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March 4, 2021

VIA E-MAIL
CAROLINE.THOMASJACOBS@CPUC.CA.GOV
LESLIE.PALMER@CPUC.CA.GOV

Caroline Thomas Jacobs, Director
Wildfire Safety Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Leslie Palmer, Director
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: PG&E 2019 and 2020 Wildfire Mitigation Plan Update

Dear Directors Thomas Jacobs and Palmer:

PG&E is self-identifying an error we discovered in the course of continuing to improve our asset management processes. This error relates to missed enhanced inspections of a small percentage of our assets in High Fire Threat District (HFTD) areas that are subject to our Wildfire Mitigation Plan (WMP). We are now in the process of completing all outstanding inspections on an expedited basis and will have all completed by March 31. We will complete Tier 3 inspections sooner, by March 13. These dates are subject to change if we encounter extraordinary winter weather conditions or other issues restricting access to these assets. We will also promptly address any high priority tags resulting from these inspections.

We surfaced these issues as part of our asset management and corrective action programs. These efforts led us to determine that in 2020 we did not inspect 24 hydroelectric substations in Tier 3 HFTD areas.¹ In addition, we did not inspect 5 distribution poles in 2019 and 2020.

¹ We wanted to provide this report to you as promptly as possible. We are still in the process of validating numbers and performing field inspections, and the numbers in this report and in Attachment A are subject to change. We will update you if the reported numbers change based upon the data validation process.

These assets are a very small percentage of the approximately 50,000 electric transmission structures, approximately 700,000 distribution poles, and over 200 substations in total subject to inspection under our Wildfire Mitigation Plans.

Below we provide more detail on: (1) the scope and results of our Wildfire Safety Inspection Program for 2019 and detailed inspections for 2020; (2) background on hydroelectric facility substations and associated electrical lines; (3) how we identified these issues; (4) how we addressed enhanced inspections for substations and associated electrical lines in our 2019 and 2020 WMPs and the actual inspections conducted. As noted, we are expediting our corrective actions process and will share these results with you.

1. Background on Our Wildfire Safety Inspection Program in 2019 and Detailed Inspections in 2020

As part of our 2019 WMP, we implemented a Wildfire Safety Inspection Program or “WSIP” to expedite and expand upon routine detailed inspections performed in HFTD areas. The WSIP went above and beyond the routine inspections required by regulations by accelerating inspections of overhead electric facilities in HFTD areas to identify and repair components at-risk of initiating fires. We developed a Failure Modes and Effects Analysis or “FMEA” to identify single points of failure and developed inspection methods to identify the condition of those components. As part of our 2019 WMP, we committed to performing WSIP inspections on all of the transmission structures, distribution poles, and substations within Tier 2 and Tier 3 HFTD areas. Throughout the inspection process, we addressed and repaired conditions that posed an immediate safety risk, while completing other high-priority repairs on an accelerated basis.

In our 2020 WMP, we established a reinspection frequency for our assets in HFTD areas based on Tiers. In the 2020 WMP, we targeted performing detailed overhead inspections on 100% of HFTD Tier 3 assets and on a three-year cycle for HFTD Tier 2 assets. The three-year cycle equates to inspections of approximately 33% of the assets per year.

2. Hydroelectric Substations and Associated Electrical Lines

In 2019 and 2020, we operated 63 hydroelectric facilities in Tier 2 and Tier 3 HFTD areas. These hydroelectric generating plants include associated electrical equipment in substations (generally referred to as switchyards).

Hydroelectric facilities also include transmission or distribution lines called generation ties or “gen-ties” that connect the generating facility substation to the electrical grid. Gen-ties have varying lengths depending on the distance from the substation to the electrical grid. Transmission or distribution lines called “pass-throughs” may also connect to a hydroelectric substation.

Finally, hydroelectric facilities typically require a source of electrical energy for station load and other project features, such as gates at diversion facilities, back-up power sources,

employee housing and campgrounds, and thus are served by distribution lines that provide electrical service for the facility when needed.

3. Identification of Issue

In late 2020, we began to implement an asset management program for our hydroelectric electric facilities as part of the effort to achieve ISO 55001 certification for our power generation organization. This was part of our effort overall to improve our asset management process, and we have undergone a similar certification for our gas organization and have passed Stage 1 of ISO 55001 for our electric operations organization.

In the process, we discovered that the scope of the 2020 WMP enhanced inspections did not include hydroelectric substations. In addition, we did not have complete asset information for certain hydroelectric facility distribution lines.²

Upon learning of these issues, we worked to identify the extent to which the hydroelectric substations, corresponding gen-ties and pass-throughs, and distribution lines in Tier 2 and Tier 3 HFTD areas had been subject to enhanced inspections. This letter is a result of that work. Attachment A identifies the numbers of hydroelectric substations in HFTD Tiers 2 and 3 and the status of the enhanced inspections for those facilities under our 2019 and 2020 WMPs.

4. 2019 WMP and Substation and Gen-Tie/Pass-Through Inspections

In the 2019 WMP, we explain the scope of WSIP substation inspections as including approximately 200 sites located in HFTD areas, including substations, switching stations, and hydroelectric facilities, with a specific focus on the failure mechanisms for transformers, conductors, connectors, insulators, switches, poles, and other equipment. Enhanced inspections of all hydroelectric substations and gen-ties and pass-throughs were conducted in 2019.

5. 2020 WMP and Substation and Gen-Tie/Pass-Through Inspections

For our 2020 WMP, we describe the detailed inspections of substations as building on the 2019 WSIP to further minimize the risk posed by substations. We explain we will perform supplemental inspections once annually for all HFTD Tier 3 substations and on a three-year cycle for HFTD Tier 2 substations.

We are still preparing our 2020 WMP Annual Compliance Report and validating our 2020 data. Our initial assessment is that by the end of 2020, we completed inspections of approximately 21,000 transmission structures and approximately 340,000 distribution poles. As to substations, we now believe that in 2020, we did not perform enhanced inspections on approximately 24 hydroelectric substations in Tier 3. There are also 39 hydroelectric substations in Tier 2, and we will complete inspections of all Tier 2 substations within the three year period

² We will address improvements in our corrective action plans.

from 2020-2022. In 2020, we inspected 33 substations in Tier 2, which equals 20% of total Tier 2 substations.

We did perform enhanced inspections, consistent with the 2020 WMP, of our gen-ties and pass-throughs generally. However, we cannot confirm that those inspections included the entirety of the first half-span of line between the hydroelectric substation and the first transmission or distribution structure on the circuit as these hydroelectric substations were not inspected.

6. 2019 and 2020 WMPs and Hydroelectric Distribution Line Inspections

In our 2019 WMP, we committed to do enhanced inspections of 100% of distribution poles in HFTD Tier 2 and Tier 3. The 2020 WMP modified the scope to 100% of HFTD Tier 3 and a three-year cycle for HFTD Tier 2.

While we conducted enhanced inspections of approximately 700,000 distribution poles in HFTD areas in 2019 and approximately 340,000 in 2020, we did not inspect 5 hydroelectric distribution line poles in either 2019 or 2020. We are investigating the cause of this omission.

7. Going Forward Corrective Actions

We are performing remedial inspections on an expedited basis of the hydroelectric substations, unconfirmed spans of corresponding gen-ties and pass-throughs, and distribution poles. We expect the Tier 3 inspections to be completed by March 13, 2021, and the Tier 2 inspections by March 31, 2021. We will promptly address any high priority tags resulting from those inspections. In 2021 we also will perform enhanced inspections on these facilities in Tier 3 under the 2021 WMP.

We are updating records to incorporate the 5 missing hydroelectric distribution poles into the asset data registries, and they will be included in our enhanced inspection program going forward.

In addition, we are performing a Root Cause Evaluation using the methods applied by the nuclear power industry to identify process breakdowns and to formulate additional corrective actions.

We will follow up to share our findings and progress in addressing these issues so that they do not reoccur.

Caroline Thomas Jacobs, Leslie Palmer
March 4, 2021
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Please contact Meredith Allen at (415) 973-2868 or Meredith.Allen@pge.com for any questions you may have regarding this notification or would like to further discuss any of these issues.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Powell". The signature is fluid and cursive, with the first name being more prominent.

Deborah Powell
Interim Head of Electric Operations

cc: Service List in R.18-10-007 (via email)
Sumeet Singh, PG&E Sr. Vice-President, Chief Risk Officer, PG&E
Meredith Allen, PG&E Senior Director, Regulatory Relations

ATTACHMENT A

2020 WMP SUBSTATION INSPECTIONS

PG&E Assets	HFTD Tier	PG&E Substations/ Switchyards			WMP Inspection Requirements	Substations Inspected (% of requirements)	PG Transmission Gen-ties/ Pass- throughs	PG Distribution Gen-ties/ Pass- throughs
		Total	EO Substations	PG Switchyards				
Substations (# of substations/switchyards)	Tier 3	56	32	24	100%	32 (57%)	36	29
	Tier 2	161	122	39	Three-year cycle	33 (N/A)	69	49
	Tier 2/3 Adjacent	68	68	0	N/A	23 (N/A)	N/A	N/A
Total Substations (T2/T3 + Adjacent)		285	222	63	N/A	88 (N/A)	105	78