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May 7, 2021

Ms. Nika Kjensli
Program Manager, ESRB, SED, CPUC
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Safety Issue Notification: Cellon-Treated Wood Poles

Dear Ms. Kjensli:

We are notifying you of a safety issue that we identified as a result of a Cellon-treated wood pole failure in Danville, California. The standard intrusive inspection method we use to inspect Cellon-treated wood poles may, in some cases, result in readings that do not accurately reflect the internal health of these poles. This risk is exacerbated by the quantity of older poles in our system and the increasing need to replace or reinforce these poles as they age.

On July 8, 2020, a Cellon gas-treated pole failed in a customer's backyard in Danville, CA. The 2015 and 2005 intrusive inspections failed to detect significant internal dry rot in the pole that led to the failure. We initiated an Apparent Cause Evaluation (ACE) in January 2021 and identified two apparent causes: (1) extensive internal dry rot and (2) failure to detect the rot during the previous inspections.

Although Cellon poles have not been installed since around 1989, we have approximately 543,560 Cellon-treated in-service wood poles, with a median age of 44 years. As part of the ACE, we analyzed Cellon pole inspection records and found that after poles reach approximately 42 years in age, the rate of intrusive inspection rejections increases versus non-Cellon poles, resulting in a greater need for reinforcement or replacement.¹

We also identified that the fumigant preservative used to treat inspection holes bored into the poles led to petrification of the wood immediately around the holes. Our procedures currently guide inspectors to re-use previously drilled boreholes to probe test for internal rot and to measure shell thickness. In this case, the petrified boreholes led to a misunderstanding of the actual shell thickness and hindered the detection of internal dry rot.

Overall, the aging population of our Cellon-treated poles combined with the potential that current probe testing methods do not detect actual internal wood conditions raises a safety concern, particularly for the poles located in populated areas.

¹ Approximately 70% of our Cellon-treated poles will be older than 42 years by 2022, and 100% by 2030.

We have developed a number of corrective actions to address the aforementioned risk factors:

- Develop enhanced inspection techniques that identify internal dry rot, including updating our inspection procedures by the fourth quarter of 2021 to require drilling a new bore hole during inspections to test for internal rot and shell thickness.
 - We have evaluated many alternative inspection techniques with our Pole Test and Treat team, and have explored best practices with Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Oregon State University (OSU) (a leading research institute on wood pole degradation). OSU and SCE have done studies on the impact of drilling extra holes on pole integrity. OSU found that with up to 6 holes, there is no integrity impact. SCE is drilling smaller holes, parallel to the preexisting holes.
- For Cellon-treated poles, evaluate whether there is a lower threshold for deterioration that would trigger corrective actions to replace or stub the pole.
- Develop a Cellon-treated pole risk score to prioritize inspection planning and prioritize stubbing and replacement of poles that require corrective action.
- Improve data quality captured on inspection forms.
- Review the training methods and procedures of our pole inspection subcontractors to look for opportunities to improve quality of work.

We will update the Commission when we have completed the ACE. It is anticipated to be completed by the end of May 2021. In the meantime, please contact me at (415) 420-0422 for any additional questions you may have regarding this notification.

Sincerely,

Lise Jordan,
Sr. Director, Regulatory Compliance and Quality Assurance

cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Banu Acimis, Program & Project Supervisor, ESRB
Charles Mee, Senior Utilities Engineer, Specialist, ESRB, SED, CPUC
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