

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans
Rulemaking 18-10-007
Data Response

PG&E Data Request No.:	CalAdvocates_046-Q03		
PG&E File Name:	WildfireMitigationPlans_DR_CalAdvocates_046-Q03		
Request Date:	March 1, 2021	Requester DR No.:	CalAdvocates-PGE-2021WMP-12
Date Sent:	March 10, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:		Requester:	Alan Wehrman

The following questions relate to Table 1 of the non-spatial WMP data tables. All questions specifically concern inspections of distribution facilities in HFTD areas. For purposes of this data request, “high-priority findings” mean Level 1 and Level 2 inspection findings.

SUBJECT: NON-SPATIAL DATA TABLES: DISTRIBUTION INSPECTIONS IN HFTD AREAS

QUESTION 03

In Table 1, PG&E states that “other” types of distribution inspections include intrusive pole inspections (also known as “Pole Test & Treat”) and overhead infrared inspections. For these, and any additional types of “other” inspection that you perform on distribution facilities in HFTD areas, please answer the following questions. Please provide separate answers for each type of “other” inspection.

- a. Describe the inspection process from start to finish.
- b. Please list the five most common types of high-priority findings identified in these inspections.
- c. How many personnel are involved in each inspection?
- d. In 2020, how many person-hours were typically required to complete an inspection of one distribution pole and the equipment on it?
- e. In 2020, how many person-hours were typically required to inspect one circuit-mile?
- f. How many qualified personnel do you currently have to perform these inspections?
- g. Of the personnel identified in part (f), how many are direct employees and how many are contractors?

ANSWER 03

PT&T Inspections

a. Answer below; also see attached reference documents:

- WildfireMitigationPlans_DR_CalAdvocates_046-Q03Atch01:
Pole Test and Treat Program (overview document)
- WildfireMitigationPlans_DR_CalAdvocates_046-Q03Atch02:
Utility Procedure: TD-2325P-01

Visual Inspection

Inspector will visually inspect the condition of the pole.

Sound and Bore

Inspector will sound test the pole using a hammer and listening for what could possibly be voids in the pole. Inspector will drill 3 holes at 45 degree angle 15 inches deep and gauge the holes for any voids or checks in the pole.

Excavation

Depending on the pole type and condition the inspector may dig either a partial or full excavation to determine below ground decay.

Internal Treatment

If the pole is not located near a well, source of water or in a school yard the inspector will apply an internal treatment to the pole. The treatment used in the majority of poles is sodium N-methyldithio-carbamate commonly sold under the trade names of "SMDC-Fume" or "Pole-Fume." This treatment is applied as a liquid poured into holes bored in solid wood. The liquid volatilizes and is carried up and down the wood cells as a gas. The holes which measure 7/8 X 15" are plugged with a plastic plug.

External Treatment

The chemical used is a Copper Hydroxide paste using various inert agents for transmission including inorganic clay. This external treatment is sold under the trade name of "CU-BOR".

- b. The results of PT&T are one of three: Replace pole, stub/enforce pole, or no action required at pole.
- c. Each inspection is completed by crew of 2-3 employees
- d. PT&T work is not tracked or managed by circuit mile, but rather by structure/pole count.
- e. Average time to complete inspection in 2020 = 35 minutes

- f. There are currently ~70 qualified contract employees who perform this work
- g. All PT&T “Inspectors” are contract employees

OH IR Inspections

- a. After receiving the assigned circuits, the contractor maps their route to perform the IR inspection of those circuits. They drive a truck along the circuit but do not make any contact with the assets. This is a noninvasive inspection from a distance. The contractor employs a camera mounted on a field truck. A driver will drive the truck. There is a technician in the passenger seat with a monitor that can view the images from the camera on the truck. As the technician notes any hot spots a photo image is captured, and the hot spot is documented and sent to PG&E. PG&E receives the finding, reviews it, and then the compliance team formalizes the tag and issues out the work.

PG&E uses contractors that specialize in Infrared Inspection (with accompanying certification of training and calibrated tools). The contractor employs a combination of field operations processes, techniques and equipment as well as the back office systems and processes to identify and detect hot spots. Infrared tools include FLIR T640 cameras. FLIR Tools software is consistently used to analyze all reported issues. PG&E provides temperature thresholds and time frames for remediation in TD-2022P-01 and TD-2022B-001.

- b. The top findings from OH inspections are (2020):

Top 5 Findings from OH IR Inspections
Connector_Temp Differential_Replace
Switch_Broken/Damaged_Repair
Cutout_Broken/Damaged_Repair
Cutout_Broken/Damaged_Replace
Transformer_Broken/Damaged_Replace

- c. Each inspection is completed by 2 employees (1 driver, 1 employee operating camera)
- d. Overhead IR is not tracked at individual pole/structure level
- e. Average time to complete OH IR inspection in 2020 for one circuit mile = ~1 hour
- f. There are currently no qualified contract employees performing this work; this work will begin ~May-Oct 2021, during hotter weather months/heavier circuit loading.
- g. N/A – see answer to (f); Overhead IR is performed entirely by contractors.