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COMMISSION  
CLERK

November 13, 2006

HAND DELIVERED

Ms. Blanca S. Bayo, Director  
Division of Commission Clerk  
and Administrative Services  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Review of all electric utility wooden pole inspection programs  
FPSC Docket No. 060531-EI

Dear Ms. Bayo:

Pursuant to Order No. PSC-06-0778-PAA-EU, dated September 18, 2006, in the above docket are the original and fifteen (15) copies of Tampa Electric's Company's revised Wood Pole Groundline Inspection Program. The order required the company to address two issues: 1) poles in concrete or pavement, and 2) the inspection cycle for CCA poles. The inspection modification for poles in concrete or pavement is italicized in the Excavation section of Inspection Procedure on page 2. The modification for the inspection cycle of CCA poles is italicized in the Inspection Cycle section on page 1.

With these revisions, Tampa Electric requests Commission approval of its Wood Pole Ground line Inspection Program.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

- CMP \_\_\_\_\_
- COM 5 \_\_\_\_\_
- CTR \_\_\_\_\_
- ECR \_\_\_\_\_
- GCL \_\_\_\_\_
- OPC \_\_\_\_\_
- RCA \_\_\_\_\_
- SCR \_\_\_\_\_
- SGA \_\_\_\_\_
- SEC 1 \_\_\_\_\_
- OTH \_\_\_\_\_

Thank you for your assistance in connection with this matter.

Sincerely,

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FPSC-BUREAU OF RECORDS

Lee L. Willis

LLW/pp  
Enclosure

cc: All Parties of Record (w/enc.)

DOCUMENT NUMBER-DATE

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Ms. Blanca S. Bayo  
11/13/2006  
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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing revised Wood Pole Groundline Inspection Program, filed on behalf of Tampa Electric Company, has been served by hand delivery(\*) or U. S. Mail on this 13<sup>th</sup> day of November 2006 on each of the following:

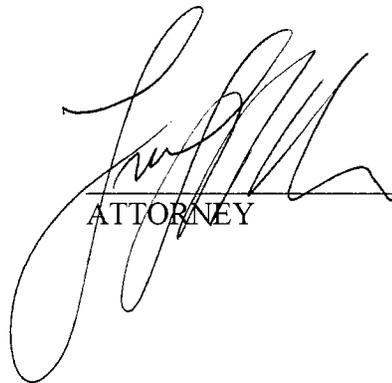
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ATTORNEY

**ORIGINAL**

**TAMPA ELECTRIC COMPANY**

**WOOD POLE GROUNDLINE INSPECTION PROGRAM**

(Revised November 13, 2006)

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

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## **INTRODUCTION**

Tampa Electric's Wood Pole Groundline Inspection Program is part of a comprehensive program initiated by the Florida Public Service Commission for Florida investor-owned electric utilities to harden the electric system against severe weather and unauthorized and unnoticed non-electric pole attachments which affect the loadings on poles.

This inspection program complies with Order No. PSC-06-0144-PAA-EI, issued February 27, 2006 in Docket No. 060078-EI which orders each investor-owned electric utility to implement an inspection program of its wooden transmission and distribution poles on an eight-year cycle based on the requirements of the National Electric Safety Code (NESC). This program provides a systematic identification of poles that require repair or replacement to meet strength requirements of the NESC.

## **INSPECTION CYCLE**

Tampa Electric will perform inspections of wooden poles with transmission and distribution lines attached on an eight-year cycle. Tampa Electric has approximately 307,000 wooden poles included in a total in-service pole population of approximately 326,000. This represents approximately 20,000 wooden transmission poles and 287,000 wooden distribution poles. Approximately 12.5% of the system will be targeted for inspections annually although the actual number of poles may vary from year to year.

One type of wooden pole Tampa Electric utilizes is the chromated copper arsenate (CCA) pole. There is a wide belief within the utility and pole manufacturing industries as well as their respective trade associations that the longevity of this pole type is much greater than other wooden pole types. Tampa Electric's past practice has required a full pole inspection, including visual, sound and bore and excavation for CCA poles 20 years or older. A review of the 2004 and 2005 Tampa Electric pole inspection results of CCA poles revealed that CCA poles that are 20 years of age or older have a failure rate of less than 1%. *However, under this revised Wood Pole Groundline Inspection Program, Tampa Electric will perform a full inspection/excavation of all CCA poles with the inspection results being an integral part of the annual March 1 report filed with the Commission. Tampa Electric will continue to analyze CCA pole data annually to determine if a change in inspection cycle or procedure is warranted.*

## **INSPECTION METHOD**

Tampa Electric's inspection specifications shall include a visual inspection to be followed by sound and bore and excavation, as required.

## **INSPECTION PROCEDURE**

Tampa Electric will utilize three basis inspection procedures for determining the condition of wooden poles, including Southern Pine. These include an assessment by personnel prior to climbing poles in conjunction with other field work, a visual inspection from the groundline, and sound and bore with excavation.

### **Inspection in Conjunction with Other Field Work**

As part of day-to-day operations, personnel are sometimes required to climb poles to perform different types of field work. Prior to climbing any pole, personnel will make an assessment of the condition of the pole. This will include a visual check and may include sounding to determine pole integrity. This type of inspection will not replace the systematic inspection approach otherwise outlined in this pole inspection program.

### **Visual Inspection**

An initial visual inspection shall be made on all poles from the groundline to the pole top to determine the condition of the pole before any additional inspection work is completed. The visual inspection shall include a review of the pole condition itself and any attachments to the pole for conditions that jeopardize reliability and are in need of replacement, repair or minor follow-up. After a pole has passed the initial visual inspection, the balance of the inspection will be performed.

### **Sound and Bore**

After passing the visual inspection, the pole shall be sounded to a minimum height of seven feet above the groundline to locate any rotten conditions or pockets of decay inside the pole. Borings shall be made to determine the location and extent of internal decay or voids. All borings shall be plugged with preservative treated wooden dowels. After the pole has passed the sound and bore inspection, an excavation inspection will be performed.

### **Excavation**

The pole shall be excavated and sounded to a minimum depth of 18 inches below the groundline. Any external decay shall be removed to expose the remaining sound wood. The remaining pole strength shall be determined.

*For a pole in concrete or pavement, Tampa Electric will utilize the Osmose Utility Services, Inc. shell boring technique. This will consist of boring two 3/8 inch holes at a 45-degree angle to a depth of 16 to 18 inches below ground level. The technician will determine the pole strength by the resistance while drilling. Upon withdrawing the drill bit, the technician will examine the condition of the wood shavings to determine the extent, if any, of decay present.*

### **Hardware Inspection**

The inspector shall inspect all of Tampa Electric's guying, grounding provisions and hardware that are visible from the ground.

### **Inspection and Treatment Labeling**

After completion of the groundline inspection, an aluminum tag identifying the contractor and date of inspection shall be attached to the pole above the birthmark. Additionally, a tag shall be attached identifying any preservative treatments applied and the date of application.

### **Pole Attachment/Loading Analysis**

In some circumstances, Tampa Electric will conduct a pole loading data collection and analysis as part of the groundline inspection. The analysis will ensure that the condition of the pole meets the requirements in Table 261-1A of the NESC. The analysis will not be performed on poles having only Tampa Electric attachments since these facilities were addressed in the original design.

### **Data Collection**

The collected data shall be managed in a database and include information related to pole class, material, vintage, location, joint use attachments, deficiencies and required follow-up actions, if any.

## **DISPOSITION OF POLES**

Poles with early stage decay that do not require remediation to meet the NESC strength requirements shall be treated with an appropriate preservative treatment. Poles with moderate decay that have substantial sound wood shall be considered for reinforcement. Analysis shall be performed to determine if reinforcement will bring the deficient pole into compliance with the requirements of the NESC. If it is determined that the pole can be reinforced, the pole shall be treated with an appropriate preservative treatment and reinforced. Poles with advanced decay shall fail the inspection and be replaced.

## **ROUTING OF INSPECTIONS**

### **Distribution**

Tampa Electric's distribution system is a radial system with many laterals and service drops. The company has determined the most cost-effective and reasonable approach for routing the work of the annual inspection program is by geographic location. Therefore, inspectors will be given an area that is defined by specific boundaries and distribution poles within that area will be systematically inspected.

### **Transmission**

Tampa Electric's transmission system is primarily a network system with few laterals. The company has determined the most cost-effective and reasonable approach for routing the inspection work to be on a circuit basis. Therefore, annual inspections will be performed sequentially from substation to substation completing an entire circuit in the process.

## **SHARED POLES**

Tampa Electric supports the Commission's effort to establish pole inspection requirements on the owners of all utility poles. Tampa Electric will coordinate with third party owners of utility poles that carry the company's facilities. With regard to the third party's inspection process, the company will rely upon the third party's inspection requirements and share data requested by the third party to be utilized in their inspection procedure. Tampa Electric will cooperate, as requested, in the work associated with pole replacement where joint use exists.

## **STANDARDS SUPERSEDING NESC REQUIREMENTS**

Tampa Electric's Wood Pole Groundline Inspection Program complies with NESC requirements.

## **POLE INSPECTION PROGRAM PERFORMANCE VERIFICATION**

Tampa Electric will conduct quality control checks of both employees and contractor performed work as specified in its pole inspection services contract. This quality control inspection shall consist of selecting random poles and checking them against the inspection report for a given lot of completed work.

## **REPORTING**

Tampa Electric will file an annual Pole Inspection Report by March 1 of each year in full accordance with the reporting requirements set forth in Docket No. 060078-EI, Order No. PSC-06-0144-PAA-EI, issued February 27, 2006. The report will contain the methods used to determine the strength and structural integrity of wooden poles, the selection criteria for inspected poles, a summary of the results of the inspections, the cause(s) of inspection failures, and the corrective action taken for the failures.