents Applicability of Rules, which states in part:

“Each utility shall provide full cooperation to Commission staff in an investigation into any major accident (as defined in Rule 17) or any reportable incident (as defined in CPUC Resolution E-4184), regardless of pending litigation or other investigations, including those which may be related to a Commission staff investigation. Once the scene of the incident has been made safe and service has been restored, each utility shall provide Commission staff upon request immediate access to: Any factual or physical evidence under the utility or utility agent’s physical control, custody, or possession related to the incident; The name and contact information of any known percipient witness; Any employee percipient witness under the utility’s control; The name and contact information of any person or entity that has taken possession of any physical evidence removed from the site of the incident.”

General Order 95, Rule 31.1 – Design, Construction and Maintenance, which states in part:

“For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.”

General Order 95, Rule 37 – Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, etc., which states in part:

“. . . clearances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1, at a temperature of 60° F. and no wind.”

General Order 95, Rule 54 – Conductors, which states in part:

“. . . modifications of the basic clearances in Table 1 (see Rule 37) are contained in Rule 37 and sections of 54.4 (D), including 54.4 (D)(6) Deadended on Pole sub-section (b) which states in part, ‘Where conductors are supported on a climbable pole in vertical configuration, the energized portions of such conductors shall have clearances of not less than 15 inches from the surface of the pole for voltages between 750 and 7,500 volts and 18 inches from the surface of pole for voltages in excess of 7,500 volts.’”

Resolution E-4184 – Adoption of Web-Based Emergency Reporting System for Utilities and Generation Asset Owners, which states in part:

“Within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside of normal working hours, the utility shall provide notice to designated CPUC staff of the general nature of the incident, its cause and estimated damage.”

SED alleges three instances of work orders not being completed by the required maintenance deadline in violation of GO 95, Rule 18. SED also alleges three instances of failing to correct loose tie wires in

violation of GO 95, Rule 18. SED alleges that PG&E failed to preserve evidence and did not provide full cooperation with SED's investigation in violation of GO 95, Rule 19. SED alleges that we violated GO 95, Rule 31.1 by (1) failing to complete function testing for Switches 47 and 49; (2) failing to comply with the Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region, which requires PG&E to clear vegetation within a 10-foot radius of a non-exempt pole, up to a height of 8 feet from the ground; and (3) cancelling six repairs for PG&E equipment near the Incident Location without providing adequate justification as required by PG&E's internal policies. SED also alleges we failed to maintain the required clearance between the pole at the Incident Location and the jumper cable connecting the lower phases of the switches on the pole, creating an electrical fault on September 6, 2022, in violation of GO 95, Rule 37 as modified by Rule 54. Finally, SED alleges we provided a late initial notification of the Mosquito Fire in violation of the requirements in Resolution E-4184.

We address each of SED's identified violations in detail below. We also describe corrective actions and operational improvements we have made since the Mosquito Fire that we believe will prevent recurrence of issues alleged in the NOV.

Background

On September 6, 2022, Northern California experienced an extreme and record-setting heat event.

At 1533 hours, Northern California Power Authority (NCPA) notified PG&E that Oxbow Powerhouse (Oxbow PH), a hydroelectric facility located in Placer County, California, had gone offline about 25 minutes earlier. Placer County Water Authority (PCWA) owns Oxbow PH. NCPA operates PCWA's electrical equipment on PCWA's behalf. NCPA requested permission to try to re-parallel Oxbow PH but expressed concern about low voltage conditions on the Middle Fork #1-60kV and Weimar #1-60kV transmission lines. During this conversation, the PG&E Grid Control Center (GCC) informed NCPA that if the Oxbow PH could support paralleling at the voltage conditions, NCPA had permission to attempt to parallel Oxbow PH.

At 1541 hours, NCPA reported to PG&E GCC that it was not able to parallel the Oxbow PH. By 1600 hours, GCC staff were concerned about low voltage in the Foresthill area. To raise the voltage at Foresthill Substation and Oxbow Junction, the GCC developed a plan to transfer the Foresthill Substation load from the Weimar #1-60kV line source to the Middle Fork #1-60kV source. To execute this plan, the normally open Switch 47 at PG&E Pole 014/191 at Oxbow Junction (the Oxbow Junction Pole) would need to be closed. The GCC plan was to operate and close Switch 47 via SCADA after both the Weimar #1-60kV and Middle Fork #1-60kV lines were de-energized (i.e., on a dead line) given the R4 critical conditions for fire danger.

At 1807 hours, an NCPA Operator remotely opened the Middle Fork CB 32 as instructed by the PG&E GCC Operator. This operation de-energized the Middle Fork #1-60kV line up to the open Oxbow Junction Switch 47. At 1810 hours, the PG&E GCC Operator remotely opened the Weimar CB 52. This operation de-energized the Weimar #1-60kV line up to Oxbow Junction and de-energized the Foresthill Substation. At 1812 hours, the PG&E GCC Operator remotely closed Oxbow Junction Switch 47 when both Middle Fork #1-60 kV and Weimar #1-60 kV lines were de-energized. This operation connected the Middle Fork #1-60kV and the Weimar #1-60kV lines at Oxbow Junction. At 1815 hours,

as directed by PG&E GCC, an NCPA Operator remotely closed the Middle Fork CB 32. This operation briefly energized the Weimar #1-60kV and Middle Fork #1-60kV lines and the Foresthill Substation. The NCPA Operator, however, reported to the PG&E GCC Operator that the moment the Middle Fork CB 32 was closed, the Middle Fork CB 32 relayed and opened. The NCPA Operator requested permission from the PG&E GCC Operator to try and remotely close the Middle Fork CB 32 again. The PG&E GCC Operator did not give the NCPA Operator permission to try this operation again, but our Energy Management System indicates a second operation of CB 32. These switching operations impacted a total of 2,699 customers.

At 1817 hours, NCPA called PG&E GCC to report a fire near Switch 47 at Oxbow Junction.

At 1820 hours, the PG&E GCC contacted a PG&E transmission troubleman and dispatched him to Oxbow Junction. The troubleman contacted the local PG&E Public Safety Specialist (PSS) and they met on Mosquito Ridge Road at 1930 hours. At 2000 hours, the troubleman and PSS met up with a CAL FIRE Battalion Chief “Incident Commander” at the Incident Command post. The troubleman and the PSS received approval from the Incident Commander to drive down to Oxbow Junction. While traveling to Oxbow Junction, they were met by a PCWA Manager who informed them that the fire started around Oxbow Junction. The troubleman and the PSS continued to Oxbow Junction. Upon arrival, the troubleman reported to the GCC that Switch 47 appeared to be closed. They also traveled to the nearby Oxbow PH.

According to the United States Forest Service (USFS) website, the Mosquito Fire began on September 6, 2022, at 1827 hours in the area of Mosquito Ridge Road and Oxbow Reservoir east of Foresthill in Placer County. All customers were restored on September 7, 2022, by 1150 hours.

We closely monitored the fire and, out of an abundance of caution, reported this incident to the Commission on September 8, 2022, under the property damage criteria.

Between the start of the fire on September 6, 2022 and September 22, 2022, the USFS restricted access to PG&E equipment near the Incident Location. During a site visit on September 22, 2022, PG&E personnel viewed the Oxbow Junction Pole from the ground and a bucket truck next to the Oxbow Junction Pole. The PG&E personnel observed a jumper on the lowest phase of Switch 47 at the Oxbow Junction Pole did not appear to have the proper clearance from the interconnection switch rod.

Our Response

Violations 1A, B, and C – GO 95, Rule 18

As an initial matter, we note that the three line corrective (LC) tags identified in Violation 1 are not associated with the Oxbow Junction Pole and were completed before the fire.

We agree with this violation and address below each of the Level 2 tags of moderate potential impact to safety or reliability that were not repaired pursuant to the timelines set forth in GO 95, Rule 18.

- A. We agree that corrective work for a woodpecker hole in Pole 014/186(A) was not remedied within six months.¹ We created LC tag #121584079 on June 23, 2021 to repair woodpecker damage identified during a June 17, 2021 inspection, determined it was a priority E notification, and assigned a required end date (RED) of December 17, 2021. We performed a Field Safety Reassessment (FSR) of the tag on November 8, 2021 to determine if the potential risk from the woodpecker damage had worsened in condition and needed to be escalated to a higher priority tag. We determined that the condition had not changed or worsened. The repair was completed on August 1, 2022.
- B. We agree that a loose tie wire at Pole 014/186(C) was not remedied within six months.² We created LC tag #121584077 on June 23, 2021 after a June 17, 2021 inspection identified the loose tie wire. We determined it was a priority E notification and assigned an RED of December 17, 2021. We performed an FSR on November 8, 2021 to determine if the potential risk from the loose tie wire had worsened in condition and needed to be escalated to a higher priority tag. We determined that the condition had not changed or worsened. An additional FSR on June 15, 2022, led us to upgrade the notification to priority B. The repair was completed on August 1, 2022.
- C. We agree that guy wire insulation at Pole 014/186(C) was not remedied by the RED.³ We created LC tag #117783297 on August 21, 2019 to install missing guy wire insulators identified during an August 20, 2019 inspection. We determined it was a priority B notification and assigned an RED of November 18, 2019. We have not been able to ascertain why this repair was not completed by November 18, 2019. The repair was completed on May 7, 2020.

Recognizing the issues with timely completing tags, PG&E has made significant improvements to our transmission maintenance repair work since September 2022. Please see the discussion below regarding our current approach to addressing outstanding transmission maintenance tags.

Transmission Maintenance Tags

Transmission maintenance tags that are past due or nearing their completion deadline are addressed through our transmission maintenance tag program explained in detail in our 2026-28 Wildfire Mitigation Plan (WMP).⁴ The goal of this program is to manage risk associated with open tags while we work to efficiently reduce the number of open transmission maintenance tags using a risk prioritization approach.

As the WMP discusses, prioritization of open work orders (notifications) uses the priority levels A, E, and F that are defined in PG&E's procedure "Electric Transmission Line Guidance for Setting Priority Codes," TD-8123P-103 and correspond to GO 95 Levels 1, 2, and 3, respectively. The B-priority for

¹ Violation 1A in the NOV.

² Violation 1B in the NOV.

³ Violation 1C in the NOV.

⁴ See PG&E 2026-2028 WMP (R0), Section 8.6.1, pp. 311-14: <https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/pge-2026-2028-base-wmp-vol1-r0.pdf>.

transmission notifications has been phased out as of the start of 2023 so that the internal priority levels have a one-to-one correspondence with the GO 95 Levels. Priority E notifications now can be created with deadlines shorter than the allowable GO 95 timeframes and those with three-month deadlines are addressed in the same manner as the former priority B. A significant increase in the number of notifications created since 2019 following the expansion of enhanced inspections, with new inspection technologies, under our Wildfire Safety Inspection Program led to a backlog of E and F notifications requiring additional prioritization.

The High Fire Threat District (HFTD)/High Fire Risk Area (HFRA) ignition-related backlog of notifications created before 2023 was closed in 2024. HFTD or HFRA non-ignition-related notifications opened before 2023 will be repaired opportunistically through 2027, bundling the work with ignition-related notifications on the same structure or circuit when practical to enable an efficient approach for our customers. New HFTD and HFRA notifications created in 2023 and later are targeted for repair by their required deadlines, barring external factors.⁵ There will continue to be a backlog of ignition and non-ignition related transmission notifications in non-HFTD areas that are assessed through the FSR Program to monitor conditions for escalation if required. These non-HFTD transmission notifications are being addressed on a risk-informed basis including, for instance, wildfire risk and public safety.

Open notifications may be reassessed during a subsequent inspection of an asset. An FSR is scheduled for late notifications if the condition is capable of further degrading over time, and under some conditions this requirement may be satisfied by a reassessment occurring during an inspection. Notifications receive additional FSRs if they remain open, at an interval depending on the HFTD per TD-8123P-101.

Violations 2A, B, and C – GO 95, Rule 18

We respectfully disagree with this violation. We also note that the LC tags identified in Violation 2 are not associated with the Oxbow Junction Pole or the Mosquito Fire ignition.

We address below each assertion in SED Violation 2 that we failed to repair a loose tie wire and explain why there was no violation of GO 95, Rule 18.

- A. We respectfully disagree that we failed to repair a loose tie wire at Pole 000/003.⁶ Centralized Inspection Review Team (CIRT) reviewed the May 25, 2022 inspection summary and determined the tie wire was tight and wrapped well around the biscuit (the circular area at the top of the insulator), meaning the insulator and conductor were held tightly in place. CIRT also observed that the insulator was lying flat on the conductor, indicating the tie wire was tight and firmly securing the insulator to the conductor. CIRT did not observe any indication of a loose tie wire in the photos in the inspection report, such as a sagging or askew jumper or a broken or

⁵ External Factors are reasonable circumstances that may impact execution against targets, including, but not limited to, physical conditions, environmental delays, landowner or customer refusals or non-contacts, permitting delays/restrictions, weather conditions, removed or destroyed assets, wildfires, exceptions or exemptions to regulatory/statutory requirements, and other safety considerations.

⁶ Violation 2A in the NOV.

damaged tie wire. Thus, we determined and maintain there was no loose tie wire at Pole 000/003 that needed to be repaired and there was no violation of GO 95, Rule 18.

- B. We respectfully disagree that we failed to repair a loose tie wire at Pole 009/130.⁷ CIRT reviewed the June 22, 2022 inspection summary and determined the tie wires were not loose; they were snug around the biscuit. Thus, we determined and maintain there was no loose tie wire at Pole 009/130 that needed to be repaired and there was no violation of GO 95, Rule 18.
- C. We respectfully disagree that we failed to repair a loose tie wire at Pole 014/186(A), the left child pole of a three-pole child structure.⁸ CIRT cancelled LC tag #123833466 documenting a tie wire not to standard at Pole 014/186(A) because the work was to be completed under an existing LC tag, LC tag #121584077. Although LC tag #121584077 was assigned to Pole 014/186(C), the right child pole, there also was a second existing tag, LC tag #121584079, assigned to Pole 014/186(A), the left child pole. The work on the two LC tags was performed together, and the construction completion checklist for each tag shows a check mark in the box: “Tie wires installed properly when required.” Further, the work completion images associated with the tags include close-up photos of the top of both the right and left child poles, identifying the parts of the facilities on which the contractor performed his repairs. Accordingly, we believe the tie wire identified as “not to standard” in LC tag #123833466 was corrected on August 1, 2022.

Violation 3 – GO 95, Rule 19

As an initial matter, we note that Pole 009/131 and attached equipment, which were located two spans to the east of the Oxbow Junction Pole, were not involved in the ignition of the Mosquito Fire.

We acknowledge that on September 23, 2022, SED staff asked PG&E to provide notice before pole 009/131 and its attached equipment were removed during post-fire restoration efforts and to preserve the same following their removal. However, we removed pole 009/131 and attached equipment by helicopter and deposited the removed items in dumpsters on October 22, 2022 and did not notify SED of this action until November 1, 2022. The removal of pole 009/131 and attached equipment, and the depositing of the equipment in the dumpsters, without prior notification was an error on PG&E’s part and due to an internal miscoordination during our post-fire restoration work.

We respectfully disagree that a failure to notify SED before removing pole 009/131 and its attached equipment, and depositing the removed items in dumpsters, constitutes a violation of GO 95, Rule 19. We have endeavored to fully cooperate with SED during the investigation of the Mosquito Fire. We have responded to hundreds of data requests that include multiple subparts. We have participated in site visits, conducted numerous interviews on various topics with SED Staff, and responded to follow up questions. Consistent with Rule 19, we have provided access to evidence under our control. After learning that Pole 009/131 had been removed and deposited in dumpsters, we provided a video to SED Staff of the pole’s removal that a PG&E crew had taken in connection with restoration activities. In

⁷ Violation 2B in the NOV.

⁸ Violation 2C in the NOV.

addition, PG&E retained the dumpsters over the winter and offered to arrange a site inspection to view the contents of the dumpsters, but SED declined. PG&E then took photographs of the contents in each of the dumpsters and the outside of the dumpsters and provided the photographs to SED.

We are working to improve our internal and external communications to prevent miscoordination when performing post-fire restoration work for our customers. We recently hired several former CAL FIRE investigators who work with our investigation and field crew teams in response to ignitions in our service territory. This has helped us improve our communication with the agencies that have jurisdiction over fire investigations. The work of the former CAL FIRE investigators, in conjunction with the work of our local Public Safety Specialists, has also helped improve our internal communications in the aftermath of a fire between our ignition investigation, field crews, Law, and Regulatory groups, as well as our communication with interested regulators, like SED.

Violation 4 – GO 95, Rule 31.1

We respectfully disagree with this violation. While we agree that beginning on March 31, 2015, PG&E's written standards required function testing every six years and function testing was not completed for Switch 47 and Switch 49 between March 31, 2015 and September 5, 2022, these switches were operated several times a year during that timeframe. The purpose of a function test is to ensure the switch is operating properly. If PG&E personnel observe the proper operation or utilization of a switch, this accomplishes the general purpose of the function test. Switch 47 was opened and closed during testing following repairs of Switch 47 on April 25, 2022 and following replacement of the motor operator for Switch 47 on May 7, 2022. PG&E transmission troublemen also observed Switch 47 operating properly on August 26, 2022 and again on August 28, 2022, approximately 10 days before the ignition of the Mosquito Fire. Switch 49 was opened and closed on February 21, 2022. Given these proper operations in the weeks and months immediately preceding the ignition of the Mosquito Fire, we do not have reason to believe that function tests would have provided additional information.

PG&E maintains that a failure to follow our written standard in this instance is not sufficient to establish a violation of GO 95, Rule 31.1. And we believe our testing and operation of Switch 47 and Switch 49 was consistent with industry standards.

Since the Mosquito Fire, we have developed a high-risk designation for switches that takes into account criteria such as, but not limited to, the location of a switch in a HFTD or HFRA, manufacturing defects, age of the switch, and switch type. We have a plan to function test all high-risk switches by the end of 2028 on a risk-informed basis. We have also significantly increased our function testing since 2022. In 2023, we completed 164 function tests of high-risk switches, and in 2024, we completed 438 function tests of high-risk switches. We have implemented process improvement for scheduling function tests of high-risk switches by integrating them into our core maintenance tracking tools, and we are on track to complete function testing of 268 high-risk switches by the end of 2025. We will complete function testing of all remaining high-risk switches by 2028. Thereafter, all high-risk switches will undergo function testing on an eight-year cycle.⁹ High-risk switches are also subject to aerial inspection every three years via routine, detailed drone-based inspections, and infrared inspections.

⁹ TD-1006P-02, Rev. 3 (Oct. 20, 2024).

Violation 5 – GO 95, Rule 31.1

We respectfully disagree with this violation. Although we agree that our Operations and Maintenance Plan (which incorporates the requirements of Cal. Pub. Res. Code § 4292 by reference) required that we clear vegetation within a 10-foot radius of the Oxbow Junction Pole, up to a height of 8 feet from the ground, we respectfully disagree that flammable vegetation was present within this space during the 2022 fire season.

PG&E acknowledges that our contractor did not complete a work order for pole clearance work at the Oxbow Junction Pole in May 2022. However, our review of photos taken on or about August 9, 2022, in which the 10-foot clearance cylinder is visible, indicates that although there was intermittent vegetation growth on the rocks within the 10-foot cylinder at that time, it was de minimis and disconnected from the vegetation upslope by the rock outcrop, which constituted a natural barrier to prevent the spread of fire. We therefore were in compliance with the Plan’s requirements and respectfully disagree that we violated GO 95, Rule 31.1.

We have taken multiple steps to improve our pole clearing processes since September 2022. First, on October 1, 2023, we began using a new enterprise system, One VM, to manage our various vegetation management program requirements and support our work processes. One VM consolidates information that was previously stored in separate systems, which has helped both to streamline data input and to increase visibility into the real-time status of pole clearing operations across our service territory.¹⁰ One VM also integrates with reporting tools and/or software (such as Microsoft PowerBI), which help us to identify areas of improvement.

Second, as we discuss in our 2026-2028 WMP, prior to 2025, our initial pole clearing work started in sync with the pole clearing inspection in the prior year.¹¹ To improve and maintain compliance, we changed the pole clearing program in 2025 to include a second maintenance cycle from September through December, barring external factors. This change shortens the clearing gaps between initial clearing and maintenance cycles and reduces the amount of regrowth between clearing cycles.

Third, we are working to ensure better communication and collaboration between our Vegetation Management and Electric Operations teams. For example, PG&E contractor personnel are instructed to reach out to Vegetation Program Managers (VPMs) to identify alternative methods for clearing difficult-to-clear poles.¹²

Fourth, within the Vegetation Management team, we have increased our headcount of VPMs. We also have expanded our reliance on Daily Operating Review (DOR) meetings, which are held every morning

¹⁰ PG&E 2023-2025 WMP (R8), Section 8.2.4, pp. 699-700, provides additional information: <https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/021325-2023-2025-wmp-r8.pdf>.

¹¹ See PG&E 2026-2028 WMP (R0), Section 9.4.4, p. 379: <https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/pge-2026-2028-base-wmp-vol1-r0.pdf>.

¹² TD-7112P-01, Rev. 2, Section 9 (May 26, 2025).

with our staff and the operations leadership of vendors, and on Weekly Operating Review (WOR) meetings, which are held weekly and include our staff as well as vendor field staff. These meetings are intended to discuss daily and weekly priorities and challenges.

Fifth, we have enhanced our quality management program and bolstered other strategic initiatives intended to ensure we meet targets for pole clearing and vegetation management. As we discussed in the 2023-2025 WMP, we increased our quality control (QC) target pass rate for pole clearing in HFTDs year over year, from 80% in 2023, to 88% in 2024, to 95% in 2025.¹³ As we reported in our 2023 and 2024 Annual Compliance Reports for our WMPs, we surpassed these target pass rates in both years, achieving an 86.1% QC pass rate in 2023 and an 88.3% QC pass rate in 2024.¹⁴ Through week 30, our 2025 pole clearing QC pass rate is over 99%. Going forward, we are also working to integrate our quality management program into the One VM system to provide additional real-time information to vegetation management personnel. Vendors are required to perform self-audits and to report the results of these self-audits.

Finally, in recent years, we have deployed additional resources to prioritize pole clearing in light of exigent circumstances. In 2025, for example, we have undertaken a Transmission Structure Risk Reduction (TSRR) project to clear certain transmission structures beyond the requirements of Pub. Res. Code § 4292. In other circumstances, out of an abundance of caution, we have evaluated and implemented pole clearing even where exempt equipment is present.

Violation 6 – GO 95, Rule 31.1

We respectfully disagree with this violation. We also note that the six transmission notifications identified in SED Violation 6 do not relate to the Oxbow Junction Pole or the Mosquito Fire ignition.

Our procedure requires that CIRT members “DOCUMENT the basis for the cancellation [of a notification] in the long text of the notification by citing the appropriate standard or a technical basis explaining why the condition is normal and is not a degradation of any required design function.”¹⁵

CIRT members adhered to this procedure for each of the six transmission notifications identified in Violation 6. For each transmission notification identified in Violation 6, CIRT members documented the basis for the cancellation in the long text of the notification by citing the appropriate standard or a

¹³ See PG&E 2023-2025 WMP (R8), Table 8-18-2 (Revised), p. 709:

<https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/021325-2023-2025-wmp-r8.pdf>.

¹⁴ See PG&E’s Annual Report on Compliance R1 for 2023 Wildfire Mitigation Plan, p. 28 (Apr. 25, 2024): <https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/04-02-2024-pge-2023-arc.pdf>; PG&E’s Annual Report on Compliance R1 for 2024 Wildfire Mitigation Plan, p. 25: <https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/2024-annual-report-on-compliance-for-wildfire-mitigation.pdf>.

¹⁵ TD-1001P-10, Rev. 1, Section 4.8 (Apr. 2, 2023).

technical basis explaining why the condition is normal and is not a degradation of any required design function.

Violation 6 does not explain on what basis SED determined that CIRT members did not provide “adequate justification as required by PG&E’s internal policies.” PG&E’s policies and procedures do not use the phrase “adequate justification.” That phrase also is not used in GO 95, Rule 31.1 or any other applicable statute or regulation of which we are aware.

Our policies and procedures do not require that CIRT members provide an exhaustive list of all reasons for cancellation (indeed, doing so would be an unnecessary administrative burden). CIRT uses the “Invalid” reason code to cancel notifications with conditions that CIRT determines do not require correction. CIRT members cancel notifications using the “Invalid” reason code only after careful review and consideration based on their expertise and technical judgment to ensure that the potential issue flagged in the notification is in fact in conformance with our standards and is in safe and operable condition. Violation 6 does not assert and we do not believe the cited cancellations created a safety hazard, lacked a technical basis, or were otherwise incorrect. Our responses to SED’s data requests discuss in detail the basis for each cancellation:

Transmission Notification Cancelled	PG&E Responses to SED Data Requests
Pole 014/187 – four wedge connectors	SED-003, Question 13; SED-004, Question 34; SED-006, Question 6
Pole 000/003 – chipped insulator	SED-004, Question 29
Pole 009/131 – cotter pin and key	SED-003, Question 15
Pole 000/003 – vegetation obscuring section of guys and anchors	SED-004, Question 31
Pole 000/003 – loose tie wire	SED-003, Question 16
Pole 009/130 – loose tie wire	SED-004, Question 20; SED-004, Question 21; SED-005, Question 13, SED-006, Question 17

We complied with our internal policies and procedures for cancelling the transmission notifications identified in Violation 6. And there is no basis to find a violation of GO 95, Rule 31.1.

We also note that post Mosquito Fire, CIRT has established internal quality management and control practices that include reviewing how CIRT members document cancellations of notifications. Specifically, following CIRT review, all transmission notifications are subject to an automated review to determine that certain fields, including the long text, are complete and consistent with the priority assigned. A CIRT member reviews and corrects notifications that the automated review flags as incomplete or not consistent with the priority assigned. CIRT also has established a quality control review team that audits samples of transmission notifications approved for repair, transmission notifications CIRT cancels, and field-safety reassessments. A CIRT member manually re-reviews each

audited notification. The reviewer analyzes the notification, the underlying documentation identifying the potential issue, and the CIRT pod's decision. The reviewer confirms the accuracy of the decision to repair or cancel a notification, the priority assigned to a repair, and the sufficiency of the documentation justifying the repair or cancellation. These quality management and control practices are set forth in our internal TCIRT Quality Manual for CIRT members, which we provided to SED. While these practices were not yet implemented at the time of cancellation of these notifications, all newly created notifications that CIRT reviews today are subject to the reviews described above.

Violation 7 – GO 95, Rule 37

PG&E agrees that when we regained access to the area around the Oxbow Junction Pole during a site visit on September 22, 2022, we observed that the jumper on the lowest phase of Switch 47 did not appear to have the proper clearance from the interconnection switch rod. Prior to the Mosquito Fire, however, PG&E's records and observations indicate that there was sufficient clearance between the Oxbow Junction Pole and the jumper cable connecting the lower phases of Switches 47 and 49. Aerial photos taken on May 16, 2022 show appropriate clearance between the jumper on the lowest phase of Switch 47 and the interconnection switch rod. In addition, a PG&E transmission troubleman was at Switch 47 on August 26, 2022 and did not observe anything improper with respect to the jumpers. A different PG&E transmission troubleman was at Switch 47 on August 28, 2022. He also did not observe any issue with the jumpers. Thus, prior to the operation of Switch 47 on September 6, 2022 as part of the switching plan to increase voltage at Foresthill Substation and Oxbow Junction after the Oxbow Powerhouse tripped offline, the information available to PG&E indicated there was an adequate clearance between the jumper on the lowest phase of Switch 47 and the interconnection switch rod on the Oxbow Junction Pole. PG&E believes that on September 6, 2022, when the switch blade on the bottom phase of Switch 47 closed, the swivel and jumper moved with the blade instead of remaining stationary.

After the Mosquito Fire, we have adopted a policy requiring PG&E field personnel to be at transmission lines switches in Tier 2/3 HFTD and HFRA before re-energizing the line device when there is a Fire Potential Index (FPI) rating of R2 or above. Prior to the Mosquito Fire, PG&E's policies and procedures did not require PG&E field personnel to be in attendance for transmission switching on a dead or de-energized line or before re-energizing the transmission line device. PG&E had not identified a safety risk with re-energizing a transmission line device that had been operated on a dead or de-energized line.¹⁶ On September 6, 2022, the lines were de-energized before Switch 47 was closed. Following the Mosquito Fire, before re-energizing a transmission line device in Tier 2/3 HFTD and HFRA when there is a FPI rating of R2 or above, field personnel must confirm that the device operated properly and is in the desired position, the associated switch equipment is in the proper position and has maintained adequate clearance from grounded objects, and the device is free from ignition risk and is safe to energize. Before energizing any portion of the switch, field personnel must also have appropriate fire suppression tools.¹⁷

¹⁶ Prior to the Mosquito Fire, PG&E required field personnel to be in attendance for transmission switching on an energized line in a Fire Index Area with a FPI of R4 or above.

¹⁷ In certain situations, it may be necessary to operate a switch in an energized state. If a line switch is operated in an energized state, at FPI ratings of R2 and above, field personnel must be present and positioned at the device before operation. See TD-1400P-07-Att02, Rev. 4, Section 4 (Aug. 23, 2024).

Violation 8 – Resolution E-4184 Violation for Late Initial Notification

We respectfully disagree with this violation. Under Resolution E-4184, which was in effect on September 6, 2022,¹⁸ we were required to notify the Commission within two hours of a “reportable incident” during normal working hours (or within four hours of a reportable incident outside of normal working hours). Resolution E-4184 defined a “reportable incident” as those which: (a) “result in fatality or personal injury rising to the level of in-patient hospitalization and attributable or allegedly attributable to utility owned facilities”; (b) “are the subject of significant public attention or media coverage and are attributable or allegedly attributable to utility facilities”; or (c) “involve damage to property of the utility or others estimated to exceed \$50,000.”¹⁹ Resolution E-4184 did not require the reporting of all incidents of which we were or may have been aware.

SED’s Violation 8 does not provide a basis for its conclusion that “PG&E staff were aware that the Oxbow Junction Pole ignited or potentially ignited the Mosquito Fire soon after the fire started at about 1800 hours on September 6, 2022.” Violation 8 notes: “PG&E staff were present at the location at about 2000 hours on that date.” But as we stated in our initial Electric Incident Report (EIR) submitted on September 8, 2022, although the USFS had placed caution tape around the base of a PG&E pole, “[t]hus far, PG&E [had] observed no damage or abnormal conditions to the pole or our facilities near Oxbow Reservoir,” and had not “observed down conductor in the area or any vegetation related issues.”

Under Resolution E-4184, we were not required to report an ignition, even one allegedly or potentially caused by our equipment, unless at least one of the criteria in Resolution E-4184 was met and the event became a “reportable incident.” Violation 8 does not state which of the criteria SED believes was met here and at what time it became a “reportable incident.”

After we first received a report of the fire on September 6, 2022, we closely monitored the situation to determine whether it would be a “reportable incident.” On September 8, 2022 at 10:05 a.m., we submitted an initial EIR out of an abundance of caution under the property damage criterion, stating that the event “may meet the property damage reporting requirements” given the significant fire progression. But even as of September 8, 2022, based on the available information, we had not definitively determined that the property damage criterion or any other reporting criteria was met. As we stated in the EIR, “The cause of the fire is under investigation. There are no reports of personal injuries. There are some preliminary reports of structure damage.” We also noted that all information in the EIR was “preliminary.” Given that we had not definitively determined that the incident was a reportable incident even when we submitted the EIR, there was no violation of Resolution E-4184.

¹⁸ Resolution E-4184 has since superseded by Resolution ESRB-12 (Dec. 19, 2024), <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/esrb/incident-investigations-web-page/resolution-esrb-12.pdf>.

¹⁹ Res. E-4184 at p. 13 (Aug. 21, 2008) (modifying D.06-04-055, Appendix B, Accident Reporting Requirements (Apr. 27, 2006)).

Please do not hesitate to contact the undersigned at (510) 246-5867 or Daniel.Kushner@PGE.com should you have any questions or concerns regarding this response.

Sincerely,

Daniel Kushner, PhD

Daniel Kushner, Ph.D.
Senior Director – Risk and Electric Compliance, Electric Engineering

cc: Lee Palmer, Director, Safety and Enforcement Division
Anthony Noll, Program Manager, Wildfire Safety and Enforcement Branch
Ed Pike, Senior Utilities Engineer, Wildfire Safety and Enforcement Branch

ATTACHMENT B

SED Investigation Report

CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division
Wildfire Safety and Enforcement Branch

Incident Investigation Report

Report Date: July 16, 2025

Incident Number: E20220908-02 (Mosquito Fire)

Regulated Utility Involved: Pacific Gas and Electric Company (PG&E)

Date and Time of the Incident: September 6, 2022, at 1817 hours

Location of Incident: Near Oxbow Reservoir and north of Fire Road 23 at latitude 39.006768° and longitude -120.743725°

Fatality/Injury: No fatalities, two injuries reported

Property Damage: 76,788 acres burned, 78 structures destroyed, 13 structures damaged, and over \$135.9 million estimated property damages (PG&E and third parties)

Regulated Utility Facilities Involved: PG&E's Middle Fork #1, Oxbow Tap and Weimar #1 60 kV transmission circuits

Violations: Yes

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I. Summary

The Mosquito Fire ignited on September 6, 2022, at or near Pacific Gas and Electric Company (PG&E) Pole 014/191 (Oxbow Junction Pole). Oxbow Junction is north of the Rubicon River and east of Foresthill, in a Tier 3 High Fire Threat District (HFTD). Switches 47 and 49 were attached to the Oxbow Junction Pole to control the flow of power between three PG&E transmission circuits attached to this pole. Electrical arcing at the lowest jumper on the pole, between the lower phases of Switches 47 and 49, most likely ignited the fire.¹

The California Department of Forestry and Fire Protection (CAL FIRE) did not attribute any fatalities to the fire. The fire caused 2,699 customer outages, burned 76,778 acres, and forced widespread evacuations. The fire damaged or destroyed 91 structures and resulted in injuries to two firefighters. The fire caused property damage to PG&E and other parties of about \$135.9 million.

The Safety and Enforcement Division's (SED) investigation included review and analysis of physical evidence and related documents for the Oxbow Junction Pole and attached equipment; review of photographs and audio and video recordings; and interviews of PG&E subject matter experts (SMEs).

SED also reviewed photographs, inspection reports, work orders, and other PG&E documents for nearby PG&E electrical facilities. Additionally, SED reviewed PG&E's policies and procedures as well as actual practices associated with its "Central Internal Review Team" (CIRT). Based on SED's review, SED found that PG&E violated various requirements of General Order (GO) 95 and Resolution 4184-E. These violations are summarized in Table 1 below:

¹ SED does not determine the cause of fires. The United States Forest Service (USFS) is the lead fire authority for the Mosquito fire, including determining the cause of the fire. SED may revise this report when USFS releases its report.

Table 1: Violations of CPUC Rules and Requirements

	Rule	Violations
1.	GO 95, Rule 18	PG&E cancelled repair work for loose tie wires at Poles 000/003, 014/186A, and 009/130 in a Tier 3 HFTD. Rule 18 requires that PG&E repair these loose tie wires within six months of identification because they create a fire ignition risk.
2.	GO 95, Rule 18	PG&E failed to meet the Tier 3 HFTD six-month deadline under Rule 18 deadline to correct three Level 2 priority issues for Poles 014/186(A) and 014/186(C).
3.	GO 95, Rule 19	SED instructed PG&E on September 23, 2022, to preserve Pole 09/131 and attached equipment. PG&E disposed of the pole and equipment on October 22, 2022.
4.	GO 95, Rule 31.1	PG&E failed to complete function testing for the Oxbow Junction Pole Switches 47 and 49, as required by PG&E’s inspection and maintenance policies and Rule 31.1.
5.	GO 95, Rule 31.1	PG&E failed to clear vegetation within a 10-foot radius of the Oxbow Junction Pole and up to a height of eight feet during the fire season as required by PG&E’s operating agreement with the United States Forest Service (USFS) and Rule 31.1.
6.	GO 95, Rule 31.1	PG&E’s CIRT canceled six repairs without adequate justification required by PG&E policies, in violation of Rule 31.1.
7.	GO 95, Rules 37 and 54	PG&E failed to maintain required clearance between the Oxbow Junction Pole and its lower jumper cable on September 6, 2022, violating Rule 37 clearance requirements, as modified by Rule 54.4(D).
8.	Resolution E-4184	PG&E filed an initial report on September 8, 2022, instead of by September 7, 2022, as required by Resolution E-4184.

A. Rules and Requirements Violated

General Order 95, Rule 18 – Maintenance Programs and Resolution of Potential Violations of General Order 95 and Safety Hazards section (B) states in part:

Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below. . .

Level 2: Any other risk of at least moderate potential impact to safety or reliability: Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified

company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District.

General Order 95, Rule 19 – Cooperation with Commission Staff; Preservation of Evidence Related to Incidents Applicability of Rules states in part:

Each utility shall provide full cooperation to Commission staff in an investigation into any major accident (as defined in Rule 17) or any reportable incident (as defined in CPUC Resolution E-4184), regardless of pending litigation or other investigations, including those which may be related to a Commission staff investigation. Once the scene of the incident has been made safe and service has been restored, each utility shall provide Commission staff upon request immediate access to: Any factual or physical evidence under the utility or utility agent’s physical control, custody, or possession related to the incident. . .

General Order 95 Rule 31.1 – Design, Construction and Maintenance states in part:

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.”

General Order 95 Rule 37 – Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, Etc. states in part:

[C]learances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1. . .

General Order 95 Rule 54 - Conductors states in part that modifications of the basic clearances in Table 1 (see Rule 37) are contained in Rule 37 and sections of 54.4(D). In particular, 54.4(D)(6) Deadended on Pole, sub-section (b) states in part:

Where conductors are supported on a climbable pole in vertical configuration, the energized portions of such conductors shall have clearances of not less than ... 18 inches from the surface of pole for voltages in excess of 7,500 volts.

CPUC Resolution 4184-E states in part:

Within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside of normal working hours, the utility shall provide notice to designated CPUC staff of the general nature of the incident, its cause and estimated damage. The notice shall identify the time and date of the incident, the time and date of notice to the Commission, the location of the incident, casualties that resulted from the incident, identification of casualties and property damage, and the name and telephone number of a utility contact person.

B. Witnesses

	Name	Title
1.	Ed Pike	CPUC Lead Investigator
2.	Mihail Cucu	CPUC Investigator
3.	Will Dundon	CPUC Investigator
4.	Jasdeep Lally	CPUC Investigator
5.		PG&E Principal Incident Investigator
6.		PG&E Systems Operator
7.		PG&E Systems Operator
8.		PG&E Transmission Trouble Responder
9.		PG&E Supervising Engineer for System Protection
10.	Sophia Fong	US Forest Service Lead Investigator

C. Evidence Received

	Source	Date	Description
1.	PG&E	September 8, 2022	Initial Incident Report
2.	CPUC	September 23, 2022	Evidence Preservation Instructions to PG&E (email)
3.	PG&E	October 6, 2022	20-Day Report
4.	CPUC	October 21, 2022	Site Visit Observation Report #1
5.	CPUC	October 26, 2022	Site Visit Observation Report #2
6.	CPUC	October 28, 2022	Site Visit Observation Report #3
7.	CPUC	November 29, 2022	Site Visit Observation Report #4
8.	CPUC	December 20, 2022	Data Request SED-01
9.	PG&E	January 23, 2023	Response to SED-01 (Tranche 1)
10.	PG&E	February 10, 2023	Response to SED-01 (Tranche 2)
11.	PG&E	February 24, 2023	Response to SED-01 (Tranche 3)
12.	CPUC	May 17, 2023	Data Request SED-02
13.	PG&E	June 16, 2023	Response to SED-02 (Tranche 1)
14.	PG&E	June 30, 2023	Response to SED-02 (Tranche 2)
15.	PG&E	July 21, 2023	Response to SED-02 (Tranche 3)
16.	CPUC	August 1, 2023	Data Request SED-03
17.	PG&E	August 30, 2023	Mosquito Fire Presentation (by [REDACTED] on Behalf of PG&E)
18.	PG&E	September 1, 2023	Response to SED-03 (Tranche 1)
19.	PG&E	September 5, 2023	PG&E Photos showing dumpsters in area where PG&E Disposed of Pole 09/131
20.	PG&E	September 21, 2023	Response to SED-03 (Tranche 2)
21.	CPUC	October 10, 2023	Data Request SED-04
22.	PG&E	November 9, 2023	Response to SED-04 (Tranche 1)
23.	PG&E	December 1, 2023	Response to SED-04 (Tranche 2)
24.	CPUC	December 21, 2023	Data Request SED-05
25.	CPUC	January 19, 2024	Site Visit Observation Report #5

26.	PG&E	January 24, 2024	Response to SED-05 (Tranche 1)
27.	PG&E	February 7, 2024	Response to SED-05 (Tranche 2)
28.	CPUC	February 27, 2024	Data Request SED-06
29.	PG&E	March 22, 2024	Response to SED-06 (Tranche 1)
30.	PG&E	April 5, 2024	Response to SED-06 (Tranche 2)
31.	CPUC	April 22, 2024	Data Request SED-07
32.	PG&E	May 9, 2024	SED-07 Responses (Tranche 1)
33.	PG&E	May 16, 2024	SED-07 Response (Tranche 2)

II. Background

The Mosquito Fire ignited on September 6, 2022, at approximately 1800 hours (see Figure 1 below). A nearby PG&E weather station measured a temperature of 102 degrees Fahrenheit² but PG&E stated that the conditions did not meet the criteria for a Public Safety Power Shut-off event.³



Figure 1: Mosquito Fire ignition near Oxbow Junction Pole (shown near lower right side of photo).⁴

² PG&E Mosquito Fire 20-Day Report (October 6, 2022) (20-Day Report).

³ DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q014 (June 16, 2023) provided in response to SED-02 Q14.

⁴ Image source: PCWA Files Lawsuits Against PG&E, Seeks Damages Related to Mosquito Fire, Roseville Today (December 27, 2022), available at <https://www.rosevilletoday.com/news/auburn/pcwa-lawsuit-pge-mosquito-fire/> (last viewed September 27, 2024).

Three 60 kilovolt (kV) transmission circuits (Middle Fork #1, Oxbow Tap and Weimar #1) converge at the Oxbow Junction Pole north of the Rubicon River and east of Foresthill, California, as shown below in Figure 2. The Mosquito Fire ignition area and all poles shown in Figure 2 are located in a Tier 3 HFTD.⁵

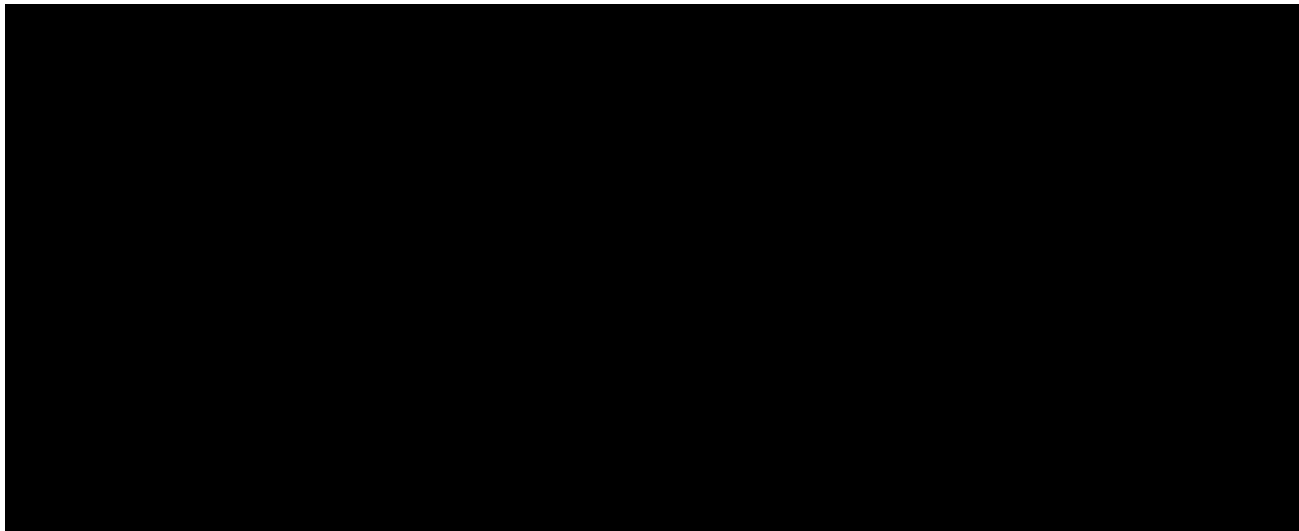


Figure 2: Orange line indicates Weimar #1 circuit to Foresthill sub-station; yellow indicates Middle Fork #1 circuit to Middle Fork Powerhouse; purple indicates Oxbow Tap.⁶ Red marker indicates Oxbow Junction Pole location. Green markers indicate other pole locations.

The fire was contained on October 22, 2022, at 1018 hours. It burned 76,788 acres, destroyed 78 structures, and damaged 13 structures.⁷ CAL FIRE did not report any fatalities⁸ and local media reported two firefighter injuries.⁹ PG&E reported spending approximately \$35.9 million to repair its

⁵ Tier 3 HFTD are areas where there is an extreme risk (including likelihood of wildfire and potential impacts on people and property) from utility related wildfires. See HFTD maps at <https://www.cpuc.ca.gov/industries-and-topics/wildfires/fire-threat-maps-and-fire-safety-rulemaking> (last viewed October 3, 2024). Mosquito Fire ignition location of 39.00591, -120.7447 from CAL FIRE webpage “Mosquito Fire,” available at <https://www.fire.ca.gov/incidents/2022/9/6/mosquito-fire/> (last viewed October 3, 2024).

⁶ Locations are based on PG&E data. Map prepared in Google Earth.

⁷ CAL FIRE webpage “Mosquito Fire,” and CAL FIRE “Incident Update” <https://www.fire.ca.gov/incidents/2022/9/6/mosquito-fire/updates/52799595-c17b-4169-9eeb-bfc94a748f97> (last viewed September 27, 2024).

⁸ CAL FIRE “Incident Update.”

⁹ “Forest Service opens criminal investigation into Mosquito Fire’s start, PG&E says in filing,” The Sacramento Bee, September 26, 2022.

<https://www.sacbee.com/news/california/fires/article266367576.html#storylink=cpy>”

facilities.¹⁰ PG&E estimated its liability, including third-party damage claims, at \$100 million as of December 31, 2023.¹¹

III. Fire Authority Report

USFS is the lead agency in this fire investigation. As of the date of this report, USFS had not yet issued its fire investigation report for the Mosquito Fire. SED may revise this investigation report once USFS releases their investigation report.

IV. SED Review and Analysis

A. Circuit Configuration and Timeline of Events

1. Configuration of Circuits Served by Oxbow Junction Pole on September 6, 2022

At the time of the incident, the Oxbow Junction Pole supported three transmission circuits and two switches serving these circuits. PG&E's Middle Fork #1 and Weimar #1 60 kV transmission circuits connect to the Oxbow Junction Pole.¹² In addition, a short PG&E 60 kV transmission circuit called the "Oxbow Tap" connects the six-megawatt Placer County Water Authority (PCWA) Oxbow Powerhouse to the Oxbow Junction Pole.

Switch 49 at the Oxbow Junction Pole was usually closed, connecting the Weimar #1 line to the Oxbow Junction Pole (and allowing power to flow from the Oxbow Powerhouse to the Weimar #1 line). Switch 47 was usually open to isolate the Middle Fork #1 circuit from the Oxbow Junction Pole. This switch configuration prevents a fault on the Middle Fork #1 line from impacting the Weimar #1 line and vice-versa. PG&E could close Switch 47 to connect the Middle Fork #1 circuit to the Oxbow Junction Pole and allow the flow of power from Middle Fork #1 through Switch 47 to the Weimar #1 circuit if Switch 49 was also closed.

Each of the three circuits is served by circuit breakers (CBs) at other locations (as discussed further below). These CBs can open or close to electrically isolate and de-energize each circuit on a planned basis, or to protect electrical equipment or reduce wildfire risk in response to unexpected voltage or current outside the range programmed into the CB.¹³

2. Timeline of Events on September 6, 2022

At 0000 hours on September 6, 2022, Switch 47 was open, isolating the Middle Fork #1 circuit from the Oxbow Junction Pole. Switch 49 was closed, connecting the Oxbow Tap and Weimar #1 circuits via the Oxbow Junction pole.

¹⁰ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q030_R001.pdf (March 22, 2024) provided in response to SED-06 Q30.

¹¹ See PG&E SEC Form 10-K filed on February 22, 2024, page 61.

¹² See Figure 2 above.

¹³ When a CB contacts are closed, power can flow through the CB. When the CB contacts are open, power cannot physically flow through the CB, de-energizing a line or segment that is isolated by the CB.

At approximately 1508 hours, the Oxbow Tap voltage dropped below the normal operating range of the Oxbow Powerhouse, causing CB 42 at the Oxbow Powerhouse to open and take the powerhouse offline.¹⁴ PG&E planned to bring the Oxbow Powerhouse back online by closing Switch 47 to connect the Middle Fork #1 circuit with the Oxbow Tap and Weimar #1 circuits to increase voltage on the Oxbow Tap circuit (and Weimar #1 circuit). Increasing the Oxbow Tap voltage to within the operating range of the Oxbow Powerhouse would allow the powerhouse to resume operation.¹⁵

Table 2 below lists switch and CB operations as PG&E executed its plan to bring the Oxbow Powerhouse back online. At PG&E's direction, the Northern California Power Agency (NCPA), scheduling coordinator for PCWA generation facilities, closed CB 32 at PCWA's Middle Fork Powerhouse at 1815 hours.¹⁶ Closing CB 32 energized Switch 47 for one second or less before CB 32 relayed and tripped open, de-energizing Switch 47.¹⁷ Immediately thereafter, PG&E received an Energy Management System signal that CB 32 was closed again, despite PG&E not having given "the NCPA Operator permission ... [to close CB 32]."¹⁸ This second close would have briefly re-energized Switch 47 before CB 32 tripped open again and de-energized the switch.

¹⁴ 20-Day Report, p. 2. Low voltage on the Weimar #1 circuit resulted in low voltage on the Oxbow Tap line, which was connected to the Weimar #1 circuit. CB 42 opened at the Oxbow Powerhouse, electrically isolating the Oxbow Powerhouse from the Oxbow Tap and thus also the Weimar #1 line.

¹⁵ 20-Day Report, p. 2.

¹⁶ 20-Day Report, p. 3.

¹⁷ Closing CB 32 energized the section of the Middle Fork #1 circuit between CB 32 and the Oxbow Junction Pole, briefly energizing Switch 47. See 20-Day Report, page 2. A relay trip means that the relay opened the CB because the data reflecting current and other conditions on the circuit fell outside the operating parameter programmed into the relay, which could occur due to an electrical fault.

¹⁸ 20-Day Report, p. 2.

Table 2: Summary of PG&E data regarding switch and CB operations on September 6, 2022¹⁹

Time	Event
15:11:49	CB 42 located at the Oxbow Powerhouse opened on a relay trip. ²⁰
18:06:57	NCPA remotely opened CB 32 located at PCWA's Middle Fork Powerhouse.
18:10:54	PG&E remotely opened CB 52 located on the Weimar circuit. ²¹ Thus, Middle Fork CB 32, Weimar CB 52, and Oxbow CB 42 were open and the Oxbow Junction Pole was de-energized.
18:12	PG&E remotely closed Switch 47 while the Middle Fork #1-60 kV and Weimar #1-60 kV circuits were de-energized. ²²
18:15:03	NCPA remotely closed Middle Fork CB 32. CB 52 remained open. ²³
18:15:04	A relay tripped open Middle Fork CB 32.
18:15:21	Middle Fork CB 32 closed a second time but a relay tripped CB 32 open within one second ²⁴
18:40:58	PG&E remotely closed Weimar CB 52 to re-energize the Weimar #1 60 kV circuit.

At 1817 hours, NPCA reported to PG&E's Grid Control Center that a fire had ignited near Switch 47 at Oxbow Junction.²⁵ Approximately 11 minutes later at 1828 hours, PG&E staff asked NPCA staff, "whether there was a fire or 'just arcing' at Switch 47."²⁶

At 1820 hours, PG&E dispatched a transmission trouble responder. At 2000 hours, a CAL FIRE Battalion Chief Incident Commander gave the trouble responder permission to drive to the Oxbow Junction. The trouble responder reported later that Switch 47 appeared to be closed.²⁷

¹⁹ PG&E DR1 Q19 supplement (April 10, 2023) contains the data listed in this table unless otherwise noted.

²⁰ PG&E DR1 Q19 supplement (April 10, 2023) states that that PG&E received this data from PCWA.

²¹ CB 52 serves PG&E's Weimar Substation and can open or close the connection of the Weimar #1 line to the Weimar-Halsey 60 kV line. See PGE-CPUC-00012135 revised, provided by PG&E as a supplement to SED-01 Q18.

²² PG&E 20-day report dated October 6, 2022, page 3.

²³ [REDACTED], PG&E Supervising Engineer for System Protection, explained during a June 16, 2022, meeting between SED and PG&E that CB 52 was open at the time the fire ignited.

²⁴ PG&E stated that it received this data from PCWA.

²⁵ PG&E 20-day report.

²⁶ DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q021 (May 17, 2023) provided in response to SED-02 Q21.

²⁷ PG&E 20-day report.

At 1150 hours on September 7, 2022, PG&E restored service to the 2,699 customers affected by the service interruption.²⁸ The Mosquito Fire continued to burn for 46 days until full containment on October 22, 2022, according to CAL FIRE.²⁹

B. Site Observations

SED observed evidence in the field at the Oxbow Junction area, at a CAL FIRE facility, and at a PG&E contractor storage facility. See Table 3 and further discussion below.

Table 3: Site Observation Visits

Visit #	Date	Purpose
1.	9/22/22	Observe the Oxbow Junction Pole and attached equipment, nearby poles and conductors, and the terrain in the Oxbow Junction area.
2.	9/30/22	Observe PG&E evidence collection near the Oxbow Junction Pole; and take additional photographs of the local terrain, surrounding vegetation, and the fallen Pole 09/131.
3.	10/19/22	Observe batteries that previously powered motors which operated Switches 47 and 49.
4.	11/3/22	Observe collection of three conductor sections originally attached to the Oxbow Junction Pole (before the Oxbow Junction Pole was seized by USFS).
5.	1/19/24	Observe Oxbow Junction Pole and attached equipment seized by USFS, and evidence collected by USFS from the ground near the Oxbow Junction Pole.

1. Site Observation #1 – September 22, 2022

SED investigators met USFS and PG&E staff at PG&E’s Foresthill substation. USFS staff communicated protocols for the site visit and prohibited touching or collection of any evidence. USFS, PG&E, and SED staff then proceeded to Oxbow Junction, which was controlled by USFS.³⁰

General Observations

SED investigators observed dead trees and burned vegetation, as well as surviving vegetation, in the area around Oxbow Junction.

²⁸ PG&E 20-day report. Attachment 7 to PG&E’s 20-day report states that PG&E first became aware of a customer outage at 1810 hours (“FNL”, or “First No Light”). The report does not specify whether this time is related to when CB32 opened or other grid operation(s) in response to the fire.

²⁹ See CAL FIRE webpage “Mosquito Fire.”

³⁰ USFS communicated to SED that USFS had recently removed unspecified evidence as necessary to prevent damage from rainstorms.



Figure 3: View of Oxbow Junction Pole (14/191) and grey rectangular switch control boxes, with steep terrain to the right (north) of the pole.³¹

The terrain north of Oxbow Junction is very steep, as shown in Figure 3. The area immediately next to the base of the Oxbow Junction Pole is nearly vertical, and higher up the hillside is steep with loose dirt and unstable rocks. Thus, SED investigators could not safely observe PG&E equipment on the side of the pole facing the hill such as the Switch 47 upper control rod. (PG&E photos of this equipment are shown later in this report.)

The metal Oxbow Junction Pole was labeled 14-191. SED investigators did not observe any major structural damage to this pole. SED estimates the coordinates based on Google Earth as latitude 39.006768° longitude -120.743725° .

SED investigators observed conductors for at least one full pole span in each direction from this pole. SED did not observe any trees, branches, or other vegetation in contact with PG&E

³¹ SED took this photo from the east side of the Oxbow Junction Pole during site visit #1 on September 22, 2022.

conductors, poles, or other equipment aside from a fallen pole and attached equipment as discussed below. SED investigators did not see any unusual conductor sag.

PG&E Switches

PG&E staff informed SED investigators that Switch 47 controls the connection of the Middle Fork #1 60 kV circuit to the Oxbow Junction Pole and is normally open, preventing the flow of power between this circuit and the pole.³² Switch 49 controlling the Weimar #1 circuit is normally closed. Both switches can be opened and closed either manually or remotely. Each circuit and switch includes three phases (i.e. top, middle, and lower phase based on the respective location on the pole) for a total of six phases between the two switches as shown below in Figure 4.



Figure 4: Switches 47 and 49 on Oxbow Junction Pole³³

All phases for both Switches 47 and 49 appeared closed, meaning that the end of the blade that rotates touched the jaws and closed that connection as shown in Figure 5 below.

³² See SED Site Observation Report for September 22, 2022, site visit. See p.5.

³³ SED staff took this photo September 22, 2022.



Figure 5: Switch 47 bottom phase in closed position. Red circle shows rotating end of blade within jaws.³⁴

SED investigators could not see some parts of the switch equipment facing the hill to the north of the pole and thus could not observe any marks and/or other signs of electrical arcing or other damage.

Additional PG&E Poles

SED investigators saw Pole 09/131 on the ground (Figure 6 below) two poles east of Oxbow Junction. SED investigators were unable to access the pole due to its location on a steep hillside (Figure 7 below).



Figure 6: Partially burned pole 09/131 on Middle Fork #1 line.³⁵

³⁴ SED staff took this photo September 22, 2022.

³⁵ SED staff took this photo September 22, 2022.



Figure 7: Terrain near fallen Pole 09/131 - east of Oxbow Junction³⁶

Observations and Evidence Collection

PG&E staff photographed the Oxbow Junction Pole from a bucket truck and with a drone. PG&E staff “observed a jumper on the lowest phase of the Oxbow Junction Switch 47 at PG&E Pole 014/191 that did not appear to have the proper clearance from the interconnection switch rod. Photos taken during that visit also showed damage to the interconnection switch [i.e., control] rod.”³⁷ The control box contained a motor that connected to this control rod and could open and close all three phases of Switch 47.

PG&E’s September 22, 2022, photographs of this pole (see Figure 8 and Figure 9) show the lowest phase jumper bending toward the pole. In contrast, the middle and upper phase jumpers bend away

³⁶ SED staff took this photo September 22, 2022.

³⁷ 20-day Report, p. 3.

from the pole. PG&E photographs also show the lower jumper contacting or essentially contacting the control rod (Figure 10) and evidence of scorch marks on the rod (Figure 11).

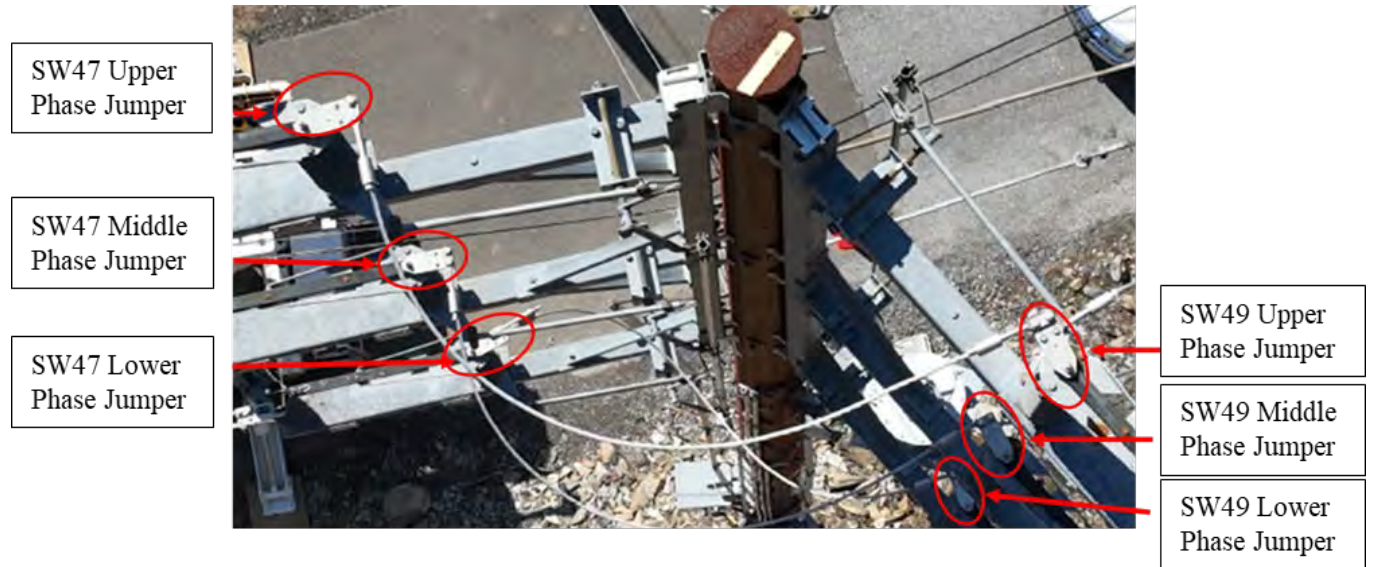


Figure 8: Oxbow Junction Pole on September 22, 2022, with jumper connector pads circled.³⁸

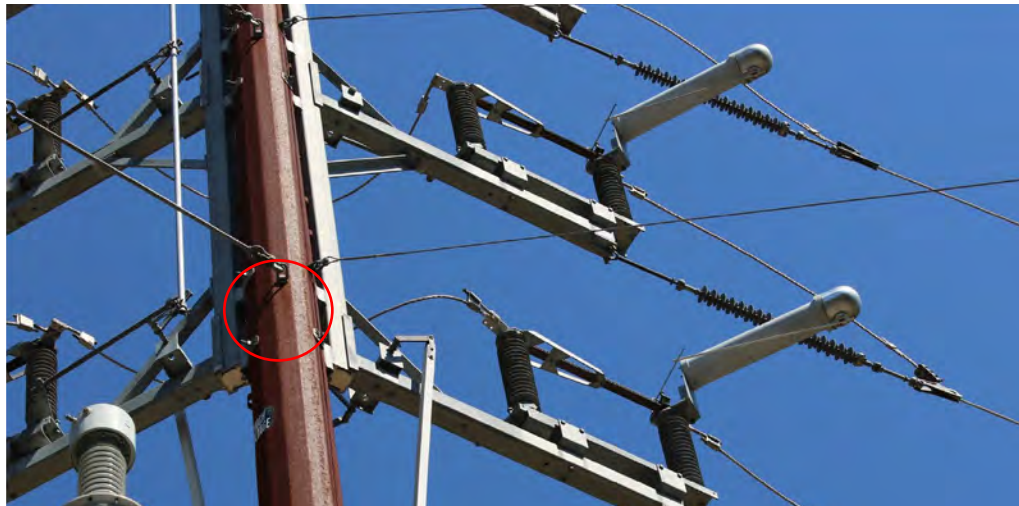


Figure 9: Left side of photo shows Switch 49 and right side shows Switch 47. Red circle shows jumper connecting to lowest phase of Switches 47 and 49.³⁹

³⁸ Photo PGE-CPUC-00012446 provided by PG&E as supplemental response to SED-01 Q9. SED added red circles and labels. Photo taken September 22, 2022, per “Pacific Gas and Electric Company: Mosquito Fire,” [REDACTED], PGE-CPUC-00022591, provided August 30, 2023 - see PGE-CPUC-00022608.

³⁹ PGE-CPUC-00012295 April 18, 2023, provided as attachment to response to SED-01 Q9.



Figure 10: Jumper wire kinked on lowest phase of Switch 47.
Red circle indicates damaged section of control rod.⁴⁰



Figure 11: Control rod next to Switch 47 jumper.
Red indicates damaged section of control rod.⁴¹

⁴⁰ PGE-CPUC-00012403 April 18, 2023, provided as attachment to response to SED-01 Q9.

⁴¹ PGE-CPUC-00012393 April 18, 2023, provided as attachment to response to SED-01 Q9.

2. Site Observation #2 – September 30, 2022

SED investigators returned to Oxbow Junction on September 30, 2022, and took additional photographs of the local terrain and vegetation. SED investigators also took additional photographs of Pole 09/131 from a distance (Figure 12 below).



Figure 12: Pole 09/131 on ground two poles east of the Oxbow Junction Pole location, showing burned base (circled at left) and the unburned crossarm (circled at right)⁴²

Prior to Site visit #2, the USFS removed and took possession of the Oxbow Junction Pole and transformer, the control box, rods, vacuum interrupters, jumper assemblies, and switch 49 jumper.⁴³ Aside from conductors, SED staff did not see any part of the Oxbow Junction Pole on September 30, 2022.



Figure 13: Weimar #1 circuit conductors on the ground north of former Oxbow Junction Pole location.⁴⁴

⁴² SED took this photo during the September 30, 2022, Site Observation Visit.

⁴³ Email from [REDACTED] of PG&E to Ed Pike September 25, 2022. USFS separately provided SED with an inventory of 34 items that USFS seized on September 24, 2022.

⁴⁴ SED took this photo during the September 30, 2022, Site Observation Visit.

SED investigators observed disconnected Weimar #1 circuit conductors not seized by USFS just north of Oxbow Junction. These conductors were previously connected to the Oxbow Junction Pole. SED investigators also saw the conductors for the Oxbow Tap and the Middle Fork #1 circuits that were previously attached to the Oxbow Junction Pole and subsequently spliced together.

3. Site Observation Visit #3 – October 19, 2022

SED investigators met with PG&E staff and representatives from other organizations at a PG&E contractor facility in Santa Clara to observe two pairs of batteries that had provided power to the motor operators for Switches 47 and 49. The batteries were locked in a control box during the September 22, 2022, site observation visit. USFS removed these batteries along with the Oxbow Junction Pole and returned the batteries to PG&E on September 24, 2022.⁴⁵

PG&E staff stated during the site observation visit that the condition of the batteries was unchanged from September 24, 2022.⁴⁶ SED investigators observed and photographed both pairs of Power Sonic model PS-12180 NB batteries including PG&E contractor measurements of the voltage of the batteries.

4. Site Observation #4 – November 3, 2022

On November 3, 2022, SED investigators drove to Oxbow Junction, where SED investigators and third-party representatives observed PG&E's collection of several conductors as evidence at SED's request.⁴⁷

⁴⁵ PG&E staff informed SED on October 12, 2022, that the USFS seized the batteries on September 24, 2022, and then transferred the batteries to PG&E staff at the Forest Hill substation later that day. PG&E then transferred the batteries to PG&E's contractor (October 12, 2022, email "Evidence collection/ repair work notification" from [REDACTED], PG&E staff, to SED staff Ed Pike).

⁴⁶ See SED Site Observation Report for October 19, 2022, site visit (third visit). See p.2.

⁴⁷ See Figure 2 showing the locations of relevant poles and circuits at the incident location.

Conductor Collection



Figure 14: Conductor collection by helicopter and bucket truck⁴⁸

The condition of the conductors prior to collection appeared unchanged from the September 30, 2022, site visit. The ends of the Weimar circuit #1 conductors that were previously connected to the Oxbow Junction Pole lay on the ground. The conductor serving Middle Fork #1 circuit was spliced together in the air with conductor serving the Oxbow Tap.⁴⁹

PG&E collected conductor sections, as shown in Figure 14 above, using two helicopters and a bucket truck. PG&E's contractor then inspected and collected the conductors as evidence.

SED observed pitting, as shown in Figure 15 below, on all three phases of the conductor sections that were formerly near Pole 09/132. PG&E staff stated that birds, branches, or debris can cause this pitting (i.e. by creating a path for arcing if they bridge or partially bridge between conductors).

⁴⁸ SED took this photo on November 3, 2022, during Site Observation Visit four.

⁴⁹ PG&E stated that USFS did not take conductor segments between the Oxbow Junction Pole and other poles. USFS did take the jumpers for Switches 47 and 49 as noted below in discussion of Site Observation Visit #5.



Figure 15: Surface damage to south phase of conductor formerly attached to Pole 09/132.⁵⁰

SED investigators also observed marks on the ends of the Oxbow Junction conductor. Based on SED's observations of these marks, abrasion could have caused these marks when USFS cut and dropped the conductor on September 24, 2022, or when PG&E collected the conductor on November 3, 2022.



Figure 16: Marks on conductor section formerly attached to south side of Pole 14/190.⁵¹

Pole 09/131 replacement

SED observed that PG&E had removed the fallen and partially burned Pole 09/131 and installed a replacement. PG&E staff said that PG&E removed this equipment and placed it in dumpsters.⁵² PG&E disposed of this pole and associated equipment despite SED's September 23, 2022, instructions that PG&E preserve this evidence.

5. Site Observation Visit #5 – January 19, 2024

On January 19, 2024, SED investigators and legal counsel along with other organizations attended USFS's Mosquito Fire evidence viewing at a CAL FIRE facility in Grass Valley.

⁵⁰ SED took this photo on November 3, 2022, during Site Observation Visit #4.

⁵¹ SED took this photo on November 3, 2022, during Site Observation Visit #4.

⁵² PG&E email dated November 1, 2022, from PG&E to SED and titled "[EXTERNAL] RE: Preservation of Evidence for Mosquito Fire - please respond ASAP." SED later learned that PG&E removed and disposed of this evidence on October 22, 2022, as discussed later in this report.

SED observed the following evidence:

- The upper section of the Oxbow Junction Pole and attachments and two lower sections of the base of the pole.
- Vacuum breakers, conductor sections, and other equipment that USFS separated from the Oxbow Junction Pole when seizing the pole.
- Small metallic objects collected by USFS from the ground near the Oxbow Junction Pole prior to evidence viewing by SED on September 22, 2022.
- Tarps and plastic wrappings used to collect the items listed above.

At the CAL FIRE facility, SED observed some elements of the Oxbow Junction Pole that were not viewable during SED's initial September 22, 2022, site visit, due to their location on the pole and proximity to a steep hill. Figure 8, as shown earlier in this report, shows a view from above the pole of the lower jumper connected to lower phase jumper connector pads.⁵³ The lower jumper attached to Switch 47 curved into the control rod, while the middle (connected to middle phase jumper connector pads) and upper jumper (connected to upper phase jumper connector pads) for Switch 47 curved away from control rod.

Lower jumper and control rod

SED staff observed and photographed the position of the lower phase jumper between Switches 47 and 49, which matched photos taken by PG&E on September 22, 2022. The lower jumper curves from Switch 47 into the upper section of the Switch 47 control rod, contacting the rod as shown below in Figure 17. The curve of the jumper changes where it contacts the control rod, indicating that the control rod exerts pressure on the jumper and causes an inflection point. Unlike the lower jumper, the upper and middle jumpers curve around the pole.

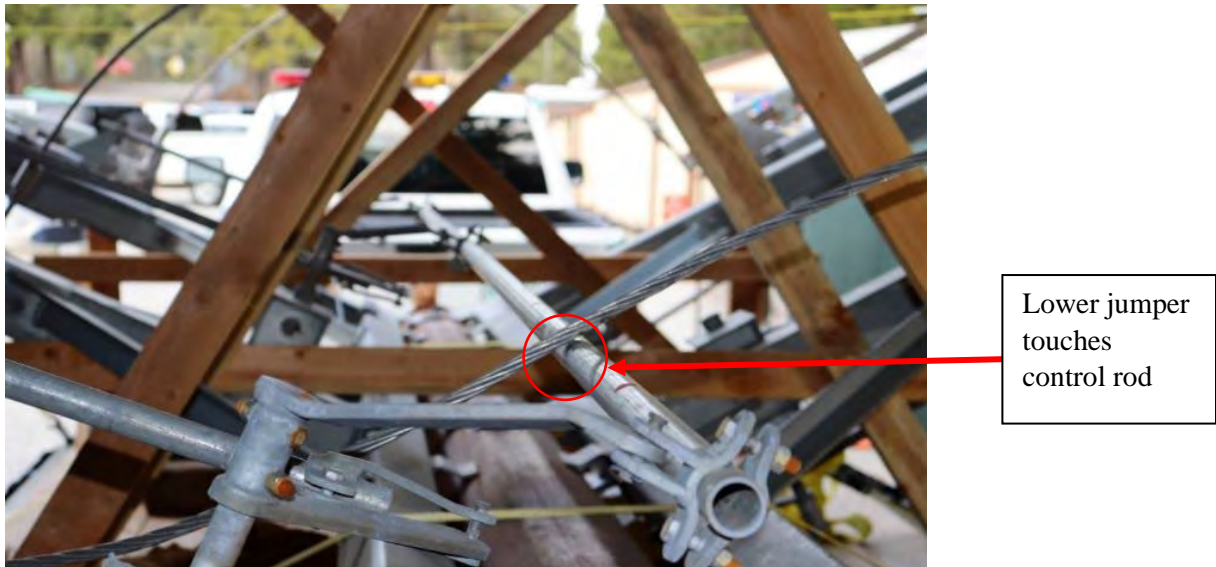


Figure 17: SED staff observed lower phase jumper touching control rod⁵⁴

⁵³ PG&E refers to the jumper connector pads as "swivels."

⁵⁴ SED took this photo on January 19, 2024, during Site Observation Visit #5.

SED staff observed unusual black marks on the upper control rod and sections of the rod where the top layer of metal had apparently flaked off the rod (see Figure 17 and Figure 18). SED staff also observed dark marks on the rectangular lower section of the control rod that appeared consistent with scorching damage. In addition, SED staff observed pitting and discoloration on the jumper near where it contacted the control rod.

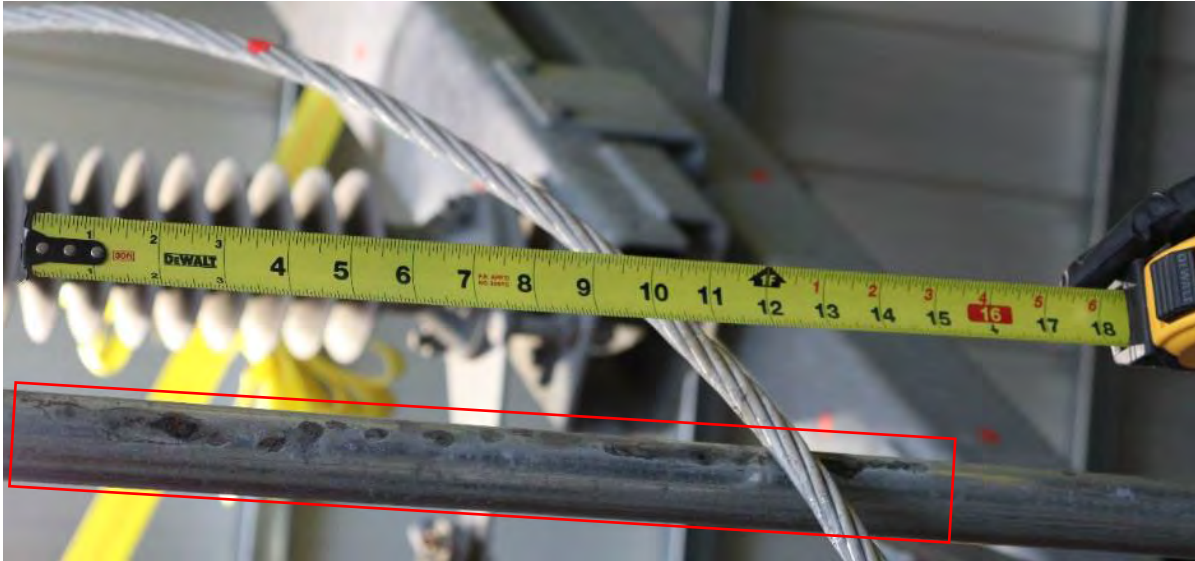


Figure 18: Control rod scorch marks and flaking near contact with lower jumper.⁵⁵

The control rod is not electrically isolated from the metal structural part of the pole. Thus, the scorch marks and flaking on the control rod and pitting on the jumper are consistent with an electrical fault caused by the jumper touching the pole at the control rod. Contact between the jumper and the pole created a fault path via the control rod and the main metal structural part of the pole into the ground.

⁵⁵ SED took this photo on January 19, 2024, during Site Observation Visit #5. The investigator stood near Switch 47. USFS placed the red stickers on equipment for its own reference.

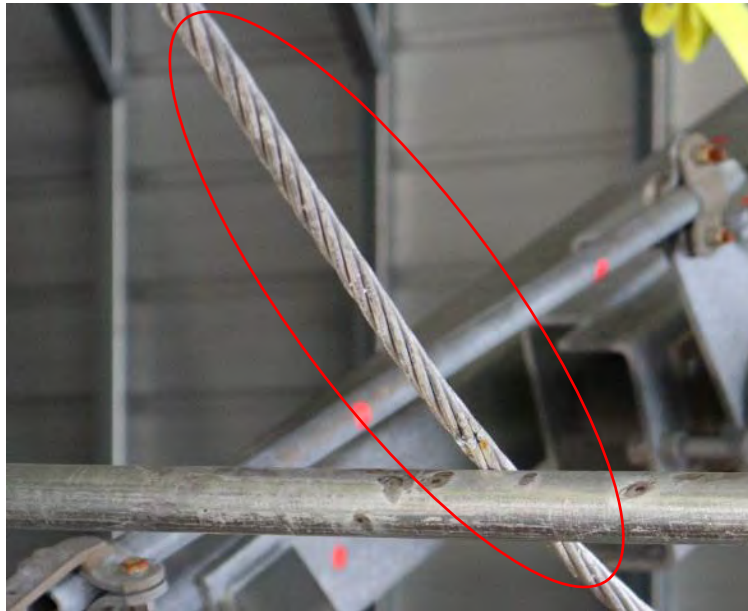


Figure 19: Pitting on lower phase jumper.⁵⁶

Switch 47 Lower phase jumper connector pad

SED observed the connection of the Switch 47 lower phase to a four-hole jumper connector pad or "jumper connector pad." Figure 20 below shows the jumper connector pad and the terminal attached to the jumper cable to the left of the terminal.

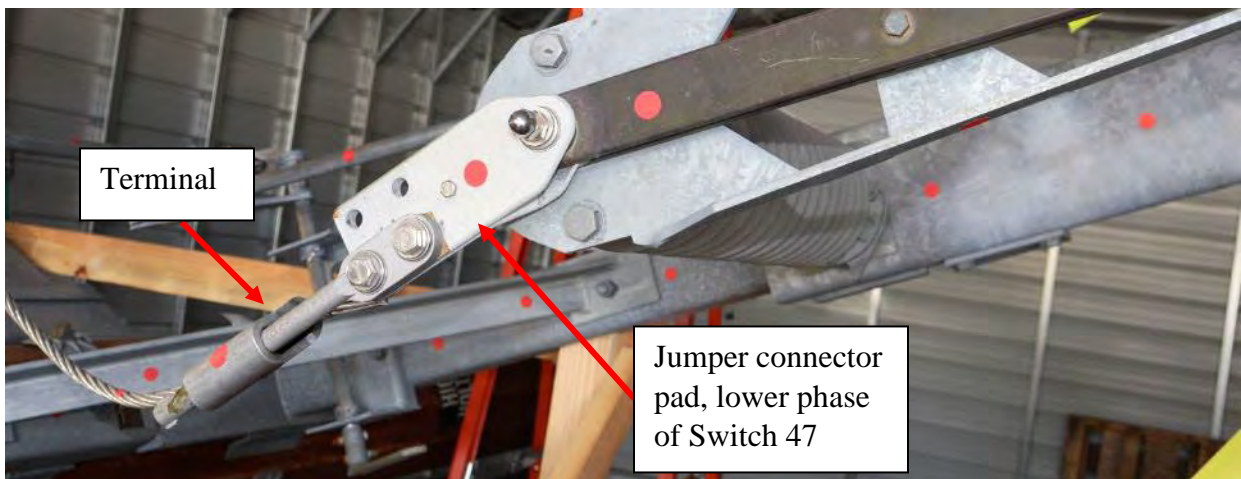


Figure 20: Jumper connector pad, which connects to lower phase of Switch 47 and terminal (left of jumper connector pad), which connects to lower phase jumper.⁵⁷

⁵⁶ SED took this photo on January 19, 2024, during Site Observation Visit #5.

⁵⁷ SED took this photo on January 19, 2024, during Site Observation Visit #5.

SED did not observe any signs of damage or deterioration to the visible sections of the nut and other hardware connecting the jumper connector pad to the switch shown in Figure 21 below. SED could not observe the bolt holding the jumper connector pad because the bolt was covered by attached equipment.

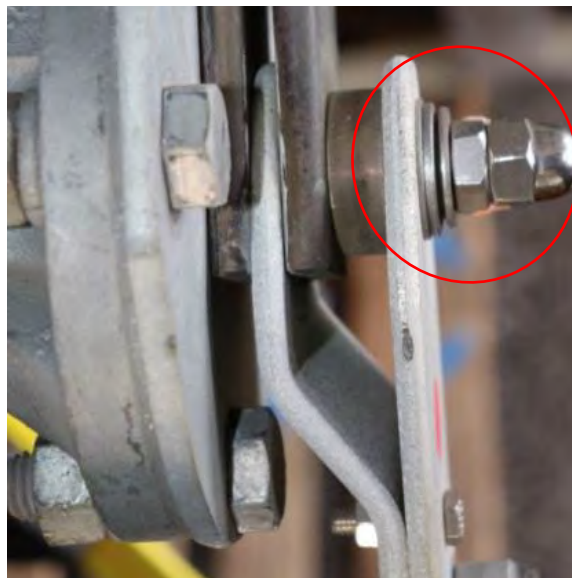


Figure 21: Hardware connecting jumper connector pad to lower Switch 47; SED circled visible hardware in red.⁵⁸

PG&E stated that while “some incidental movement of the jumper, terminal, and jumper connector pad is normal and expected during switch operations,” the jumper connector pad should not rotate significantly when the free end of the switch blade rotates to open and close the switch.^{59,60} Based on PG&E’s statement, the jumper connector pad and the Switch 47 lower jumper bolted to that pad should remain stationary with the jumper curving away from the control rod, similar to the middle and upper jumpers. However, SED observed that the Switch 47 jumper connector pad position changed between when PG&E photographed the jumpers during an inspection prior to the Mosquito Fire and when SED observed the jumper connector pad⁶¹.

SED also observed that the lower jumper connector pad was connected to Switch 49 at an unusual angle of approximately 30 degrees from in line with the closed switch blade, as shown in Figure 22 below. The aerial photograph of the pole taken by PG&E on September 22, 2022, shows the top phase jumper connector pad in line with the switch blade when the switch is closed, in contrast to the lower jumper connector pad observed by SED on January 19, 2024. The misalignment of the

⁵⁸ SED took this photo on January 19, 2024, during Site Observation Visit #5.

⁵⁹ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q007_R001.pdf provided by PG&E on January 24, 2024, in response to SED-05 Q7.

⁶⁰ Figure 5 shows the free end of the switch blade.

⁶¹ PGE-CPUC-00023883, provided in response to SED-002, Q17 (October 04, 2023) was part of an aerial overhead inspection. On page 2 of DRU11846_PGE-CPUC_10042023_SED_002_Mosquito Fire_Q017_Supplemental, PG&E stated that this photo was taken May 16, 2022.

Switch 49 lower jumper connector pad appeared to contribute to the position of the lower jumper allowing contact with the control rod.

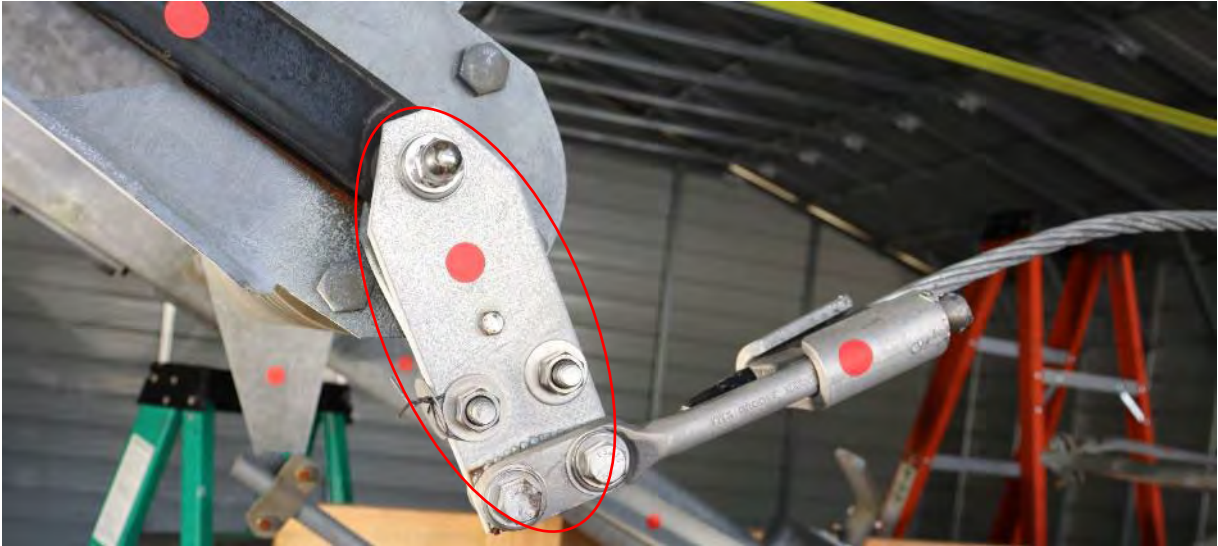


Figure 22: Jumper connector pad which connects the lower jumper to lower phase of Switch 49.⁶²

Additional Equipment from Oxbow Junction Pole

Figure 23 below shows scorch marks on a conductor section that connected to the Switch 49 bottom phase.⁶³



Figure 23: Scorch mark on conductor collected by USFS from Switch 49 bottom phase.⁶⁴

⁶² SED took this photo on January 19, 2024, during Site Observation Visit #5.

⁶³ USFS labeled the conductor as “Switch 49 inner jumper extension” and posted a sign “Switch 49 bottom” where this conductor was displayed.

⁶⁴ SED took this photo on January 19, 2024, during Site Observation Visit #5.

SED also observed conductor pitting,⁶⁵ shown in Figure 24 below. USFS evidence tags indicate that this conductor was formerly attached to the lowest phase of Switch 49.⁶⁶ Electrical faults such as the September 6, 2022, fault commonly cause such pitting. SED cannot definitively determine when the pitting on the Switch 49 lowest phase conductor occurred. SED also observed some additional dark marks that appeared to have eroded over time on a different section of the same conductor and thus likely occurred prior to September 6, 2022.

As shown in Figure 24, an evidence container (sealed with red tape) contains a small silver-colored bead that detached from the lower phase of Switch 49 after USFS collected this equipment, including the pitted section noted above.

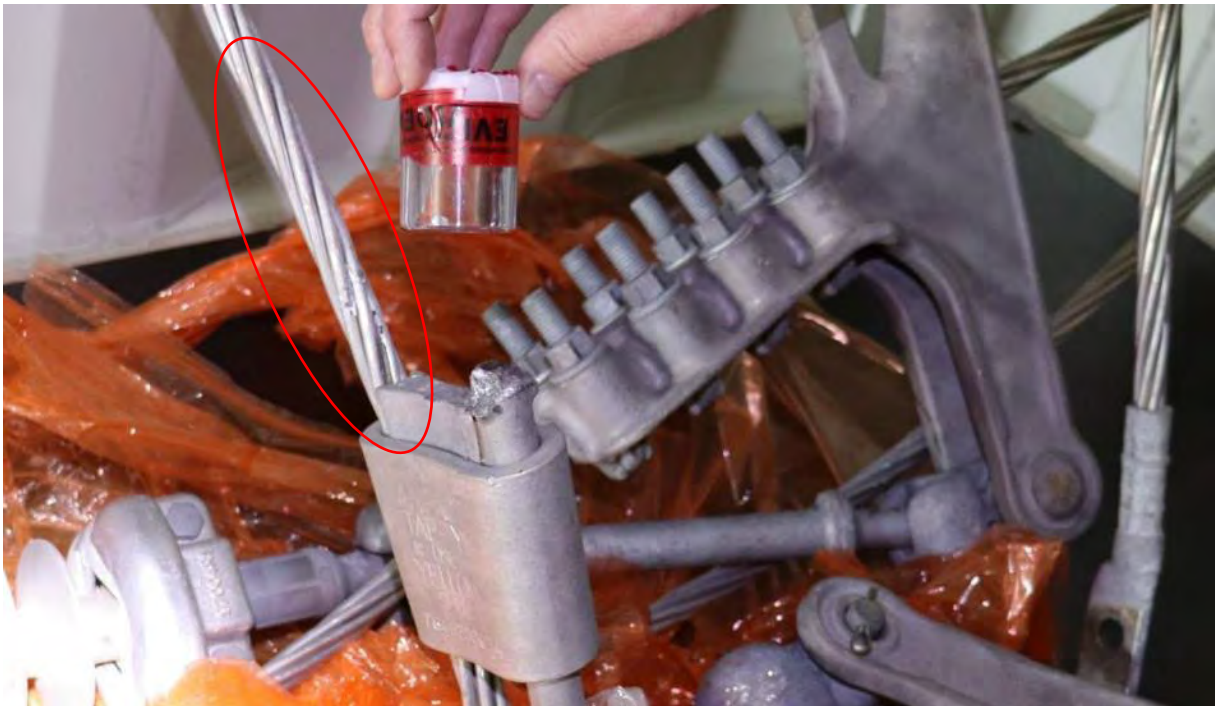


Figure 24: Switch 49 lower phase conductor section pitting.⁶⁷

⁶⁵ Pitting occurs when some areas of the surface of the conductor melt and fall to the ground or re-solidify on the conductor surface.

⁶⁶ USFS labeled the conductor as “Switch 49 inner jumper extension” and posted a sign “Switch 49 bottom” where this conductor was displayed.

⁶⁷ SED took this photo on January 19, 2024, during Site Observation Visit #5.

Metallic Objects Collected from Ground Near Oxbow Junction Pole

USFS collected several metallic flakes from the ground near the Oxbow Junction Pole on September 17, 2022, as shown in Figure 25 below.⁶⁸ The color of these flakes (steel or a similar silver colored metal) matches the upper section of the control rod shown earlier. As noted earlier, Figure 18 shows damage to the control rod, including areas where the top layer of metal apparently flaked off and was later collected by USFS as evidence. This evidence indicates that the lower jumper touched the upper control rod on September 6, 2022, causing an electrical fault that flaked these small pieces of metal from the upper control rod.



Figure 25: Examples of metallic flakes collected by USFS.⁶⁹

C. Document Review and Investigation

SED reviewed and analyzed records and audio and video recordings, interviewed PG&E SMEs, and examined physical evidence to determine compliance with Commission safety regulations including GO 95. PG&E provided records in response to seven SED data requests totaling 237 questions. The questions requested transmission system operation and electrical fault data, installation and maintenance procedures, inspection forms and procedures, inspection reports, maintenance and work order records, and other information related to the Mosquito Fire and PG&E compliance with Commission requirements for electrical facilities in the Oxbow Junction area.

⁶⁸ All containers were marked with the date September 17, 2022, except for one container marked with the date September 24, 2022.

⁶⁹ SED took this photo on January 19, 2024, during Site Observation Visit #5.

1. PG&E Failed to Implement Maintenance Requirements for Switches 47 and 49, in Violation of GO 95, Rule 31.1.

Oxbow Junction Pole Switches 47 and 49 operational issues

The nameplates on Switches 47 and 49 indicate they were manufactured in March 2009. PG&E believes that they were installed shortly thereafter.⁷⁰ PG&E staff could open and close the switches either from the control box on the pole, or remotely through a Supervisory Control and Data Acquisition (SCADA) system command.

On April 25, 2022, at around 0000 hours, a PG&E trouble responder discovered that the lower phase of Switch 47 had only partially opened in response to an earlier PG&E SCADA command on April 20, 2022, at 1713 hours.⁷¹ The lower phase of the switch had melted.⁷² PG&E replaced the entire lower phase switch assembly except for the base and pole-side insulator by April 25, 2022.⁷³ PG&E attempted to operate Switch 47 several times after the lower phase Switch 47 repairs and before the Mosquito Fire on September 6, 2022.⁷⁴ While PG&E reported successfully operating Switch 47 several times, on April 30, 2022, four attempts to remotely open and close the switch via SCADA commands failed.⁷⁵ In addition, PG&E initially suspected that closing Switch 47 on an energized circuit on August 26, 2022, caused arcing at the Oxbow Junction Pole.⁷⁶ Faulty operation of Switch 47, such as a partial close, could cause such arcing. However, a PG&E trouble responder did not find evidence of arcing at the switch.⁷⁷

⁷⁰ PGE-CPUC_02102023_SED_001_Q68 Mosquito Fire (February 10, 2023) provided in response to SED-01 Q68.

⁷¹ DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q031.pdf (June 30, 2023) provided in response to SED-02 Q31.

⁷² PGE-CPUC-00013488.pdf (July 21, 2023), provided in response to SED-02 Q11. See page 1 covering April 24 and April 25, 2022, of this PG&E “Switching Log” (number T22-008397).

⁷³ DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q031.pdf (June 30, 2023) provided in response to SED-02 Q31(b); page 2 of PGE-CPUC-00005010, PG&E “Electric Overhead Tag Notification #123404435” (notification was printed October 21, 2022; last entry is dated April 27, 2022) provided in response to SED-01 Q30. The repair was completed by April 25, 2022 (PGE-CPUC-00005023.pdf, see email dated April 25, 2022, at 1445 hours).

⁷⁴ See Section VII of this report. As noted in the Appendix, the switch operation data is from Attachment 1 to PGE response to SED-02 Q11.

⁷⁵ See Section VII of this report. As noted in the Appendix, the switch operation data is from Attachment 1 to PGE response to SED-02 Q11.

⁷⁶ On August 26, 2022, at approximately 07:25 PG&E remotely closed Switch 47. Soon after, the Middle Fork Circuit Breaker (CB) 32 and Weimar CB 52 relayed, i.e., the circuit breakers opened. PG&E Grid Control Center personnel initially suspected that arcing at the Oxbow Junction Pole caused CB 32 and CB 52 to open (PGE-CPUC_03172023_SED_001_Q70 Mosquito Fire.pdf (March 17, 2023) provided in response to SED-01 Q70, p. 2).

⁷⁷ A PG&E inspection found no evidence of arcing according to a PG&E transcript dated January 17, 2022. (PGE-CPUC-00012131, provided March 17, 2023, in response to SED-01 Q70). This transcript reflects a recorded call from the PG&E trouble responder to the PG&E system operator on August 26, 2022, at 08:02 (PGE-CPUC_03172023_SED_001_Q70 Mosquito Fire.pdf (March 17, 2023) provided in response to SED-01 Q70).

PG&E maintenance requirements for Switches 47 and 49

PG&E’s “Switch Maintenance and Inspection Program for Electric Transmission” or “Utility Procedure TD-1006P-02” contains specific function testing and other inspection requirements.⁷⁸ At the time of the Mosquito Fire, the procedure included the following function test requirements:⁷⁹

- Lubricate switch components (section 4.1 sub-section 5);
- Perform function testing of motorized switch operation (section 4.2); and
- Test SCADA communication functionality (section 4.3).

PG&E acknowledged that Utility Procedure TD-1006P-02 required function tests every six years for Switches 47 and 49 beginning on March 31, 2015, unless triggered sooner.⁸⁰ PG&E’s first six-year deadline to complete function testing requirements was March 31, 2021.

Table 1. Switch Inspection Cycle

Voltage	Switch Type	Structure Type	Detailed Visual Inspection ²	Function Test (Years)
500 kV ¹	N/A	N/A	N/A	N/A
230 kV	Manual	Steel	<ul style="list-style-type: none"> • Max 6 years or as triggered. • Visual inspections must be done more frequently with structural inspections cycles described in TD-1001M-B009 	6 or as triggered
115 kV 60 kV/70 kV	Manual	Wood		
		Steel		
	Motor-Operated	Wood		
		Steel		

¹ 500 kV switch maintenance is performed within the Substation Maintenance Plan.
² Detailed visual inspection may not be performed on the same set of switches as the function test, during the same time frame.

Figure 26: PG&E transmission switch inspection and function testing cycles.⁸¹

⁷⁸ PGE-CPUC-00013797, provided on July 21, 2023, as an attachment to response to SED DR2 Q26, Utility Procedure: TD-1006P-02, Switch Maintenance and Inspection Program for Electric Transmission revision 1, published March 5, 2021 (Utility Procedure TD-1006P-02).

⁷⁹ Utility Procedure TD-1006P-02, function testing requirements in section four.

⁸⁰ The following issues can trigger a function test apart from the six-year cycle: component failure, components proven defective through testing or the Material Problem Report (MPR) process, or intermittent or unknown status alarms through SCADA. DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q026.pdf (July 21, 2023) responses to SED-02 Q26(b)(ii) and Q26(c).

⁸¹ Utility Procedure TD-1006P-02.

PG&E claims that observing the switch during operation accomplishes the purposes of function testing.⁸² PG&E acknowledges, however, that it did not perform the function testing requirements at Switches 47 or 49 between September 6, 2012, and September 5, 2022.⁸³⁻⁸⁴ First, visual inspection does not lubricate the switch components. Second, PG&E did not provide documents showing that PG&E verified proper operation of the SCADA system during a visual inspection (i.e. activating the SCADA system and coordinating between an inspector on site during the attempted operation and PG&E staff controlling the SCADA system during the attempted SCADA-initiated switch operation). PG&E's history of problems with remote SCADA operation of Switch 47 and arcing at the switch suggests that complete function testing including all maintenance procedures was critical.⁸⁵

GO 95, Rule 31.1 requires that unless otherwise specified in the rules, all "design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment." Such accepted good practices include the utility's own requirements, such as the function testing requirements under TD-1006P-02 Section 4. Accordingly, PG&E violated Rule 31.1 by failing to complete Section 4 function testing requirements. The violation began on March 31, 2021 (the first six-year deadline for PG&E's function testing requirements) and continued until September 6, 2022.

2. PG&E Violated General Order 95, Rule 37 as Modified by Rule 54.4(D) when the Lower Phase Jumper Contacted the Oxbow Junction Pole.

PG&E failed to maintain adequate clearance between the Switch 47 lower jumper and the Oxbow Junction Pole. The Switch 47 control rod is considered part of the pole because it is not electrically insulated from the pole's central metal support.⁸⁶ The inadequate clearance created an electrical fault path from the jumper to the ground via the Switch 47 upper control rod and the Oxbow Junction Pole main metal support.

⁸² DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q026.pdf (July 21, 2023), provided in response to SED-02 Q26, section (b)(ii).

⁸³ DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q026.pdf (July 21, 2023), provided in response to SED-02 Q26(b)(iii). No function testing was performed at Switches 47 and 49 between September 6, 2012, and September 5, 2022. During that time, Switches 47 and 49 were operated several times a year.

⁸⁴ A PG&E inspector completed only the inspection sections of a "Transmission Line Switch Inspection Function Test" form for the Oxbow Junction Pole on April 23, 2021, and not the function testing section on page 6. See PGE-CPUC-00000640.pdf, provided on February 10, 2023, in response to DR1 Q11. This document is the "Electric Transmission Line Switch Inspection Function Test" form (form revision 0 dated March 2021) for the April 23, 2021, Oxbow Junction Pole inspection (the inspection and inspector review fields of this form are dated April 23, 2021; no other date is listed on the form).

⁸⁵ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q010_R001.pdf (March 22, 2024), response to SED-06 Q10, states that PG&E does not review or approve manufacturer testing of switches—which increases the importance of function testing in the field to verify proper operation.

⁸⁶ DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q016_CONF (June 30, 2023) provided in response to SED-02 Q16.

Observations and photos of Oxbow Junction Pole lower jumper show lack of clearance.

As previously noted, SED observed the lower phase jumper touching the Oxbow Junction Pole via the Switch 47 control rod during evidence viewing on January 19, 2024. PG&E stated that this jumper has sufficient rigidity to hold certain equipment in place.⁸⁷ Thus, the jumper's position had not changed between the last switch operation on September 6, 2022, and SED's observation of the jumper on January 19, 2024.

PG&E's 20-Day Report⁸⁸ acknowledged that the jumper appeared to lack sufficient clearance when PG&E viewed this equipment on September 22, 2022.⁸⁹ The 20-Day Report also states that September 22, 2022, photos show signs of damage to the Switch 47 control rod.⁹⁰

A PG&E photo from a May 16, 2022, inspection⁹¹ shows that the lower jumper's orientation to the Oxbow Junction Pole was similar to the middle and upper jumpers. The Switch 47 lower jumper connector pad was oriented at roughly a 90-degree angle to the bracket (i.e., the bracket attaching the switch to the pole) and aimed the jumper away from the pole.

In contrast, SED observed the lower jumper connector pad oriented in-line with this bracket on January 19, 2024 (as noted earlier in this report). SED also observed on January 19, 2024, that the lower connector pad aimed the lower jumper toward the pole, consistent with Figure 8 earlier showing this equipment on September 22, 2022.

The Switch 49 lower jumper connector pad also appeared misaligned during January 19, 2024, evidence viewing (as noted earlier in this report). This misalignment potentially contributed to the change in the position of the lower jumper (unless the connection of this jumper connector pad to the switch was loose and the lower jumper pulled this pad out alignment when the lower jumper moved).⁹²

PG&E has not provided evidence that the lower jumper position changed between May 16, 2022, and September 6, 2022. Thus, the lower jumper position likely changed on September 6, 2022, during switching operation and immediately before the Mosquito Fire ignited.

⁸⁷ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q018_R001.pdf (April 5, 2024) provided in response to SED-06 Q18.

⁸⁸ 20-Day Report, p. 3.

⁸⁹ See Figure 8.

⁹⁰ As shown in Figure 11.

⁹¹ See PGE-CPUC-00023883.

⁹² The Switch 47 lower jumper connector pad was misaligned by 90 degrees when viewed by SED and played the larger role in causing the lower jumper to contact the control rod compared to the Switch 49 lower jumper connector pad misalignment.

Lack of clearance resulted in arcing damage to control rod and lower jumper.

The lack of clearance between the lower jumper and the Oxbow Junction Pole resulted in arcing, scorching, metal flaking on the control rod, and pitting on the jumper.

- On January 19, 2024, SED observed dark marks on the Switch 47 upper control rod consistent with scorching; areas of the rod where metal had flaked off and the metallic flakes (which a color matching the upper control rod) that USFS collected from the ground on September 17, 2022.⁹³ PG&E stated that pictures from an inspection on May 16, 2022, (Figure 27 below) show the jumper and control rod without this damage.^{94, 95}
- On January 19, 2024, SED observed pitting on the lower phase jumper near where this jumper contacted the Oxbow Junction Pole (as noted earlier).
- PG&E acknowledged that dark marks from the rectangular lower section of the control rod visible during the September 22, 2022, site visit are consistent with damage from an electrical fault.⁹⁶

Based on evidence reviewed by SED, arcing, as evidenced by the damage to the lower phase jumper and control rod, most likely created an ignition source for the Mosquito Fire.

⁹³ See section IV.B describing Site Observation Visit #5 and showing evidence labels marked with the September 17, 2022, collection date.

⁹⁴ PG&E states that it “had not observed metal flakes missing from [the control rod] or other damage to the upper section of either the Switch 47 or Switch 49...[control] rod” before the Mosquito Fire ignition on September 6, 2022, noting that photos taken during PG&E’s May 16, 2022, aerial overhead inspection also did not indicate damage. PG&E DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q001_R001.pdf, response to SED-06 Q1.

⁹⁵ PG&E stated that it “had not observed the black marks on the Switch 47 [control] rod” before the ignition of the Mosquito Fire, noting that photos from PG&E’s May 16, 2022, aerial overhead inspection do not show any black marks on the Switch 47 control rod. DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q016_CONF (June 30, 2023), provided in response to SED-02 Q16.

⁹⁶ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q003_R001.pdf (August 5, 2024) provided in response to SED-06 Q3.



Figure 27: Switch 47 upper control rod and lower jumper on May 16, 2022, showing no visible damage.²⁷

General Order 95 Rule 37 and Rule 54 clearance requirements

GO 95, Rule 37 requires a minimum clearance of 12 inches between conductors and the Oxbow Junction Pole (see Table 1, case 9 and column F, based on the voltage of the circuits served by the Oxbow Junction Pole).²⁸ Rule 54.4(D)(6)(b) modifies this Rule 37 clearance requirement with a stricter clearance requirement of 18 inches between conductors and the surface of poles where circuits "dead end," such as was the case with the Oxbow Junction Pole. The Oxbow Junction Pole also met the other criteria that trigger an 18-inch clearance requirement due to its voltage and conductor configuration.²⁹ Accordingly, PG&E violated Rule 37 (as modified by Rule

²⁷ This figure shows SED's crop of PG&E photograph PGE-CPUC-00012113. See DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q016_CONF.pdf (June 30, 2023), response to SED-02 Q16(b)(ii) indicating that PG&E took the original photo during an aerial overhead inspection on May 16, 2022.

²⁸ GO 95, Rule 37, Table 1 case 9 column F applies to supply conductors with voltage between 22.5 and 300 kV. This case requires a minimum clearance from the surface of the pole of 1/4 of the minimum pin spacing shown in Table 2 Case 15 which equals 12 inches (1/4 of the 48-inch minimum pin spacing for Case 15, column I for supply conductors between 75,000 and 150,000 volts).

²⁹ Section 54.4-D (6) applies when circuits dead-end at a pole (rather than continuing past the pole). The Weimar #1 circuit, Middle Fork #1 circuit, and the Oxbow Tap circuits all dead-end at the Oxbow Junction Pole. Section 54.4(D)(6)(b) sets the minimum clearance at 18 inches for climbable poles with conductors in a

54.4(D)(6)(b)) because the lower phase jumper had zero clearance from the Oxbow Junction Pole when the jumper contacted the upper section of the Switch 47 control rod.

3. PG&E Failed to Clear Vegetation from the Base of the Oxbow Junction Pole in Violation of GO 95, Rule 31.1.

Pole Vegetation Clearance Requirements

GO 95, Rule 31.1 states in part that where CPUC rules do not contain specific maintenance practices "...maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the ... maintenance of communication or supply lines and equipment." Accordingly, established vegetation clearance requirements in the "Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region" (O&M Plan) represent "good practices" enforceable under Rule 31.1, given the location of the Oxbow Junction Pole within the Tahoe National Forest boundary.¹⁰⁰ The O&M plan specifies "required activities to operate and maintain safe and reliable electric and ancillary facilities."¹⁰¹

The O&M Plan requires removing vegetation from around the Oxbow Junction Pole annually before the onset of fire season and maintaining bare ground through the entire fire season.¹⁰² The fire season began on May 16, 2022, for the area where the Oxbow Junction Pole is located.¹⁰³ PG&E acknowledged that the Oxbow Junction Pole was subject to such pole vegetation clearance requirement prior to the Mosquito Fire.¹⁰⁴

vertical configuration and voltages exceeding 7,500 kV such as the circuits connected to the Oxbow Junction Pole.

¹⁰⁰ "Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region" (O&M Plan), updated August 2020, p. 1-1. PGE-CPUC-00022270 provided (September 1, 2023) in response to SED-03 Q20.

The O&M Plan was prepared by PG&E and Southern California Edison for the U.S. Department of Agriculture Forest Service. Andy Williams, PG&E Vice President, signed the plan on December 20, 2018, as shown on PDF page 41.

¹⁰¹ The O&M Plan "describes the Utility's required activities to operate and maintain safe and reliable electric and ancillary facilities throughout the 11 local National Forests (Forests) with Pacific Gas and Electric Company" (p. 1-1, PDF p. 13). O&M Plan requirements parallel the vegetation practices specified in Public Resources Code section 4292 while extending these requirements to additional poles.

¹⁰² O&M Plan p. A-1, PDF p. 46.

¹⁰³ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q027_R001.pdf (March 25, 2024), response to SED-06 Q27. PG&E stated that Pole 014/191 is located in the Nevada-Yuba-Placer California Department of Forestry and Fire Protection CAL FIRE unit. CAL FIRE determined the beginning of the fire season.

¹⁰⁴ DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q004 provided (July 21, 2023) in response to SED-02 Q4.

Figure 28 below (left image) below illustrates the requirements including clearing the ground within a 10-foot radius of the pole and to a height of eight feet above ground level.¹⁰⁵ Figure 28 (right image) shows the requirement to clear a cylinder up to eight feet above ground for a sloped surface.

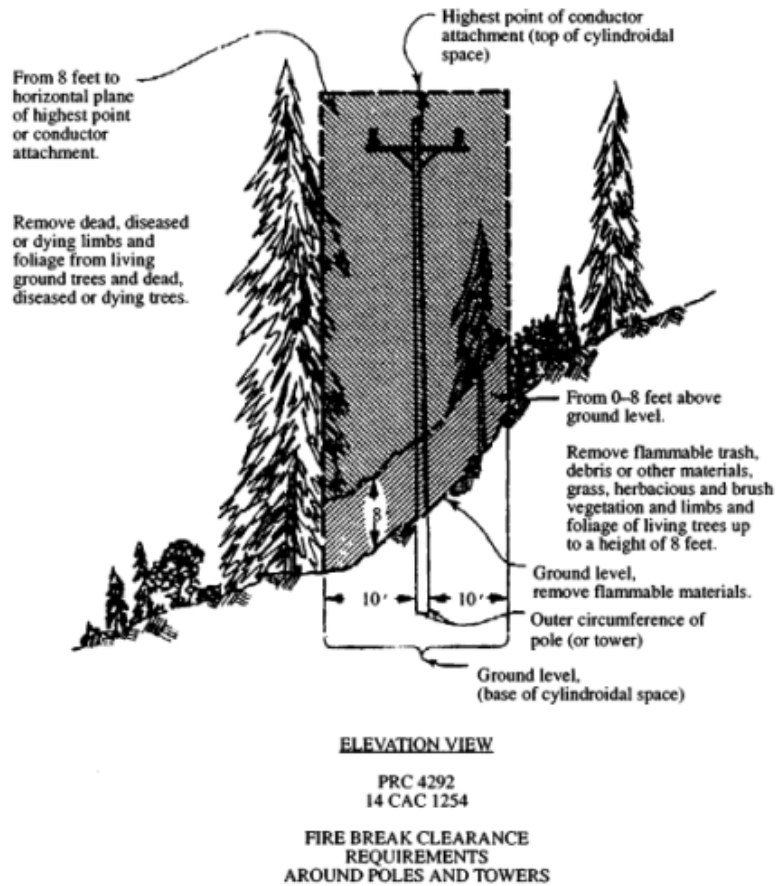
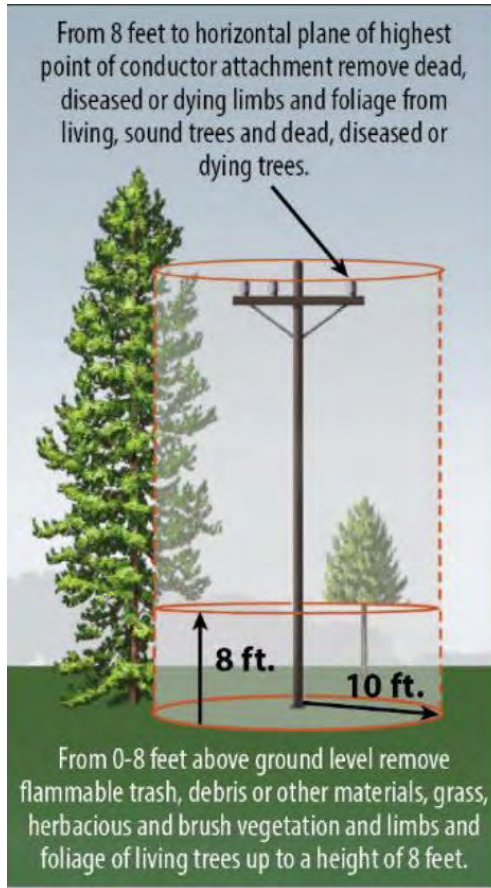


Figure 28: Pole clearance requirements for level ground (left)¹⁰⁶ and sloped ground (right).¹⁰⁷

¹⁰⁵ See Appendix A of the O&M Plan for more details.

¹⁰⁶ O&M Plan, p. B-10.

¹⁰⁷ Cal. Code Regs., tit. 14, Div. 1.5, Ch. 7, Art. 4, Fig. 2: "Fire Break Clearance Around Poles and Towers;" Cal. Code Regs., tit. 14, § 1254, "Minimum Clearance Provisions--PRC 4292."

Figure 29 below shows vegetation on the grassy slope. This slope is north of the Oxbow Junction Pole and extends to the west and east.¹⁰⁸



Figure 29: Vegetation near Oxbow Junction Pole on June 11, 2022¹⁰⁹

SED asked PG&E to provide measurements of the distance from the Oxbow Junction Pole to a point on the hillside where the terrain transitions from a rocky surface to a grassy slope (as shown in Figure 30, below). PG&E stated that the distance from the pole to points along the hillside at [the height of the terrain change] was “between 8.6 feet and 10.7 feet.”¹¹⁰ Thus, a 10-foot radius cylinder around the pole included vegetation on the hill.

¹⁰⁸ Email (February 28, 2024) from [REDACTED], PG&E Regulatory Relations contact, to Ed Pike, SED staff confirmed the orientation of the slope re: the pole.

¹⁰⁹ Photo shown on Bates numbered page PGE-CPUC-00004787 of document PGE-CPUC-00004780, a June 11, 2022, Transmission Notification provided (Feb 24, 2023) in response to SED-01 Q61.

¹¹⁰ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q002_R001.pdf (February 7, 2024) provided in response to SED-05 Q2(a).

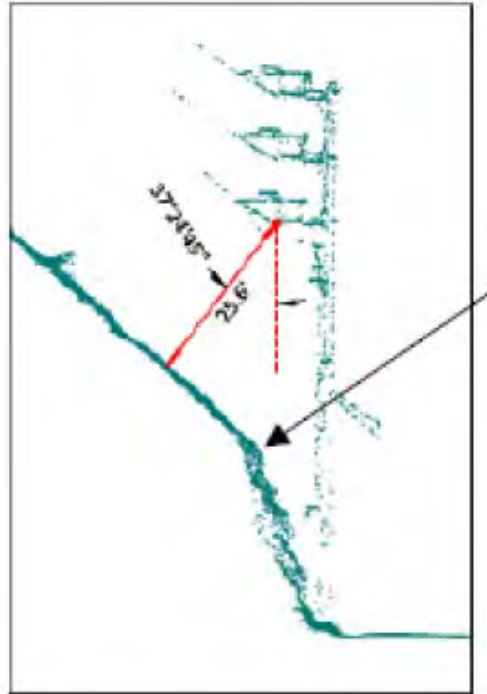


Figure 30: Reference point (black arrow) for measurements of distance from Oxbow Junction Pole to slope.¹¹¹

Pole clearance history

PG&E provided SED with vegetation clearance records from 2017 to the date of the fire. These records, as shown in the Appendix of this report, indicate that PG&E cleared vegetation around the Oxbow Junction Pole several times between April 2017 and November 18, 2021.¹¹² However, PG&E did not clear vegetation from the pole between November 18, 2021, and September 6, 2022.¹¹³ On May 2, 2022, PG&E issued Work Request ESBI000-0804W to a former PG&E contractor¹¹⁴ to clear the pole (and others) but the work was not completed for the Oxbow Junction Pole¹¹⁵ as shown in Figure 31 below (The two cells next to this work order are blank instead of

¹¹¹ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q002_R001.pdf provided (February 7, 2024) in response to SED-05 Q2(a).

¹¹² PGE-CPUC-00007447 or “Pole History t179404” (November 2, 2022) provided (March 17, 2023) in response to SED-01 Q12. Oxbow Junction Pole is numbered t179404 in this document. The table contained in PGE-CPUC-00007447 is shown in the Appendix of SED’s incident investigation report.

¹¹³ DRU12142_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_003_Q002.pdf (September 21, 2023) provided in response to SED-03, pp. 1-2.

¹¹⁴ DRU12142_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_003_Q003.pdf provided (September 21, 2023) in response to SED-03 Q3. The PG&E document indicates that PG&E terminated this contractor in the summer of 2022.

¹¹⁵ DRU12142_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_003_Q002.pdf (September 21, 2023), provided in response to SED-03 Q2(d). See pp. 1-2 of PG&E’s document.

stating “complete” and the date of completion for pole t179404, the Oxbow Junction Pole).¹¹⁶ PG&E did not identify a specific reason why this work was not completed.¹¹⁷

Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !W120743258N39008223					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	EBSI0000880P	Complete	11/18/2021
				EBSI0000804W		

Figure 31: Excerpt from PG&E Vegetation Clearing Records¹¹⁸

PG&E’s failure to comply with the O&M Plan pole clearance requirements left flammable vegetation near the Oxbow Junction Pole in violation of GO 95, Rule 31.1. This violation began on May 16, 2022, the start of the fire season as noted above, and continued until the area burned on September 6, 2022, during the Mosquito Fire.

4. PG&E Failed to Repair Loose Tie Wires at Poles 000/003, 014/186A and 009/130 in Violation of GO 95, Rule 18.

Utilities commonly secure jumpers and other conductors to utility pole insulators with tie wires. PG&E has acknowledged the need to repair loose tie wires to avoid “the jumper/conductor coming off the insulator, potentially resulting in phase-to-phase or phase-to-ground contact, which could result in a risk of arcing.”¹¹⁹

PG&E policies require identification and repair of loose tie wires. PG&E’s “Electric Transmission Preventive Maintenance” (ETPM) Manual requires correcting broken and loose tie wires as either an “A” (immediate) or “B” level priority.¹²⁰ The manual also contains criteria for whether to elevate these issues to priority “A” based mainly on whether the conductor is well seated with vertical load (see Figure 32 below). The ETPM Manual requires correcting these issues as a “B” priority if they are not elevated to the “A” priority level.

¹¹⁶ PGE-CPUC-00007439, attachment to PG&E response (March 17, 2023) to SED-01 Q12. Document title is Work Request ESBI000-0804W (printed by PG&E on November 1, 2022). The document shows that a number of poles were cleared but pole T179404 (the Oxbow Junction Pole) was not cleared.

¹¹⁷ DRU12142_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_003_Q003.pdf states in part “PG&E has not identified a specific reason why Pole T179404 was not worked in May 2022. However, PG&E is aware that the vendor responsible for completing that work order, [REDACTED], was generally behind schedule in performing clearance work during this time period. In light of [REDACTED] delays during this period, PG&E terminated its relationship with [REDACTED] in the summer of 2022 and transferred its pole-clearing work to a new vendor.”

¹¹⁸ Excerpt from PGE-CPUC-00007447.

¹¹⁹ DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q047 (July 21, 2023) provided in response to SED-02 Q47a and b, describes potential risks of a loose jumper and/or insulator tie wire.

¹²⁰ PGE-CPUC-00013063 provided (June 16, 2023) as an attachment to response to SED-02, Q43. The document title is Electric Transmission Preventive Maintenance Manual (ETPM Manual) TD 1001M, dated August 31, 2020, revision 5, see p. 22, Table 4.

Component ¹	Priority Code			
	A (Immediate)	B (3 months)	E (12 months)	F (24 months)
Conductor-Steel (CONS)		Broken strands and out-of-lay strands (e.g., gunshot) 15 - 40% Dwg 028855		
Conductor-Wood (CNDW)	Corrosion >50% material loss	Corrosion 40% - 50% material loss		
Shield Wire/OPGW, ADDS, non-ADSS lashed ² (SHLS) (SHLW)	Gunshot >40% of strands broken	Conductor clearances	Corrosion 10 - 40% material loss	Broken strands and out-of-lay strands (e.g., gunshot) 5 - 15% Dwg 028855
Jumpers (JUMS) (JUMW)	Arcing	Broken or loose tie wire (conductor well seated in the saddle with vertical load or partially captured with tie wire)	Uneven sag (send to engineering for evaluation)	Vibrating
Tie Wire (TIES, TIED)	Broken or loose tie wire (conductor not well seated in the saddle with vertical load or not fully captured with tie wire)	Broken ground wire, loose connector, tie wire, or weight	Conductor kinked/pinched at clamp	
		Twisted bundled conductor		

Figure 32: PG&E EPTM Manual Table 4 excerpt. SED added red highlights.¹²¹

In addition, PG&E issued a May 10, 2022, document reminding staff to identify loose tie wires for repair because “multiple pole fires [started due to] conductors not being properly secured to insulators.”¹²² This document shows a loose tie wire and resulting pole fire (see Figure 33).

More Examples of Unsecured Conductor



Resulting Pole Fire



Figure 33: Loose tie wire (left) and resulting pole fire (right)¹²³

¹²¹ ETPM Manual, revision 5 p. 22.

¹²² PGE-CPUC-00024565 (December 1, 2023) provided in response to SED-04 Q21. Title is “Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps” (May 10, 2022).

¹²³ Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps, p. 2.

The Appendix of this report shows other examples of 1) loose and 2) broken tie wires.¹²⁴

PG&E cancelled repairs instead of repairing a loose tie wire at Pole 000/003

PG&E's May 25, 2022, Pole 000/003 inspection summary, noted that sections of tie wire were not secured to the center phase insulator (see Figure 34 below).¹²⁵ Because the pole is in a Tier 3 HFTD, PG&E's inspector and SME reviewer set a 90-day deadline for repairs consistent with PG&E policies. Rule 18 requires correcting this Level 2 priority hazard within 6 months (i.e., by November 25, 2022) based on the inspection finding that the tie wire required correction but not immediately.



Figure 34: Pole 000/003 center phase loose tie wire May 25, 2022¹²⁶

PG&E's Centralized Internal Review Team (CIRT) incorrectly cancelled this notification on June 1, 2022, stating "Reviewed per ... ETPM criteria and cancels this notification [i.e. work order] tie wire is not loose conductor also well seated and held tight."¹²⁷ This cancellation ignores the findings in the inspection report and is contrary to PG&E policies which require correcting loose tie wires. CIRT based its determination on criteria (i.e. whether conductor was well seated) that are relevant only for determining whether to escalate repairs to priority level "A." Therefore, PG&E violated GO 95, Rule 18 for failing to correct the loose tie wire.

¹²⁴ PGE-CPUC-00023106, provided in response to SED-03 Q16 (September 21, 2023). Document title is Identifying Conductor and Clearance Conditions TD-1001M-JA10 (published January 20, 2023, effective February 20, 2023). See pp. 4 and 6. The document requires repairing loose and broken tie wires.

¹²⁵ PGE-CPUC-00012836, provided (June 7, 2023) as a supplemental response to SED-01 Q15. SED believes that the date field on this Transmission Notification, which says May 25, 2022, refers to both the date of the inspection and the date of the Transmission Notification.

¹²⁶ PGE-CPUC-00012836, Bates stamped pages PGE-CPUC-000128642 (left photograph) and PGE-CPUC-000128644 (right photograph).

¹²⁷ PGE-CPUC-00012835. Provided as, provided (June 7, 2023) as supplemental response to SED-01 Q15. The last entry in this internal PG&E communication was dated June 1, 2022.

PG&E cancelled repairs and failed to correct a loose tie wire at Pole 014/186A

PG&E's June 9, 2022, Transmission notification 123833466 for Pole 14/186 states "LEFT POLE TIE WIRE NOT TO STANDARD."¹²⁸ PG&E also refers to the left pole as Pole 14/186(A), and the right pole as Pole 14/186(C).¹²⁹ Figure 35 below shows this loose tie wire.



**Figure 35: PG&E photos of loose tie wire, Pole 014/186(A), May 26, 2022¹³⁰
(SED outlined in red the loose tie wires)**

PG&E staff set a 90-day deadline to correct the issue.¹³¹ Rule 18 also requires that PG&E correct the loose tie wire as a Level 2 priority hazard in this Tier 3 HFTD.¹³² However, PG&E's CIRT canceled notification 123833466 for Pole 014/186(A) on June 14, 2022 and stated "WORK WILL BE/HAS BEEN COMPLETED UNDER NOTIFICATION 121584077."¹³³ However, Notification 121584077 addressed only Pole 014/186(C) and not Pole 014/186(A).¹³⁴

¹²⁸ PGE-CPUC-00025080.pdf provided March 22, 2024. This document is the June 9, 2022, Transmission Notification for this pole. The notification also refers to a loose tie wire on the right pole.

¹²⁹ DRU12845_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q003_R001.pdf (December 21, 2023), supplemental response to SED4 Q26(a). PG&E stated that the left pole is designated "A" and the right pole is designated "C."

¹³⁰ Left photo is cropped from PGE-CPUC-00013953. Right photo is cropped from PGE-CPUC-00013956. PG&E relied on photos including these two to determine the condition of the left child, i.e. pole 014/186(A), as of May 26, 2022, per DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q025_R001.pdf, provided (December 1, 2023) in response to SED-04 Q25 (b)(i).

¹³¹ PGE-CPUC-00025080.pdf, "Transmission Notification" for Pole 014/186(C) (dated June 9, 2022), p. 1.

¹³² DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q004_R001.pdf (March 22, 2024) provided in response to SED-06 Q4 states that all "child" poles of pole 186 are in a Tier 3 HFTD.

¹³³ PGE-CPUC-00024568 (an electronic communication stating that CIRT cancelled the notification) provided (December 1, 2023) as an attachment to PG&E's response to SED-04 Q25.

¹³⁴ PGE-CPUC-00005494, "Corrective Work Form Electric Transmission Line for line correction #121584077" (Notification 121584077) provided (March 17, 2023) as an attachment to SED-01 Q30.

Notification 121584077 addresses pole "014 186 RIGHT", i.e. 014/186(C). PG&E refers to the right child of pole 014/186 as pole 014/186(C) – see the top row on page two of Table A (provided by PG&E as a supplemental response to SED-02 Q45).

Figure 36 below shows the group of poles that contains both 014/186(A) and 014/186(C).



**Figure 36: Photo from June 17, 2021, transmission notification.¹³⁵
PG&E did not specifically identify the label (e.g., 14/186(A), etc.) for each pole.**

PG&E made several inaccurate or contradictory claims in responses to SED data requests. First, PG&E’s claimed on December 1, 2023, that the tie wire was “snug” and the jumper is snug to the insulator.¹³⁶ However, this claim was not supported by evidence because the inspection report shows that the tie wire was visibly loose and “uplifting” away from the insulator as shown in Figure 35 above. A strand of tie wire lay on top of the insulator rather wrapped tight around the “neck” of the insulator.

Second, PG&E’s claim that two Poles (014/186(A) and 014/186(C)) were repaired under notification 121584077, is not consistent with the documents PG&E said support its claim (see summary in Table 4 below).¹³⁷ Figure 37 below shows that PG&E issued Notification 121584077 for a “single wood pole,” Pole 014/186(C).¹³⁸ The notification shown in this figure also states that tie wire was repaired (i.e., retied) at a single insulator. On December 11, 2023, SED asked PG&E to

¹³⁵ PG&E provided PGE-CPUC-00005497.pdf, which contains this photo on Bates number page PGE-CPUC-00005503, in response to SED-1 Q30.

¹³⁶ DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q025_R001.pdf (December 1, 2023) provided in response to SED-04 Q25(c)(i). This question asked PG&E to state “whether the tie wire was loose” or “snug against the biscuit.” PG&E responded that “the tie wires appear sufficiently tight and snug against the biscuit. The jumper is snug to the pole insulators.”

¹³⁷ DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q025_R001.pdf provided (December 1, 2023) in response to SED-04 Q25 (b)(ii). PGE claimed that “the work was completed under Notification 121584077.” Notification 121584077 contradicts PG&E’s claim.

¹³⁸ A “field submission” entry for the tie wire repair states that PG&E staff retied a single insulator and thus repaired only one pole. Notification 121584077 p. 3.

provide evidence showing that Notification 121584077 addressed both Pole 014/186(C) and Pole 014/186(A), but PG&E failed to provide such evidence.¹³⁹

Table 4: PG&E claims that tie wire was repaired at Pole 014/186(A)

Source	PG&E Claim	What Document States
June 17, 2021, Notification 121584077 for Pole 014/186(C)	Document shows that PG&E repaired two poles including 014/186(A)	PG&E repaired only one tie wire at 014/186(C)
Construction Completion Checklist for Notification 121584077	Document shows that PG&E repaired two poles including 014/186(A)	PG&E repaired tie wire per notification 121584077 for Pole 014/186(C)

PG&E Corrective Work Form Electric Transmission Line

T3 DI WEIMAR #1 14/186 RPR INSW

LC # 121584077

Priority B - Urgt Compliance

Work Type 630 - ICW-Maintain Wood Strs > 60kV

Line Name 60152 WEIMAR #1

Functional Location ETL.7560.POLE.WDPS - 60152 WEIMAR #1-WOOD POLE STR

Equipment 44948153 014/186 RIGHT SINGLE WOOD POLE

Structure ID 014/186

Main Work Center SACTO - Sacramento Required End Date 12/17/2021

Planner Group TLN - ET Line Order # 45210962

Voltage Wood Steel

Field Submission Date/Time: 08/02/2022 at 9:03 AM

Comments: Retied insulator filled woodpecker holes

08/08/2022 08:09:17 PS [REDACTED]

UNABLE TO CLOSE NOTIF. CCSC DATE IS INCORRECT. REQUESTING COMP STATUS REMOVAL FOR CORRECTION.

08/08/2022 12:16:53 PST [REDACTED]

REMOVED COMP TASK PER [REDACTED] DATE TO BE REVISED BASED ON CCSC FORM.

Figure 37: Notification 121584077 for tie wire repair for Pole 014/186(C).¹⁴⁰

¹³⁹ See DRU12845_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q002_R001.pdf (December 21, 2023) supplemental response to SED-04 Q25 (repeating, without valid support, earlier claims that PG&E completed the repair under Notification 121584077).

¹⁴⁰ Notification 121584077, p.3. SED added red boxes.

PG&E also claimed that repairs were completed at Pole 014/186(A) based on a Construction Completion Standard Checklist (CCSC) form stating that repairs were completed under Notification 121584077.¹⁴¹ Notification 12154077 addressed only Pole 014/186(C) as shown earlier, and the CCSC form does not show that PG&E repaired Pole 014/186(A) in addition to Pole 014/186(C).

PG&E also claimed that specific photographs document a tie wire repair at Pole 014/186(A), but none of these photos show a tie wire attached to an insulator.¹⁴² Therefore, SED finds that PG&E violated Rule 18 for failing to show that it corrected the loose tie wire at Pole 014/186(A).

PG&E improperly canceled repairs to Pole 009/130

A June 22, 2022, Transmission Notification Inspection Summary for Pole 009/130 states: "All phases have loose tie-wire with uplift, Insulator B-Urgent"¹⁴³ A PGE inspector created the notification, and a PG&E SME affirmed this finding. Rule 18 requires that PG&E correct this loose tie wire in a Tier 3 HFTD within six months.

PG&E repaired a similar loose but not fully detached tie wire shown in a May 25, 2022, inspection report for nearby Pole 009/132 (see Figure 38).¹⁴⁴ The notification states that CIRT reviewed based on the EPTM and agreed to the repair which was completed.¹⁴⁵

¹⁴¹ PGE stated in a February 28, 2024, email (from PG&E staff [REDACTED], Regulatory Relations, to SED staff Ed Pike) that "The CCSC form for LC 121584077 (produced as PGE-CPUC-00005568, PGE-CPUC-00005553) states that following the completion of the repair, the "tie wires [were] installed properly" on Pole 014/186, which reflects that the tie wires were repaired and installed properly on both the left and right child of Pole 014/186." However, PG&E misrepresented the content of this form. The form contains a check-box indicating "Tie wires installed properly when required", which indicated the type of repair and not the number of poles repaired. (PG&E staff checked this box.) The form does not explicitly state the number of poles addressed; the only indication of the quantity of pole(s) repaired is the reference to a notification for a single pole.

¹⁴² PG&E's supplemental response to SED-04 Q25 (DRU12845_EI_EI220906A_Foresthill_PD_2022_Mosquito_DR_CPUC_Q002_R001.pdf, December 21, 2023) states that "The photos documenting the completed [tie wire repair at the 014/186 left pole 186(A)] are at PGE-CPUC-00005512, PGE-CPUC-00005528, PGE-CPUC-00005548-51, PGE-CPUC-00005553, PGE-CPUC-00005561, PGE-CPUC-00005566, PGE-CPUC-00005568, PGE-CPUC-00005570, PGE-CPUC-00005574." The photos PG&E cited do not show a tie wire.

¹⁴³ PGE-CPUC-00013826 provided (July 21, 2023) as an attachment in response to SED-02 Q39. This document is a June 22, 2022, Transmission Notification Inspection Summary for Pole 009/130.

¹⁴⁴ PGE-CPUC-00012640, "TRANSMISSION NOTIFICATION" (created May 25, 2022), provided as a supplemental response to SED-01 Q11.

¹⁴⁵ See PGE-CPUC-00012638, notification ("LC") 123713662, (attached to PG&E's June 7, 2023, supplemental response to SED-01_Q11), on page PGE-CPUC-00012639, PG&E replaced the pole which would include replacement of the tie wire per a Transmission OH CCSC dated on November 6, 2022, which is a sub-set of PGE-CPUC-00023133 (no title) provided as an attachment to response (September 21, 2023) to SED-03 Q17. The CCSC page numbers are PGE-CPUC-00023142 and PGE-CPUC-00023143.



**Figure 38: Loose tie wire at Pole 009/132 (middle phase)¹⁴⁶
(SED outlined in red the loose tie wire)**

In contrast, CIRT canceled the notification for tie wire repairs at Pole 009/130 on June 25, 2022.¹⁴⁷ CIRT stated “[reviewed] per PG&E ETPM criteria and [canceled] this notification. Insulators are within acceptable tolerance.”¹⁴⁸ CIRT’s decision to cancel the notification was inconsistent with the PG&E policies discussed earlier because loose tie wires require repairs before they become completely detached and create a fire hazard.¹⁴⁹ In addition, PG&E acknowledged on July 21, 2023, in response to an SED data request that the tie wire was loose¹⁵⁰ and a June 22, 2022, inspection identified “heavy damage” to tie wires.¹⁵¹ PG&E subsequently made a contradictory claim, in response to a different data request, that the tie wire was snug against the biscuit and not loose while acknowledging “slack” in the tie wire.¹⁵²

¹⁴⁶ Photo source is PGE-CPUC-00012640.pdf, a May 25, 2022, Transmission Notification provided (June 7, 2023) as a supplemental response to SED-01 Q11.

¹⁴⁷ PGE-CPUC-00013837, a June 25, 2022, electronic communication (provided in response to SED-02 Q39) shows that PG&E cancelled the repair.

¹⁴⁸ DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q020_R001.pdf response to SED-04 Q20(a) (December 1, 2023) states that PG&E “did not have to correct the condition identified in notification 123912664 [regarding pole 009/130 tie wire replacement] because upon review of the notification, CIRT determined that the tie wires were in acceptable condition. See PGE-CPUC-00013837, previously produced.”

¹⁴⁹ See, for example, PGE-CPUC-00023106, p. 6.

¹⁵⁰ DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q039.pdf (July 21, 2023), PG&E response to SED-02 Q3, refers to Aerial OH inspection form PGE-CPUC-00000921. PG&E’s response also states that based on review of aerial photos that a June 22, 2022, this Aerial OH Inspection form noted that the tie wires were in poor condition due to the visible outward fraying. The outward fraying indicated the tie wire was loose. The tie wire should be snug against the biscuit.

¹⁵¹ PGE-CPUC-00000921.pdf, June 22, 2022, Aerial Overhead Inspection report.

¹⁵² DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q020_R001.pdf (December 1, 2023), response to SED-04 Q20(b)(i), states that “photos [show] the tie wires are not loose and are snug against the biscuit. Although some of the outer loops of the tie wire ... appear to have additional slack, the inner loops of the tie wire are tight.” PG&E also claimed in response to Q20(b)(iii) that “Figure 3 (PGE-CPUC-00013832) shows a minor amount of conductor uplift on the far side of the insulator; the uplift is

PG&E's failure to correct the loose tie wire created at least a moderate fire ignition risk and violated GO 95, Rule 18 repair requirements for Level 2 priority hazards.

5. PG&E Completed Three Repairs at Poles 014/186(A) and 014/186(C) Late, in Violation of GO 95, Rule 18.

GO 95, Rule 18 "Maintenance Programs and Resolution of Potential Violations of General Order 95 and Safety Hazards" sets deadlines for correcting potential safety issues including "six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District." PG&E corrected the following Level 2 priority hazards after the applicable Rule 18 deadlines:

Pole 014/186A Woodpecker hole

On June 23, 2021, a PG&E inspector found woodpecker damage on Pole 014/086(A) located in a Tier 3 HFTD. PG&E's LC 121584079 assigned the repairs priority E, with a required end date of December 17, 2021.¹⁵³ According to PG&E's description of the potential risk from this woodpecker damage, the condition matches a Rule 18 Level 2 (1) priority hazard with a maximum deadline of six month for repairs.¹⁵⁴ PG&E violated Rule 18 from the Rule 18 repair deadline, until it repaired the woodpecker hole August 1, 2022.¹⁵⁵

Pole 14/186(C) Loose Tie Wire

On June 17, 2021, PG&E found a loose tie wire on Pole 014/186(C), the right "child" of Pole 014/186. in a Tier 3 HFTD.¹⁵⁶ Page two of the notification states "Need to tie jumper on insulator as current tie is off." As noted earlier, a loose tie wire creates a potential safety hazard. PG&E set an internal repair deadline of six months (December 17, 2021), which is consistent with the Rule 18

within acceptable standards because the tie wires are tight on the insulator." This claims conflict with PG&E policy that requires correcting loose tie wires with visible uplift; and the notification showing that the tie wire was loose.

PG&E repeated the claim that "the tie wires were not loose" in response to SED-06 Q7 without providing any additional information beyond repeating this prior claim. See DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q007_R001.pdf provided March 22, 2024.

¹⁵³ See DRU12511-Electric Incident-EI220906A-Foresthill-Property Damage-2022 Mosquito (November 9, 2023), provided in response to SED-04 Q28(b); and LC 121584079, produced as PGE-CPUC-00005410 attached to PG&E's March 17, 2023, response to SED-01 Q30.

¹⁵⁴ DRU12511-Electric Incident-EI220906A-Foresthill-Property Damage-2022 Mosquito, provided in response to SED-04 Q28(c), states that "[the] primary risk of a woodpecker hole at this location would be pole top or insulator hardware failure ... due to rot or further woodpecker activity."

¹⁵⁵ See DRU12511-Electric Incident-EI220906A-Foresthill-Property Damage-2022 Mosquito. PG&E stated that PG&E performed a field safety reassessment ("FSR") on November 8, 2021, to determine if this condition had worsened and needed to be completed by the required deadline of December 17, 2021. PG&E staff revised the funded repair date to May 6, 2022. PG&E performed an additional FSR on June 15, 2022; and determined there was no change in the condition of the damage and revised the funded repair date to June 15, 2023. This work was completed on August 1, 2022.

¹⁵⁶ Notification 121584077, right pole or 014/186(C); see also DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q026_R001 (December 1, 2023), provided in response to SED-04 Q26 (stating that a photo showing a loose tie wire at pole 014/186 (source PGE-CPUC-00013908) shows the right child of pole 14/186).

deadline for Level 2 priority hazards. However, PG&E documentation shows that that loose tie wire was not repaired until August 2, 2022.¹⁵⁷

PG&E's Centralized Internal Review Team (CIRT) delayed PG&E's internal deadlines for the loose tie wire repair twice during Field Safety Reassessments (FSRs). On November 29, 2021, CIRT added a note to the notification stating that work should be completed by May 6, 2022, and on June 17, 2022, CIRT added a note to the notification stating that work should be completed by September 15, 2022.¹⁵⁸ PG&E's notification for this repair does not provide any explanation for setting repair deadlines that are later than the original repair date.¹⁵⁹ PG&E failed to repair this condition within the Rule 18 deadline.

Pole 14/186C Missing guy wire insulation

On August 20, 2019, PG&E found that Pole 14/186C needed guy wire insulators.¹⁶⁰ The pole was in a Tier 3 HFTD.¹⁶¹ PG&E's own deadline for repairs based on the level "B" priority set in the notification was November 19, 2019.¹⁶² However, PG&E did not repair the missing guy wire insulators until May 7, 2020, and did not provided any explanation for why the repair was delayed.¹⁶³

Rule 18 required PG&E to correct this Level 2 priority hazard within six months, by February 20, 2020. Thus, PG&E violated Rule 18 by failing to complete repairs by February 20, 2020.

6. PG&E Disposed of Pole 09/131 in Violation of GO 95, Rule 19.

During SED's first site observation visit, SED observed Pole 09/131 on the ground near where the Mosquito Fire ignited. On September 23, 2022, at 1149 hours SED instructed PG&E via email to "preserve as evidence" Pole 09/131, the cross-arms and insulators and other attachments and all jumpers and conductors within 50 feet of the pole.¹⁶⁴ SED also directed PG&E to inform SED as

¹⁵⁷ Notification 121584077, shown earlier in this report.

¹⁵⁸ Notification 121584077.

¹⁵⁹ Notification 121584077.

¹⁶⁰ PGE-CPUC-00006178.pdf, provided (March 17, 2023) as attachment to response to SED-01 Q30, Corrective Work Form Electric Transmission Line (print date of February 14, 2023) line correction (or notification) 117783297.

¹⁶¹ See PGE-CPUC-00006178.pdf.

¹⁶² PGE-CPUC-00006200.pdf provided (March 17, 2023) in response to SED-01 Q30. Document title is Transmission Notification for pole 014/186C (August 20, 2019). PG&E's EPTM sets a 3-month deadline for correcting priority "B" conditions – see Table 5 (p. 19) of rev 4 and Table 3 (p.15) of revision 5.

¹⁶³ DRU11846_PGE-CPUC_06302023_SED_002_Mosquito Fire_Q046.pdf provided (June 30, 2023) in response to SED-02 Q46(c) contains the repair date and also states that PG&E "has not been able to ascertain" why the corrective work was not completed by the PG&E deadline of November 18, 2019.

¹⁶⁴ Email (September 23, 2022) subject "RE: Mosquito Fire - PG&E Incident No: 220908-15274" from Ed Pike to the PG&E Incident Investigator. PG&E later stated that this fire-damaged pole was numbered 09/131.

soon as possible of any plans to remove this equipment; the chain of custody for this evidence; and other information related to collection and preservation of this evidence.¹⁶⁵

However, PG&E disposed of this pole and associated equipment on October 22, 2022,¹⁶⁶ and did not notify SED until November 1, 2022.¹⁶⁷ PG&E later informed SED that this equipment was potentially located in multiple dumpsters and PG&E did not know which dumpsters might contain the pieces.¹⁶⁸

PG&E destroyed evidence despite SED's request and Rule 19 requirements.¹⁶⁹ PG&E's failure to preserve evidence denied SED the opportunity to 1) observe evidence and the condition of such evidence in the field; and 2) if necessary, direct PG&E to collect and preserve the evidence for potential further examination and analysis.

PG&E violated GO 95, Rule 19 for failing to preserve Pole 09/131 as requested, preventing SED from accessing this evidence.

7. PG&E's CIRT Canceled Repairs Near the Oxbow Junction Pole Without Justification in Violation of GO 95, Rule 31.1.

SED found errors regarding CIRT cancelation of notifications in the Oxbow Junction area

The PG&E policy that created PG&E's Transmission CIRT process in 2019 states that CIRT was created to support wildfire inspections and prioritize reliability and wildfire and other safety issues.¹⁷⁰ SED reviewed records for 13 poles near the Oxbow Junction and found six examples, as shown below in Table 5, where CIRT cancelled repairs recommended in an inspection report but

¹⁶⁵ Email (September 23, 2022) subject "RE: Mosquito Fire - PG&E Incident No: 220908-15274" from Ed Pike to the PG&E Incident Investigator.

¹⁶⁶ DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q050.pdf (June 16, 2023) provided in response to SED-02 Q50.

¹⁶⁷ Email "[EXTERNAL] RE: Preservation of Evidence for Mosquito Fire - please respond ASAP" from the PG&E Incident Investigator to Ed Pike dated November 1, 2022. The email stated in part "The pole that was down due to fire damage (structure 009/131) was replaced last week. The downed pole and all its associated hardware have been disposed of."

¹⁶⁸ Email "RE: [EXTERNAL] Re: Mosquito fire - Pole 09/131" from PG&E's Incident Investigator, to Ed Pike, SED lead investigator, dated September 13, 2023. PG&E also stated "Parts of pole 09/131 may be in any of the six dumpsters" at the disposal site.

¹⁶⁹ Rule 19 requires that "Each utility shall provide full cooperation to Commission staff in an investigation into ... any reportable incident (as defined in CPUC Resolution E-4184)... Once the scene of the incident has been made safe and service has been restored, each utility shall provide Commission staff upon request immediate access to: Any factual or physical evidence under the utility or utility agent's physical control."

¹⁷⁰ "CIRT supports the Wildfire Safety Inspection Program ... by prioritizing identified conditions that may impact overhead (OH) transmission equipment reliability or introduce a potential wildfire ignition or public or personnel safety risk." See CIRT Utility Procedure TD-1001P-10 (August 6, 2019), revision 0, no effective date listed. Provided by PG&E as PGE-CPUC-00013459 in response (June 30, 2023) to SED-02 Q46. PG&E provided PGE-CPUC-00022164, revision 1 of the CIRT Utility Procedures document (published February 2, 2023, effective date of April 2, 2023) in response to SED-03 Q11.

CIRT failed to meet the PG&E policy requirements for justifying such cancellations. Utility Procedure TD-1001P-10¹⁷¹ section 3.5 requires that CIRT:

“a. DOCUMENT the basis for closure in the long text of the notification using one of the following justifications:

- The criteria in TD-1001M [PG&E’s ETPM manual]
- A technical basis that explains why the condition is normal and is not a degradation of any required design function.”

In practice:

- In some cases, CIRT cited PG&E’s ETPM as a justification for canceling repairs but the ETPM conflicts with CIRT’s decision or does not address the condition.
- In some cases, CIRT’s stated justification did not address the actual condition in the field.

Table 5: Examples of improperly cancelled notifications

Pole 014/187 - Four wedge connectors
Pole 000/003 - Chipped insulator
Pole 009/131 - Cotter pin and key
Pole 000/003 - Vegetation obscuring section of guys and anchors
Pole 000/003 and Pole 009/130 - Loose tie wires

In each of these examples, CIRT’s cancellation of the relevant notification violated PG&E policy and GO 95, Rule 31.1.

Canceled notification example - four wedge connectors at Pole 014/187

PG&E’s May 27, 2022, Transmission Notification inspection summary for Pole 014/187 shows that a PG&E inspector and a PG&E SME agreed to recommend repairs for "4 jumper connectors not shot or seated" as shown in Figure 39 below.¹⁷² PG&E inspection manuals show that the wedge connector is normally fully inserted, as shown for example in Figure 40 below.¹⁷³ In contrast, the partially inserted wedges at Pole 014/187 are not normal.

¹⁷¹ PGE-CPUC-00013459 provided (June 30, 2023) in response to SED-02 Q46. Document title is “Centralized Inspection Review Team (CIRT)” Utility Procedure TD 1001P10, revision 0. See pp 9 and 10. Publication date August 6, 2019, no effective date listed.

¹⁷² PGE-CPUC-00012821 provided (June 7, 2023) to supplement PG&E's response to SED-01 Q15. Document title is Transmission Notification, see p.1. The inspector labeled the condition Priority A; and the SME inspection report reviewer labeled the condition Priority B.

¹⁷³ See Figure 2 of PG&E’s "WEDGE AND U-BOLT TYPE CONNECTORS FOR TRANSMISSION 028854 CONDUCTORS Asset Type Electric Transmission and Distribution" dated December 17, 2020,



Figure 39: Wedge connectors at Pole 014/187
(SED outlined in red area of wedge not fully seated)



Figure 40: Photo of fully inserted wedge from PG&E manual¹⁷⁴

The partially inserted wedges created a safety issue. PG&E stated that “not shot or seated” means that an A-shaped wedge is partially inserted into u-shaped housing and not locked. Thus, the wedge could become loose.¹⁷⁵ The inspection summary states that “the jumpers can open up” and result in “a loose tail”¹⁷⁶ meaning that that the conductor could come loose and potentially ignite a fire.

revision 4 for another example of a fully inserted wedge (provided September 21, 2023, as PGE-CPUC-00022999, an attachment to response to SED-03 Q13(b)).

¹⁷⁴ PGE-CPUC-00023106 provided (September 21, 2023) in response to SED-03 Q16. Document title is “Identifying Conductor and Clearance Conditions” TD-1001M-JA10, page 8, published January 20, 2023, effective February 20, 2023.

¹⁷⁵ DRU11846_PGE-CPUC_07212023_SED_002_Mosquito Fire_Q044.pdf (July 21, 2023) provided in response to SED-02 Q44.

¹⁷⁶ PGE-CPUC-00012821 provided (June 7, 2023) to supplement PG&E's response to SED-01 Q15. Document title is “Transmission Notification.” See p.1. The inspector labeled the condition Priority A; and the SME labeled the condition Priority B.

CIRT cancelled the May 28, 2022, notification for the partially inserted wedges at Pole 014/187 on May 31, 2022. The cancellation states that CIRT “reviewed per PGE ETPM criteria and cancels this notification hardware is in acceptable condition.”¹⁷⁷

As noted earlier, PG&E policies in effect at that time require that CIRT provide one of two justifications to document the basis for canceling a notification:¹⁷⁸ CIRT did not comply with either option for justifying the cancellation of this notification:

- CIRT incorrectly claimed that the ETPM provided a basis for canceling the repair. The EPTM does not contain any criteria for wedge connectors.¹⁷⁹
- CIRT did not provide a technical explanation of why partially inserted wedges are normal and did not explain why partially inserted wedges are not a degradation of any required design function.

Cancelled notification example - Pole 000/003 chipped insulator

On June 25, 2021, a PG&E inspection found an insulator bell at Pole 000/003 with a chip over two inches. The inspector and a PG&E SME agreed on a December 25, 2021, repair deadline.¹⁸⁰ The ETPM requires that insulators with a chip greater than 1 ½ inches must be repaired.¹⁸¹

On July 1, 2021, CIRT cancelled the notification to repair this insulator bell.¹⁸² CIRT stated “reviewed per PG&E ETPM criteria and cancels this notification insulator is in acceptable condition per photos provided.”¹⁸³ This conclusion is contrary to the ETPM Manual. CIRT did not provide a technical justification for why this insulator, with a chip greater than 1 ½ inches, should not be repaired and did not explain why the chipped insulator is not a degradation of any required design function.

¹⁷⁷ PGE-CPUC-00012820 (last entry dated May 23, 2022) provided (June 7, 2023) to supplement response to SED-01 Q15.

¹⁷⁸ “Centralized Inspection Review Team (CIRT)” Utility Procedure TD 1001P10, revision 0, pp. 9-10. Publication date August 6, 2019, no effective date listed.

¹⁷⁹ PG&E stated that “When evaluating the May 27, 2022 notification, the CIRT review team determined that the guidance in Table 4 of the ETPM did not apply because the wedge connectors were sufficiently seated” (see PG&E Ref. DRU13140-Electric Incident-EI220906A-Foresthill-Property Damage-2022 Mosquito Fire provided (March 22, 2024) in response to SED-06 Q6). CIRT did not record any such information; nor did CIRT provide any technical justification for canceling this notification, in the absence of criteria in the EPTM justifying the cancellation. (PG&E’s response to this data request also states that PG&E made similar claims in response to SED-03 Q13 and SED-04 Q34).

¹⁸⁰ PGE-CPUC-00024068.pdf provided (November 9, 2023) in response to SED-04 Q29. Document title is Transmission Notification (June 25, 2021).

¹⁸¹ PG&E’s Electric Transmission Preventive Maintenance Manual v5 August 31, 2020, page 24, lists an insulator with a chip greater than 1 ½ inches as a condition that requires repairs.

¹⁸² Provided as PGE-CPUC-00024067.pdf (November 9, 2023) in response to SED-04 Q29.

¹⁸³ Provided as PGE-CPUC-00024067.pdf. PG&E stated that this condition was incidentally corrected after the original repair deadline as part of Pole 000/003 replacement due to Mosquito Fire damage. DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q029_R001.pdf provided (November 9, 2023) in response to SED-04 Q29.

Canceled notification example - Pole 009/131 Cotter Pin and Key

A PG&E inspection found an “unseated cotter key on a guy” on Pole 009/131 during a May 26, 2022, inspection.¹⁸⁴ The inspector and PG&E SME agreed on a 90-day repair deadline to correct the partially inserted key at Pole 009/131.

Figure 41 shows examples of other PG&E keys that are fully inserted (seated), i.e. the key is inserted into the hole in the pin until the straight section is entirely inserted and only the rounded end is outside of the hole. Figure 42 below shows the key at Pole 009/131 was only about halfway inserted. PG&E’s ETPM requires that PG&E correct a "Missing/loose/not fully seated cotter key or retainer pin," such as the partially seated (i.e., inserted) pin at Pole 009/131.¹⁸⁵



Figure 41: Examples of PG&E fully inserted cotter keys¹⁸⁶

¹⁸⁴ PGE-CPUC-00012811 provided (June 7, 2023) as attachment to PG&E supplemental response to SED-01 Q15.

¹⁸⁵ ETPM, TD 1001M, page 24 August 31, 2020, revision 5.

¹⁸⁶ Left photograph: PGE-CPUC-00014459 provided (July 21, 2021) as a supplemental response to SED-02 Q31. See Page PGE-CPUC-00014465 of document titled Transmission Notification for 024/188C and dated December 10, 2020.

Right photograph: PGE-CPUC-00014960 provided (July 21, 2021) in response to SED-02 Q31. Rotated 180 degrees for consistency with other photographs. PG&E did not identify the structure.



Figure 42: Partially seated cotter key at Pole 009/131 on May 26, 2022¹⁸⁷ (red arrow shows unseated section)

CIRT cancelled this notification on May 31, 2022, and stated “CIRT Reviewed per ETPM criteria and cancels this notification. Cotter keys are seated and pose no threat.”¹⁸⁸ CIRT did not comply with PG&E requirements (as noted above) to document the justification for canceling the notification:

- CIRT mistakenly stated that all keys were seated (inserted) and failed to address the actual condition documented in the inspection report.
- CIRT’s decision conflicts with the ETPM which requires correcting the partially seated key.
- CIRT failed to provide a technical basis explaining why the partially unseated key is normal and not a degradation of any required design function.

Canceled notification example - Pole 000/003 vegetation obscuring guys and anchors

On May 25, 2022, a PG&E aerial overhead inspector recommended “vegetation removal around down-guys, vegetation around guy and anchor.”¹⁸⁹ Figure 43 below shows vegetation obscuring anchors and sections of the guy wire. On June 25, 2021, a PG&E inspector recommended removing vegetation and noted that the vegetation prevented the inspector from completing an inspection¹⁹⁰

¹⁸⁷ PGE-CPUC-00012811.pdf provided (June 7, 2023) as supplemental response to SED-01 Q15. Document is titled Transmission Notification Inspection Summary Pole 009/131 (May 26, 2022). See image on page PGE-CPUC-00012819.

¹⁸⁸ PGE-CPUC-00012810 response (June 7, 2023) to SED-01 Q15. PG&E electronic communication with entries May 28, 2022, and May 31, 2022.

¹⁸⁹ DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q031_R001.pdf (December 1, 2023) provided in response to SED-04 Q31.

¹⁹⁰ PGE-CPUC-00012684 provided (June 7, 2023) in response to SED-01, Q15. This June 25, 2021, Transmission Notification prepared by a PG&E inspector (apparently for an aerial inspection) and approved by an SME states “Unable to Inspect Guy Wire Anchor, Vegetation Needs Removal.”

consistent with EPTM guy and anchor inspection requirements.¹⁹¹



Figure 43: Vegetation obscuring guy wires at Pole 000/003¹⁹²

On June 1, 2022, CIRT cancelled the May 25, 2022, recommendation to remove vegetation. CIRT stated "CIRT ... cancels this notification [because] vegetation does not present a threat to structure or ignition source."¹⁹³ CIRT failed to comply with PG&E requirements for justifying cancellation of this notification:

- CIRT's decision conflicts with PG&E's EPTM requirement to complete inspections as noted above; and
- Based on the EPTM, vegetation that prevents a complete inspection is not normal.¹⁹⁴

¹⁹¹ EPTM states "During detailed inspections ... inspect all guy wire assemblies looking for any indication which may suggest the guy splice, automatic guy deadend, guy anchor, or buried guy anchor has internal deterioration" (p. 32). In addition, PG&E policies require correction of conditions such as "Anchor rod concrete has significant cracking" and "Guy tails in contact with earth" (p. 21, Table 4).

¹⁹² PGE-CPUC-00012836 produced (June 7, 2023) as a supplemental response to SED-01 Q15. See Bates numbered page PGE-CPUC-00012849 of this May 25, 2022, Transmission Notification.

¹⁹³ PGE-CPUC-00012852 provided (June 7, 2023) as a supplemental response to DR1 Q15.

¹⁹⁴ PG&E did not remove the vegetation. DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q031_R001.pdf states that "PG&E inspected both the guy wire and anchor during a June 14, 2022, ground inspection." PG&E referenced a June 14, 2022, inspection report for the pole (including guys and anchors) that does not specifically discuss the vegetation that overgrew the anchor and part of the guy.

Cancelled notification examples - Pole 000/003 and Pole 009/130 loose tie wire repairs

As noted in earlier discussion of Rule 18 violations (see section IV.B.5), CIRT cancelled repair work for loose tie wires at Pole 000/003 and 009/130 near Oxbow Junction.¹⁹⁵ In both instances, CIRT claimed to have reviewed the conditions based on PG&E’s ETPM. However, CIRT’s decisions conflict with the ETPM and other PG&E policies that require correcting the loose tie wires. CIRT failed to show that this loose tie wire was not unusual – PG&E manuals show that a loose tie wire was not usual - and not a degradation of any required function.¹⁹⁶

The CIRT Process Raises Broad Safety Concerns

As part of its investigation of the Mosquito Fire, SED reviewed statistics related to CIRT actions between 2020-2023. In addition to the violation related to the Mosquito Fire, SED’s findings raise the following concerns related to CIRT.

8. CIRT’s cancellation of notifications for recommended repairs without adequate justification presents a safety risk.

During this period, CIRT canceled the majority of repairs recommended in transmission inspection reports created by PG&E inspection staff and approved by a PG&E SME. Specifically, SED found that CIRT reviewed 447,365 recommendations and cancelled approximately 314,000 of the 447,365 recommendations reviewed, as shown in in Figure 44 below.¹⁹⁷

¹⁹⁵ PGE-CPUC-00013837 regarding pole 009/130 states “REVIEWED PER PG&E ETPM CRITERIA AND CANCELS THIS NOTIFICATION INSULATORS ARE WITHIN ACCEPTABLE TOLERANCE” and PGE-CPUC-00012835 regarding Pole 000/003 states “REVIEWED PER PG&E ETPM CRITERIA AND CANCELS THIS NOTIFICATION. TIE WIRE IS NOT LOOSE CONDUCTOR ALSO WELL SEATED AND HELD TIGHT.”

¹⁹⁶ As noted earlier, PG&E acknowledged to SED that “the tie wire was loose” at Pole 009/130. As discussed earlier in this report, PG&E later claimed, in conflict with this acknowledgement and several PG&E policies, that the tie wire was not loose because it was not fully detached from the insulator.

¹⁹⁷ See data sources in the footnote for the Figure below.

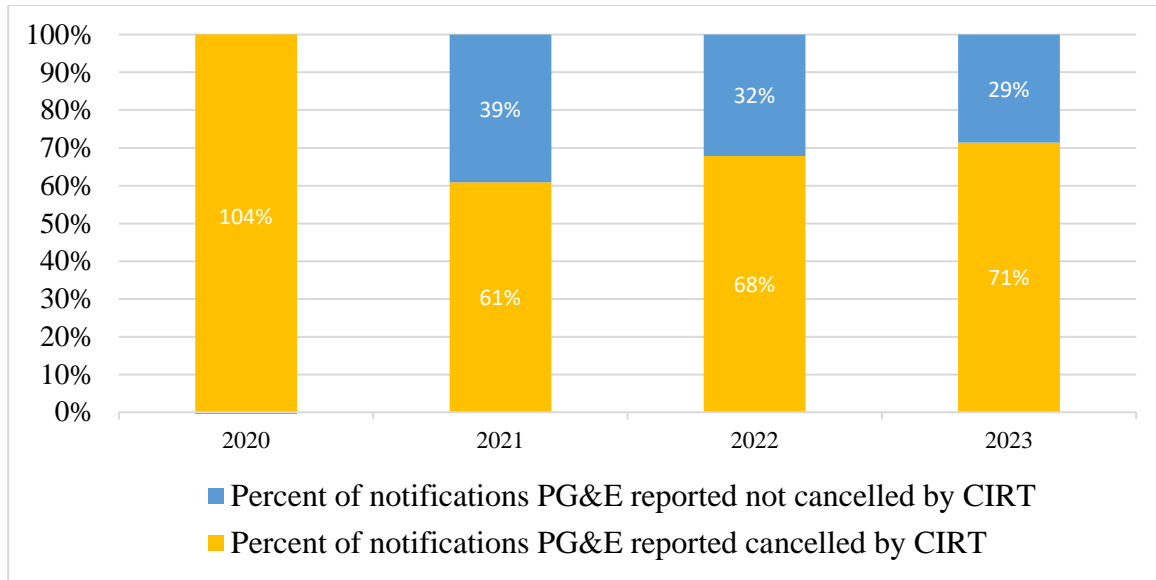


Figure 44: CIRT rate of notification cancellation (PG&E data for CIRT notification cancellations in 2020 is approximate and exceeds PG&E data for number of 2020 notifications reviewed by 4%).¹⁹⁸

¹⁹⁸ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q021_R001.pdf (March 22, 2024) provided in response to SED-06 Q21(b) states:

- At some point, CIRT cancelled approximately 36,476 notifications created in 2020.
- At some point, CIRT cancelled approximately 64,563 notifications created in 2021.
- At some point, CIRT cancelled approximately 83,231 notifications created in 2022.

SED07 Q1 DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q001_R001.pdf provided in response to SED-07 Q1 (May 9, 2024) states that CIRT cancelled 131,119 notifications created in 2023.

DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q033_R001.pdf (December 1, 2023) provided in response to SED-04 Q33(c) states that CIRT reviews all aerial, ground, and climbing inspection forms that result in a notification except A-priority emergency notifications.

- In 2020, CIRT reviewed at least 35,024 notifications resulting from inspections
- In 2021, CIRT reviewed at least 106,062 notifications resulting from inspections.
- In 2022, CIRT reviewed at least 122,743 notifications resulting from inspections.

DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q002_R001.pdf (May 9, 2024) provided in response to SED-07 Q2 states that

- CIRT reviewed approximately 183,536 notifications that were created in 2023.

The notifications created in a year may not align exactly with the notifications reviewed by CIRT in that year. For instance, notifications created at the end of a given year may be reviewed by CIRT at the beginning

Additionally, SED identified a number of instances where CIRT canceled recommended repairs without adequate justification required by PG&E policies as noted earlier. PG&E did not provide any evidence that CIRT attempted to communicate with staff knowledgeable about the inspection report before canceling the repairs. In addition, during the time period reviewed by SED, CIRT never reviewed an inspection report to check for overlooked safety concern(s). These deficiencies indicate that PG&E’s policies and practices regarding CIRT do not reflect accepted good practice for the given local conditions.

Prior to February 2, 2022, PG&E did not have a system for tracking “reason codes” that identify the category of reason for CIRT cancellations of recommended repairs¹⁹⁹, limiting visibility into the number of repair recommendations cancelled because CIRT disagreed with the inspector and their SME reviewer. In 2023, the first full calendar year that CIRT used reason codes for canceling repairs, CIRT cancelled 71% of recommended repairs. As shown in Figure 45 below, CIRT routinely cancelled repair recommendations because CIRT disagreed with a transmission inspection report. CIRT cancelled 75,901 repairs due to disagreement with these reports compared to 52,417 repairs that CIRT did not cancel.

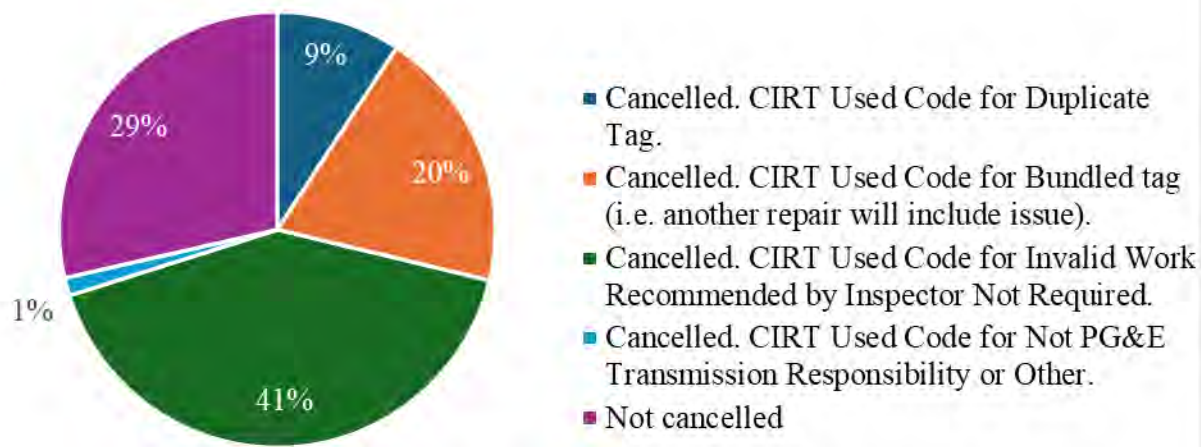


Figure 45: CIRT review of 2023 transmission inspection reports recommending repairs²⁰⁰

of the subsequent year. SED has observed that CIRT generally reviews notifications soon after they are created.

¹⁹⁹ DRU13140-Electric Incident-EI220906A-Foresthill-Property Damage-2022 Mosquito Fire provided (March 22, 2024) in response to SED-06 Q21.

²⁰⁰ DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q001_R001.pdf (May 9, 2024) provided in response to SED-07 Q1 provides data on 2023 transmission notification cancellations by “reason code.” DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q002_R001.pdf provides data on the total number of notifications CIRT reviewed in 2023 as noted earlier.

PG&E's "Utility Procedure TD 1001P10,"²⁰¹ states in part that "CIRT may REVIEW inspection forms with no notifications to confirm that no nonconformances were overlooked during the detailed inspection." However, between 2020 and 2022 and CIRT never reviewed an inspection report to check for overlooked safety issue(s).²⁰² During this same time period, CIRT reviewed at least 263,829 notifications that recommended repairs and cancelled about 70% of these notifications as discussed earlier.²⁰³ PG&E's efforts, outside of CIRT, to check final inspections for potential missed safety issues was very limited. For example, PG&E did not check whether any ground or climbing final inspection reports overlooked safety issues from 2020 to 2022²⁰⁴ and reviewed 20% of all aerial inspections.²⁰⁵

This pattern affected notifications originated by field inspectors and by the "inspection review specialists" responsible for the completeness of inspection reports. An Inspection Review Specialist (IRS) reviewed ground and aerial inspection for accuracy and completeness from 2020 to 2022.²⁰⁶ PG&E identified 5685 repair recommendations generated during by an IRS for ground inspections²⁰⁷ and CIRT cancelled 3245 of these repair recommendations as shown in Figure 46

²⁰¹ PGE-CPUC-00022164. Document number title is "Transmission Centralized Inspection Review Team CIRT" and number is Utility Procedure TD 1001P10 (Published February 2, 2023, and effective April 2, 2023, revision 1).

²⁰² DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q033_R001.pdf.

²⁰³ As noted earlier, DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q021_R001.pdf gives the total number cancelled each year from 2020-2022 (totaling 184,270) and DRU12511_EI_EI220906A_Foresthill_PD_2022 Mosquito_DR_CPUC_Q033_R001.pdf provides the number of notifications reviewed each year from 2020-2022 (totaling 263,829).

²⁰⁴ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q012_R002.pdf (May 16, 2024) provided by PG&E as a supplemental SED-05 Q12(b) response. Initial aerial and ground inspections are reviewed by an Inspection Review Specialist (who can add or remove recommended repair(s)) before they are finalized. PG&E stated that a Lead Inspection Review Specialist reviews 20% of aerial inspections but not ground inspections.

²⁰⁵ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q012_R002.pdf (May 16, 2024) provided by PG&E as a supplemental response to SED-05 Q12(b). PG&E indicated that a Lead Inspection Review Specialist reviews 20% of aerial inspections but not ground inspections.

²⁰⁶ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q012_R001.pdf (May 16, 2024, supplemental response) provided in response to SED-05 Q12. This document also states "PG&E's aerial and ground transmission inspection teams have in place a work verification and review process, pursuant to which an Inspection Review Specialist (IRS) reviews every inspection for accuracy and completeness. Approximately 20% of all aerial inspections are also reviewed by a Lead IRS for the same purpose." Footnote 1 states the number of transmission notifications created (by year).

²⁰⁷ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q024_R002.pdf (May 16, 2024, supplemental response to SED-06 Q24) states "PG&E IRSs created approximately 523 corrective transmission notifications based on issues they identified following review of ground inspections in 2020. PG&E IRSs created approximately 3,504 corrective transmission notifications based on issues they identified following review of ground inspections in 2021. PG&E IRSs created approximately 1,658 corrective transmission notifications based on issues they identified following review of ground inspections in 2022. PG&E IRSs created approximately 3,719 corrective transmission notifications based on issues they identified following review of ground inspections in 2023."

below.²⁰⁸ (PG&E does not track notifications created by IRS for aerial inspections). This data indicates that efforts by PG&E SMEs to recommend repairs for safety issues missed in an initial inspection report were often over-ruled by CIRT.

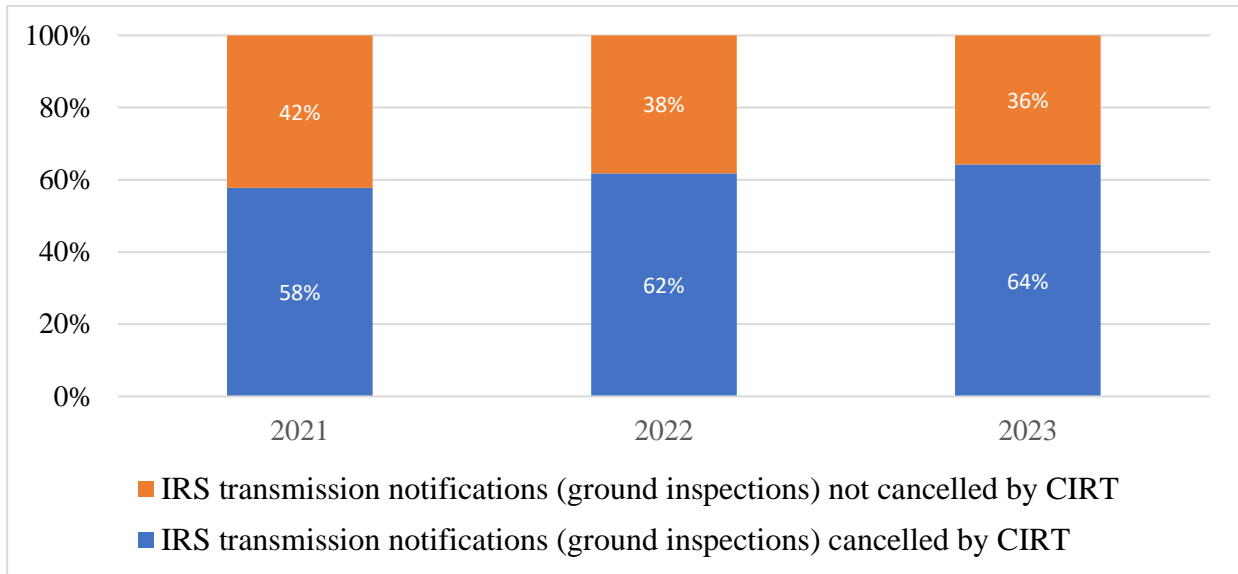


Figure 46: CIRT cancellation of transmission notifications created by PG&E IRS SMEs²⁰⁹

²⁰⁸ DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q005_R001.pdf (May 16, 2024) provided in response to SED-07 Q5(b).

“PG&E’s systems are therefore not able to generate the number of corrective notifications created as a result of issues identified by a PG&E Lead IRS following a review of an aerial inspection.

PG&E’s systems do differentiate between notifications that arise from issues identified by an inspector as part of a ground inspection and issues identified by an IRS following review of a ground inspection.

In 2020, CIRT cancelled 203 transmission corrective notifications created by a PG&E IRS based on issues the IRSs identified following review of ground inspections. In 2021, CIRT cancelled 2,006 transmission corrective notifications created by a PG&E IRS based on issues the IRSs identified following review of ground inspections. In 2022, CIRT cancelled 1,025 transmission corrective notifications created by a PG&E IRS based on issues the IRSs identified following review of ground inspections. In 2023, CIRT cancelled 2,389 transmission corrective notifications created by a PG&E IRS based on issues the IRSs identified following review of ground inspections.”

²⁰⁹ DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q024_R002.pdf (May 16, 2024, supplemental response to SED-06 Q24); and DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q005_R001.pdf (May 16, 2024) provided in response to SED-07 Q5(b).

In April 2023, PG&E adopted a System Inspections Quality Control (SIQC) program that reviewed a sample of all aerial, ground, and climbing inspections (including but not limited to transmission inspections) for accuracy and completeness.²¹⁰ SIQC staff can create new notifications for repair work, but CIRT can then cancel such notifications similar to other notifications.²¹¹ In 2023, SIQC staff reviewed 1,593 notifications that CIRT had cancelled because it disagreed with an inspection report. SIQC reversed 33 CIRT cancellations.²¹² The small number of cancelled notifications reviewed by SIQC provided little oversight of CIRT and did not significantly alter PG&E's focus on canceling recommended repair work.

9. PG&E's policies for CIRT review lack adequate internal communications and accountability.

PG&E policies do not require that CIRT: 1) communicate with the relevant inspector and SME to confirm the reason that an inspection report recommended repair work; or 2) attempt to resolve internal disagreements prior to canceling notifications.²¹³ SED's review of PG&E records regarding CIRT's cancellation of recommended repair work in the area of the Mosquito Fire do not show any such communication between CIRT and the SMEs and inspectors who recommended these repairs.

Lack of communication between CIRT staff and other PG&E staff responsible for detecting safety issues reduces the effectiveness of PG&E's inspection and maintenance program for several reasons:

- CIRT staff may not understand conditions in the field, which apparently contributed to some of CIRT's mistaken cancellations of repair work discussed earlier;
- In a number of instances, PG&E inspection staff and SMEs reviewing inspection reports understood that the original recommended repairs were consistent with

²¹⁰ DRU12861_EI_EI220906A_Foresthill_PD_DR_CPUC_Q012_R002.pdf (May 16, 2024) provided as an amended response to SED-05 Q12. As attachments to this report, PG&E produced TD-8123P-203 ("System Inspections (SI) Quality Control") Rev. 0 (produced as PGE-CPUC-00025067) and its attachments (PGE-CPUC-00024860, PGE-CPUC-00024878). These documents set forth procedures for the SIQC team to ensure that safety issues are not omitted from inspections.

²¹¹ System Inspections Quality Control, rev 0, section 6.1.

²¹² DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q004_R001.pdf (May 9, 2024) provided in response to SED-07 Q4. Of these 1593 notifications reviewed, SIQC identified 33 instances where CIRT mistakenly cancelled a prior notification. PG&E stated that these erroneous cancellations were corrected.

In addition, SIQC created approximately 2,244 transmission notifications in 2022 and approximately 2,876 corrective transmission notifications in 2023. These totals reflect all notifications created by SIQC and are not limited to notifications related to CIRT.

DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q025_R001.pdf (April 5, 2024) provided in response to SED-06 Q25.

²¹³ CIRT Utility Procedure TD 1001P10, revision 0, publication date August 6, 2019, no effective date listed. See also "Transmission Centralized Inspection Review Team (CIRT)" Utility Procedure TD 1001P10, revision 1 published February 2, 2023, and effective April 2, 2023.

PG&E policies and procedures, but CIRT apparently did not because it cancelled the repairs; and

- CIRT’s frequent disagreement with PG&E’s field inspection staff and their SME reviewers on the need for safety-related repairs shows that CIRT operated with significantly different standards and goals than PG&E inspection staff and SMEs.²¹⁴

PG&E lacks a formal process to detect and correct errors when CIRT overrules PG&E inspectors and SMEs and cancels repair recommendations, which is especially important since CIRT routinely cancels such recommendations. PG&E finished an informal quality control process (T-CIRT Quality Manual) on November 28, 2023, but has not formally adopted any such process.²¹⁵

10. PG&E Submitted a Late Initial Report in Violation of Resolution E-4184.

Resolution E-4184, issued August 21, 2008, requires that PG&E file an Electric Ignition Report within four hours of reportable events outside of normal working hours. For example, utilities must report events that are the subject of significant public attention or media coverage and are attributable or allegedly attributable to utility facilities; events that involve damage to property of the utility or others estimated to exceed \$50,000; and others.²¹⁶

PG&E claimed that it did not file an Electric Ignition Report until September 8, 2022, because PG&E could not definitively determine whether the Mosquito Fire was attributable or allegedly attributable to PG&E facilities.²¹⁷ However, NCPA staff told PG&E staff that “switch 47 has a fire” during a recorded call beginning at 18:17:12 on September 6, 2022.²¹⁸ In addition, PG&E received real-time alarm data indicating that two electrical faults had likely occurred on the circuit served by

²¹⁴ Data for 2023 shows that CIRT usually disagreed with repair recommendations by PG&E inspectors and their SME reviewers as discussed earlier.

²¹⁵ PG&E provided DRU13140_EI_EI220906A_Foresthill_PD_DR_CPUC_Q023_R001.pdf (March 22, 2024) provided in response to SED-06 Q23.

PG&E also stated that in 2021 it began implementing an automatic quality control process for notifications similar to the T-CIRT Quality Manual. This process appears to apply to notifications created by an inspector rather than to CIRT’s work. See DRU13446_EI_EI220906A_Foresthill_PD_DR_CPUC_Q004_R002.pdf (May 16, 2024) provided as a supplemental response to SED-07 Q4 and the T-CIRT Quality Manual p.6. The T-CIRT Quality Manual p.6 states that this process “is not designed to tell when a GK [Gatekeeper] and/or SME have made an incorrect decision.”

²¹⁶ Appendix A of Resolution E-4184, which contains the revised “DECISION 06-04-055 APPENDIX B “ACCIDENT REPORTING REQUIREMENTS.”

²¹⁷ DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q051.pdf provided (June 16, 2023) in response to SED-02 Q51.

²¹⁸ See transcript dated September 16, 2022, provided as PGE-CPUC-000012114 (March 17, 2023) as a supplemental response to SED-01 Q53. In response, PG&E staff asked at 1828 hours on September 6, 2022, “whether there was a fire or ‘just arcing’ at Switch 47. DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q021 provided (June 16, 2023) in response to SED-02 Q21.

Switch 47 (as noted earlier in Table 2) at or near the time of the Mosquito fire ignition.²¹⁹ Therefore, PG&E staff knew that the fire was “attributable or allegedly attributed to the utility’s electric facilities” by about 1817 hours on September 6, 2022.²²⁰ In addition, PG&E staff observed Switch 47 soon after 2000 hours, which should have provided further confirmation that the fire ignited at or near PG&E electrical facilities and provided PG&E staff an opportunity to observe the condition of relevant equipment.²²¹ PG&E violated Resolution E-4184 beginning on September 7, 2022, until PG&E filed an initial report September 8, 2022 at 1005 hours.

D. Findings and Violations

SED’s investigation finds 12 total violations of CPUC requirements as detailed below. SED found these violations after reviewing and analyzing inspection and maintenance records; physical evidence; photographs and voice recordings; and PG&E’s actions before, during, and after the Mosquito Fire.

If SED becomes aware of additional information that would modify SED’s findings in this report, SED may re-open the investigation. If so, SED may modify this report and take further actions as appropriate.

General Order 95, Rule 18 – Maintenance Programs and Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below

Level 2: Any other risk of at least moderate potential impact to safety or reliability: Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat

²¹⁹ PGE-CPUC_04102023_SED_001_Q19 Mosquito Fire_Supplemental.pdf provided (April 10, 2023) as a supplemental response to SED-01 Q19. PGE stated that “The limited real-time alarm data PG&E receives from PCWA indicates that Middle Fork CB 32 opened at 18:15:04 in response to a relay trip. The real-time alarm data PG&E receives from PCWA also indicates that Middle Fork CB 32 closed again at 18:15:21 and opened again at 18:15:22 in response to a relay trip. Please see PGE-CPUC-00000005.” The relay trips indicate that the relays tripped open the circuit breakers in response to abnormal circuit conditions such as an electrical fault.

²²⁰ In addition, the fire met other criteria for reporting by the morning of September 7, 2022, such as extensive public attention and media coverage. The fire caused mandatory evacuations and poor air quality, resulting in significant public attention and significant media attention - either of which is sufficient to trigger an Electric Ignition Report if the incident is attributable or allegedly attributable to utility facilities. See for instance “Evacuations in Placer, El Dorado counties as Mosquito Fire grows”, ABC10, 6:42 am, September 7, 2022; and “Wildfires causing hazardous air in Placer County. Here are the latest readings, forecasts”, Ryan Lillis, Sacramento Bee. September 7, 2022.

²²¹ 20-Day Report, p. 3.

District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District.

1. Violations 1A, B, and C: Three Instances of GO 95, Rule 18 Violations for Missing Maintenance Deadlines

PG&E corrected three separate Level 2 safety issues at poles in a Tier 3 HFTD after the GO 95, Rule 18 deadline:

- PG&E repaired a woodpecker hole at Pole 014/186(A) under transmission notification 121584079 on August 1, 2022, instead of the December 23, 2021, deadline.
- PG&E repaired a loose tie wire at Pole 014/186(C) under transmission notification 121584077 on August 2, 2022, instead of the December 17, 2021, deadline.
- PG&E installed guy wire insulation at Pole 014/186(C) under transmission notification 117783297 on May 7, 2020, instead of the February 20, 2020, deadline.

GO 95, Rule 18.B.1.a.ii. requires that PG&E correct Level 2 safety issues located in Tier 3 HFTD within six months from the time of identification. PG&E provided no documentation of why repairs were not completed within the required time frame. PG&E violated GO 95, Rule 18 for failing to complete the repairs by the required maintenance deadline.

2. Violations 2A, B, and C: Three Instances of GO 95, Rule 18 Violations for Failing to Correct Loose Tie Wires

PG&E's Electric Transmission Preventive Maintenance Manual²²² and PG&E's May 10, 2022, "Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps"²²³ require the correction of loose tie wires to prevent unsafe conditions. The Five Minute Meeting Topic document highlights past examples of pole fires in PG&E's system caused by loose or broken tie wires. PG&E staff documented the following loose tie wires, but PG&E failed to repair these loose tie wires:

- A PG&E inspector and SME documented a loose tie wire at Pole 000/003 in a May 25, 2022, transmission notification.
- A PG&E inspector and SME documented a loose tie wire at Pole 009/130 in a June 22, 2022, transmission notification.
- A PG&E inspector and SME documented a loose tie wire at Pole 014/186A in a June 9, 2022, transmission notification 123833466. This notification was

²²² TD 1001M, Rev. 5, August 31, 2020.

²²³ "Five Minute Meeting Topic: Reminder during Inspections to Ensure Conductors are Properly Secured to Insulators via Tie Wires or Clamps" at 1 ("Recent events involving pole fires and unplanned outages have identified the need to clarify construction and inspection standards related to tie wires and conductor attachments to transmission poles. Failure to properly secure conductor to insulators on wooden transmission can lead to hot spots at the hardware due to leakage currents, resulting in ignition on the pole.")

cancelled because PG&E expected that work on the loose tie wire would be completed under transmission notification 121584077. However, transmission notification 121584077 only documents repairs to Pole 014/186C and not the tie wire repair at Pole 014/186A.

PG&E violated GO 95, Rule 18 for failing to correct these three loose tie wires.

General Order 95, Rule 19 – Cooperation with Commission Staff; Preservation of Evidence Related to Incidents Applicability of Rules states in part:

Each utility shall provide full cooperation to Commission staff in an investigation into any major accident (as defined in Rule 17) or any reportable incident (as defined in CPUC Resolution E-4184), regardless of pending litigation or other investigations, including those which may be related to a Commission staff investigation. Once the scene of the incident has been made safe and service has been restored, each utility shall provide Commission staff upon request immediate access to: Any factual or physical evidence under the utility or utility agent’s physical control, custody, or possession related to the incident; The name and contact information of any known percipient witness; Any employee percipient witness under the utility’s control; The name and contact information of any person or entity that has taken possession of any physical evidence removed from the site of the incident

3. Violation 3: GO 95, Rule 19 Violation for Failing to Preserve Evidence

On September 23, 2022, SED instructed PG&E to preserve as evidence Pole 09/131, the cross-arms and insulators and other attachments and all jumpers and conductors within 50 feet of the pole. PG&E disposed of Pole 009/131 and attached equipment on October 22, 2022,²²⁴ and did not notify SED until November 1, 2022. PG&E’s failure to preserve evidence and provide full cooperation with SED’s investigation violated GO 95, Rule 19.

General Order 95, Rule 31.1 – Design, Construction and Maintenance states in part:

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.

4. Violation 4: GO 95, Rule 31.1 Violation for Failing to Complete Switch Maintenance at Oxbow Junction Pole

In the absence of another specific, applicable CPUC rule, GO 95, Rule 31.1 requires that a utility follow its internal procedures because by adopting them, the utility has established that those procedures are accepted good practices. PG&E did not complete function testing required by PG&E’s “Switch Maintenance and Inspection Program for Electric

²²⁴ See DRU11846_PGE-CPUC_06162023_SED_002_Mosquito Fire_Q050.pdf provided on June 16, 2023, in response to Data Request SED-PG&E-002, Question 50.

Transmission,” (Utility Procedure TD 1006P 02) at Switches 47 and 49. Utility Procedure TD 1006P 02 includes function testing requirements and represents a “best practice” for these switches. PG&E’s history of operational problems involving Switch 47 emphasizes the importance of completing all maintenance and inspection requirements.²²⁵ Thus, PG&E violated GO 95, Rule 31.1 for failing to complete function testing for Switches 47 and 49.

5. Violation 5: GO 95, Rule 31.1 Violation for Failing to Clear Vegetation Around the Oxbow Junction Pole

PG&E’s “Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region”²²⁶ requires that PG&E clear vegetation within a 10-foot radius of the Oxbow Junction Pole, up to a height of 8 feet from the ground. The vegetation clearance section of PG&E’s O&M plan represents a “best practice” under GO 95, Rule 31.1. PG&E’s failure to comply with this plan, which left flammable vegetation near the Oxbow Junction Pole during the 2022 fire season, violated GO 95, Rule 31.1.

6. Violation 6: GO 95, Rule 31.1 Violation Because PG&E’s CIRT Failed to Adequately Justify Cancelled Repair Work

CIRT cancelled six repairs for PG&E equipment near the Oxbow Junction Pole without providing adequate justification as required by PG&E’s internal policies. CIRT’s failure to justify cancellation of the recommended repair work listed below violated Rule 31.1.

Table of six cancelled notifications found near Oxbow Junction pole

Pole 014/187 - Four wedge connectors (notification dated May 27, 2022)
Pole 000/003 - Chipped insulator (notification dated June 25, 2021)
Pole 009/131 - Cotter pin and key (notification dated May 26, 2022)
Pole 000/003 - Vegetation obscuring section of guys and anchors (notification dated May 25, 2022)
Pole 000/003 and Pole 009/130 - Loose tie wires (notifications dated May 25, 2022, and June 22, 2022, respectively)

General Order 95, Rule 37 – Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, etc. states in part:

. . . clearances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1, at a temperature of 60° F. and no wind.

²²⁵ For example, on April 25, 2022, PG&E found the lower phase of Switch 47 burned. Subsequently, on April 30, 2022, four attempts to open and close Switch 47 via SCADA failed. Later, PG&E staff suspected arcing at Switch 47 on August 26, 2022. However, PG&E staff did not find evidence of arcing in the field.

²²⁶ Issued December 2018 and updated August 2020.

General Order 95, Rule 54 – Conductors states in part:

... modifications of the basic clearances in Table 1 (see Rule 37) are contained in Rule 37 and sections of 54.4 (D), including 54.4 (D)(6) Deadended on Pole subsection (b) which states in part, “Where conductors are supported on a climbable pole in vertical configuration, the energized portions of such conductors shall have clearances of not less than 15 inches from the surface of the pole for voltages between 750 and 7,500 volts and 18 inches from the surface of pole for voltages in excess of 7,500 volts.”

**7. Violation 7: GO 95, Rule 37 as Modified by Rule 54
Violation – Lack of Clearance between Lower Phase
Jumper and Pole**

PG&E failed to maintain the required clearance between the Oxbow Junction Pole and the jumper cable connecting the lower phases of Switches 47 and 49 on September 6, 2022, and created an electrical fault path. PG&E violated GO 95, Rule 37 clearance requirements as modified by Rule 54.

Resolution 4184-E – Adoption of Web-Based Emergency Reporting System for Utilities and Generation Asset Owners states in part:

Within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside of normal working hours, the utility shall provide notice to designated CPUC staff of the general nature of the incident, its cause and estimated damage.

**8. Violation 8: Resolution 4184-E Violation for Late Initial
Notification**

PG&E was required to file an initial notification regarding the Mosquito Fire by September 7, 2022, because PG&E staff were aware that the Oxbow Junction Pole ignited or potentially ignited the Mosquito Fire soon after the fire started at about 1800 hours on September 6, 2022. In addition, PG&E staff were present at the location at about 2000 hours on that date. PG&E did not provide this initial notification until September 8, 2022, in violation of Resolution 4184-E.

V. Conclusion

SED’s review of 13 transmission poles in the Oxbow Junction areas found 12 violations of a GO 95 safety requirement. These violations show that PG&E has not properly prioritized and implemented safety efforts, increasing wildfire risk within a Tier 3 extreme high fire threat district. Fires such as the Mosquito Fire, which led to widespread property damage and disruption to communities as well as two reported firefighter injuries, show the importance of correcting these types of failures. In addition, SED found that PG&E’s widespread practice of canceling repairs recommended by a PG&E inspector and SME failed, in many instances, to follow PG&E’s own policy requirements, violating GO 95.

VI. Appendix: Oxbow Junction Pole Vegetation Clearance History

Pole History - t179404:

0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		1/18/2021 5:10:19 PM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !W120743258N39008223					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	EBSI0000880P	Complete	11/18/2021
				EBSI0000804W		
0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		/25/2020 2:22:17 PM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !W120743258N39008223					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	EBSI0000697P	Complete	4/13/2021
				EBSI0000606W	Complete	9/24/2021
				EBSI0000229R	Complete	9/24/2021
0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		11/1/2019 10:12:33 AM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	SISI0000250P	Deferred	2/3/2020 7:10:08 AM
				SISI0000190W	Complete	5/12/2020 9:52:25 AM
				SISI0000011R	Complete	7/29/2020 8:42:50 AM
0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		0/22/2018 9:59:02 AM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	SISI0000022P	Complete	3/13/2019 10:19:30 AM
				SISI0000017W	Complete	6/27/2019 9:29:33 AM
0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		10/12/2017 9:15:58 AM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	EBSI0000568P	Complete	3/14/2018 10:23:19 AM
				EBSI0000467W	Complete	6/6/2018 9:35:34 AM
0 NATIONAL FOREST RD 23-02 , FORESTHILL		SSD: 47-		[REDACTED]		0/26/2016 10:40:02 AM
Directions:	GO RIGHT AT SPLIT .3 MI TO P.					
Comments:	TAKE MOSQUITO RIDGE RD 11 MILES TO NATIONAL FOREST RD 23 ON RIGHT, THEN GO .7 MILES TO SPLIT to rafter river access .3mi to pole on right !					
Pole: T179404	Clr-NoChm	Deferred	VMA: NONE	EBSI0000407P	Complete	4/3/2017 9:48:11 AM
				EBSI0000337W	Complete	5/23/2017 1:34:58 PM

Figure 47: Oxbow Junction Pole vegetation clearance work from 2017 through 2022²²⁷

²²⁷ This table is based on SED's excerpt of PGE-CPUC-00007447 provided (March 17, 2023) in response to SED-01 Q12. Pole T179404 is the Oxbow Junction Pole.

VII. Appendix: Switch 47 and 49 Operation

Table 6: PG&E Switch 47 and 49 operation November 30, 2021, through September 6, 2022²²⁸

PG&E Document Reference	#	Date/Time (SED-002, Q11(a)) ²²⁹	Action (SED-002, Q11(b))	Reason for Operation (SED-002, Q11(c))	Energized ? (SED-002, Q11(d))	Qualified Worker Present? (SED-002, Q11(e))	Operation Successful ? (SED-002, Q11(f)) ²³⁰	Protective Device(s) Operated? (SED-002, Q11(g))
PGE-CPUC-00010531	47	12/9/2021 8:42:59	Close	Clear Weimar 60kV Bus	Yes	No	Yes	No
PGE-CPUC-00013506		12/10/2021 19:02:36	Open	Return Weimar 60kv bus test program				
PGE-CPUC-00010311	47	1/3/2022 19:24:29	Close	De-Energize Weimar Substation	Yes	No	Yes	No
		1/3/2022 20:19:29	Open	Re-Energize Weimar Substation				
PGE-CPUC-00010212	49	2/21/2022 7:35:29	Open	Clear Oxbow 60 kV Tap Line	Yes	Likely ²³¹	Yes	No
		2/21/2022 12:53:49	Close	Restore Oxbow 60 kV Tap Line				
PGE-CPUC-00013476	47	3/21/2022 9:59:53	Close	Middle Fork-Gold hill 230KV line Clearance	Yes	No	Yes	No
		3/23/2022 19:05:48	Open					
PGE-CPUC-00010366	47	3/30/2022 1:58:20	Close	Clear Weimar #1 60 kV line for testing Weimar CB 52	Yes	No	Yes	No
		3/30/2022 2:03:20	Open	Restore Weimar #1 60 kV line following testing Weimar CB 52.				
PGE-CPUC-00011002	47	4/19/2022 8:10:07	Close	Deenergize Weimar 60 kV bus for distribution work.	Yes	No	Yes	No
		4/19/2022 8:33:42	Open	Restore Weimar 60 kV bus following distribution work.				
PGE-CPUC-00009783	47	4/20/2022 6:58:45	Close	Deenergize Middle Fork substation for customer work.	Yes	No	Yes	No
		4/20/2022 17:15:12	Open	Restore following Middle Fork substation work			No	Yes CB52/CB32 c-phase ²³²

²²⁸ Source for table and footnotes: Attachment 1 to PG&E’s response to SED-02 Q11.

²²⁹ Date and time data based on the EMS alarms. See PGE-CPUC-00011791-CONFIDENTIAL (provided March 17, 2023, as attachment to PG&E response to SED-01 Q25) alarm data for June 30, 2022. That data, however, is not associated with any operation of Switch 47 in the field.

²³⁰ PG&E listed an operation as successful if a test or an attempt to change switch position was successful.

²³¹ A switch log indicates PG&E remotely opened Switch 49 while a transmission trouble responder was working in the area. PG&E cannot confirm whether PG&E staff was physically present during switching.

²³² See PG&E's response to SED-01 Q24 and SED-02 Q8 for additional CB 52 and CB 32 information.

PGE-CPUC-00013488	47	4/25/2022 11:01:30	Close	Repair and Test Switch 47	No	Yes ²³³	Testing completed-successful	No
		4/25/2022 11:09:53	Open					
PGE-CPUC-00011414	47	4/27/2022 13:03:20	Close	Clear Weimar 60 kV Bus for testing.	Yes	No	Yes	No
		4/27/2022 15:50:17	Open					
PGE-CPUC-00011437	47	4/30/2022 12:11:23	Close	Clear Weimar CB 52 ²³⁴	Yes	No	No	No
		4/30/2022 12:11:29	Open					
		4/30/2022 12:32:27	Close					
		4/30/2022 12:32:44	Open			Yes	Yes	
		4/30/2022 14:43:15	Close					
		4/30/2022 18:25:53	Open					
PGE-CPUC-00013495	47	5/7/2022 13:06:06	Close	Test new Switch 47 motor operator	No	Yes ²³⁵	Testing - completed successful	No
		5/7/2022 14:18:03	Open					
		5/7/2022 14:32:13	Close					
		5/7/2022 14:33:53	Open					
		5/7/2022 14:42:13	Close					
		5/7/2022 14:43:53	Open					
PGE-CPUC-00011198	47	8/26/2022 7:25:59	Close	Clear Weimar #1 60 kV line on system trouble	Yes	No	Yes	Yes- CB52/CB32 - a, c phases ²³⁶
		8/28/2022 15:32:36	Open			Yes		No
PGE-CPUC-00001982	47	9/6/2022 18:12:37	Close	Transfer Foresthill load to Middle Fork	No	No	Yes ²³⁷	Yes - CB32 - c phase

²³³ Log T22-008397 states steps to clear the Weimar #1 60 kV and Middle Fork #1 60 kV lines on April 25, 2022, and repair and test Switch 47. This log does not show that Switch 47 was opened and closed on April 25, 2022; other PG&E records show this operation. PGE-CPUC-00011791-CONFIDENTIAL. PG&E understands that qualified electric workers were present during Switch 47 repairs and opened and closed it per PGE-CPUC-00004931 (LC Notification 123404435); and PGE-CPUC-0004931 (LC Notification 123404454).

²³⁴ After four attempts to remotely operate Switch 47 failed, PG&E operated the switch in person.

²³⁵ Log T22-009032 lists steps to clear sections of Weimar #1 and Middle Fork #1 on May 7, 2022, and replace and test the Switch 47 motor operator. The log does not show that Switch 47 was opened and closed on that date but PG&E understands that staff successfully opened and closed it for testing. See PGE-CPUC-00005057 (LC Notification 123485996), PGE-CPUC-00005067-68 (Transmission Construction Completion Standard Checklist) and PGE-CPUC-00011791-CONFIDENTIAL.

²³⁶ After PG&E closed Switch 47, CB 52 and CB 32 operated due to a fault between Foresthill and Weimar Substations. PGE-CPUC-00009804 (Work Card T22-010178) and PGE-CPUC-00013486 (Notification 124378986).

²³⁷ PG&E considers the operation successful because Switch 47 changed from open to closed.

VIII. Additional Tie Wire Examples

Figure 48 below highlights a 2023 PG&E internal guidance document that requires repair of loose and broken tie wires. The left photo shows an example of a loose tie wire that requires repairs.²³⁸ In this case, the conductor that is well seated, i.e. still sitting in the insulator groove. The right photo shows a broken tie wire and an unseated conductor, which also requires repairs. PG&E published this document January 20, 2023.



Figure 48: Photos of loose tie wires from Identifying Conductor and Clearance Conditions²³⁹

²³⁸ PGE-CPUC-00023106, provided in response to SED-03 Q16 (September 21, 2023). Document title is Identifying Conductor and Clearance Conditions TD-1001M-JA10 (published January 20, 2023, effective February 20, 2023). See pp. 4 and 6.

²³⁹ Identifying Conductor and Clearance Conditions, pp. 4 and 6.

IX. Appendix: List of Acronyms

CAL FIRE - California Department of Forestry and Fire Protection

CB – Circuit breaker

CCSC - Construction Completion Standard Checklist

CIRT – PG&E Transmission Centralized Internal Review Team

ETPM Manual – PG&E Electric Transmission Preventative Maintenance Manual

FSR – Field Safety Reassessment

GO – General Order

HFTD - High Fire Threat District

IRS - Inspection Review Specialist

LC – Line correction

NCPA - Northern California Power Authority

O&M Plan - Operations and Maintenance Plan Electric Facilities on National Forest System Lands within the Pacific Southwest Region (prepared by PG&E and Southern California Edison for the U.S. Department of Agriculture Forest Service, Pacific Southwest Region).

PG&E – Pacific Gas & Electric Company

PCWA - Placer County Water Authority

SCADA - Supervisory control and data acquisition

SIQC - System Inspections Quality Control

SED – Safety and Enforcement Division

SME - Subject matter expert

SIQC - System Inspections Quality Control

USFS – United States Forest Service