PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

January 23, 2024 CPUC-ID: E20220622-01

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 June 21, 2022 adjacent to and southwest of [redacted], Woodside, San Mateo County, California (Incident Location). This incident resulted in the Edgewood Fire, which burned approximately 20 acres of wildland and deenergized 2,733 distribution customers and one transmission customer.

SED's investigation of the Edgewood Fire identified the following violations: one (1) violation of General Order (GO) 95, Rule 18; three (3) violations of GO 95 Rule 31.1; one (1) violation of GO 95, Rule 38; and one (1) violation of the Public Utilities Code Section 451. Attached is a summary of the relevant code sections and SED's findings.

Please provide a response to the violations no later than February 22, 2024 (30 calendar days). 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 Will Dundon at (415) 660-8163 or will.dundon@cpuc.ca.gov.

Sincerely,

Devla Singh
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

Will Dundon, Senior Utilities Engineer
Wildfire Safety and Enforcement Branch

Edgewood Fire
Summary of Violations

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

> *Companies shall undertake corrective action within the time period stated for each of the priority levels set forth below. . .*
>
> *Level 1 – An immediate risk of high potential impact to safety or reliability: Take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.*
>
> *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 [sic] 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 fire risk located in Tier 2 of the High Fire Threat District; (3) 12 months for potential violations that compromise worker safety; and (4) 36 months for all other Level 2 potential violations.*
>
> *Level 3 – Any risk of low potential impact to safety or reliability: Take corrective action within 60 months [subject to exceptions as specified in Appendix J of GO 95].*

Violation 1

GO 95, Rule 18 requires that risks of at least moderate potential impact to safety or reliability, such as insufficient conductor clearances, be addressed within 12 months in a Tier 2 HFTD, and within 6 months in Tier 3 HFTD. PG&E failed to meet these required deadlines in three instances:

1. PG&E identified an insufficient clearance of 27.6 inches between the conductors of the 60kV Jefferson-Stanford transmission circuit and the 4.2 kV Emerald Lake distribution circuit on June 3, 2020, during an engineering review of Line Corrective tag number (LC) #116500147. The clearance issue was located in a Tier 2 HFTD and should have been completed by June 2, 2021; however it was not. Instead, on May 4, 2021, PG&E created LC #120899152 to replace Pole 000/005 to address the clearance issue and assigned the work a due date of April 29, 2022. PG&E did not complete LC #120899152 within the required time frame, and did not submit a request for exemption from the required time frame. PG&E was in the process of replacing the pole on June 21, 2022, when the Edgewood Fire ignited. The work to address the insufficient clearance identified on June 3, 2020 was overdue by 383 days on the day the Edgewood Fire ignited.

2. PG&E created LC #119238762 on June 30, 2020, with a due date of June 30, 2021, to address a guy wire supporting an electrical pole near the Incident Location of the Edgewood Fire, which was missing its fiberglass insulator. PG&E did not address the missing insulator within 12 months despite being in a Tier 2 HFTD. PG&E did not complete the work until the Edgewood Fire burned the pole on June 21, 2022, and the utility replaced the pole after the fire. PG&E did not submit a request for exemption from the required time frame. The work was overdue by 356 days on the day the Edgewood Fire ignited.

3. PG&E created Electrical Corrective tag number (EC) #124536873 on June 13, 2022, to address the insufficient clearance of 21.25 feet between the 12kV distribution conductors and the ground below. PG&E did not address the clearance issue within 6 months, despite being in a Tier 3 HFTD. EC #124536873 remained incomplete as of May 4, 2023, when PG&E sent the work order to SED. At that time, the work was 143 days overdue.

PG&E's failure to address these Level 2 maintenance issues by the required due date violates GO 95, Rule 18.

GO 95, Rule 31.1 – Design, Construction and Maintenance[1] 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.*

Violation 2

GO 95, Rule 31.1 requires that utilities follow accepted good practices for the design, construction, and maintenance of their electric facilities, which extends to requiring utilities to follow their internal procedures as accepted good practices. The PG&E Electrical Transmission Preventative Maintenance (ETPM) Manual states that if circuit-to-circuit clearances exceed the values specified by the utility's standard, the work must be assigned Priority B with a 3-month due date.

PG&E created LC #120899152 to address the insufficient clearance identified at the Incident Location of the Edgewood Fire but assigned it Priority E with a 12-month due date.

PG&E's failure to follow its ETPM Manual by failing to assign the correct internal priority to a work order which identified an insufficient clearance violates GO 95, Rule 31.1.

[1] The scope of this investigation regarding GO 95, Rule 31.1 does not include reviewing the utility's compliance with its Wildfire Mitigation Plan.

Violation 3

GO 95, Rule 31.1 requires that utilities follow accepted good practices for the design, construction, and maintenance of their electric facilities, which extends to requiring utilities to follow their internal procedures as accepted good practices. PG&E's contractors performing an excavation on June 21, 2022, to replace Pole 000/005 at the Incident Location were required to follow the utility's procedure TD-4621M, PG&E's Excavation Safety Manual. The manual requires that a qualified worker must identify and evaluate potential hazards and implement controls to reduce or eliminate those hazards before beginning work.

PG&E's tailboard which identified the potential hazards at the jobsite did not identify the insufficient clearance between the conductors, and the potential risk of line-to-line contact, while excavating near a pole supporting those conductors. In addition, the excavation crew was not briefed on the potential hazard of inadequate conductor clearance.

By failing to brief workers and address the potential hazard for line-to-line contact, PG&E failed to meet the requirements of its Excavation Safety Manual, which violates GO 95, Rule 31.1.

Violation 4

GO 95, Rule 31.1 requires that utilities follow accepted good practices for the design, construction, and maintenance of their electric facilities, which extends to requiring utilities to follow their internal procedures as accepted good practices. PG&E's Electrical Distribution Preventative Maintenance (EDPM) and ETPM Manuals both state that distribution and transmission patrols and inspections (including aerial inspections) are intended to identify conductor clearance issues.

Despite LIDAR data confirming that an insufficient conductor clearance condition was present at the Incident Location as early as September 2016, the following separate patrols and inspections at the Incident Location did not identify any conductor clearance issues:

1. Distribution GO 165 Patrol, April 2017
2. Transmission GO 165 Patrol, August 2017
3. Distribution GO 165 Patrol, February 2018
4. Transmission GO 165 Inspection, August 2018
5. Transmission WSIP, January 2019
6. Distribution WSIP-100324166, March 2019
7. Distribution WSIP-100324168, March 2019
8. Distribution GO 165 Patrol, April 2019
9. Distribution WSIP-103068309, April 2019
10. Transmission Drone Inspection, May 2019
11. Transmission GO 165 Patrol, August 2019
12. Distribution GO 165 Patrol, June 2020
13. Distribution GO 165 Inspection, August 2020
14. Transmission GO 165 Arial (helicopter) Inspection, September 2020
15. Distribution GO 165 Patrol, March 2021

16. Transmission GO 165 Patrol, May 2021
17. Transmission Detailed Aerial (drone) Inspection, March 2022
18. Transmission GO 165 Inspection, June 2022
19. Distribution GO 165 Patrol, June 2022

PG&E's failure to identify conductor clearance issues during 19 patrols and inspections as required by the utility's EDPM and ETPM Manuals violates GO 95, Rule 31.1.

GO 95, Rule 38 – Minimum Clearance of Wires from Other Wires states in part:

> *The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2 and are based on a temperature of 60° F. and no wind. Conductors may be deadended at the crossarm or have reduced clearances at points of transposition, and shall not be held in violation of Table 2, Cases 8–15, inclusive.*
>
> *The clearances In Table 2 shall in no case be reduced more than 10 percent, except mid-span in Tier 3 of the High Fire-Threat District where they shall be reduced by no more than 5 percent, because of temperature and loading as specified in Rule 43 or because of a difference in size or design of the supporting pins, hardware or insulators.*

Violation 5

Table 2 of GO 95, Rule 38 states that the basic minimum clearance is 96 inches for wires, cables and conductors not supported on the same poles, for supply conductors between 750 – 7,500 volts and supply conductors between 35,000 – 75,000 volts.

As addressed by EC #120899152, PG&E identified a 27.6-inch clearance between the Emerald Lake 4.2kV distribution circuit and the Jefferson-Stanford 60kV transmission circuit at the Incident Location on June 3, 2020, during an engineering review of a work order. A LIDAR scan identified a 69.6-inch clearance at the same location on September 28, 2016. The clearance was below the required basic minimum clearance until the Edgewood Fire on June 21, 2022.

PG&E's failure to maintain the clearance required by Table 2 violates GO 95, Rule 38.

Public Utilities Code Section 451 states in part:

> *Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.*

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

> *Clearances between overhead conductors, guys, messengers or trolley span wires and tops of rails, surfaces of thoroughfares or other generally accessible areas across, along or above which any of the former pass; also the 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.*

Violation 6

Public Utilities Code Section 451 states that public utilities shall furnish and maintain service, equipment, and facilities as necessary to promote the safety and health of the public.

PG&E identified multiple instances of open work orders to address conductor clearance which did not meet the minimum requirements of GO 95, Rules 37 and 38, including the following:

1. LC #123431936, LC #123432042, and LC #123432044 identified a 21.33-foot clearance between the 60kV conductors and the ground below on April 26, 2022, which is less than the required 30-foot clearance required by GO 95, Rule 37. This inadequate clearance condition existed 374 days after identification.

2. EC #124536873 identified a 21.24-foot clearance between the 12kV conductors and the ground below at a simulated 60˚F on June 13, 2022, which is less than the 25-foot clearance required by GO 95, Rule, 37. When SED received this information, the inadequate clearance condition had existed for 326 days.

3. LC #124254305 identified a 44-inch clearance between a 12kV conductor and a 60kV conductor on August 9, 2022, which is less than the 96-inch clearance required by GO 95, Rule 38. This inadequate clearance condition existed 76 days after identification.

4. LC #118014477, LC #118014490, and LC #118014473 identified a 44-inch clearance between a 4kV conductor and a 115kV conductor on October 17, 2019. The clearance was below the required basic minimum clearance until the work order was completed on October 3, 2022. This inadequate clearance condition existed for 1,083 days after identification.

GO 95, Rules 37 and 38 establish the necessary minimum clearance requirements for safe operation of electric facilities. PG&E's repeated failure to maintain facilities as necessary to meet these requirements results in a risk to public safety and violates Public Utilities Code Section 451.