



August 15, 2008

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COMMISSION  
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VIA HAND DELIVERY

Ms. Ann Cole, Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: *Petition to modify wood pole inspection plan by Progress Energy Florida, Inc.;*  
*Docket No. 080256-EI*

Dear Ms. Cole:

Please find enclosed for filing on behalf of Progress Energy Florida, Inc. the original and five (5) copies of its response to Staff's second data request dated August 8, 2008 in the above referenced docket.

Thank you for your assistance in this matter. Please call me at (727) 820-5184 should you have any questions.

Sincerely,

*John T. Burnett lms*  
John T. Burnett

COM JTB/lms

ECR Attachments

GCL *CP forwarded to GCL*

OPC

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DOCUMENT NUMBER-DATE

07316 AUG 15 08

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**PROGRESS ENERGY FLORIDA, INC.'S RESPONSES TO STAFF'S SECOND DATA REQUEST**  
**Docket No. 080256-EI**

- Q1. Section 5 of the petition states: "In reviewing Osmose's inspection data for the year, PEF found that resistograph inspection results were equivalent, but not superior, to results obtained by traditional methods used for inspection." Please provide all the inspection data Osmose used, as discussed in Section 5 of the petition.**

Answer:

*Please see Attachment A - Osmose's Resistograph summary.*

*Please see Attachment B - CD containing Osmose's inspection data (Excel file).*

- Q2. Given the statement above, should PEF consider revising Section 2b(ii) of the Comprehensive Wood Pole Inspection Plan which states: "In order to improve the results provided by traditional sound and bore on such poles, PEF plans to use a drilling resistance measuring device where excavation at the ground line cannot be achieved."?**

Answer:

*Yes. PEF is seeking permission to make such a revision in this docket.*

- Q3. Does PEF currently perform a resistograph inspection as well as a sound and bore inspection on all concrete encased poles?**

Answer:

*No.*

DOCUMENT NUMBER-DATE

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***Progress Energy Florida  
Resistograph Pilot Program Summary  
January 14, 2008***

**Objective:** Assist Progress Energy-Florida (PEF) in meeting their commitment to the Florida PSC to evaluate new technologies for inspection of poles in concrete.

**Approach and Methodology:**

1. Target sample of 360 poles generated from 2007 pole inspection database (previously-identified rejects and non-rejects).
2. Standard inspection protocol jointly developed with advice from manufacturer of three drillings per pole—one at 90 degrees at groundline through the entire pole to provide pole cross section and diameter measurement, and two at 45 degrees at groundline, one drilling to be targeted in line-of-lead, and one at 90 degrees to line-of-lead, subject to adjustment for riser location, pedestals and other obstructions/safety hazards.
3. If evidence of significant decay pocket(s) detected on graph profile, or if Resistograph results differed from original Osmose inspection, pole was re-inspected using traditional Osmose methods (sound and bore, shell bore, partial excavation where possible) to provide PEF with final assessment of pole condition and restorability (if rejected).
4. Pilot deliverables to include project summary, spreadsheet detailing pole information and Osmose/Resistograph inspection results, and electronic copies of all graph profiles obtained during the inspection process.

**Summary of Results:**

- Total Poles Inspected: 345; Total Reject Poles 94
  
- Osmose Pass/Resistograph Pass: 232
- Osmose Fail/Resistograph Fail: 73
- Osmose Pass/Resistograph Fail: 19
- Osmose Fail/Resistograph Pass: 21

*Note:* Osmose identified 34 poles as rejects upon re-inspection that were not rejected on the first-pass inspection. There were a total of 40 poles where the interpreted results from the Resistograph drillings did not agree with Osmose's final assessment of pole condition. The majority of the second-pass rejects identified by Osmose were a result of additional borings and, where possible, partial excavation to better assess below-groundline condition.

**General Comments/Observations:** Several factors impact the accurate interpretation of the graph profiles and the final assessment of pole condition. The knowledge and experience of the field inspector is key in determining the extent of the decay and whether or not a pole is able to remain in service. The 90 degree drilling at groundline to measure pole diameter provides no benefit in detecting decay below groundline. The 45 degree drillings can still miss decay pockets (depending on the locations selected for

drilling), and more importantly, don't always provide an accurate identification of shell rot below groundline . Factors such as pole checks (cracks) and previously-drilled fumigant holes can influence the path and/or resistance readings from the drill bit and add additional challenges to the accurate interpretation of the graphs. Depending upon the diameter of the pole, stopping the 45 degree drilling before it exits the pole on the opposite side to prevent bit damage can also result in an incomplete picture of below-ground shell condition. As with traditional methods, the final assessment of a pole's condition without full excavation is not completely objective, and therefore a more conservative criteria must be applied when there is an indication of possible decay.

To validate Osmose's interpretation of the Resistograph results, a representative sample of eighteen (18) poles were sent to IML (Oliver Hein) for review. There was agreement on nine (9) poles, additional borings on six (6) poles were recommended to make a determination based on the Resistograph readings alone, and there was not agreement on three (3) Osmose-rejected poles.