Control Number: 32182

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EMBARQ™

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Monday, December 01, 2008

Mr. James Galloway
Filing Clerk
Public Utility Commission of Texas
1701 N. Congress Ave.
Austin, TX 78701

Re: Project No. 32182 PUC INVESTIGATION OF METHODS TO IMPROVE ELECTRIC AND TELECOM INFRASTRUCTURE THAT WILL MINIMIZE LONG TERM OUTAGES AND RESTORATION COSTS ASSOCIATED WITH GULF COAST HURRICANES

Embarq emphasizes routines consistent to a Vegetation Management Program for Overhead Facilities. Engineering and construction activities are directed to reduce our exposure to weather and foliage hazards as follows:

1. During aerial plant construction, the construction personnel, company or contractor, will perform trimming in order to provide the required clearance.
2. For existing plant, field operations personnel identify through inspection and correct light vegetation issue in the routine performance of their duties. If the vegetation issue cannot be resolved in 30 minutes or less an Irregular Plant Condition (IPC) Form is created and submitted electronically by the technician. The IPC forms are collected in a database and reviewed by the field management personnel. IPCs are assigned to contract or company construction teams to be addressed.

Enclosed please find an original and ten (10) copies of this response.

If you have any questions regarding this matter, please feel free to call me.

Sincerely,

Samantha Rios
Embarq

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Conducting and Documenting Pole Inspections

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1.0 TARGET AUDIENCE

1.1 *Functional workgroup(s) impacted by this Method and Procedure:*

Workgroup	Workgroup	Workgroup
OSP Engineering	OSP Construction	Contract Labor
OSP Installation & Maintenance		

1.2 *Additional workgroup(s) impacted by this Method and Procedure:*

Workgroup	Workgroup	Workgroup
contract labor	Finance Decision Support	

2.0 PURPOSE

To provide uniform instructions for conducting pole inspections to ensure the safety and integrity of EMBARQ poles and associated attachments; to ensure adherence to National Electrical Safety Code (NESC); to ensure EMBARQ engineering and construction methods meet established E&C standards for height and strength criteria to safely carry imposed loads; to meet the requirements of Public Service Commission orders (as necessary); and to establish uniform procedures to identify and correct attachment violations and safety hazards, and facilitate replacement of poles that do not meet any or all of the preceding standards.

2.1 *Subject:*

Inspection of EMBARQ poles

2.2 *Background:*

Prior to 2006 a structured, uniform pole inspection procedure has not been part of the engineering and construction (E&C) methods and procedures. As a pole owner, EMBARQ must ensure the safety and integrity of aerial structures. Therefore it is necessary to conduct inspections to determine structural strength of poles owned by EMBARQ. In addition, when required Embarq must capture and record imposed loads and remaining attachment capacity on the Priority 1 poles (See GLOSSARY for description of Priority 1 and 2 poles). Inspections must be completed to satisfy the following concerns:

1 To ensure the safety of technicians, and foreign workers that make and maintain attachments to EMBARQ poles
2 To ensure the safety of the general public
3 Satisfy Public Service Commission pole inspection orders (where applicable)
4 Mitigate customer outages caused by pole failures during extreme weather conditions
5 Correct pole and attachment deviations from standards

It is also necessary for Embarq employees and contractors to perform a structural integrity test on any foreign-owned poles that they are working on directly or through an adjacent strand. While it is not a requirement to track these inspections, should the structural integrity tests fail, tape the pole as unsafe and notify your supervisor of the pole number, location and issue for correction. Your supervisor will then notify the pole owner of the unsafe condition.

Do not climb/place a ladder against the unsafe pole or place a ladder against a strand attached to an unsafe pole.

3.0 GENERAL

3.1 *Roles and Responsibilities:*

Every EMBARQ employee and contractor working on EMBARQ owned poles is responsible for inspecting and documenting the results of the inspections on these poles (see exhibit E for documentation instructions). In addition, the employee/contractor must identify and report irregular plant conditions to OSP engineering. Poles that are unsafe to climb, or not structurally sound to carry the imposed loads or are not of sufficient height to allow for proper attachment separation and ground clearance must be reported to engineering and corrected within the company standard timeframe. It should be noted that some conditions may warrant immediate action to remedy a safety hazard or reduce risk exposure.

The following table lists workgroup(s) responsible for implementing the Method and Procedure.

Workgroup	Job Function Performed
Network Technicians	Perform structural integrity tests (Sound and Prod minimum) prior to climbing a pole, placing a ladder against the pole, placing a ladder against an adjacent span, or performing any other work at the pole (see examples in exhibit E) If the pole is Embarq owned, document the pole inspection via the Joint Pole form in the handheld or via the excel form (see exhibit F). Documentation must include date, wire center, technician ID, IPID or Rural Lead and Structure, test type, passed/failed, and any remarks therein. Report defect results through the IPC process (MP-200705-025 or 010-200-903) Tag & tape poles that are suspected of being defective. ***Note:*** If the pole belongs to Embarq and there are foreign attachments or if the pole belongs to a foreign owner, notify your supervisor so they can contact the pole/attachment owner and notify of the safety issue. Place facility ownership tag on all Embarq facilities placed on foreign utility poles including drops
Network Services Supervisors	Notify foreign-pole and attachment owners of unsafe conditions found by the technicians via email. Email should include pole location and the issue that requires correction. Notify Engineering of any imminent danger issues found.
OSP Engineering	Review IPC database for unsafe conditions that need correction in your area. Design work activities that include poles that are appropriate for the application that carry electrical circuits exceeding 750 volts or for only telephone and other communication type attachments Perform Load Calculation of EMBARQ attachments on foreign utility poles when required. Embarq currently uses the spreadsheet attached (Exhibit G), however plans for a systematic load calculation tool is underway.

	Maintain pole integrity records Maintain records of poles changed out on an annual basis to provide a detailed report to the commission for the reasons for change outs or removals when required (e.g. upgrade old pole, vehicle damage, storm damage, buried plant removed poles, etc...) Maintain records of attachments to EMBARQ poles (require load calculations of all foreign attachments) Maintain EMBARQ attachment records to foreign utility poles Identify poles that are not or no longer EMBARQ owned and post records to reflect proper ownership Ensure changes to pole plant are communicated to the inspectors and the joint use specialist to eliminate unnecessary inspections Maintain communication links to ensure all foreign entities attached to EMBARQ poles are notified in advance of the plans to remove and/or change out the poles. Embarq owned poles will not be maintained simply because of foreign attachments. Sell or transfer ownership of the poles to the foreign entity in the event they refuse to remove the attachments so the poles can be removed. Obtain and retain receipts for all ownership transfers. Create and submit annual pole inspection report to Joint Use Process Specialist (where applicable)
OSP Construction	Install poles in accordance to the engineering design Identify and correct Irregular Plant Conditions (IPC) according to company practice Submit Change-in-Plans (CIP), to engineering where a , change in pole size or class is made to the original engineering design or records Ensure facility ownership tags are placed on EMBARQ facilities attached to foreign utility poles (see exhibit C) Perform structural integrity tests (Sound & Prod minimum) prior to removing or adding any aerial facilities and/or attachments to existing poles
Inspector	Perform poles inspections according to terms of the contract Document and review results to ensure accuracy of data utilizing the EMBARQ pole inspection forms Submit results to engineering within 10 days of completing inspections Complete IPC forms when warranted and submit to engineering for corrective action within three business days or immediately if a safety hazard exists
Joint Use Process Specialist	Partner with district engineering and EWO administration to select wire centers for inspection, pull pole data and

	create inspection forms Partner with National Network staff to train inspectors Follow up and address concerns received from contractors or company inspectors Partner with district engineering to ensure IPC's are corrected and incorporated into PSC summary report Compile inspection data, create and submit the annual summary report to PSC

3.2 *Compliance:*

This practice is mandatory as written.

3.3 *Adopted for Use:*

This practice has been adopted for use in the following business units/divisions of EMBARQ.

(a) Network Services Outside Plant Engineering, Construction and Installation & Maintenance

(b) Network Services Regional Joint Use Program Management

4.0 EFFECTIVE DATE

Effective Date	Expiration Date
12/22/2006	Until Further Notice

5.0 EMBARQ NORMAL POLE INSPECTION METHODOLIGIES

Business as Usual Inspections by technicians:

During the normal course of business, i.e. business as usual (BAU) each technician is required to inspect the pole they are working on (or adjacent to) to ensure it is safe to climb or support a ladder. Technicians will conduct visual inspections in conjunction with sound and prod technique on the pole they are working on to determine if decay or bug infestation is present or a visual inspection indicates that the pole strength or stability is suspect. Documentation of this inspection must be provided after each test. A pole that as a result of a sound and prod test reflects surface decay, bug infestation or rot at any point on the pole must be tagged and taped as unsafe to climb and reported to engineering for corrective action, using the Irregular Plant Condition report.

Visual inspections of poles in the lead must be conducted to identify issues such as:

- Excessive rake/leaning
- Pole movement in wind
- Location of the birthmark on the pole relative to ground line indicates inadequate pole depth
- Soil has been removed or eroded leaving too much of the pole-butt exposed
- Vehicle damage
- Fungus and decay
- Bugs
- Deep extended cracks that go several inches into the pole (test for depth with thin pan head screwdriver)
- **Note:** Cracks are common due to the compression of the preservative treatment process, however deep cracks could be a sign of a structural problem

Report defective poles to engineering for corrective action following established Irregular Plant Condition reporting procedures.

6.0 SPECIFIC POLE DATA ACCUMULATION

6.1 Embarq will utilize the following methods to ensure that 100% of Embarq poles are inspected over a 10-year cycle when feasible or as mandated by the Public Service Commission:

6.1.1 Implement a schedule of pole inventories by exchange/service area

6.1.2 Conduct mutual inspections with electric companies as the agreements between the parties require

6.1.3 Utilize a contracted work force to perform pole inspections to complement Embarq trained technicians

6.1.4 Record data for each inspected pole

6.1.5 Pole specific data will include:

- Type of inspections performed
- Type of pole (material e.g. wood/species)
- Age of poles inspected
- Number of poles inspected by size and class
- Installed population by size and class
- Number of poles failing inspection
- Number of poles requiring a change in inspection cycle
- Number of poles requiring minor follow up
- Number of poles that were overloaded
- Number of poles with an estimated pole life less than 8 years
- Number of inspected poles addressing a prior backlog

Embarq inspectors will record the data associated with each pole inspected and will maintain a database from which an annual summary report can be generated to monitor and track the progress, effectiveness and cost of the inspection program.

7.0 GLOSSARY

Term	Definition
Priority 1 pole	Pole that carries electric distribution facilities exceeding 750 volts
Priority 2 pole	Pole that carries telephone, CATV and power company drop < 750 volts
Grade B & C Construction	Construction standards as defined in Section 24 of the NESC which apply to and govern electrical supply construction and telephony construction over limited access highways, navigational waterways requiring a permit and railroad tracks
Grade N Construction	Poles used for lines for which neither B nor C is required and shall be of initial size and class or guyed or braced to withstand the expected loads. See Rule 263 of the NESC
Triplex Drop	Electrical Service drop from supply lines to building being served
Resistograph	Approved Embarq device used to bore through poles to determine the structural integrity. Resistograph determines and graphs solid wood from decaying or bug infested wood
PSC	Public Service Commission
Pole Inspection	There are several methods for conducting a pole inspection. This procedure focuses on two 1) Sound and Prod to be conducted on Grade N poles and 2) Excavate and Drill which will be conducted on all Grade B&C poles that carry electric distribution facilities
Load Calculation	Process to determine the imposed load on a pole as a culmination of the attachments, anchors, guys, wind speeds and direction and extreme wind and ice loading
Embarq Pole Inspection Process	Pole inspection/audit software program used to capture pole data points identified in the inspection process. The tool will maintain pole structural integrity data points and attachment data points including foreign attachments for future reference and reporting. It will also allow the inspectors to complete IPC forms for deviations, code violations and pole defects