



Pole Test and Treat Program

Background & Responsibilities

Wildfire Mitigation Plans_DR_Cal Advocates_046-Q03_Atch01



- PT&T was initiated at PG&E in 1994
- PG&E inspects every pole in a 10year cycle which is above the GO 165 minimum requirement of 20 years
- PG&E currently tests about 240,000 poles each year
- Prior to 2018, PG&E focused PT&T on 3-4 divisions per year with a few additional poles tested in each division
- 2018 going forward, PT&T to focus on 11-19 divisions per year
- Distribution Wood Pole Inspections (General Order 165)
- Transmission Wood Pole Inspections (General Order 165)
- Off-cycle Inspections (General Order 95 Rule 44.2)
- Pole Reinforcement

Objective & Program Volumes

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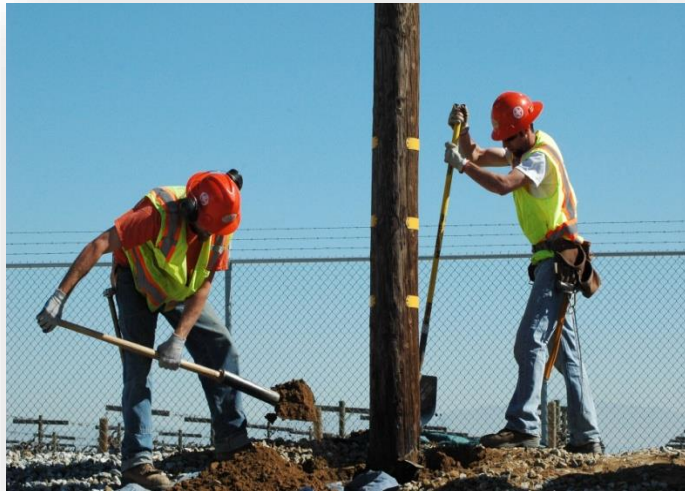


Cost-effectively maintain the safety and reliability of wood pole assets by:

- Intrusively inspecting wood poles on a regular cycle for early detection of deterioration;
- Prolonging the service lives of wood poles through reapplication of preservatives and/or restoration of structural strength through reinforcement;
- Identifying poles that are nearing the end of their service lives;
- Replacing wood poles as they approach the end of their service lives.

PTT	2014	2015	2016	2017	2018	2019	2020	2021
Inspect	173,589	305,859	282,835	244,479	138,730	221,497	232,500	270,000
Reinforce	3,838	12,310	11,065	5,232	5600	5000	4200	4000
Replace	1,159	3,702	4,801	2,908	N/A	N/A	N/A	

Pole Test and Treat Inspection



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".



Typical Pole Reinforcement job showing crew ready to drive steel along side of pole. Work typically takes one hour at the location from start to finish.

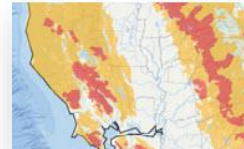


Finished job with steel truss banded to the pole.

- Approximately 10% of the poles in the PG&E system will have some damage or decay that can be measured and recorded.
- Approximately 5% of the poles in the PG&E system will have damage or decay to the extent that the pole cannot remain in service.
- Poles that are not suitable to remain in service are evaluated for reinforcement. Poles must have sufficient remaining strength at 26, 54, and 66 inches.
- Because most damage and decay to wood poles is between 1 foot below ground and 2 feet above ground, steel truss reinforcement is a cost effective way to repair a pole and return the pole to its original designed strength. Stubbing can be performed quickly and without a line outage. Average costs is approximately \$1,500 and the truss has a warranty of 25 years.

Current Focus

- Fire tier work



- USA ticket/pole volume



- Data collection

