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## **Timolyn Henry**

From:Donovan, Chrystal D [LTD] [Chrystal.Donovan@embarq.com]Sent:Friday, June 02, 2006 4:24 PMTo:Filings@psc.state.fl.usSubject:060077 Embarq's Response to Beth Salak's Memo regarding Embarq's Pole Inspection PlanAttachments:060077 Embarq Wood Pole DR.pdf

Filed on behalf of:

Susan S. Masterton Counsel Law and External Affairs- Regulatory EMBARQ 1313 Blair Stone Rd. Tallahassee, FL 32301 M/S FLTLHO0102 (850) 599-1560 v (850) 878-0777 f susan.masterton@sprint.com

Docket No. 060077-TL

Title of filing: Response to Beth Salak's Memo regarding Embarq's Pole Inspection Plan

Filed on behalf of Embarg

8 pages

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Embarg Corporation Mailstop: FLTLHO0102 1313 Blair Stone Rd. Tallahassee, FL 32301 EMBARQ.com

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June 2, 2006

Ms. Blanca Bayó, Director Division of the Commission Clerk and Administrative Services Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

.RE: Docket No. 060077-TL

Dear Ms. Bayó:

Enclosed for filing on behalf of Embarq Florida, Inc. d/b/a Sprint Florida f/k/a Sprint-Florida, Incorporated is our response to Beth Salak's memo dated May 19, 2006, regarding Embarq's Pole Inspection Plan. Copies have been served as per the attached Certificate of Service.

If you have any questions, please do not hesitate to call me at 850/599-1560.

Sincerely,

Shors notes -

Susan S. Masterton

Enclosure

Susan S. Masterton COUNSEL LAW AND EXTERNAL AFFAIRS- REGULATORY Voice: (850) 599-1560 Fax: (850) 878-0777 DOCUMENT NUMBER - DATE

04783 JUN-28

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## **CERTIFICATE OF SERVICE DOCKET NO. 060077-TL**

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by electronic mail this 2<sup>nd</sup> day of June, 2006 to the following:

Adam Teitzman Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Carl Vinson Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Lisa Harvey Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

**Rick Moses** Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Office of Public Counsel Harold McLean c/o The Florida Legislature 111 W. Madison Street, Room 812 Tallahassee, FL 32399-1400

Verizon Leigh A. Hyer P.O. Box 110, FLTC0717 Tampa, FL 33601-0110

Verizon Florida, Inc. Mr. David Christian 106 East College Avenue Tallahassee, FL 32301-7748

<u>SUBRS</u> Mostaliz Susan S. Masterton

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Voice Data Internet Wireless Entertainment

June 2, 2006

TM EMBARQ TM Embarg Corporation Mailstop: FLTLH00201 1313 Blair Stone Road

Tallahassee, FL 32301 EMBARQ.com

Ms. Beth Salak Director, Competitive Markets and Enforcement Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Dear Ms. Salak:

Attached on behalf of Embarq Florida, Inc. d/b/a Sprint Florida f/k/a Sprint-Florida Incorporated is our response to your memo dated May 19, 2006, regarding Pole Inspection Plan.

If you have any questions, please do not hesitate to call me at 850/599-1027.

Sincerely,

F. Ben Poag // Director – Regulatory Affairs

cc: Susan S. Masterton, Sprint

Enclosure

 F. B. (Ben)
 Poag

 DIRECTOR - RECULATORY AFFAIRS
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## FPSC DATA REQUEST REGARDING POLE INSPECTION PLAN

1. Please identify and describe the tracking system Sprint will use to differentiate between its greater than 30 feet and less than 30 feet poles, and explain how these different categories of poles will be managed in the company's system.

Response: Embarq Florida, Inc. (Embarq) utilizes the Engineering Work Order system (EWO) to design and track the placement of plant facilities such as poles, cable and other network elements. The system employs attachment data panels which provide pole data including size/class, year placed and ownership. The panel also includes a comment section to record additional data. Queries are used to extract facility data such as pole height and class based on input criteria.

2. When a pole is transitioned or replaced from a non qualifying pole to a larger, qualifying pole (due to the addition of electric components), please describe the steps Sprint will take to add the pole(s) into its inspection database.

Response: Poles owned by Embarq are replaced using a work activity to ensure the accounting and costing information of the retirement, salvage or disposition of the old pole is captured, as well as the accounting and costing information associated with the placement of the newer, larger pole. In conjunction with the work activity, the pole removal and replacement is recorded in the EWO system. As noted in the preceding response, data is populated in the attachment panels denoting size/class, year placed and ownership. Reports can be pulled using various query criteria including pole height, class, etc.

3. The PAA Order states that all southern pine poles will be excavated according to the Rural Utilities Service (Department of Agriculture) standards. Does Sprint plan to comply with this portion of the Order? If so, please describe how Sprint will conduct its excavation inspections.

Response: Southern yellow pine is recognized throughout the industry for its wood fiber strength and has been adopted by Embarq as its wooden pole standard. As poles are inspected and give evidence of potential decay or safety affecting damage the inspector will excavate with a shovel to a depth of approximately 16 inches and bore on a 45 degree angle to determine/validate the condition of the pole.

4. Please explain how, absent any excavation of poles, the company intends to determine whether external shell rot is present in its poles?

Response: External shell rot can be determined through visual inspection and in conjunction with the sound and probe methodology. External decay/rot will be evident not only visually but also by the deadened sound produced when the pole is struck with a hammer.

5. The Commission Order states that each company will maintain records of the strength impact assessments of its pole attachments. Does Sprint currently maintain such records? If not, please describe what steps Sprint will take to inspect and document load on each pole.

Response: Embarg currently does not maintain records of post-construction pole load strength for Class 5 poles. Embarq uses Class 5 poles for its construction for telephone, cable and CLEC attachments, versus Class 7 poles. Given the Class 5 poles are more than required for such attachments, load calculations for Class 5 poles would be an uneconomic utilization of resources. Embarq adopted the 30 foot class 5 pole as its standard for its additional structural strength even though a smaller class 7 pole would provide the required strength to support the telephone attachments and those of CATV, electric company attachments and attachments of Competitive LECs. Our desire to do it right the first time is a key reason for the higher standard pole and prevents the added cost of rework should a stronger pole be required due to the previously mentioned additional attachments. Class five poles have a greater breaking strength and provide longer duty cycles. The class 5 pole circumference at the top is 19 inches whereas the class 7 pole is 15 inches. The additional four inches at the top of the pole adds significant strength.

Poles 35 feet in height and greater carrying electric distribution cable exceeding 750v as prescribed by section 26 (216A2(e)) of the NESC facilities will be evaluated for the number and type of attachments. Owners of those attachments will be contacted for the specific size and weight designators required to determine stress factor on the poles. Once Embarq has that data the load stress on those facilities can be calculated, recorded and stored in the Embarq Engineering Work Order system. Poles exceeding the limits will be corrected and added to the annual report to the commission.

6. Please describe the planned enhancements to Sprint's load calculation program mentioned on page 3 of the proposal. Please provide the expected date of completion.

Response: Embarq will continue to develop system requirements and where cost-justifiable, make enhancements to its engineering systems, e.g. EWO, to programmatically calculate, capture and track load calculation on a pole-by-pole basis. By July 31, 2006, Embarq's current manual methods will be

replaced with a process using an automated process which, based on user inputs, will calculate load conditions.

Embarq engineering will evaluate the current software programs designed to assist the pole owners' calculation of load and stress factors as attachments are placed ensuring the safety and integrity of Embarq poles.

7. Please provide any documents including reports, studies, articles, or correspondence that discuss weakening of telephone or utility poles caused by traditional drilling or boring testing.

Response: Embarq has no internal data or studies that discuss the weakening of telephone or utility poles caused by traditional drilling or boring related testing. This is not to imply data does not exist. As recently as May 2005, Nelson G. Bingel III, Chair - ANSI O5, Principal - NESC discussed results of wood pole strengths and pole strength related issues, including the impact of drilling or boring of poles and the spacing of holes on poles. His presentation can be found at <u>www.wwodpoles.org</u>. Embarq is in the process of contacting Mr. Bingel to obtain supporting detail for his presentation.

Basic physics shows that if you remove some portion of mass from a structure, the density of the solid is compromised as the corresponding areas around the hole (where the mass was removed) are weakened. Existing remediation efforts, e.g. plugging/filling the bore/drill area, are designed to slow water and bug penetration but do not provide the same level of protection as a pole that has not been bored.

8. Is Sprint currently taking any efforts to critically evaluate Resistograph or other alternative pole testing technologies? Please describe such actions and anticipated results.

Response: Yes. Embarq has reviewed the data provided by IML, manufacturer of the Resistograph and is preparing to field trial the tool and processes. Evaluation is expected to be complete by July 31, 2006. The process, while similar to existing bore and test methodologies, is less intrusive due to a smaller bore hole. Anticipated results are increased structural integrity over current methods and the ability to view data in a standard, electronically generated graphical format that can be interpreted in a consistent manner.

9.

a. Approximately how many poles are inspected annually under the "normal course of business?"

Response: Embarq does not maintain records on the frequency of access to poles. However based on aerial work activities (service orders, trouble tickets, etc.) we estimate that approximately 25% -

33% of Embarq's poles are accessed either via climbing or aerial lift truck during the course of business each year. As previously shared with Staff, all poles are subject to sound and probe testing before climbing or working on the pole.

b. What situations trigger this inspection and what exactly does the inspection currently involve?

Response: The Embarq focus on the safety of its employees and customers is paramount. Company and authorized contract personnel perform pole inspections to prevent injury to technicians or damage to facilities or public or private property. Inspection methods include sounding and probing, as well as stress testing the pole with a rope or pike pole.

c. Are all class N poles equally likely to receive such an inspection, or are some mid-span poles inherently unlikely to be inspected?

Response: All poles that are accessed in the course of service order, repair ticket or work construction activity are inspected. There are no mid span poles in N grade construction.

d. How are these inspections currently documented?

Response: As previously shared with Staff in DR-1 and DR-2, all poles requiring further inspection or obvious replacement are documented via the Irregular Plant Condition (IPC) report which is forwarded from the service or field technician immediately to engineering.

10. Would Sprint consider including some mid-span poles in the "higher risk" category?

Response: Yes if the mid-span pole is part of a lead that carries electric circuits that exceed 8.7KV. Typically the electric company places shorter mid-span poles which are designed only to support the attachments of CATV, Telephone and other communication facilities, the electric company does not attach to the mid-span pole. Mid-span poles are supported by the messenger strand strung between poles and since they are not normally climbed they are only checked prior to new facility placement, a request from a foreign entity to place a facility or normal upgrades however, when visible signs warrant; a more detailed inspection is performed.

N grade construction is designed primarily for telephone pole lines and does not require mid span poles because telephone span lengths are 150' or less and the 6000 lbs tensile strength strand strung between poles which effectively serves as an overhead support guy and provides an additional safety measure as noted in the National Electrical Safety Code section 261 2 (e). Normal spacing of telephone poles is approximately 150 feet; adding a pole in between would not improve safety protection or increase the strength. Mid span poles are normally placed on B and C grade construction employed by the electric utilities because their spans are significantly longer, approaching and exceeding 300 feet, and their wire attachments do not provide the 6000 lbs. tensile strength of the telephone company's aerial strand

11. What is Sprint's intention for inspecting "new" poles? (i.e. Where/how will they be inserted in the inspection queue?)

Response: New poles will be inspected when they reach the age of ten "in-service" years.

12. Under current inspection methods, please define what criteria Sprint uses to determine, which poles are defective and should be reported by personnel to engineering for structural bracing or replacement.

Response: See Embarq's response to question number 9.