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verizon

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February 14, 2006

Mr. Tripp Coston
Division of Competitive Markets and Enforcement
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Telephone Pole Maintenance Review

Dear Mr. Coston:

In response to Lisa Harvey's letter dated February 3, 2006, attached are Verizon Florida Inc.'s (Verizon) responses to the draft copy of the Verizon chapter from the Review of Pole Inspection and Maintenance Practices of BellSouth, Sprint, and Verizon.

Verizon has made certain line item edits to correct factual inaccuracies in the recitations in sections 5.1-5.3. The absence of specific corrections to facts in these sections should not be construed by the Commission or Staff as agreement by Verizon with the characterizations, implications, or assumptions drawn by Staff from those facts. Verizon has outlined its disagreements with Staff's conclusions and characterizations in section 5.4 of the draft report.

In addition, Verizon has identified factual information in the draft audit report for which it claims confidential treatment under the Commission's rules. A sealed envelope containing the confidential information is attached together with the Company's Notice of Intent. This filing is made under a Claim of Confidentiality pursuant to F.S. 364.183(1) and Rule 25-22.006. Verizon considers the highlighted information in this letter to be confidential because it contains customer specific information that would benefit competitors. Verizon understands the information will be kept confidential in the final audit report.

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If you require additional information, please do not hesitate to contact me at 850-224-3963 or Frank App at 813-483-2521.

Sincerely,

David M. Christian

David M. Christian
Vice President
Regulatory Affairs Florida

Attachments

FLORIDA PUBLIC SERVICE COMMISSION
AUDIT DOCUMENT/RECORD REQUEST
NOTICE OF INTENT

TO: Mr. Frank App
UTILITY: Verizon Florida
FROM: Tripp Coston — Tripp Coston (Audit Manager)

REQUEST NUMBER: Responses to draft audit report DATE OF REQUEST: 02/03/06
AUDIT PURPOSE: Review of Telephone Pole Maintenance Operations
REQUEST THE FOLLOWING ITEM(S) BE PROVIDED BY: 2/10/06 (extended to 2/14/06 per Tripp Coston)

REFERENCE RULE 25-22.006, F.A.C., THIS REQUEST IS MADE:

___ INCIDENT TO AN INQUIRY
X OUTSIDE OF AN INQUIRY

ITEM DESCRIPTION:

Confidential information on pages 5-1, 5-3, 5-4, and 5-9 of draft audit report

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TO: AUDIT MANAGER Tripp Coston DATE: _____

THE REQUESTED RECORD OR DOCUMENTATION:

[X] (1) HAS BEEN PROVIDED TODAY

[ ] (2) CANNOT BE PROVIDED BY THE REQUESTED DATE BUT WILL BE MADE AVAILABLE BY

[ ] (3) AND IN MY OPINION, ITEM(S) SEE ABOVE IS(ARE) PROPRIETARY AND CONFIDENTIAL BUSINESS INFORMATION AS DEFINED IN 364.183, 366.093, OR 367.156, F.S. TO MAINTAIN CONTINUED CONFIDENTIAL HANDLING OF THIS MATERIAL, THE UTILITY OR OTHER PERSON MUST, WITHIN 21 DAYS AFTER THE AUDIT EXIT CONFERENCE, FILE A REQUEST FOR CONFIDENTIAL CLASSIFICATION WITH THE DIVISION OF RECORDS AND REPORTING. REFER TO RULE 25-22.006, F.A.C.

[ ] (4) THE ITEM WILL NOT BE PROVIDED. (SEE ATTACHED MEMORANDUM)

_____
(SIGNATURE AND TITLE OF RESPONDENT)

Distribution: Original: Utility (for completion and return to Auditor)
Copy: Audit File and FPSC Analyst

PSC/RGO-6 (Rev.6/00)

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5.0 Verizon Florida

5.1 Company Operations

Verizon Communications Inc. provides domestic wireline telecommunication services to customers in 29 states including Florida. In Florida, the company provides service within six counties in and around the Tampa metropolitan area. The company services approximately 1,998,995 business and residential access lines within the state.

The company owns approximately 107,863 poles in Florida and leases space on approximately ~~**391,303**~~ **381,303** poles owned by electric utilities. Verizon also leases space on 29,632 of its poles to electric utilities and 36,634 of its poles to competitive local exchange carriers and cable companies under joint-use agreements. The majority of Verizon's poles are class ****** and are **** feet in length with an average age of ** years in service.

The company's pole facility and maintenance responsibilities fall within its construction and operations group. In Florida, the company has 1,642 employees within the **construction and** operation ~~**and maintenance**~~ division**s** **that are involved in "business-as-usual outside work"**, with 559 in Construction and 1,083 in Customer Operations. The company does not have a specific group or division whose responsibility is pole maintenance and upkeep. Each operation and maintenance employee is directed to monitor the pole's stability when work is being performed on a pole or its attached facilities. The company's Outside Plant Engineering group has 97 employees who are involved in pole design and management support activities. Of these, 59 are Plant Engineers who conduct visual pole inspections in preparation of area construction projects.

5.2 Inspection Activities

The company does not conduct scheduled inspections of all its poles over a specific period of time. The company also does not have a program for maintaining poles in its system within a prescribed timeline. Each employee is responsible for testing the structural stability of the pole prior to climbing or performing maintenance.

There are accepted industry practices for extending the life of a utility pole. A pole can be treated with preservatives or fungicide to assist in deterring wood rot. Also, bracing can be added to provide additional support to a pole that has lost a portion of its structural soundness. Verizon does not conduct this type of remedial or preventative maintenance on its poles. Rather, company management states that when it determines a pole no longer meets its strength standards, the pole is replaced. Company management stated that it conducted a study in the mid-1980s and determined that the cost of preventative pole maintenance did not warrant the limited benefits received. The company states that it is not as costly to transfer telecommunication components when a telephone pole is replaced as it is to transfer electric lines and components. Therefore, the telephone company has less

cause to perform inspections and treat or brace poles. Verizon also stated that poles that do not have electrical components attached do not pose as great of a public safety risk. Verizon states that each electric utility regularly monitors and inspects both its own poles and any Verizon-owned poles that carry its electric components.

The company does not have defined objectives and standards in place to guarantee that its pole system is structurally sound. Also, the company does not monitor the condition of each pole to ensure the structural integrity is maintained to the standards of the NESC. When a technician is scheduled to work on a pole and does not believe that the pole is structurally sound to climb, the technician marks the pole identifying it as unsound and reports the pole for replacement to management. When a pole has been marked as needing to be replaced, a manager reevaluates the pole prior to requesting replacement.

The company does not itemize its budget to include maintenance, monitoring, or inspection of its poles. The company includes its pole maintenance expenditures within its overall operations and maintenance budgets. Staff is not able to determine the amount the company has spent in the areas of pole inspection and maintenance during the review period.

5.2.1 **Policies. Procedures** and Training

The company has safety procedures in place that instruct technicians on how to determine the structural integrity of a pole prior to climbing. These procedures outline the when and how an employee makes this determination. This includes visual assessment, sounding assessment, and testing for internal voids or decay with a prod or screwdriver.

Verizon stated that these procedures are universal for all states in which Verizon operates in and are not Florida specific and, in some cases, are not how Florida technicians handle a defective pole. The procedures contain a section on Handling Defective Poles which outlines, for example, how to tag a pole as defective. The procedures state that there are two classes of defective poles: "B class" and "C class." The B class poles are poles that are defective but not requiring immediate replacement and a C class pole requires immediate replacement. The procedures do not differentiate what criteria are used to determine if a pole is "B class" or "C class." However, Verizon management states that technicians in Florida do not use this classification and that all defective poles are tagged to be replaced. Also, the tag illustrations shown in the procedures are not the same as the current tags being used within the state.

5.2.2 Inspection Results

Verizon does not maintain records or a database of any inspections conducted by field technicians on its poles. The company does track the number of poles its replaces

annually for various causes such as deterioration or new placed poles. For the review period, Verizon replaced 1,004 poles in 2002; 1,056 poles in 2003; 1,064 poles in 2004; and 858 poles through December 16, 2005. This represents approximately one percent of its poles per year.

5.2.3 Internal Audits

Verizon does not perform root cause analysis on poles replaced. At a minimum, root cause analysis of pole failures could identify the causes of failure. This specific outage data on pole failures could be captured and provide some indication of effectiveness of company maintenance efforts. Root cause analyses would help Verizon to establish appropriate controls to limit exposure to the company.

With no organized or routine pole inspection or maintenance program, the company does not have a specific process to monitor or audit these activities internally. In 2002, however, Verizon did have an outside consultant group perform a sample review of its pole records.

Verizon contracted with an outside firm, **********, to conduct an audit of its poles within a sample portion of its territory in and around metropolitan Tampa. This audit reviewed a sampling of Verizon's poles to be located, visited, and visually inspected for obvious problems and safety issues. These inspections did not include sounding or boring. Verizon provided the audit group a sampling of ********** exchanges.

********** was unable to locate ***** of the ****** poles identified by Verizon for the review, representing approximately ** percent of the poles mapped by Verizon. Additionally, **** located an additional ***** poles not originally mapped by Verizon as being in the territory. Of the poles located, **** determined *** (*** *******) were freestanding with no components or attachments. These were poles that the company had removed from service but not from the ground.

**** determined that ** of the ****** poles located (**********) were defective and needed to be replaced. Verizon did not have **** make any determinations about whether any of the sampled poles could be improved by either treating or bracing. Also, the company did not make a determination regarding how much structural life of each pole still retained.

Verizon states that it has updated its records and database to reflect the ***** poles that were located and that it has deleted the ***** poles **** could not locate. Verizon management states its pole facilities were transitioned from a paper recordkeeping system to an electronic database in the 1980's. Verizon believes that the incorrect pole information occurred during the conversion.

Verizon management states that it does not believe all aspects of the review by **** are representative of its entire territory. The **** exchanges represented in this sample represent some older, urban areas and, because of the older system, there is more opportunity for incorrect data in the company's records. Verizon does, however, believe that the low number of defective poles does show that its overall pole system is structurally sound.

5.3. Joint-Use Agreements

Verizon has established joint-use agreements with utilities and companies within its service territory. This allows each company to jointly use the same pole to serve its customers. This arrangement eliminates the need for multiple utility poles along the same corridors. Each agreement allows both companies to attach facilities to either company's poles.

Verizon has an agreement with seven electric utilities, nine cable companies, and six telecommunication companies. Currently, Verizon leases space on ~~**391,303**~~ **381,303** poles from seven different electric utilities. Verizon also leases space on 29,632 poles to these seven utilities. Along with the electric utilities, Verizon leases space on 36,634 of its poles to cable providers.

Verizon has two groups that manage its joint-use relationships with other utilities. One group is responsible for negotiating its contracts, and the second group is the liaison for each utility to make sure all maintenance and installation work is done in accordance with the contracts.

The contracts with the electric utilities were signed in the 1960s and 1970s. Several of the companies have made additions or deletions to the agreements through the years, but the major components are universal among the electric utility agreements. Verizon management states it periodically works with each utility to review the structure of its agreements and makes additions or deletions to the agreements as needed, usually every five years. Currently, the company is in negotiations with three utilities to update joint-use agreements. The result of these negotiations will be a completely new joint-use agreement for each company.

Each contract contains specifics on the types of poles used, the standards by installing and. maintaining each pole, and each company's liability in the use of each pole. Specifically, the agreements state the owner of each pole must maintain its poles in a safe and serviceable condition as set forth in the NESC. The contracts also state how each company must handle the replacement or relocation of a pole or series of poles.

Verizon uses the services of the National Joint Utilities Notification System (NJUNS) to assist in notifying its joint-users of a pole replacement. This is a voluntary electronic system that allows companies to report when a new pole has been placed or

an existing pole has been replaced within its facility. This allows its joint-users (if they choose to use this service) to receive transfer information and allows the user to more quickly remove or reattach its components. Verizon states that most of its major joint-use utilities subscribe to this service. For the utilities that do not subscribe, Verizon's construction group notifies those utilities directly when a pole has been placed.

During normal working conditions, Verizon conducts all of the maintenance on its poles. If a joint-user identifies a problem pole, the utility notifies Verizon of the problem. Verizon will create an electronic work order within its work order database system and an employee will be dispatched to make any necessary repairs. If a pole is replaced, the maintenance group will update Verizon's Continuing Property Records system to reflect the new pole data. The information is also added to the NJUNS system for its joint-users.

There are times when an emergency situation requires joint-users to make necessary repairs to or replacement of, a Verizon pole, such as post-hurricane or during storm recovery periods. If a joint-use utility repairs or replaces a Verizon pole, the company notifies Verizon's joint-use group of these changes, and Verizon retains possession of the new pole. Verizon will send its maintenance group to the pole to verify the work and to make any changes to Verizon's components. Verizon then updates its systems to reflect the newly installed pole. Verizon does not, however, track the number of poles its joint-users replaced on Verizon's behalf. Each new pole is recorded into its system as if a Verizon employee conducted the work.

The rising number of multiple joint users on each pole carries with it increased risk of creating more stress than a pole can sustain. Multiple attachments can increase the potential for failures due to unbalanced or overweight conditions. This potential risk makes it prudent and necessary for companies to concurrently increase the number and type of inspections so that all wood poles can be accurately assessed for overloading.

5.4 Conclusion

Staff notes the following specific findings for Verizon:

Finding 1

Verizon does not conduct scheduled inspections of its entire wood pole inventory for deterioration and overloading as prescribed by the National Electric Safety Code.

The National Electric Safety Code (NESC) establishes standards and acceptable practices for utilities to ensure the safety of employees and the general public. These standards include safety rules for overhead electrical lines. Verizon states that all of its 107,863 poles are installed and maintained in accordance with the NESC standards. While

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Verizon provides telecommunication services to its customers, the company allows electric utilities to attach overhead electric distribution conductor cable and other components to its poles. As of December 2005, approximately 29,632 Verizon-owned poles carried electric conductor cable and other distribution components.

The Florida Public Service Commission has adopted the NESC requirements to govern telephone plant construction, safety, and maintenance. Rule 25-4.036, Florida Administrative Code (Design and Construction of Plant), states facilities "shall be designed, constructed, installed, maintained, and operated in accordance with provisions of the 2002 Edition of the National Electric Safety Code (JEEE C2-2002) and the National Electrical Code (NFP A 702005), pertaining to the construction of telecommunications facilities." In NESC Section 26 (Strength Requirements), the standards state that all poles equal to or less than 18 meters (60 feet) must be maintained to a strength standard of two-thirds its original strength at installation. If the pole's strength falls below this standard, the pole should be strengthened or replaced. Also, in Section 21, Subsection 214a, the code states that all "lines and equipment shall be inspected at such intervals as experience has shown to be necessary."

Verizon does not conduct routine or scheduled inspections of its entire inventory of installed poles. Instead, the company states that every Verizon employee is to verify the condition of any pole where work is being performed. However, when an employee verifies the condition of a pole, a complete sounding and boring test is not required.

Under this approach, only poles whose components require servicing receive this limited inspection. This allows the vast majority of the poles to go unmonitored for extended periods of time. Without a scheduled, cyclical inspection program of the entire inventory, Verizon cannot assume that all poles are in good and safe condition and cannot know whether it is complying with the above NESC requirements.

Given the lack of scheduled inspections, the condition of the overall plant cannot be known with any specificity. It is critical for a utility to monitor and inspect its plant facilities. In light of the recent weather phenomenon in Florida which is expected to continue in future years, not placing the necessary focus on pole infrastructure exposes the company to potential service interruptions and possible public safety concerns. If Verizon does not inspect and maintain poles to industry standards, the services of joint users could be compromised. Failure to establish a routine pole inspection program may result in preventable and prolonged out-of-service conditions and may constitute less than full compliance with NESC standards.

NESC requirements can only be met if Sprint is conducting pole inspections of a sufficiently detailed nature to detect the specific degree of pole impairment. Inspections must be conducted on a number of poles such that the results are statistically reliable. Neither visual nor sounding inspections provide the level of data necessary to determine a percentage of strength toss.

Company Response:

Contrary to Staff's conclusion, Verizon fully complies with the requirements within the National Electric Safety Code (NESC). Verizon designs and maintains its pole infrastructure according to NESC industry standards and conducts inspections of its wood pole inventory during the normal course of its work operations.

Rule 214A of the NESC requires that inspections be conducted "at such intervals as experience has shown to be necessary." The NESC further states that "In general, the 'experience' referred to is that of the utility responsible for operation and safety of the facilities in a manner to secure adequate and reliable results." The 2002 Edition of the NESC clarifies in a note to Rule 214A2 "that inspections may be performed while performing other duties; separate inspections are not required."

It has been Verizon's experience that its current pole inspection procedures prevent system deterioration or unsafe conditions from materializing; Staff has not identified any evidence to the contrary. Under Verizon's current pole inspection practices, which are described in detail in materials presented to Staff in the course of this audit, Verizon conducts tests and inspections on poles during the normal course of performing work operations such as plant replacement, maintenance and service installation. In view of this work activity, Verizon's experience is that separate "scheduled" pole inspections are not necessary to maintain its plant in safe condition.

Finding 2

Verizon does not evaluate or document the root causes of its pole failures or assess the risks associated with potential pole failures.

Assessing risk of potential failure and conducting root cause analysis are valuable management practices. Currently, Verizon does not monitor or document the cause of any pole failure. When an in-service pole fails, the company replaces the pole under its normal pole replacement process. The company does not document or track the reasons for each failure. Collecting this data and conducting root cause analysis would allow the company to identify the cause of failure, collect applicable outage data resulting from failures (i.e., total customer interruptions by cause), and assess the risks associated with failure or potential failures.

The root cause analysis pertaining to pole failures provides some indication of the effectiveness of company maintenance efforts. This analysis would assist the company in establishing appropriate controls to limit its exposure, such as planned inspections of its entire pole inventory on a specified cycle.

Risk assessment, if coupled with a parallel maintenance program, could prolong the service lifetime of Verizon-owned poles in Florida and improve the overall storm resistance of its

plant. Lack of risk assessment and a proactive approach to maintenance can lead to increased pole failures in a storm and a corresponding increase in customer disruptions. The company may experience pole failures that could have been prevented if a program existed to identify risk and to correct recurring issues that compromise its poles. In the case of joint usage poles, such service disruptions are magnified by a factor of at least two.

Company Response:

Verizon fully complies with the requirements of the NESC with regard to documenting the "root cause" of pole failures. Verizon maintains relevant pole information – including the age, location, and size/class of pole – in an electronic database and maintains appropriate accounting records for its pole inventory. Root cause analysis, while it may sound like a useful exercise, has not been shown to provide useful information for predicting when and where the next pole will fail. In addition, environmental or other factors may cause one pole to deteriorate at twice the rate as a pole sitting right next to it. When inspections or tests identify that a defect in a pole exists, or if a damaged pole is reported, Verizon takes corrective action immediately and *replaces* the pole. There is no reason to track the condition of an old pole that is no longer in service. Under the NESC, no after-the-fact records regarding the reason the pole was replaced are required.

Verizon also disagrees that it is not "proactive" in its maintenance of the network. To the contrary, Verizon invests substantial capital resources in the maintenance of its network to ensure network reliability; this is an absolute necessity in the highly competitive market in which Verizon operates today. Verizon is also highly proactive in making improvements to its network, including spending hundreds of millions of dollars in underground fiber-to-the-premises facilities, which deliver substantial benefits to consumers as well as increased ability to withstand storm conditions. Concentrating on pole inspection in a vacuum ignores all of the other proactive measures that Verizon takes to maintain and improve network reliability and safety.

Finding 3

Verizon does not use a central monitoring system to track the condition of poles currently in service.

Verizon uses a computerized mapping system to maintain its property records but does not employ it to record or track results of inspections and the condition of poles. A centralized system to monitor poles' locations and conditions would allow the company to adequately maintain records and to accurately schedule and prioritize the inspection process.

Without a centralized monitoring system, Verizon cannot ensure its system's condition complies with NESC guidelines. The company cannot verify that each pole has

been inspected within a reasonable, regular, and recurring time frame and meets strength standards. A monitoring system coupled with a comprehensive inspection process could enable the company to better maintain oversight records on each pole and to more accurately predict its life cycle.

Company Response:

During the course of this audit, Verizon informed Staff that it uses a system called Integrated Computer Graphics System (ICGS) that shows the date the pole was placed, the location of the pole, and the size/class of the pole. While it is true that the system does not monitor pole condition (other than age), as stated in Verizon's response to Finding No. 2, the NESC does not require Verizon to record the condition of a pole that is no longer in service because it has been replaced, and as Verizon explained to Staff, a pole that does not meet appropriate standards is replaced immediately. It is speculative to conclude that a monitoring system coupled with an inspection program will be more effective in accurately predicting the life cycle of a pole. To the contrary, Verizon's experience is that scheduled inspections are not necessary to maintain pole plant in safe condition and that inspections conducted during the normal course of business are sufficient for this purpose. This is borne out by the fact that since ********** Verizon has received only *** claims related to poles for small property damage totaling less than ******. Moreover, no inspection policy can prevent poles from falling or being damaged due to Acts of God, falling trees, or motor vehicle related accidents, which do not discriminate based on the age or condition of poles.

Finding 4

Verizon's mapping system database of pole records may contain inaccurate information.

Verizon has a mapping system database that houses the location of each of its 107,863 poles within Florida. Verizon transitioned from a paper-based recordkeeping structure to an electronic database in the mid-1980s. In ****, Verizon contracted with an outside auditor to conduct a sample audit of its pole infrastructure for a portion of its territory around the Tampa area. The audit staff visited ****** poles ********** ********** in the Tampa, Florida area to verify Verizon's property records. The audit group also conducted visual assessments of the overall condition of each pole.

The audit stated that, of the ****** poles on the data sheet and record maps, ********** could not be located. Verizon management stated that these ***** poles were removed from the company's records as a result of the audit. The audit also located an additional ********** poles within the territory that were not listed in the database.

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The audit verified that Verizon did not have accurate pole records and maps. The company used this sample audit to gain an understanding of its poles infrastructure. The company updated its records to reflect the audit findings, but has not conducted any further review of its remaining territory. If this audit is representative of the overall service territory, approximately 20 percent of the company's pole records could be inaccurate.

Without an accurate pole database and mapping system, Verizon may not be able to respond in a timely manner to service continuity issues. Further, its accounting and depreciation records could be incorrect.

Company Response:

Staff's finding is based on a single pole audit that was conducted in 2002 at Verizon's request. Verizon admits that the audit identified some inaccuracies in Verizon's pole records; cleaning up records was one of the reasons Verizon performed the audit in the first place. Verizon strives to maintain accurate records and when errors are found they are corrected. Since records are continually updated, and have been in the four years since the audit at issue, Staff's claim that up to 20% of Verizon's pole records could be inaccurate is highly speculative.

More importantly, Verizon has not had any problems responding to service issues because of inaccuracies in pole records or the mapping database. Instead, Verizon relies on physical reviews and inspections to determine the best method to correct problems reported in the field, *not* pole records.