#### State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE:

April 7, 2008

TO:

Ann Cole, Commission Clerk - PSC, Office of Commission Clerk

FROM:

Timothy J. Devlin, Director, Division of Economic Regulation

RE:

Annual Storm Hardening Reports of the Municipal and Cooperative Electric

Utilities Pursuant to Rule 25-6.0343, F.A.C

Please add the following Storm Hardening Reports of the municipal and cooperative electric utilities for calendar year 2007 to Case Management, Docket Number 080000-OT. The data in these reports are comparable with those in Document Number 02426-07 in Docket Number 070000-OT, which contained the reports for 2006. If you have any questions, please let me know. Thank you.

UTILITY	DATA YEAR	YEAR FILED	DOCUMENT NUMBER
Alachua, City of	2007	2008	None
Bartow, City of	2007	2008	None
Beaches Energy Services	2007	2008	None
Blountstown, City of	2007	2008	None
Bushnell, City of	2007	2008	None
Chattahoochee, City of	2007	2008	None
Clewiston Utilities, City of	2007	2008	None
Fort Meade, City of	2007	2008	None
Fort Pierce Utilities Authority	2007	2008	None
Gainesville Regional Utilities	2007	2008	None
Green Cove Springs, City of	2007	2008	None
Havana, Town of	2007	2008	None
Homestead, City of	2007	2008	None
JEA	2007	2008	None
Keys Energy Services	2007	2008	None
Kissimmee Utility Authority	2007	2008	None
Lake Worth Utilities Dept.	2007	2008	None
Lakeland Electric	2007	2008	None
Leesburg, City of	2007	2008	None
Moore Haven, City of	2007	2008	None
Mount Dora, City of	2007	2008	None
New Smyrna Beach	2007	2008	None
Newberry, City of	2007	2008	None
Ocala Electric Utility	2007	2008	None
Orlando Utilities Commission & City of St. Cloud	2007	2008	None
Quincy, City of	2007	2008	None
Reedy Creek Improvement District	2007	2008	None

Starke, City of	2007	2008	None
Tallahassee, City of	2007	2008	None
Vero Beach, City of	2007	2008	None
Wauchula, City of	2007	2008	None
Williston, City of	2007	2008	None
Winter Park, City of	2007	2008	None
Central Florida Electric Cooperative, Inc.	2007	2008	None
Choctawhatchee Electric Cooperative, Inc.	2007	2008	None
Clay Electric Cooperative, Inc.	2007	2008	None
Escambia River Electric Cooperative	2007	2008	None
Florida Keys Electric Cooperative Association, Inc.	2007	2008	None
Glades Electric Cooperative, Inc.	2007	2008	None
Gulf Coast Electric Cooperative, Inc.	2007	2008	None
Lee County Electric Cooperative Inc.	2007	2008	None
Okefenokee Rural Electric Membership Corporation	2007	2008	None
Peace River Electric Cooperative, Inc.	2007	2008	None
Sumter Electric Cooperative, Inc.	2007	2008	None
Suwannee Valley Electric Cooperative, Inc.	2007	2008	None
Talquin Electric Cooperative, Inc.	2007	2008	None
Tri-County Electric Cooperative, Inc.	2007	2008	None
West Florida Electric Cooperative Association, Inc.	2007	2008	None
Withlachoochee River Electric Cooperative, Inc.	2007	2008	None



# City of Alachua

Public Services Department

Phone: (386) 418-6140

Fax:

(386) 418-6164

#### **CITY OF ALACHUA**

# Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

CITY OF ALACHUA PO BOX 9 ALACHUA, FLORIDA 32616 Mr. Mike New, Director of Public Services (mnew@cityofalachua.com) Phone: (386)-418-6140, Fax: (386)-418-6164

- 2) Number of customers served in calendar year 2007 4077
- 3) Standards of Construction

The City of Alachua is working with FMPA to obtain Professional Consulting Services for review and evaluation of the City's existing Electrical Standards. Currently the City is negotiating with FMPA on the terms of the contract and fees associated with this proposed project.

a) National Electric Safety Code

Construction Standards, policies, guidelines, practices and procedures at the City of Alachua comply with the National Electric Safety Code (ANSI C-2 [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC shall apply. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

The City of Alachua follows the guidelines for extreme wind loading in accordance the NESC standards 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

c) Flooding and Storm Surges

The City of Alachua is not located in a coastal area subject to storm surges. However, City of Alachua has some areas throughout the corporate limits that are subject to possible flooding based on a 100 year flood, and these locations have been addressed during design of the underground distribution facilities and supporting overhead facilities.

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# City of Alachua

**Public Services Department** 

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

All new developments within the corporate limit are reviewed to ensure compliance to the City of Alachua's Electrical Construction Standards, approved materials, policies, guidelines, practices, and procedures for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All existing facilities have complete access for maintenance, complete with PUE (Public Utilities Easements) to insure compliance.

#### e) Attachments by Others

The pole attachment agreement between the City of Alachua and other utilities includes language which specifies that the responsibility for poles strength evaluation and safety. The City of Alachua has Electrical Construction Standards with approved materials, policies, guidelines, practices, and procedures for attachments by other utilities to the electric distribution system. Each Utility has a Pole Attachment Agreement with the City.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Alachua performs inspection of the electric poles in service with an annual goal of 12.5% beginning in 2007. This is equal to an 8-year inspection cycle. In FY 2007 the City conducted a re-count and identification of all utility poles located within the corporate limits. This resulted in approximately 300 poles that belong to other utilities. In March of FY2008, the City will be implementing a new automated Work Management System for the Electrical System to streamline pole inspections and power line trimming.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

Number of Poles: 2773 Inspected: 126 poles. (5.5%)

Note: The City of Alachua has only Distribution Poles, No Transmission.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Failed: 1 pole @ 0.8 %. The City replaced (35) poles as part of a feeder up-grade. These poles were checked for deteriorated. There was no ground rot and only (1) pole had rot located at the top.

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# City of Alachua

**Public Services Department** 

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Fax:

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The (1) wood pole that failed inspection was 50' – Class 3. This pole was replaced with Concrete Type IIIA. The City up-graded (14) additional poles with 45' Concrete Type IIIA; the remaining (20)-45' Class 3 poles.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Public Utility Research Center held a vegetation management conference March 5, 2007. Through FMEA, the City of Alachua has a copy of the report and will use the information to continually improve vegetation management practices.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Alachua trims the overhead distribution system on a yearly cycle. The City of Alachua has 130 miles of Distribution System and trimmed approximately 3% in 2007. The City has no Transmission System to maintain.

#### 6. Storm Hardening Research:

The City of Alachua is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities.

For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

Mail To: 3/1/07 Deadline

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850



February 27, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Dear Mr. Devlin:

Attached you will find the City of Bartow's submittal for the 2007 Annual Storm Hardening Report. Please review and call me with any questions or comments.

Sincerely,

Eschol Radford

Interim Director of Electric Utilities

ER/mc

Attachment-

### City of Bartow

# Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

a) Name of city/utility

City of Bartow

b) Address, street, city, zip

450 North Wilson Avenue, Bartow, FL 33830

c) Contact information: Name, title, phone, fax, email

Eschol Radford, Interim Director of Electric Utilities

Ph: (863) 534-0142 Fax: (863) 534-7196

eradford.electric@cityofbartow.net

2) Number of meters served in calendar year 2007

11,148

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Our distribution standards, policies, guidelines, practices & procedures do not yet comply with the 2007 NESC. We are currently in the final stages of updating our standards to meet the requirements of the 2007 NESC. We are working with our engineering firm who originally developed our current standards and expect the new standards to be adopted by June 2008.

#### b) Extreme Wind Loading Standards

At this time, the City of Bartow's facilities are not designed to be guided by the extreme loading standards on a systemwide basis. We are participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of

this research to determine the most appropriate response for system upgrades and hardening. The extreme loading standards are being considered as part of our standards update mentioned above.

#### c) Flooding and Storm Surges

We are not located in a coastal area. Flooding and Storm surges do not apply to the City of Bartow.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bartow provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that City of Bartow's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. We decide on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e. Attachments by Others

Currently, we have attachment agreements with the local telephone and cable providers. These agreements require that any new attachments or changes to existing attachments will be designed and executed per the NESC code in force at the time of the attachment is made. We follow up the attachments with quarterly inspections required by the PSC and make corrections as necessary.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Bartow has chosen a contractor to perform inspections on a percentage of our utility system. The contractor we have chosen has many years of experience in pole inspections. We have a pre-work meeting scheduled for March  $6^{th}$  to discuss various aspects of the project. We will consider the information gained from this meeting to develop the procedures involved in the inspections.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

During 2007, we had no planned inspections. We completed approximately 300 inspections due to customer calls and visual inspections done during day to day installations & maintenance. This works out to 2.5% of our distribution system.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Of the 300 inspections completed, 40 distribution poles failed for various reasons including rotten ground decay or rotten pole top decay.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

The City of Bartow did not remediate any poles in 2007. Any poles found bad or questionable were replaced with a new pole.

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

We are currently on a 4 year tree trimming cycle. We try to trim out our distribution at a 6-10 foot clearance depending on the situation and type of vegetation. We have a licensed arborist on staff and currently use such practices as basal bark treatment, foliage treatment, cut-stump treatment, & herbicide application along with our regular trimming. We remove problem trees when deemed necessary by our crews or when the history of the tree reveals problems. Our reliability analysis indicates that our vegetation management practices are effective.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

We feel that our 4 year trimming cycle and other vegetation management practices are effective in offering great reliability to our customers for now and years to come. The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the City of Bartow has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research



ECONOMIC ATION

Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Attn: Tim Devlin

Director of Economic Regulation

Re: Beaches Energy Services' Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C., for Calendar Year 2007

Dear Sir,

Enclosed with this letter is the Beaches Energy Services' (BES) Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C., for Calendar Year 2007.

If you have any additional comments or questions, contact me at your convenience at 247-6260 or via e-mail at <a href="mailto:JStonecipher@beachesenergy.com">JStonecipher@beachesenergy.com</a>

Respectfully.

Joe Stonecipher, PE Electrical Engineer Beaches Energy Services

cc: Don Ouchley; Beaches Energy Services Director John Bowerfind, PE; Electrical Engineering Supv. Barry Moline; FMEA Executive Director

# (City of Jacksonville Beach, Florida dba/Beaches Energy Services)

### Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

#### a) Name of city/utility:

City of Jacksonville Beach, Florida/dba Beaches Energy Services

#### b) Address, street, city, zip:

1460 Shetter Ave. Jacksonville Beach, FL 32250

#### c) Contact information: Name, title, phone, fax, email

Contact person: Joe S. Stonecipher, PE

Title: Electrical Engineer

Phone number: (904) 247-6280 Fax number: (904) 247-6120

Email: jstonecipher@beachesenergy.com

#### 2) Number of meters served in calendar year 2007

In December, 2007, the number of electric meters served by Beaches Energy Services was 33,656 or:

Residential Meters	28,244
Commercial Non-Demand Meters	4,531
Commercial Demand Meters	331
Inactive or "Out-of-Service" Meters*	550
	33,656

(\*Note: All electric utilities have a number of inactive accounts at any given time. In addition, a number of customers own vacation homes in the Beaches Energy Services' Service Area and they have the electric service turned "on" or "off" as they come and go.)

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services comply with the National Electrical Safety Code (ANSI C-2). Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Beaches Energy Services implemented various required changes to the distribution line standards, such as: The use of stronger concrete poles, rather than wood poles for critical feeders; and, the elimination of static lines, with shorter distribution structures, as necessary to reduce moment loads on the structures.

Beaches Energy Services currently has a Capital Funding Program in place where, over the next ten (10) years, we plan to have all wood poles on main distribution feeder circuits replaced with concrete poles.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for: 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

In order to accommodate these 120 mph wind loads, Beaches Energy Services implemented various required changes to the distribution line standards, such as: The use of stronger concrete poles, rather than wood poles for critical feeders; and, the elimination of static lines, with shorter distribution structures, as necessary to reduce moment loads on the structures.

Beaches Energy Services currently has a Capital Funding Program in place where, over the next ten (10) years, we plan to have all wood poles on main distribution feeder circuits replaced with stronger concrete poles.

Also, Beaches Energy Services currently has a Capital Funding Program in place where, over the next ten (10) years, we plan to have all overhead distribution lines, within approximately three city blocks of the Atlantic Ocean, replaced with underground cables and padmounted transformers.

Beaches Energy Services is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities.

For instance, for underground distribution facilities:

1) Beaches Energy Services is eliminating "live-front" connected transformers. Almost all exposed, "live-front" connected transformers have been replaced; and, today, the high

voltage cables are connected to the transformers with sealed, "dead front" elbows instead of exposed, "live-front" terminations that could be "faulted" by flood waters;

- 2) Almost all exposed, "live-front" air-insulated padmounted switchgear has been replaced with sealed padmounted switchgear using SF6 gas or insulating oil as the insulation. Also, high voltage cables are connected to the switchgear with sealed, "dead front" elbows instead of exposed, "live-front" terminations that could be "faulted" by flood waters;
- 3) Beaches Energy Services has eliminated using fiberglass foundations for padmounted equipment and now only uses thick, heavy concrete foundations in order to act as a secure "anchor" to insure equipment isn't easily moved by flood waters.

Beaches Energy Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Consideration is also taken when designing circuits to ensure that line crews and troubleshooters will have a suitable means of approach in order to reach the facilities and equipment for the purpose of operation and maintenance. Beaches Energy Services' standard construction of vertical framing at the right-of-way line reinforces this by preventing overhang into private property and allowing bucket truck access to equipment on the back of the pole due to phase separation requirements.

#### In addition:

- 1) "Back lot line" electric utility construction has been eliminated;
- 2) Construction standards require all electric kWh meters be located outside and near the front corner of buildings. This eliminates the tendency to have access to kWh meters blocked by fences;
- 3) All replacement or new URD underground cables are being installed in conduits rather than being direct buried. This allows easier installation; and, in the event of a cable failure, faster and easier cable replacement
- 4) Construction standards require all padmounted equipment located near buildings to have minimum access clearance around the equipment;
- 5) Construction standards for Beaches Energy Services are readily available at <a href="http://www.beachesenergy.com/">http://www.beachesenergy.com/</a> (Select "Publications and Forms" then select "Procedures Manual Beaches Energy Services.")

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Beaches Energy Services include written safety, pole reliability, pole loading capacity, and

engineering standards and procedures for attachments by others to electric transmission and distribution poles.

Currently, any attachers requesting new attachments to transmission and distribution poles must provide loading calculations sealed by a licensed Professional Engineer, to determine if the pole strength complies with the current edition of the NESC.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

<u>Transmission</u> - Beaches Energy Services has only 138kV transmission circuits. All of Beaches Energy Services' transmission structures are spun or cast concrete poles, except for eleven (11) monotube steel poles and two (2) H-frame steel structures. As a result, there is little structural deterioration. Beaches Energy Services line crews perform the transmission line inspections, which are performed on an annual basis. They typically inspect the transmission structure's insulators, downguys, grounding and pole integrity.

<u>Distribution</u> - During 2007, Beaches Energy Services contracted with Osmose Utilities Services, Inc., to perform a general pole by pole inspection (sound and bore with excavation) for all distribution wood poles using the NESC standards for decay and reject status. Osmose Utilities Services, Inc., inspected 100% of our distribution wood poles. Poles 10 years and older were also treated at ground level for rot and/or decay.

- It has been determined that this inspection process by Osmose Utilities Services, Inc., will continue to be performed on a cycle of once every eight (8) years.
- The inspection method is "sound and bore" method for every wood pole over 10 years old and a complete visual inspection is also performed for all poles for cracks, splitting, woodpecker holes and obvious decay.
- For every wood pole over 10 years old, the pole base is exposed (where possible) to 18 inches to inspect for indications of decay. On all wood poles where the base could be exposed, the pole was then treated with an externally applied wood preservative.
- Wood poles where the pole base could not be exposed were MITC-Fume treated. MITC-Fume is a fumigant preservative that's applied through holes bored in the pole and will migrate through the pole to prevent rot, decay and bug damage.

Poles that fail to meet requirements have been, or are being, replaced.

In addition to the required documentation and treatment, Osmose tagged and provided GPS coordinates for all of our wood and concrete distribution structures.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

<u>Transmission</u> - 100% of all of our 355 transmission structure inspections were planned and completed.

<u>Distribution</u> - 100% of all of our 4,657 distribution wood and concrete pole inspections were planned and completed. (4,021 distribution wood pole inspections and 636 distribution concrete pole inspections.)

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

<u>Transmission</u> - No transmission structures failed inspection.

Distribution - 164, or 3.5%, of distribution structures failed inspection.

Enclosed as a 40-page attachment is a copy of the Osmose Utilities Services, Inc., "Reject Pole Report" which documents the reason for the failure of each wood pole.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

<u>Transmission</u> - No transmission structures failed inspection.

<u>Distribution</u> - Rather than repair them, all 164 of the distribution wood pole structures that failed inspection have been, or are being, replaced.

Enclosed as a 40-page attachment is a copy of the Osmose Utilities Services, Inc., "Reject Pole Report" which documents the type and class of pole, along with the reason for the failure of each wood pole.

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

<u>Transmission</u> - Beaches Energy Services maintains transmission line clearances in accordance with the NERC Reliability Standard FAC-003-1 requirements.

All transmission lines are inspected and trimmed as needed prior to the start of each hurricane season.

Transmission line Rights-of-Way are mowed and maintained on an annual basis.

We believe our vegetation management practices are sufficient because we had no vegetation related transmission line outages in 2007.

<u>Distribution</u> - Beaches Energy Services has tree trimming crews from the Lewis Tree Services, Inc. working year-round in our Electric Service Area. The objective is to

maintain a two to three year vegetation management cycle for transmission and distribution lines.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

Beaches Energy Services fully completed all FY2007 vegetation management activities described above. Vegetation management activities for FY2008 are on schedule.

The Public Utility Research Center (PURC) held a vegetation management conference March 5-6, 2007. Through FMEA, Beaches Energy Services has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

Beaches Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Endi Date: Job Numbe	ng: 05/12/20 05/07/20	07 07	Servi	ices, Ind	Forer Supe		355JH JONA DAVII 355JH	THAN D GRO	County: DUVAL I HUTCHINSONState: FL DW
STRUCTURE ID 01121 UNK 1980  X Coord: -81.41918 Y Coord: 30.323728			ORIGE G/L <u>G</u> 32 1	<u>3/L ]</u>		PRIORITY POLE N	REJECT	RESTOR DECAY COND Y	CUST SPEC Y	
	Date:	05/08/20	07							
01120 UNK 1969 X Coord: -81.418548 Y Coord: 30.321687 Location: C\O FLA BLVD\BAY RO		P/ C	41 2	20	TX	N	Y	Y	Y	Previous Cycle Eff Circ: 41. Decay this Cycle: 21. Prim Rej Reason: Shell Rot. Percent Pole Strength: 12. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Excessive Spur Cuts, Excessive Cracking/Checking, Low Decay, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 3.35.
01348 US 1986 X Coord: -81.414473 Y Coord: 30.324288 Location: C\O BRANT BLVD\ATL		Р/ Р	39 2	20 -	TX	N	Y	Υ	Ÿ	Previous Cycle Eff Circ: 39. Decay this Cycle: 19. Prim Rej Reason: Shell Rot. Percent Pole Strength: 13. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 3.03.
O1366 US 1986 X Coord: -81.41353 Y Coord: 30.324293 Location: 1 POLE E C\O BRANT BLVD\ATLANTIC BLVD	50/3 S	P/ P	38 2	20	ΤX	N	Y	Y	Y	Previous Cycle Eff Circ: 38. Decay this Cycle: 18. Prim Rej Reason: Shell Rot. Percent Pole Strength: 15. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Notes: F/O AUTO ZONE. Inspection Comments: Sound & Bore w/ Long Bit. Wind Shake, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.87.

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Feeder Number: Week Ending: 05/12/2007 Map: Date: 05/08/2007 Line: Job Number: 0-38-730	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATHAN HUTCHINS DAVID GROW 355JH19F	County: ONState:	DUVAL FL
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							Terreer.	0000		
STRUCTURE ID 01369  X Coord: -81.4121  Y Coord: 30.324317  Location: 2 POLE E C\O BRANT BLVD\ATLANTIC BLVD	50/3	SPECIES/ TREAT SP/ P	ORIO <u>G/L</u> 38	GEFF <u>G/L</u> 20	INSP TYPE TX	PRIORITY POLE N	REJEC POLE Y	RESTOI TDECAY COND Y	CUST SPEC Y	_
01380 US 1986 X Coord: -81.403248 Y Coord: 30.324422 Location: A\F 599 ATLANTIC BL		SP/ P	40	20	TX	N	Y	Υ	Υ	Previous Cycle Eff Circ: 40. Decay this Cycle: 20. Prim Rej Reason: Shell Rot. Percent Pole Strength: 13. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Notes: F/O U HAUL. Inspection Comments: Sound & Bore w/ Long Bit. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 3.19.
01377 US 1986 X Coord: -81.399453 Y Coord: 30.3245 Location: 4 POLES W C\O ATLA \ON ATLANTIC		SP/ P	38	20	TX	N N	Y	<b>Y</b>	Y	Previous Cycle Eff Circ: 38. Decay this Cycle: 18. Prim Rej Reason: Shell Rot. Percent Pole Strength: 15. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Notes: F/O CVS PHARMACY/A/F RADIO SHACK ON ATLANTIC. Inspection Comments: Sound & Bore w/ Long Bit. Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.87.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities 05/12/2007 05/10/2007 0-38-730	s Services,	For Sup	w ID: eman: ervisor: erence#:	DAV		County: DUVAL I HUTCHINSONState: FL DW
STRUCTURE ID MFG YRSET C	LENGTH/ SPECII CLASS TREAT 50 / 4 SP/ P	G/L (	EFF INSP G/L TYPE BX	PRIORIT POLE N	Y REJEC POLE Y	RESTO TDECAY COND N	CUST SPEC N	
01751 UNK 1975 X Coord: -81.400427 Y Coord: 30.310492 Location: C\O 5TH ST\OLEANDER	40 / 4 SP/ P	35	18 BX	N	Ÿ	N	N	Previous Cycle Eff Circ: 35. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 14. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.71.
01744 UNK 1975 X Coord: -81.400405 Y Coord: 30.309767 Location: 1 POLE N C\O 5TH ST\C	40/4 SP/P	35	19 BX	N	Y	N	Ñ	Previous Cycle Eff Circ: 35. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 16. Notes: F/O SCHOOL. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.55.
01748 UNK 1975 X Coord: -81.400377 Y Coord: 30.309025 Location: 2 POLE N C\O 5TH ST\O ST		37	20 BX	N	··· Y	N	N	Previous Cycle Eff Circ: 37. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 16. Notes: F/O SCHOOL. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Concrete, Pole in Pavement. Decayed Top, Wind Shake, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.71.

Contractor:

Feeder Name:

#### REJECT POLES REPORT

Crew ID:

355JH

County:

DUVAL

Osmose Utilities Services, Inc.

Feeder Number: Map: Line:	Week Ending: Date: Job Number:	05/12/2007 05/11/2007 0-38-730	F	Foreman: Supervisor: Reference#:	JONATHA DAVID GF 355JH19F	
STRUCTURE ID 02101 UNK 1975  X Coord: -81.39668  Y Coord: 30.312507  Location: 1 POLE S C\8 BOWLES	55 / 2 SP/ P			RITY REJECT		
02127 UNK 1975 X Coord: -81.406363 Y Coord: 30.32019 Location: A\F 517 E OCEANWOO		29 10	BX N	Y	N N	Previous Cycle Eff Circ: 29. Decay this Cycle: 19. Prim Rej Reason: Shell Rot. Percent Pole Strength: 4. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 3.03.
02139 LAN 1982 X Coord: -81.406668 Y Coord: 30.322423 Location: 300 E OCEANWOOD E		25 12	X - N Exca vated Rejec t	Y	N N	Previous Cycle Eff Circ: 25. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Decayed Top, Excessive Cracking/Checking, Low Decay, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
02171 UNK 1970 X Coord: -81.40933 Y Coord: 30.315793 Location: F\O 1300 FLA BLVD	40 / 3 SP/ C	37 16	TX N	ΥΥ	Y	Previous Cycle Eff Circ: 37. Decay this Cycle: 21. Prim Rej Reason: Shell Rot. Percent Pole Strength: 8. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Notes: CLOSE BY PINMAN /FLA BLVD. Shell Rot. Type: External. Location: N/A. Depth: 3.34.
02129 KOP 1984 X Coord: -81.407757 Y Coord: 30.316165 Location: F\O 1041 PENMAN	35 / 5 SP/ C	30 12	BX N	Υ	N N	Previous Cycle Eff Circ: 30. Decay this Cycle: 18. Prim Rej Reason: Shell Rot. Percent Pole Strength: 6. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.86.

### Osmose,

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Crew ID: 355JH **DUVAL** County: Feeder Number: Week Ending: 05/12/2007 Foreman: JONATHAN HUTCHINSONState: FL Map: Date: 05/11/2007 Supervisor: **DAVID GROW** Line: Job Number: 0-38-730 Reference#: 355JH19F **RESTORABLE** LENGTH/ SPECIES/ ORIGEFF INSP PRIORITY REJECTDECAY CUST STRUCTURE ID MFG YRSET CLASS TREAT G/L G/L TYPE POLE POLE COND SPEC REMARKS AND NOTES 01118 UNK 1975 35/4 SP/ C 18 BX Previous Cycle Eff Circ: 36. Decay this Cycle: 18. Prim Ν X Coord: -81.398955 Rej Reason: Shell Rot. Percent Pole Strength: 13. Y Coord: 30.307553 Decayed Top, Excessive Spur Cuts, Excessive Location: A\F 536 SEAGATE AVE Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.87. Week Ending: 05/19/2007 Date: 05/15/2007 Reference#: 355JH20C 10526 **ESC** 1983 35/5 SP/P 32 14 BX Υ Ν Ν Previous Cycle Eff Circ: 32. Decay this Cycle: 18. Prim X Coord: -81.397567 Rej Reason: Shell Rot. Percent Pole Strength: 8. Y Coord: 30.305385 Reported Item: Trees / Vegetation, VINNC, Vines Present Not Cut. Reported On: 5\_15\_07 8-27-53 AM. Inspection Location: F\O 502 N8ST Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.86. 10355 SWP 1968 30 / 5 SP/ C 12 BX Previous Cycle Eff Circ: 30. Decay this Cycle: 18. Prim Rei Reason: Shell Rot. Percent Pole Strength: 6. Shell X Coord: -81.39995 Rot. Type: External. Location: N/A. Depth: 2.86. Y Coord: 30.302612 Location: A\F 1615 N 8 ST Previous Cycle Eff Circ: 32. Decay this Cycle: 20. Prim 10327 **ESC** 1983 35 / 5 SP/P 32 12 Χ-Ν Ν Rei Reason: Shell Rot. Percent Pole Strength: 5. Exca X Coord: -81.401805 Decayed Top, Excessive Cracking/Checking, Rotten Butt, vated Y Coord: 30.30477 Mold or Stain. Shell Rot. Type: External. Location: N/A. Rejec Location: 928 N 18 AVE Depth: 3.18.

# Osmose.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 05/19/2007 05/16/2007 0-38-730	ervices, Inc.	Crew ID: Foreman: Supervisor: Reference#	DAVI	ATHAN HUTCHINSONState: FL D GROW
STRUCTURE ID MFG YRSET C	45/3 SP/P	T G/L G/L	TYPE PO	RIORITY REJE DLE <u>POLE</u> V		
03129 UNK 1986 X Coord: -81.397153 Y Coord: 30.303537 Location: 426 N 16 AVE	40 / 4 SP/ P	35 15	ı XT	Ÿ	Υ	Y Previous Cycle Eff Circ: 35. Decay this Cycle: 20. Prim Rej Reason: Shell Rot. Percent Pole Strength: 8. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell R. Type: External. Location: N/A. Depth: 3.18.
03128 UNK 1975 X Coord: -81.397172 Y Coord: 30.30366 Location: A\F 426 N 16 AVE	35 / 5 SP/ F	33 15	TΧ Ι	Ϋ́	Y	Y Previous Cycle Eff Circ: 33. Decay this Cycle: 18. Prim Rej Reason: Shell Rot. Percent Pole Strength: 9. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell R Type: External. Location: N/A. Depth: 2.86.
03137 UNK 1975 X Coord: -81.398778 Y Coord: 30.301365 Location: 1 POLE S C\O 14 AVE N	30 / 5 SP/ F	31 15	ВХ	V Y	N	N Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Reported Item: Trees / Vegetation. TIW, Trees or Branches in Wires. Reported On: 5_16_07 9-05-23 AM Reported Item: Trees / Vegetation. BRUSH, Brush Clearing Needed. Reported On: 5_16_07 9-05-23 AM. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Wind Shake, Excessive Cracking/Checking, Low Decay. Shell Rot. Type: External. Location: N/A. Depth: 2.54.
01132 UNK 1965 X Coord: -81.39801 Y Coord: 30.29676 Location: C\O 9 AVE N\7 ST N	35 / 6 SP/ (	27 12	BX	N Y	N	N Previous Cycle Eff Circ: 27. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 9. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Roots. Shell Rot. Type: External. Location: N/A. Depth: 2.39.

# Osmose。

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Contractor:

Osmose Utilities Services, Inc.

Crew ID:

355JH JONATHAN HUTCHINSONState:

County:

DUVAL FL

Map: Line: Week Ending: Date: Job Number:

05/19/2007 05/16/2007 0-38-730

Foreman: Supervisor: Reference#:

**DAVID GROW** 355JH20C

**RESTORABLE** LENGTH/ SPECIES/ ORIGEFF INSP PRIORITY REJECTDECAY CUST

STRUCTURE ID 01143

X Coord: -81.394913

Y Coord: 30.297743

Location: 1POLE S C\O \N 4 ST\10 AVE N

MFG YRSET CLASS SWP 1955 30 / 7

TREAT SP/ C

G/L G/L TYPE POLE 21 10 BX

POLE

COND SPEC REMARKS AND NOTES N

Previous Cycle Eff Circ: 21. Decay this Cycle: 11. Prim

Rej Reason: Shell Rot. Percent Pole Strength: 11. Inspection Comments: Sound & Bore w/ Long Bit, Can Not Treat: Underground Cable. Split Top, Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A.

Depth: 1.75.

<del></del>			Date:		05/17/2007								
01186 U X Coord: -81.394562 Y Coord: 30.296242 Location: C\O 8 AVE		1970 ST N	30 / 4	SP/ C	36	20	X - Exca vated Rejec t	N	Y	,	N	N	Previous Cycle Eff Circ: 36. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 17. Decayed Top, Excessive Cracking/Checking, Rotten Butt Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.55.
01197 S X Coord: -81.396055 Y Coord: 30.295093 Location: 514 N 7 AV		1968	35 / 4	SP/ C	34	20	X - Exca vated Rejec t	N	Υ	•	Y	Y	Previous Cycle Eff Circ: 34. Decay this Cycle: 14. Prim Rej Reason: Shell Rot. Percent Pole Strength: 20. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Can Not Treat: Roots. Decayed Top. Shell Rot. Type: External. Location: N/A. Depth: 2.23.
02219 U X Coord: -81.399315 Y Coord: 30.294195 Location: R\O 819 N		1970 E	35/5	SP/ P	30	15	ВХ	N	Ĭ	Ž	Y	Y	Previous Cycle Eff Circ: 30. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 13. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Roots. Shell Rot. Type: Externa Location: N/A. Depth: 2.38.
02255 L X Coord: -81.394805 Y Coord: 30.294455 Location: F\O 415 N	,	1970 E	35/5	SP/ P	32	15	вх	Ň		Ÿ	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 10. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Wind Shake, Excessive Spur Cuts, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot Type: External. Location: N/A. Depth: 2.70.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contract Week E Date: Job Nur	nding:	Osmose Utili 05/19/2007 05/17/2007 0-38-730	ties Se	rvices, l	Fo Si	rew ID: oreman: upervisor: eference#:	DAV		County: DUVAL I HUTCHINSONState: FL DW
STRUCTURE ID MFG YRSET 02265 SWP 1978  X Coord: -81.393553  Y Coord: 30.29468  Location: C\O 3 ST N\ N 6 AVE W	35 / 5	SPECIE TREAT SP/ P	SS/ OR G/L 30		INSP TYPE BX		TY REJECT POLE Y		CUS1	
	Date:		05/18/2007							
02251 SWP 1981 X Coord: -81.396298 Y Coord: 30.293118 Location: C\O 6 ST N\5 AVE N	45 / 4	SP/ P	36	15	вх	N	Y	Y	Y	Previous Cycle Eff Circ: 36. Decay this Cycle: 21. Prim Rej Reason: Shell Rot. Percent Pole Strength: 7. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 3.34.
	Week E Date:	Ending:	05/26/2007 05/22/2007							
						F	Reference#:	355	JH21C	
03248 UNK 1980 X Coord: -81.39775 Y Coord: 30.292525 Location: R\O 708 5 AVE N	35 / 5	SP/ P	32	15	X - Exca vated Rejec t	N	Y	N	Ν	Previous Cycle Eff Circ: 32. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 10. Notes IN ALLY. Inspection Comments: 3/4 Excavate. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: Externa Location: N/A. Depth: 2.70.
03258 UNK 1970 X Coord: -81.396845 Y Coord: 30.292625 Location: R\O 628 5 AVE N	35/5	SP/ P	32	15	X - Exca vated Rejec t	N	Y	N	Ň	Previous Cycle Eff Circ: 32. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 10. Note IN ALLY. Inspection Comments: 3/4 Excavate. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Ro Type: External. Location: N/A. Depth: 2.70.

# Jsmose。

Contractor:

Feeder Name:

Feeder Number:

#### REJECT POLES REPORT

Crew ID:

355JH

County:

External. Location: N/A. Depth: 3.02.

**DUVAL** 

Osmose Utilities Services, Inc.

Week Ending: 05/26/2007 Foreman: JONATHAN HUTCHINSONState: FL Map: Date: 05/22/2007 Supervisor: **DAVID GROW** Line: Job Number: 0-38-730 Reference#: 355JH21C RESTORABLE LENGTH/ SPECIES/ ORIGEFF INSP PRIORITY REJECTDECAY CUST STRUCTURE ID MFG YRSET CLASS TREAT G/L TYPE POLE COND SPEC REMARKS AND NOTES POLE 03266 1980 35/5 SP/P 15 BX Ν Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim X Coord: -81,39584 Rej Reason: Shell Rot. Percent Pole Strength: 11. Y Coord: 30.292383 Inspection Comments: Sound & Bore w/ Long Bit. Can Location: 533 4 AVE N Not Treat: Underground Cable, Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54. 03246 UNK 1978 SP/P 35/5 BX 15 Ν Ν Previous Cycle Eff Circ: 30. Decay this Cycle: 15. Prim X Coord: -81.39444 Rej Reason: Shell Rot. Percent Pole Strength: 13. Y Coord: 30.29259 Inspection Comments: Sound & Bore w/ Long Bit. Can Location: 415 N 4 AVE Not Treat: Underground Cable. Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.38. 03612 1986 30/6 SP/P 15 BX Previous Cycle Eff Circ: 23. Decay this Cycle: 8. Prim Rej X Coord: -81.395168 Reason: Shell Rot. Percent Pole Strength: 28. Inspection Y Coord: 30.291547 Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Location: 515 3 AVE N Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External, Location: N/A, Depth: 1.27. 03603 Previous Cycle Eff Circ: 32. Decay this Cycle: 16. Prim LAN 1982 35/5 BX Rei Reason: Shell Rot. Percent Pole Strength: 13. Rec. X Coord: -81.394398 Restore Method: C2-TRUSS. Restoration Height: Y Coord: 30.291645 STANDARD, Inspection Comments: Sound & Bore w/ Location: 421 AVE N Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54. Previous Cycle Eff Circ: 36. Decay this Cycle: 19. Prim 03611 UNK 1970 35/4 SP/C 17 BX Ν Rei Reason: Shell Rot. Percent Pole Strength: 11. X Coord: -81.393615 Inspection Comments: Sound & Bore w/ Long Bit. Can Y Coord: 30.291608 Not Treat: Underground Cable. Decayed Top, Excessive Location: C\O 3 AVE N\4 ST N Cracking/Checking, Rotten Butt. Shell Rot. Type:

# Osmose.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contract Week E Date: Job Nur	nding:	Osmose 05/26/2 05/23/2 0-38-73	007 007	es Se	rvices, I		•		DAV		
STRUCTURE ID MFG YRSET UNK 1970  X Coord: -81.397533  Y Coord: 30.288762  Location: C\O BEACH BLVD\8 ST	<u>CLASS</u> 30 / 5	SPECIE TREAT SP/ P	:s/	ORIC <u>G/L</u> 31	<b>EFF G/L</b> 15	INSP TYPE BX	PRIO POLE N		REJEC POLE Y	RESTO TDECAY COND N	CUS	
02608 LAN 1979 X Coord: -81.399473 Y Coord: 30.288993 Location: F\O 911 N 1 AVE	45/3	SP/ P		38	25	TX	N N		Υ	Y	Y	Previous Cycle Eff Circ: 38. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 28. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking, Excessive Brush, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
02613 UNK 1970 X Coord: -81.401005 Y Coord: 30.289083 Location: C\O 11 ST N\1 AVE N	40 / 5	SP/ C		31	15	BX	N		Y	Ÿ	Y	Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54.
02624 ESC 1972 X Coord: -81.403057 Y Coord: 30.289052 Location: 1211 N 1 AVE	35 / 5	SP/ P		31	15	X - Exca vated Rejec t	N		Y	N	N	Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Decayed Top, Excessive Cracking/Checking, Rotten But Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54.
02653 KOP 1962 X Coord: -81.401585 Y Coord: 30.291048 Location: R\O 1104 4 AVE N	35/6	SP/ C		25	14	X - Exca vated Rejec t			Υ	Ñ	N	Previous Cycle Eff Circ: 25. Accessibility: BACKYARD FROM STREET. Decay this Cycle: 11. Prim Rej Reason Shell Rot. Percent Pole Strength: 18. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stair Shell Rot. Type: External. Location: N/A. Depth: 1.75.

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Crew ID: 355JH County: DUVAL Feeder Number: Week Ending: 05/26/2007 Foreman: JONATHAN HUTCHINSONState: FL Map: Date: 05/23/2007 Supervisor: **DAVID GROW** Line: Job Number: 0-38-730 Reference#: 355JH21C RESTORABLE LENGTH/ SPECIES/ ORIGEFF INSP PRIORITY REJECTDECAY CUST STRUCTURE ID MFG YRSET CLASS TREAT TYPE COND SPEC REMARKS AND NOTES G/L POLE POLE 02662 UNK 1980 40/5 20 BX Previous Cycle Eff Circ: 32, Decay this Cycle: 12, Prim X Coord: -81.402573 Rei Reason: Shell Rot. Percent Pole Strength: 24. Rec. Y Coord: 30.293038 Restore Method: C2-TRUSS. Restoration Height: Location: 1116 N 6 AVE STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable, Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External, Location: N/A. Depth: 1.91. Date: 05/24/2007 03659 UNK 1970 35/5 SP/ C 28 14 BX Ν Υ Previous Cycle Eff Circ: 28. Decay this Cycle: 14. Prim Ν X Coord: -81.407623 Rej Reason: Shell Rot. Percent Pole Strength: 13. Notes: Y Coord: 30.292795 BY C/O 16 ST N/5 AVE N. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Location: 615 16 ST N Decayed Top, Excessive Cracking/Checking, Low Decay, Mold or Stain, Shell Rot. Type: External, Location: N/A. Depth: 2.23. 03654 1975 35/5 SP/P 20 X -N Previous Cycle Eff Circ: 31. Decay this Cycle: 11. Prim UNK 31 N Rej Reason: Shell Rot. Percent Pole Strength: 27. Exca X Coord: -81.40789 Decayed Top, Excessive Cracking/Checking, Rotten Butt. Y Coord: 30.293483 vated Mold or Stain. Shell Rot. Type: External. Location: N/A. Reiec Location: 1541 N 6 AVE Depth: 1.75. t Previous Cycle Eff Circ: 34. Decay this Cycle: 16. Prim SP/P BX 03684 **SWP** 1983 40/4 18 Ν Rej Reason: Shell Rot. Percent Pole Strength: 15. Rec. X Coord: -81.407312 Restore Method: C2-TRUSS. Restoration Height: Y Coord: 30.297193 STANDARD. Inspection Comments: Sound & Bore w/ Location: F\O 1060 16 ST N Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.55.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Services, 05/26/2007 05/24/2007 0-38-730	Inc. Crew ID: Foreman: Supervisor: Reference#:	DAVID GRO	County: DUVAL HUTCHINSONState: FL )W
	LENGTH/ SPECI CLASS TREA 40 / 5 SP/ P			COND SPEC Y	
03683 SWP 1983 X Coord: -81.407273 Y Coord: 30.29808 Location: C\O 16 ST N\11 AVE N	40 / 5 SP / P	32 19 BX	N Y	Y	Previous Cycle Eff Circ: 32. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 21. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
01825 KOP 1978  X Coord: -81.408075  Y Coord: 30.295973  Location: F\O 9O9 17 ST N	45 / 5 SP/ P	32 15 BX	N Y		Previous Cycle Eff Circ: 32. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 10. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.70.
01807 ESC 1984 X Coord: -81.408943 Y Coord: 30.29744 Location: 1124 18 ST N	35 / 5 SP/ P	31 15 BX	N Y	Y Y	Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54.

### Osmose,

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Sen 05/26/2007 05/24/2007 0-38-730	Forer Supe	nan: rvisor:	355JH JONATHAN DAVID GRO 355JH21C	County: DUVAL HUTCHINSONState: FL W
STRUCTURE ID 01835 UNK 197  X Coord: -81.409653  Y Coord: 30.298922 Location: 1209 19 ST N		<u>G/L</u> <u>G/L</u> 37 20	INSP PRIORITY TYPE POLE X - N Exca vated Rejec t	REJECTDE	γ	REMARKS AND NOTES Previous Cycle Eff Circ: 37. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 16. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Decayed Top, Rotten Butt, Mold or Stain.
01809 UNK 197 X Coord: -81.409652 Y Coord: 30.298663 Location: 1205 19 ST N	9 40 / 4 SP/F	35 20	BX N	Y Y	Υ	chell Rot. Type: External. Location: N/A. Depth: 2.71.  Trevious Cycle Eff Circ: 35. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 19. Rec. Restore Method: C2-TRUSS. Restoration Height: RTANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Rop, Excessive Cracking/Checking, Rotten Butt, Mold or Retain. Shell Rot. Type: External. Location: N/A. Depth:
01833 UNK 197 X Coord: -81.409642 Y Coord: 30.298405 Location: 1203 19 ST N	8 40/5 SP/1	33 21	BX N	Ϋ́Υ	Y Ÿ	Previous Cycle Eff Circ: 33. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 26. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
01802 UNK 196 X Coord: -81.409718 Y Coord: 30.295802 Location: 828 19 ST N	69 35 / 5 SP/ (	30 20	BX N	Y	Y Y	Previous Cycle Eff Circ: 30. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

# Osmose.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 05/26/2007 05/25/2007 0-38-730	ervices, Inc.	Crew ID: Foreman: Supervisor: Reference#:		ATHAN HUTCHINSONState: FL D GROW
_ <del>_</del>	LENGTH/ SPECI CLASS TREA 35 / 5 SP/ P			ORITY REJEC <u>E POLE</u> Y		
01877 UNK 1970 X Coord: -81.411267 Y Coord: 30.298652 Location: F\O 1209 21 ST N	35 / 5 SP/ C	32 22	BX N	· · · · · · · · · · · · · · · · · · ·	N	N Previous Cycle Eff Circ: 32. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 32. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mole or Stain. Shell Rot. Type: External. Location: N/A. Deptl 1.59.
01881 UNK 1975 X Coord: -81.411352 Y Coord: 30.29566 Location: 918 21 ST N	40 / 5 SP/ P	33 20	TX N	· · · · · · · · · · · · · · · · · · ·	Ý	Y Previous Cycle Eff Circ: 33. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 22. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Reported Item: Trees / Vegetation. TIW, Trees or Branches in Wires. Reported On: 5_25_07 11-44-55 AM. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking, Low Deca Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
01897 UNK 1978 X Coord: -81.412043 Y Coord: 30.296872 Location: F\O 1009 22 ST N	45 / 4 SP/ P	34 20	TX N	Y	Υ	Y Previous Cycle Eff Circ: 34. Decay this Cycle: 14. Prim Rej Reason: Shell Rot. Percent Pole Strength: 20. Rec Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.23.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contrac Week E Date: Job Nu	Ending:	Osmose Util 05/26/2007 05/25/2007 0-38-730	ities Se	ervices, I		Crew ID: Foreman: Supervisor: Reference#:	DAV		
STRUCTURE ID MFG VRSE 01806 UNK 1979 X Coord: -81.412157 Y Coord: 30.298018 Location: C\O 11 AVE N 22 ST	35/5	SPECI TREAT SP/ P			INSP TYPE BX	PRIO POLE N		RESTO TDECAY COND Y	cus	
	Week Date:	Ending:	06/02/2007 05/26/2007				Reference#:	355.	JH22B	3
01663 UNK 197 X Coord: -81.409102 Y Coord: 30.304243 Location: F O 259 CORAL WAY		SP/ P	33	15	X - Exca vated Rejec t	N	Y	Y	Y	Previous Cycle Eff Circ: 33. Decay this Cycle: 18. Prim Rej Reason: Shell Rot. Percent Pole Strength: 9. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Can Not Treat: Garden. Decayed Top. Small Woodpecker Holes, Qty: 1. Shell Rot. Type: External. Location: N/A.

											Depth: 2.86.
01688 X Coord: -81. Y Coord: 30.3 Location: R\C			SP/ C	30	20	X - Exca vated Rejec t	N	Y	N		Previous Cycle Eff Circ: 30. Accessibility: BACKYARD FROM STREET. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.
01529	UNK 19	58 35/5	SP/ C	29	20	Χ-	N	Υ	N	N	Previous Cycle Eff Circ: 29. Decay this Cycle: 9. Prim Rej

X Coord: -81.409895

X Coord: 30.306982

Location: 1819 ARDE WAY

Exca

Value

Find the Strength: 33. Decayed

Top, Low Decay. Shell Rot. Type: External. Location: N/A.

Depth: 1.44.

### Osmose,

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Service 06/02/2007 05/27/2007 0-38-730	Forei Supe			THAN HUTCHINSONState: FL GROW
STRUCTURE ID MFG YRSET 01541 UNK 1960  X Coord: -81.410413 Y Coord: 30.30116 Location: F\O 1874 ARDEN WAY	LENGTH/ SPECI CLASS TREAT 30 / 6 SP/ C	G/L G/L T	NSP PRIORITY YPE POLE X N	REJEC POLE Y		
01555 KOP 1959 X Coord: -81.412855 Y Coord: 30.303097 Location: R\O1422 PINE WOOD	35 / 5 SP/ C	31 20 B	X N	Y	N	N Previous Cycle Eff Circ: 31. Accessibility: BACKYARD FROM STREET. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 27. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.75.
01570 UNK 1959 X Coord: -81.413305 Y Coord: 30.305583 Location: F\O 45 OAKWOOD DR	35 / 5 SP/ C	E v	C- N Exca rated Rejec	Y	Ń	N Previous Cycle Eff Circ: 30. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 13. Decayed Top, Excessive Cracking/Checking, Excessive Brush, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.38.
01574 UNK 1960 X Coord: -81,413463 Y Coord: 30,303438 Location: R\O 1416 PINEWOOD F	35/5 SP/C	28 17 E	3X N	Y	N	N Previous Cycle Eff Circ: 28. Accessibility: BACKYARD FROM STREET. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 22. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Brush, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.75.
01594 UNK 1970 X Coord: -81.405713 Y Coord: 30.299083 Location: F\O 1215 14 ST N	40 / 5 SP / P	31 15 E	3X N	<b>Y</b>	N ·	N Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim Rej Reason: Shell Rot. Percent Pole Strength: 11. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.54.

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# Osmose

#### REJECT POLES REPORT

Feeder Name: Feeder Number:

STRUCTURE ID

Contractor:

Osmose Utilities Services, Inc.

Crew ID:

355JH

**DUVAL** 

Map:

Week Ending: Date:

06/02/2007 05/27/2007 Foreman: Supervisor: JONATHAN HUTCHINSONState: **DAVID GROW** 

FL

Line:

Job Number:

0-38-730

Reference#:

355JH22B

**RESTORABLE** ORIGEFF INSP PRIORITY REJECTDECAY CUST

LENGTH/ SPECIES/ MFG YRSET CLASS TREAT

40/5

1984

SP/ P

G/L G/L TYPE POLE 24

POLE

COND SPEC REMARKS AND NOTES

County:

01595 X Coord: -81.404908

Y Coord: 30.29812

Location: C\O 11 AVE N\13 ST N

Previous Cycle Eff Circ: 31. Decay this Cycle: 7. Prim Rei Reason: Shell Rot. Percent Pole Strength: 46. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.11.

Date: 05/28/2007 03373 1960 35/5 SP/P BX Υ Previous Cycle Eff Circ: 31. Decay this Cycle: 16. Prim UNK 15 Ν Ν X Coord: -81.403387 Rej Reason: Shell Rot. Percent Pole Strength: 11. Inspection Comments: Sound & Bore w/ Long Bit. Can Y Coord: 30.299485 Not Treat: Underground Cable. Split Top, Decayed Top, Location: F\O 12 SAN PABLO CIR Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain, Shell Rot. Type: External, Location: N/A. Depth: 2.54. 03386 SP/P BX N Previous Cycle Eff Circ: 30. Decay this Cycle: 10. Prim UNK 1980 35/5 20 Rej Reason: Shell Rot. Percent Pole Strength: 30. X Coord: -81.404028 Inspection Comments: Sound & Bore w/ Long Bit. Can

Y Coord: 30,3002

Location: F|O 1125 13 AVE N

Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:		Contrac Week E Date: Job Nu	inding:	Osmose Ut 06/02/2007 05/29/2007 0-38-730	,	ervices,	F S	Crew ID: Foreman: Supervisor: Reference#:	DAV		County: DUVAL N HUTCHINSONState: FL OW
STRUCTURE ID 03357 UNI  X Coord: -81.403883  Y Coord: 30.303465  Location: R\O 1115 16	( 1960	LENGTH/ CLASS 35/5	SPECII TREAT SP/ C		RIGEFF /L <u>G/L</u> 3 20				RESTO CTDECAY COND N	CUS	
	<del></del>	Week I Date:	Ending:	06/09/200 06/05/200				Reference#	355	JH23C	
03469 UN X Coord: -81.400647 Y Coord: 30.299005 Location: 1223 9 ST N		5 35/5	SP/ P	3	1 20	BX	N	Y	N	N	Previous Cycle Eff Circ: 31. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 27. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.75.
03480 UN X Coord: -81.407003 Y Coord: 30.31145 Location: C\O PENMA			SP/ C	3	3 20	ΤX	N	Υ -	Y	Υ	Previous Cycle Eff Circ: 33. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 22. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Shell Rot. Type: External. Location: N/A.

Depth: 2.07.

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Crew ID: 355JH DUVAL County: Feeder Number: Week Ending: 06/09/2007 JONATHAN HUTCHINSONState: Foreman: FL Map: Date: 06/07/2007 Supervisor: **DAVID GROW** Line: Job Number: 0-38-730 Reference#: 355JH23C

STRUCTURE ID 03496 UNK 1970 X Coord: -81.397573 Y Coord: 30.277748 Location: C\O S 10 ST\10 AVE S	40/2	SPECIES/ TREAT SP/ P	ORIG <u>G/L</u> 40	EFF <u>G/L</u> 30		PRIORITY POLE N	REJEC POLE Y	RESTO TDECAY COND N	SPEC N	
02481 LAN 1971 X Coord: -81.396772 Y Coord: 30.278833 Location: C\O 9 AVE S\9 ST S	55/2	SP/ P	40	30	X - Exca vated Rejec t	N	Ÿ	Y	Y	Previous Cycle Eff Circ: 40. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 42. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.60.
03506 UNK 1970 X Coord: -81.39106 Y Coord: 30.281873 Location: F\O 612 S 4 ST	30/6	SP/ C	24	15	BX	N	Ý	N	N	Previous Cycle Eff Circ: 24. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.43.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 06/09/2007 06/08/2007 0-38-730	For Sup	ew ID: eman: pervisor: ference#:	355JH JONATH DAVID G 355JH23	
STRUCTURE ID MFG 1982  03514 LAN 1982  X Coord: -81.391862  Y Coord: 30.277495  Location: S\O 490 11 AVE S	LENGTH/ SPEC CLASS TREA 40 / 4 SP/ P		INSP PRIORIT TYPE POLE BX N	Y REJECT POLE Y	RESTORAE TDECAY CU COND SP Y	
02877 UNK 1980 X Coord: -81.395763 Y Coord: 30.27691 Location: F\O 822 11 AVE S	35 / 5 SP/P	30 20	BX N	Y	N N	Previous Cycle Eff Circ: 30. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.
03532 LAN 1981 X Coord: -81.391077 Y Coord: 30.27683 Location: F\O 409 12 AVE S	40 / 4 SP/ P	34 22	BX N	Y	YY	
03556 UNK 1980 X Coord: -81.398638 Y Coord: 30.283118 Location: C\O 4 AVE S\10 ST S	35 / 5 SP/ P	33 21	X - N Exca vated Rejec t	Y	N N	and the same of th
02707 UNK 1960 X Coord: -81.394385 Y Coord: 30.283818 Location: C\O 4 AVE S 6 ST S	40 / 5 SP/ C	28 15	X - N Exca vated Rejec t	Y	N N	Previous Cycle Eff Circ: 28. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 15. Inspection Comments: 3/4 Excavate. Split Top, Decayed Top, Compression Wood, Wind Shake, Excessive Spur Cuts, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.

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## Osmose.

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Crew ID: 355JH DUVAL County: Feeder Number: Week Ending: 06/16/2007 Foreman: JONATHAN HUTCHINSONState: FL Map: Date: 06/13/2007 **DAVID GROW** Supervisor: Line: Job Number: 0-38-730 Reference#: 355JH24B

								RESTO		-
OTPHOTHER IN	LENGTH/			GEFF	INSP	PRIORITY		TDECAY	CUST	•
STRUCTURE ID MFG YRSET		TREAT	<u>G/L</u> 32	<u>G/L</u> 20	<b>TYPE</b>	POLE	<b>POLE</b>	COND	SPEC	REMARKS AND NOTES
02791 UNK 1970 X Coord: -81.393108 Y Coord: 30.285118 Location: F\O 429 3 AVE S	35 / 5	SP/ C	32	20	BX	N	Y	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Reported Item: Trees / Vegetation. TIW, Trees or Branches in Wires. Reported On: 6_13_07 10-31-56 AM. Reported Item: Trees / Vegetation. BRUSH, Brush Clearing Needed. Reported On: 6_13_07 10-31-56 AM. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
02798 UNK 1985 X Coord: -81.394792 Y Coord: 30.284878 Location: F\O 601 3 AVE S	35 / 4	SP/ P	33	20	X - Exca vated Rejec t	N	Y	N	N	Previous Cycle Eff Circ: 33. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 22. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking, Rotten Butt. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
01933 UNK 1975 X Coord: -81.396577 Y Coord: 30.284047 Location: BETWEEN 3 AVE S\4 ST		SP/ P	32	20	X - Exca vated Rejec t	N	Ϋ́	Ñ	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Inspection Comments: Half Excavate. Can Not Treat: Roots. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
01958 UNK 1970 X Coord: -81.397932 Y Coord: 30.285155 Location: C\O 2 AVE S\9 ST S	35/5	SP/ P	30	15	X - Exca vated Rejec t		Y	N	Ñ	Previous Cycle Eff Circ: 30. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 13. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.38.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Servi 06/16/2007 06/15/2007 0-38-730	ices, Inc. Crew ID: Foreman: Supervisor: Reference#:	DAVID GROW	County: DUVAL IUTCHINSONState: FL V
STRUCTURE ID MFG VRSET 02000 UNK 1960 VC Coord: -81.396623 Y Coord: 30.286022 Location: R\O 123 8 ST S	LENGTH/ SPECII CLASS TREAT 30 / 5 SP/ C	G/L G/L T	NSP PRIORITY REJECTIVE POLE  N Y	N Pr Ro In No Be	REMARKS AND NOTES revious Cycle Eff Circ: 31. Decay this Cycle: 16. Prim ej Reason: Shell Rot. Percent Pole Strength: 11. spection Comments: Sound & Bore w/ Long Bit. Can ot Treat: Underground Cable. Decayed Top, Rotten utt, Mold or Stain. Shell Rot. Type: External. Location: //A. Depth: 2.54.
02019 ESC 1983 X Coord: -81.396262 Y Coord: 30.286067 Location: R\O 123 8 ST S	35 / 5 SP/ P	33 20 E	3X N Y	Ri In N Bi	revious Cycle Eff Circ: 33. Decay this Cycle: 13. Prim ej Reason: Shell Rot. Percent Pole Strength: 22. spection Comments: Sound & Bore w/ Long Bit. Can ot Treat: Underground Cable. Decayed Top, Rotten utt, Mold or Stain. Shell Rot. Type: External. Location: /A. Depth: 2.07.
01966 UNK 1970 X Coord: -81.395328 Y Coord: 30.285227 Location: 624 2 AVE S	35 / 5 SP / P	E	X - N Y Exca vated Rejec t	R S Itu R D	revious Cycle Eff Circ: 31. Decay this Cycle: 11. Prim ej Reason: Shell Rot. Percent Pole Strength: 27. Notes: TREETLIGHT WONT WORK TILL LATE. Reported em: Recommendations. OMREC, Other Maintenance ecommended. Reported On: 6_21_2007 3-28-00 PM. lecayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: xternal. Location: N/A. Depth: 1.75.
02022 UNK 1975 X Coord: -81.393787 Y Coord: 30.286302 Location: S 5 ST INBETWEEN 2 AVE S	40 / 4 SP/ P  AVE S\1	34 25 1	BX N Y	R R S L T S	revious Cycle Eff Circ: 34. Decay this Cycle: 9. Prim Rejleason: Shell Rot. Percent Pole Strength: 40. Rec. Restore Method: C2-TRUSS. Restoration Height: TANDARD. Inspection Comments: Sound & Bore w/ong Bit. Can Not Treat: Underground Cable. Decayed op, Wind Shake, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: .43.

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 06/16/2007 06/15/2007 0-38-730	ervices, Inc.	Crew ID: Foreman: Supervisor: Reference#	DAVID	County: DUVAL THAN HUTCHINSONState: FL GROW 24B
STRUCTURE ID 02009 ESC 1980  X Coord: -81.392583  Y Coord: 30.286512  Location: S 4 ST INBETWEEN 2 / S	LENGTH/ SPEC CLASS TREA 40 / 2 SP/ P	I G/L G/L	TYPE PO	RIORITY REJE DLE POLE V		
02008 ESC 1981 X Coord: -81.392332 Y Coord: 30.28697 Location: F\O 328 1 AVE S F\8 FIRESTATION	45 / 3 SP/ F	37 20	BX I	N Y	Y	Y Previous Cycle Eff Circ: 37. Decay this Cycle: 17. Prim Rej Reason: Shell Rot. Percent Pole Strength: 16. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.71.
02054 ESC 1982 X Coord: -81.392903 Y Coord: 30.287582 Location: S 4 ST\ S C\O BEACH S		36 25	BX	N Y	Y	Y Previous Cycle Eff Circ: 36. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 33. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Notes: BESIDE IHOP - POP A/F Reported Item: Pole. POP, Pull Old Pole. Reported On: 6_15_07 10-18-30 AM. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.75.
02038 UNK 1970 X Coord: -81.394548 Y Coord: 30.28665 Location: A\F 585 1 AVE S	35 / 5 SP/ (	28 20	X - Exca vated Rejec t	N Y	N	N Previous Cycle Eff Circ: 28. Decay this Cycle: 8. Prim Rej Reason: Shell Rot. Percent Pole Strength: 36. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking. Shell Rot. Type: External. Location: N/A. Depth: 1.28.

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Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 06/16/2007 06/15/2007 0-38-730	rvices, Inc.	Crew ID: Foreman: Supervisor: Reference#:		ATHAN HUTCHINSONState: FL D GROW
STRUCTURE ID         MFG         YRSET           02075         UNK         1970           X Coord: -81.393957         Y Coord: 30.287788           Location: C\O 5 S4 S\SHETTER A	55 / 3 SP/ C	<u>G/L</u> 37 25	TYPE POL X - N Exca vated Rejec t	¥	COND N	CUST  SPEC REMARKS AND NOTES  N Previous Cycle Eff Circ: 37. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 31. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
02093 KOP 1958 X Coord: -81.397213 Y Coord: 30.28735 Location: C\O SHETTER AVE\8 S	30/6 SP/C	24 15	X - N Exca vated Rejec	Y 	N 	N Previous Cycle Eff Circ: 24. Decay this Cycle: 9. Prim Re Reason: Shell Rot. Percent Pole Strength: 24. Decayed Top, Excessive Spur Cuts, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.43.
	Week Ending: Date:	06/23/2007 06/18/2007		Reference#:	355J	H25C
01416 EPR 1956 X Coord: -81.407403 Y Coord: 30.285735 Location: 1520 SHETTER AVE	35 / 4 SP/ C	34 20	X - N Exca vated Rejec t	Υ	N	N Previous Cycle Eff Circ: 34. Decay this Cycle: 14. Prim Rej Reason: Shell Rot. Percent Pole Strength: 20. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.23.
01423 UNK 1980 X Coord: -81.408252 Y Coord: 30.285795 Location: A\F 1540 SHETTER AV	35 / 5 SP / C	32 20	X - N Exca vated Rejec t	Y	N	N Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Inspection Comments: 3/4 Excavate. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
01445 KOP 1969 X Coord: -81.406953 Y Coord: 30.282287 Location: F\O 307 S 15 ST	35 / 4 SP/ C	34 22	BX N	Υ	N	N Previous Cycle Eff Circ: 34. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 27. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Services, Inc. 06/23/2007 06/19/2007 0-38-730	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATHAN HUTCHINS DAVID GROW 355JH25C	County: SONState:	DUVAL FL
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STRUCTURE ID 02343 X Coord: -81.4058 Y Coord: 30.2783 Location: F\O 5 FA	9	1979	LENGTH/ CLASS 55/3	SPECIES/ TREAT SP/ P	ORIG <u>G/L</u> 41	GEFF <u>G/L</u> 32	INSP TYPE BX	PRIORITY POLE N	REJEC POLE Y	RESTOI TDECAY COND Y	CUS	
01446 X Coord: -81.403; Y Coord: 30.2762 Location: F\O 39	63	1964 Y LN	35/4	SP/ C	33	20	BX	N	Y	N	N	Previous Cycle Eff Circ: 33. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 22. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
02373 X Coord: -81.401 Y Coord: 30.2708 Location: F\O 150	867	1977 BREAZ		SP/ P	40	30	BX	N	Y	Y	Y	Previous Cycle Eff Circ: 40. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 42. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.60.

### Jsmose

#### REJECT POLES REPORT

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Services 06/23/2007 06/21/2007 0-38-730	, Inc. Crew ID: Foreman: Supervisor: Reference#:	355JH JONATHA DAVID GF 355JH250		DUVAL FL
STRUCTURE ID MFG YRSET EPR 1959  X Coord: -81.398798  Y Coord: 30.271958  Location: A\F 1222 16 AVE S	LENGTH/ SPECII CLASS TREAT 40 / 4 SP/ C		E POLE POLE Y a d	RESTORABI TDECAY CUS COND SPE N N	EC REMARKS AND NOTES Previous Cycle Eff Circ: 3! Rej Reason: Shell Rot. Pe Inspection Comments: 3/4	5. Decay this Cycle: 13. Primercent Pole Strength: 25.

Location: A\f				Rejec t					Excessive Cracking/Checking, Low Decay, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.		
X Coord: -81 Y Coord: 30 Location: A\l	 1971 S	55/3	SP/ P	45	32	X - Exca vated Rejec t	N	Y	Y	Y	Previous Cycle Eff Circ: 45. Decay this Cycle: 13. Prim Rej Reason: Shell Rot. Percent Pole Strength: 36. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.07.
01469 X Coord: -81 Y Coord: 30	 1980	35 / 4	SP/ P	33	22	X - Exca vated	N	Y	Υ	Υ	Previous Cycle Eff Circ: 33. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Rec. Restore Method: C2-TRUSS. Restoration Height:

Ν

Rejec

BX

20

02398 UNK 1970 35/4 X Coord: -81.390542 Y Coord: 30.274098

Location: F\O 443 15 AVE S

Location: F\O 816 16 AVE S

			- 05.7.4	00/0			DV			<sub>N</sub> .	
01789	ESC	1984	35 / 4	SP/ P	32	22	BX	N	Y	14	
X Coord: -81.39	9538										

SP/P

Y Coord: 30.274258

Location: F\O 823 15 AVE S

N Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91. Previous Cycle Eff Circ: 32. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 32. Inspection Comments: Sound & Bore w/ Long Bit. Can

Not Treat: Underground Cable. Decayed Top, Excessive

Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot.

STANDARD. Decayed Top, Mold or Stain. Shell Rot.

Type: External. Location: N/A. Depth: 1.75.

Type: External. Location: N/A. Depth: 1.59.

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Feeder Name: Feeder Number: Map: Line:	Contract Week E Date: Job Nur	nding:	Osmose 06/23/200 06/21/200 0-38-730	)7	ervices, I	For Su	ew ID: reman: pervisor: ference#:	DAV		<del></del>
STRUCTURE ID       MFG ESC       YRSET 1984         01229       ESC       1984         X Coord: -81.394428       Y Coord: 30.274428         Location: F\O 727 15 AVE S	LENGTH/ CLASS 35 / 4	SPECIE TREAT SP/ P		ORIGEF G/L <u>G/</u> 31 22	Exca vated Rejec	PRIORIT POLE N	TY REJEC POLE Y	RESTO TDECAY COND N	cus	
01297 LAN 1984 X Coord: -81.39085 Y Coord: 30.274967 Location: F\O 441 14 AVE S	35 / 4	SP/ P		32 20	BX	N	<b>Y</b>	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
	Date:		06/22/20	07						
02997 KOP 1975 X Coord: -81.392337 Y Coord: 30.267473 Location: 1 POLE W C\O MILLE DR\OSCEOLE DR	55/3	SP/ P		39 30	ВХ	N	Y	Y	Y	Previous Cycle Eff Circ: 39. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 46. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.44.
02988 SWP 1972 X Coord: -81.391145 Y Coord: 30.273445 Location: S 5 ST\BETWEEN 15\1		SP/ C		30 20	X - Exca vated Rejec	N	<b>Y</b>	N	N	Previous Cycle Eff Circ: 30. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Decayed Top, Excessive Cracking/Checking, Rotten Butt. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

Feeder Name: Feeder Number: Map: Line:	Contract Week End Date: Job Num	nding:	Osmose U 06/30/2007 06/27/2007 0-38-730	•	ervices,	Fore Sup	w ID: eman: ervisor: erence#:	DAV		County: DUVAL N HUTCHINSONState: FL OW
STRUCTURE ID MFG YRSET 02526 ESC 1988  X Coord: -81.396863  Y Coord: 30.269703  Location: F\O 1818 HORN ST	LENGTH/ CLASS 35/4	SPECIE TREAT SP/ P		<b>RIG EFF</b> / <u>L G/L</u> 1 20	INSP TYPE X - Exca vated Rejec	N	POLE	RESTO TDECAY COND N	CUS	
02523 UNK 1970 X Coord: -81.395295 Y Coord: 30.269233 Location: F\O 957 OWEN AVE	40/3	SP/ C	3	5 28	BX	N	Y	Y	Υ	Previous Cycle Eff Circ: 35. Decay this Cycle: 7. Prim Rej Reason: Shell Rot. Percent Pole Strength: 51. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.11.
02579 UNK 1995 X Coord: -81.398887 Y Coord: 30.26798 Location: F\O 2005 WILLIAMS ST	40 / 4	SP/ SK	3	5 26	BX		Υ	Y	Y	Previous Cycle Eff Circ: 35. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 41. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.43.
	Date:		06/28/200	7						
03038 UNK 1975 X Coord: -81.39059 Y Coord: 30.267518 Location: C\O ISABELLA BLVD*C AVE	55 / 3 OSCEOLA	SP/ P	4	1 32	BX	N	<b>Y</b>	Y	Υ	Previous Cycle Eff Circ: 41. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 48. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.44.

Feeder Name: Feeder Number: Map: Line:	Contract Week E Date: Job Nun	nding:	Osmose Utili 07/07/2007 07/04/2007 0-38-730	ties Se	rvices,	F	rew ID: oreman: upervisor: leference#:		ATHAN D GRO	County: DUVAL I HUTCHINSONState: FL DW
STRUCTURE ID MFG YRSET 03781 UNK 1970  X Coord: -81.40713  Y Coord: 30.306775  Location: F\O 1501 ARDEN WAY	LENGTH/ CLASS 35/4	SPECIE TREAT SP/ C			INSP TYPE BX	PRIORI POLE N	ITY REJEC POLE Y		SPEC N	
	Week E Date:	inding:	07/14/2007 07/08/2007							
						P	Reference#:	355J	H28A	
03950 ESC 1985 X Coord: -81.381603 Y Coord: 30.229513 Location: F\O 467 GOLF VIEW CI	50/3 R	SP/ P	40	30	BX	N	<b>Y</b>	Υ	Υ	Previous Cycle Eff Circ: 40. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 42. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Excessive Cracking/Checking, Low Decay, Mold or Stain. Shell Rot Type: External. Location: N/A. Depth: 1.60.
	Date:		07/10/2007							
01793 UNK 1985 X Coord: -81.380385 Y Coord: 30.202462 Location: C\O A1A\PGA TOUR BI	35 / 3 _VD	SP/ P	40	30	BX	N	Y	N	N	Previous Cycle Eff Circ: 40. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 42. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.60.
03956 UNK 1985 X Coord: -81.38039 Y Coord: 30.201772 Location: 1 POLE S C\O A1A\PGA BLVD	55 / 3 A TOUR	SP/ P	44	35	BX	N	Y	N	N	Previous Cycle Eff Circ: 44. Decay this Cycle: 9. Prim Re Reason: Shell Rot. Percent Pole Strength: 50. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Wind Shake, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Medium Woodpecker Holes, Qty: 2. Shell Rot. Type: External. Location: N/A. Depth: 1.43.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Servi 07/14/2007 07/10/2007 0-38-730	Fore Supe	man: JON ervisor: DAV	JH County: DUVAL IATHAN HUTCHINSONState: FL /ID GROW JH28A
	LENGTH/ SPECIE CLASS TREAT 50 / 2 SP/ P	G/L G/L T	NSP PRIORITY TYPE POLE 3X N	RESTO REJECTDECAN POLE COND Y N	
04990 ESC 1985  X Coord: -81.380293  Y Coord: 30.190663  Location: F\O 870 A1A F\O BOOG  GBILL\BESIDE ACE HARDWERE		E	K - N Exca vated Rejec	Y N	N Previous Cycle Eff Circ: 40. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 42. Decayed Top, Excessive Cracking/Checking. Shell Rot. Type: External. Location: N/A. Depth: 1.60.
	Week Ending: Date:	07/28/2007 07/27/2007	Refe	erence#: 355	JH30A
04086 UNK 1980 X Coord: -81.393632 Y Coord: 30.169743 Location: F\O 26 S WILDERNESS	40/4 SP/P	33 25 1	TX N	YY	Y Previous Cycle Eff Circ: 33. Decay this Cycle: 8. Prim Re Reason: Shell Rot. Percent Pole Strength: 43. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: Sound & Bore w/ Long Bit. Decayed Top, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.27.
04075 UNK 1988 X Coord: -81.398228 Y Coord: 30.176933 Location: F\O 148 S WILDERNES	55 / 3 SP/ P	42 32 \	VX N	Y N	N Previous Cycle Eff Circ: 42. Decay this Cycle: 10. Prim Rej Reason: Shell Rot Above. Percent Pole Strength: 44 Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Water. Small Woodpecker Holes, Qty: 1. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

Feeder Name: Feeder Number: Map: Line:	Contract Week E Date: Job Nur	nding:	Osmose Utilit 08/04/2007 07/28/2007 0-38-730	es Se	rvices, Ir	Fore Supe	/ ID: man: ervisor: rence#:	DAV		County: DUVAL I HUTCHINSONState: FL DW
STRUCTURE ID MFG 1988  X Coord: -81.385723 Y Coord: 30.161645 Location: 0000	LENGTH/ CLASS 55/3	SPECIE TREAT SP/ P	ES/ ORIG <u>G/L</u> 40	3EFF <u>G/L</u> 30		PRIORITY POLE N	REJEC POLE Y	RESTO TDECAY COND N	CUST SPEC	
	Date:		07/30/2007							
04686 UNK 1975 X Coord: -81.380235 Y Coord: 30.210848 Location: C\O A1A\OCEAN PL-1	-	SP/ P	42	34	TX	N	Y	Y	N	Previous Cycle Eff Circ: 42. Decay this Cycle: 8. Prim Rej Reason: Shell Rot. Percent Pole Strength: 53. Rec. Restore Method: C2-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.27.
04517 UNK 1970 X Coord: -81.405757 Y Coord: 30.290523 Location: F\O 321 PENMAN RD	35/4	SP/ C	30	20	X - Exca vated Rejec	N	Y	N	N	Previous Cycle Eff Circ: 30. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 30. Notes: PARKS AND RECREATION. Decayed Top. Shell Rot. Type: External. Location: N/A. Depth: 1.59.
04529 LAN 1976 X Coord: -81.405518 Y Coord: 30.29076 Location: F\O 321 PENMAN RD	35 / 4	SP/ P	32	20	K - Exca vated Rejec t	N	Y	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 12. Prim Rej Reason: Shell Rot. Percent Pole Strength: 24. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.91.
04530 UNK 1976 X Coord: -81.406143 Y Coord: 30.29356 Location: A\F C\O PENMAN\6 A\		SP/ P	31	20	X - Exca vated Rejec t	N	<b>Y</b>	N.	N	Previous Cycle Eff Circ: 31. Decay this Cycle: 11. Prim Rej Reason: Shell Rot. Percent Pole Strength: 27. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.75.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 08/04/2007 07/30/2007 0-38-730	ervices, Inc.	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATH, DAVID G 355JH30	
STRUCTURE ID         MFG         YRSET         C           04518         EPR         1959           X Coord: -81.406333         Y Coord: 30.295817           Location: F\O 915 PENMAN RD	ENGTH/ SPECIE CLASS TREAT 35 / 5 SP / C	ORIGEFF <u>G/L</u> <u>G/L</u> 29 20		ORITY REJEC <u>POLE</u> Y		ST EC REMARKS AND NOTES
04539 UNK 1960 X Coord: -81.405183 Y Coord: 30.293438 Location: F\O 707 HOLLY DR	35 / 5 SP/ P	27 18	BX N	Y	N N	and the second control of the contro
04540 UNK 1970 X Coord: -81.405383 Y Coord: 30.29374 Location: F\O 720 HOLLY DR	35 / 5 SP/ C	31 24	BX N	<b>Y</b>	N N	Previous Cycle Eff Circ: 31. Decay this Cycle: 7. Prim Rej Reason: Shell Rot. Percent Pole Strength: 46. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.11.
	Date:	07/31/2007				
04559 UNK 1960 X Coord: -81.379108 Y Coord: 30.152817 Location: F\O 3896 PALM VALLY	30 / 4 SP/ C	32 22	BX N	Υ	N N	Previous Cycle Eff Circ: 32. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 32. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Low Decay, Rotten Butt, Shell Rot Above, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.
04224 UNK 1960 X Coord: -81.382548 Y Coord: 30.131617 Location: F\O 429 S ROSCO BLVI	35 / 3 SP/ C	35 20	X - N Exca vated Rejec t	Y	N N	Previous Cycle Eff Circ: 35. Decay this Cycle: 15. Prim Rej Reason: Shell Rot. Percent Pole Strength: 19. Decayed Top, Excessive Cracking/Checking, Rotten Butt Shell Rot Above. Shell Rot. Type: External. Location: N/A Depth: 2.39.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 08/04/2007 08/01/2007 0-38-730	rvices, Inc.	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATH DAVID ( 355JH30	
STRUCTURE ID MFG VRSET 04255 UNK 1960 VX Coord: -81.385353 Y Coord: 30.134312 Location: R\O 363 S ROSCO BLVI	35 / 4 SP/ C		INSP PRICE TYPE POLE BX N	ority rejec <u>-e pole</u> Y	COND SE	
04307 UNK 1960 X Coord: -81.391285 Y Coord: 30.145435 Location: 22 CAT RD	30 / 6 SP/ C	23 15	X - N Exca vated Rejec	Y	N f	Previous Cycle Eff Circ: 23. Decay this Cycle: 8. Prim Rej Reason: Shell Rot. Percent Pole Strength: 28. Decayed Top. Shell Rot. Type: External. Location: N/A. Depth: 1.27.
	40 / 4 SP/ C	34 20	K - N Exca vated Rejec t	Y	N I	Previous Cycle Eff Circ: 34. Decay this Cycle: 14. Prim Rej Reason: Shell Rot. Percent Pole Strength: 20. Reported Item: Pole. LP, Leaning Pole. Reported On: 8_1_07 2-59-41 PM. Reported Item: Pole. POP, Pull Old Pole. Reported On: 8_1_07 2-59-41 PM. Reported Item: Pole. POPATT, Pull Old Pole Attachments. Reported On: 8_1_07 2-59-41 PM. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 2.23.
04333 KOP 1954 X Coord: -81.394035 Y Coord: 30.151505 Location: 195A S ROSCO BLVD	35 / 4 SP/ C	31 25	BX N	Ÿ	<b>N</b>	Previous Cycle Eff Circ: 31. Decay this Cycle: 6. Prim Rej Reason: Shell Rot. Percent Pole Strength: 52. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Excessive Cracking/Checking. Shell Rot. Type: External. Location: N/A. Depth: 0.95.
04337 KOP 1954 X Coord: -81.394135 Y Coord: 30.15179 Location: 195 S ROSCO BLVD	35 / 4 SP/ C	31 21	BX N	<b>Y</b>	N	N Previous Cycle Eff Circ: 31. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 31. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 08/04/2007 08/01/2007 0-38-730	rvices, Inc.	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATH DAVID ( 355JH3	
	LENGTH/ SPECIE CLASS TREAT 35 / 4 SP/ P		INSP PRICE POLICE NO.	DRITY REJEC <u>E POLE</u> Y	COND SI	<del></del>
04831 UNK 1970 X Coord: -81.394315 Y Coord: 30.152302 Location: 189-5 S ROSCO BLVD	35 / 5 SP/ C	27 20	BX N	Υ	N	Previous Cycle Eff Circ: 27. Decay this Cycle: 7. Prim Rej Reason: Shell Rot. Percent Pole Strength: 41. Reported Item: Soil / Pavement. WATER, Swamp; Creek; Pond or Lake. Reported On: 8_1_07 4-34-35 PM. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.12.
	Date:	08/02/2007				
04360 UNK 1960 X Coord: -81.395252 Y Coord: 30.15659 Location: F\O 151 S ROSCO BLV	45 / 4 SP/ C	35 26	X - N Exca vated Rejec t	Υ	N	N Previous Cycle Eff Circ: 35. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 41. Reported Item: Soil / Pavement. WATER, Swamp; Creek; Pond or Lake. Reported On: 8_2_07 11-02-23 AM. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.43.

Feeder Name: Feeder Number: Map: Line:	Contrac Week E Date: Job Nur	nding:	Osmose Utilit 08/04/2007 08/02/2007 0-38-730	ies Se	rvices, I	F	Crew ID: Foreman: Supervisor: Reference#:	DAV		County: DUVAL N HUTCHINSONState: FL DW
STRUCTURE ID MFG YRSET 1970  X Coord: -81.39607  Y Coord: 30.156288  Location: R\O 155 S ROSCO BLV	35/4	SPECIE TREAT SP/ P	es/ ORIG <u>G/L</u> 30	<b>GEFF G/L</b> 22		PRIOF POLE N	RITY REJEC POLE Y		CUST SPEC	
04351 UNK 1960 X Coord: -81.395452 Y Coord: 30.1574 Location: F\O 150 S ROSCO BLV	45 / 4 D	SP/ C	34	25	ВХ	N	<b>Y</b>	N	N	Previous Cycle Eff Circ: 34. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 40. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Excessive Cracking/Checking, Rotten Butt, Shell Rot Above, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.43.
	Week E Date:	inding:	08/11/2007 08/08/2007				Reference#:	355.	JH32A	
04450 EPR 1961 X Coord: -81.399127 Y Coord: 30.16824 Location: R\O 67 ROSCO BLVD S	30 / 5	SP/ C	31	25	X - Exca vated Rejec t	N	Y	N	N	Previous Cycle Eff Circ: 31. Decay this Cycle: 6. Prim Rej Reason: Shell Rot. Percent Pole Strength: 52. Reported Item: Trees / Vegetation. TIW, Trees or Branches in Wires. Reported On: 8_8_07 3-55-58 PM. Reported Item: Trees / Vegetation. BRUSH, Brush Clearing Needed. Reported On: 8_8_07 3-55-58 PM. Reported Item: Trees / Vegetation. VEGPRB, Vegetation Problem. Reported On: 8_8_07 3-55-58 PM. Decayed Top, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 0.95.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Se 08/11/2007 08/09/2007 0-38-730	rvices, Inc.	Crew ID: Foreman: Supervisor: Reference#:	355JH JONATHA DAVID GR 355JH32A	
STRUCTURE ID 04389	LENGTH/ SPEC CLASS TREA 35 / 5 SP/ C	I G/L G/L	INSP PRIO TYPE POL BX N	ORITY REJEC E <u>POLE</u> Y		
04708 UNK 1980 X Coord: -81.402758 Y Coord: 30.186457 Location: F\O 83N ROSCO RD	35 / 5 SP / P	32 22	BX N	Y	N N	Previous Cycle Eff Circ: 32. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 32. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.
04707 UNK 1969 X Coord: -81.402857 Y Coord: 30.186843 Location: F\O 89N ROSCO RD	35 / 5 SP/ C	29 20	BX N	Y	N N	Previous Cycle Eff Circ: 29. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 33. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Shell Rot. Type: External. Location: N/A. Depth: 1.44.
04737 KOP 1964 X Coord: -81.403375 Y Coord: 30.18885 Location: F\O 107N ROSCO BLVI	35 / 4 SP/ 0	29 20	BX N	Y	N N	Previous Cycle Eff Circ: 29. Decay this Cycle: 9. Prim Rej Reason: Shell Rot. Percent Pole Strength: 33. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Shell Rot. Type: External. Location: N/A. Depth: 1.44.
04761 UNK 1976 X Coord: -81.404753 Y Coord: 30.194485 Location: F\O 157N ROSCO BLV	35 / 4 SP/ F	31 25	BX N	Y	N N	Previous Cycle Eff Circ: 31. Decay this Cycle: 6. Prim Rej Reason: Shell Rot. Percent Pole Strength: 52. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 0.95.
04758 UNK 1976 X Coord: -81.404358 Y Coord: 30.196087 Location: F\O N ROSCO BLVD	35 / 4 SP/ I	31 21	X - N Exca vated Rejec t	Y	N N	Previous Cycle Eff Circ: 31. Decay this Cycle: 10. Prim Rej Reason: Shell Rot. Percent Pole Strength: 31. Decayed Top, Excessive Cracking/Checking, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.59.

Feeder Name: Feeder Number: Map: Line:	Contracte Week Er Date: Job Num	nding:	Osmose Utilit 08/11/2007 08/09/2007 0-38-730	ies Sei	rvices, l	F S	rew ID: oreman: upervisor: eference#:	DAV		County: DUVAL N HUTCHINSONState: FL OW
	CLASS	SPECIE TREAT SP/ C	S/ ORI <u>G/L</u> 27	GEFF <u>G/L</u> 20	INSP TYPE X - Exca vated Rejec	PRIOR POLE N	ITY REJEC POLE Y	RESTO TDECAY COND N	CUS	
	Date:		08/10/2007					<del></del>		
04136 UNK 1960 X Coord: -81.407838 Y Coord: 30.206925 Location: F\O 273 N ROSCO BL	35 / 5 VD	SP/ C	26	19	BX	N	Y	N	N	Previous Cycle Eff Circ: 26. Decay this Cycle: 7. Prim Rej Reason: Shell Rot. Percent Pole Strength: 39. Inspection Comments: Sound & Bore w/ Long Bit. Can Not Treat: Underground Cable. Split Top, Decayed Top, Rotten Butt, Mold or Stain. Shell Rot. Type: External. Location: N/A. Depth: 1.12.
04147 ESC 1970 X Coord: -81.408717 Y Coord: 30.207605 Location: R\0277 N ROSCO BLV		SP/ C	32	25	X - Exca vated Rejec	N	Y	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 7. Prim Rej Reason: Shell Rot. Percent Pole Strength: 48. Shell Rot. Type: External. Location: N/A. Depth: 1.11.
	Week E	nding:	12/22/2007 12/17/2007		<u>-</u> -		Crew ID: Foreman:	6781 NICI		BINSON
						F	Reference#:	6781	NR51A	\
05839 UNK 1978 X Coord: -81.38036 Y Coord: 30.237598 Location: 305 SAN JUAN DR	30 / 5	SP/ P	26	19.2	BX	N	Y	N	N	Previous Cycle Eff Circ: 26. Decay this Cycle: 6.8. Prim Rej Reason: Heart Rot Above. Percent Pole Strength: 40 Can Not Treat: Underground Cable. Decayed Top. Heart Rot. Type: Internal. Location: N/A. Min Shell: 0.5.

#### REJECT POLES REPORT

Feeder Name: Contractor: Osmose Utilities Services, Inc. Crew ID: DUVAL 678NR County: Feeder Number: Week Ending: 12/22/2007 NICK ROBINSON Foreman: State: FL Мар: 12/18/2007 Date: Supervisor: **DAVID GROW** Line: 0-38-730 Job Number: Reference#: 678NR51A

										RESTO	RABLE	
OTDUOTUDE IS			LENGTH/	SPECIES/		3 EFF		PRIORITY	REJEC	TDECAY	CUST	
STRUCTURE ID			CLASS	TREAT	<u>G/L</u> 34	<u>G/L</u>		POLE	POLE	COND	SPEC	REMARKS AND NOTES
05823	LAN	1978	40 / 4	SP/ P	34	30	BX	N	Υ	N	Ν	Previous Cycle Eff Circ: 34. Decay this Cycle: 4. Prim Rej
X Coord: -81.3815	-											Reason: Shell Rot. Percent Pole Strength: 69. Can Not
Y Coord: 30.2414												Treat: Underground Cable. Decayed Top. Shell Rot.
Location: 211 SAI												Type: External. Location: N/A. Depth: 0.64.
05858	UNK	1985	45/3	SP/ P	37	33	BX	Ν	Υ	Ν	Ν	Previous Cycle Eff Circ: 37. Decay this Cycle: 4. Prim Rej
X Coord: -81.3821												Reason: Shell Rot. Percent Pole Strength: 71. Can Not
Y Coord: 30.2425												Treat: Underground Cable. Decayed Top. Shell Rot.
Location: SAN JU												Type: External. Location: N/A. Depth: 0.64.
05314	UNK	1978	40/4	SP/ P	35	35	BX	Ν	Υ	Ν	Ν	Previous Cycle Eff Circ: 35. Prim Rej Reason: Decayed
X Coord: -81.384												Top. Can Not Treat: Underground Cable. Split Top,
Y Coord: 30.2523												Decayed Top.
Location: R/O 16		the section comments to be										were the second of the second
05349	UNK	1978	35 / 4	SP/ P	33	29	X -	Ν	Υ	Ν	N	Previous Cycle Eff Circ: 33. Decay this Cycle: 4. Prim Rej
X Coord: -81.3850							Exca					Reason: Decayed Top. Percent Pole Strength: 68.
Y Coord: 30.2519							vated					Decayed Top. Shell Rot. Type: External. Location: N/A.
Location: FAIRW	\						Rejec					Depth: 0.63.
05348VERDE CIR	UNK	1978	35 / 4	SP/ P	32	13.2		Ν	Υ	N	N	Previous Cycle Eff Circ: 32. Decay this Cycle: 18.8. Prim
X Coord: -81.385							Exca					Rej Reason: Heart Rot Above. Percent Pole Strength: 13.
Y Coord: 30.2513							vated					Decayed Top. Heart Rot. Type: Internal. Location: N/A.
Location: FAIRW		H TEE)	R/O PONTA	4			Rejec					Min Shell: 0.5. Shell Rot. Type: External. Location: N/A.
VERDE CIR (USE	= GPS)						I					Depth: 0.95.

Feeder Name: Feeder Number: Map: Line:	Contract Week Er Date: Job Nun	nding:	Osmose Utili 12/22/2007 12/20/2007 0-38-730	ties Se	ervices,		Crew ID: Foreman: Supervisor: Reference#:	DAV	NR K ROBII ID GRO NR51A		County: State:	DUVAL FL
STRUCTURE ID 05267 SWP 1971  X Coord: -81.41766  Y Coord: 30.314793  Location: 90 FOREST AVE	LENGTH/ CLASS 50/3	SPECIE TREAT SP/ C	ES/ OR <u>G/L</u> 37	IGEFF <u>G/L</u> 34	INSP TYPE TX		RITY REJEC POLE Y	RESTO TDECAY COND Y	CUST SPEC Y	REMARKS Previous Cy Reason: Sh Restore Me STANDARE	ell Rot. Percent thod: C2-TRUS ). Inspection Co	Decay this Cycle: 3. Prim Rej Pole Strength: 78. Rec. S. Restoration Height: mments: 3/4 Excavate. Shell on: N/A. Depth: 0.48.
	Date:		12/21/2007			<del></del>						
05328 UNK 1977 X Coord: -81.41683 Y Coord: 30.30938 Location: 1701 KINGS RD (USE		SP/ P	41	41	VX	N	Y	N	N	Top. Decay	ed Top. Large V oodpecker Holes	Prim Rej Reason: Decayed Voodpecker Holes,Qty: 1. s, Qty: 2. Small Woodpecker
	Week E Date:	nding:	12/29/2007 12/28/2007				Supervisor: Reference#:		/ID GRO	OWE		
05369 UNK 1977 X Coord: -81.397583 Y Coord: 30.31426 Location: 419 FLORIDA BLVD	30 / 5	SP/ P	29	22	TX	N	Υ	Y	Y	Reason: Sh Restore Me	nell Rot. Percent ethod: C2-TRUS D. Shell Rot. Typ	Decay this Cycle: 7. Prim Rej t Pole Strength: 44. Rec. S. Restoration Height: De: External. Location: N/A.

Feeder Name: Feeder Number: Map: Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Sei 12/29/2007 12/29/2007 0-38-730	rvices, Inc	Forer Supe		DAVI	IR CROBINS ID GROV IR52A		County: State:	DUVAL FL
STRUCTURE ID         MFG UNK         YRSET 1980           05449         UNK         1980           X Coord: -81.400092         Y Coord: 30.299513           Location: 1304 8TH ST NORTH	LENGTH/ SPECI CLASS TREAT 35 / 5 SP/ P		TYPE P	RIORITY OLE N	REJECT POLE Y	RESTO TDECAY COND N	CUST SPEC N P	revious Cyc leason: Dec	ayed Top. Perd	Decay this Cycle: 5. Prim Rej cent Pole Strength: 57. pe: External. Location: N/A.

External Treat (T)	0	Visual Report (V)	0	Partial Excavate (P)	0
Sound & Bore (B)	0	External Treat w/ Decay (TD)	0	Visual Reject (VX)	2
Partial Excavate w/ Decay (PD)	0	Sound & Bore w/ Decay (BD)	0	Sound Only w/ Decay (SD)	0
Treat Reject (TX)	19	Sound Only (S)	0	Partial Excavate Reject (PX)	0
Sound & Bore Reject (BX)	92	Dug Reject (X)	0	Sound Only Reject (SX)	0

## City of Blountstown Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1. Introduction

- a) City of Blountstown
- b) 20591 Central Avenue W. Blountstown, FL 32424
- c) Contact Information:

Traci S. Hall, Finance Director

Phone 850-674-5488; Fax 850-674-8289

Email: thall@blountstown.org

#### 2. Number of customers served in calendar year 2007

The City of Blountstown had a total number of 1350 customers for year 2007.

#### 3. Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices and procedures at the City of Blountstown comply with the National Electric Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices and procedures at the City of Blountstown are currently not guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild or relocation of existing facilities and major thoroughfares. The City of Blountstown has adopted a larger minimum pole standard of a class 3 pole, effective November 2007, in an effort to harden our system. The City of Blountstown is continuing to examine this issue further in 2008.

The City of Blountstown is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The City of Blountstown has no underground facilities.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices and procedures at the City of Blountstown provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices and procedures at the City of Blountstown do not include written safety, pole reliability, pole loading, capacity and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. The City of Blountstown is reviewing Pole Attachment Agreements and will be examining this issue further in 2008.

#### 4. Facility Inspection

a) Policies, guidelines, practices and procedures for inspecting transmission and distribution lines, poles and structures.

The City of Blountstown has a total of 1,693 utility poles and does visual inspections of all poles once a year. The City of Blountstown is currently working on a practical inspection system in 2008.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

The City of Blountstown visually inspects 100% of our poles every year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for failure.

As a result in our visual inspection, we found 10 poles that required replacement. Reason for the failure was ground rot and clearance issues.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The 10 poles that were damaged were class 5 poles and were all replaced with stronger class 3 poles.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices and procedures for vegetation management, including programs addressing appropriate planting, landscaping and problem tree removal practices for vegetation management outside of road right-of-ways or easements and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Blountstown has a four year cycle for tree trimming with a ten (10) ft clearance of our lines and facilities.

b) Quantity, level and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Blountstown will trim twenty-five (25) percent of our system with a ten (10) ft. clearance in 2008.

#### 6. Storm Hardening Research

The City of Blountstown is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1 or bmoline@publicpower.com.

#### **CITY OF BUSHNELL**

219 N. Market Street P.O. Box 115



Bushnell, Florida 33513 (352) 793-2591 Fax (352) 793-2711

February 12, 2008

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Subject: City of Bushnell Storm Hardening Report, Calendar Year 2007

Dear Mr. Devlin,

Please find enclosed, a copy of the subject report. Also enclosed is a CD with supporting data. Please contact me, should you require additional information.

Sincerely,

Bruce J. Hickle

Director of Utilities

cc: Vince Ruano, City Manager

Bruce V Hickle

### **City of Bushnell**

## Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Name of city/utility: City of Bushnell
- b) Address, street, city, zip: P.O. Box 115, Bushnell FL. 33513
- c) Contact information: Name, title, phone, fax, email: Bruce J. Hickle, Director of Utilities, 352-793-8012, 352-793-8036, bruhickle@yahoo.com

#### 2) Number of customers served in calendar year 2007

1,153

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

**Response:** Construction standards, policies, guidelines, practices, and procedures at the City of Bushnell comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

**Response:** Construction standards, policies, guidelines, practices, and procedures at the City of Bushnell are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after October 1, 2007.

#### c) Flooding and Storm Surges

**Response:** Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bushnell <u>do not</u> address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities because the Utility has no infrastructure in coastal communities and is not subject to major flooding/storm surge events.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

**Response:** Electrical construction practices at the City of Bushnell provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. For example, these distribution feeders are not permitted to be placed on back lot lines or other areas having no service vehicle access.

#### e) Attachments by Others

**Response:** Electrical construction standards, policies, guidelines, practices, and procedures at the City of Bushnell do not include "written" safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric distribution poles. New attachments are approved by knowledgeable City personnel based upon visual inspection. <u>All</u> existing attachments are inspected as part of the City's pole inspection program initiated in 2007, to ensure that pole loading is acceptable.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

**Response:** All poles in the utility distribution system were visually inspected and graded by condition in 2004 as part of a project that created a GIS map and data base of the distribution system. A comprehensive periodic inspection program covering all distribution system wood poles was initiated in 2007. The program includes visual, sound and bore inspections, pole condition rating, wind loading assessment, as well as development and maintenance of an inspection data base. The program ensures that all wood poles in the distribution system will initially be inspected at least once over a three year cycle and thereafter on a seven year cycle. All rejected poles are replaced within 12 months following completion of inspection.

The City of Bushnell has no transmission facilities.

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

**Response:** 305 wood distribution poles were inspected in 2007 representing approximately 32% of the system total.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

**Response:** 16 distribution poles, representing 5% of those inspected, failed (rejected). A pole inspection detail report is enclosed on CD that states the reasons for rejection in the "remarks and notes" column.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

**Response:** To date, 5 (31%) of the 16 rejected wood poles have been removed or replaced. These include pole numbers B0459, B0805, B0807, B0776 and, B0531. (The poles are described in the enclosed inspection report.) The remaining poles will be replaced prior to the beginning of storm season, June, 2008.

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

**Response:** The City of Bushnell maintains a tree trimming contract covering tree removal, power line trimming, and right-of-way clearing. Tree trimming is performed by the contractor annually in the spring of the year preceding the Hurricane season. All right-of-ways are trimmed every year with a goal of maintaining foliage cut back to a three year level. Distribution lines not located on right-of-ways are trimmed by City personnel on an "as needed" basis. "Problem trees" that threaten primary distribution lines, not located within right-of-ways or easements, are also removed by the City on an as needed basis.

The City's land development regulations specify the species of trees that may be planted under or within specified distances of any overhead utility wire or underground utilities. Also specified are distances that trees may be planted from curbs and sidewalks.

The City's vegetation management practices are believed to be effective based upon outage history dating back to the 2004 hurricane season. During calendar years 2004, 2005, and 2006 combined, the City's distribution system experienced 118 outages, 11 of which were identified as due to vegetation management issues. The longest single outage was 1 hour and 15 minutes due to a vegetation management issue.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

**Response:** See above response.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the City of Bushnell has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

**Response:** The City of Bushnell is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

## The City of Chattahoochee Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Chattahoochee
- b) 115 Lincoln Drive, Chattahoochee, FL 32324
- c) Jimmy Cain, Electric Foreman Phone: 850-663-4475 Fax: 850-663-4233 e-mail: jimmycain@gtcom.net
- 2) Number of meters served in calendar year 2007

1.268

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices and procedures at the City of Chattahoochee comply with the National Electrical Safety Code (ANSI-C2) for electrical facilities constructed on or after February 1, 2007. The 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

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#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Chattahoochee are guided by the extreme wind loading standards specified by figure 250-2 (d) of the 2002 edition of the NESC for new construction and targeted critical infrastructure facilities and major thorough fares.

#### c) Flooding and Storm Surges

This section is not applicable as the City of Chattahoochee is not a coastal community.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Chattahoochee provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Existing inaccessible distribution facilities in the City of Chattahoochee will eventually all be moved to street right of ways or accessible easements for easier maintenance and faster restoration of service from unplanned events.

#### e. Attachments by Others

The pole attachment agreements between the City of Chattahoochee and third-party attachers include language which specifies that the attacher, not the City of Chattahoochee, has the burden of assessing pole strength and safety before they attach to the pole. The City of Chattahoochee or its designee shall have the right to inspect at any time all construction or installation work performed.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

A complete inspection is performed on the City of Chattahoochee's distribution system every three years. This being every primary and secondary pole with no selection preference. The inspection involves excavation around the base, sounding, and probing with a steel rod. A visual examination is also performed, checking for damaged insulators and hardware.

The City of Chattahoochee has one substation and it is inspected multiple times weekly. A wide buffer zone is maintained around the facility to prevent damage to the structure in the event of storms or hurricanes.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

All 1,957 distribution poles were inspected in 2006.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

In the 2006 inspection, 47 distribution poles or 2.4% inspected, were found to be defective. Ground line decay, pole top decay, insect damage, and animal damage were the major causes.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

#### 2006

- 12 (26% of poles failing inspection) Class 4, 30' poles were replaced in 2006.
- 3 (6% of poles failing inspection) Class 4, 35' poles were replaced in 2006.
- 9 (19% of poles failing inspection) Class 4, 40' poles were replaced in 2006.

#### 2007

- 1 (2% of poles failing inspection) class 4, 30' poles were replaced in 2007.
- 3 (6% of poles failing inspection) class 4, 35' poles were replaced in 2007.
- 7 (15% of poles failing inspection) class 4, 40' poles were replaced in 2007.

#### 2008

The remaining 12 poles to be replaced in 2008 are as follows:

- 3 class 4, 30'
- 2 class 4, 35
- 5 class 4, 40'
- 1 class 4, 45
- 1 class 3, 50

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-ofways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Chattahoochee trims its distribution system on an annual basis. Any trees that are suspected of damaging the system i.e. (leaning, dead, or diseased) are removed.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through F.M.E.A., the City of Chattahoochee has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

The City of Chattahoochee is a member of the Florida N-wisipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

# City of Clewiston Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Clewiston
- b) 141 Central Av, Clewiston, Fl 33440
- c) Kevin McCarthy, Utilities Director Phone 863-983-1454 Fax 863-983-3406 Email: kevin.mccarthy@clewiston-fl.gov

2) Number of customers served in calendar year 2007

4,000

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Clewiston uses the current National Electric Safety Code as its construction standard and has always used the applicable NESC as its standard.

b) Extreme Wind Loading Standards

All new construction and rebuilds of existing facilities will comply with the NESC extreme wind loading standard in effect at the time of design.

The City of Clewiston is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The City of Clewiston is an inland community sixty miles from either coast and is not subject to storm surge or it's associated flooding. In addition only a small portion of our system is in a flood zone and pad mounted transformers are elevated above the required elevation.

The City of Clewiston is also participating in the PURC study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages throughout the Florida Municipal Electric Association.

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d) Safe and Efficient Access of New and Replacement Distribution Facilities

The City of Clewiston Utilities requires all new residential development to have front yard easements and road access. We also have on ordinance in place protecting our rear utility easements from fences, hedges, sheds and trees. Where practical rebuilds will relocate rear services to the front and underground the service. Commercial applications require truck access to the facility.

#### e) Attachments by Others

We do not have a standard guideline for pole attachments at the City of Clewiston, however all attachments are reviewed by our Engineer and since all new construction is required to be underground we have had no new pole attachments in over five years. The only two entities that attach to our poles, Sprint and Comcast, have been reducing the number of pole attachments and moving to underground installations in the last several years.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

We have contracted with Osmose to perform our pole inspections, which are sound and bore with strength calculations and due to our small size we will complete our system in four years but operate on an eight year cycle. We conduct infrared inspections, by outside contractor of our entire distribution system every other year and perform in-house spot checks for problem areas.

- b) Number and percentage of transmission and distribution inspections planned and completed for 2007.
  - 25% of our poles were inspected in 2007 and we will inspect 25% of our poles in 2008 and 25% per year for the next 2 years and then continue on an eight year cycle.
- c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.
  - Thirty One poles were rejected, or 10.7%, of the inspected poles, the load calculation was to bring the poles to extreme wind design. The poles were rejected due to rot and decay.
- d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The pole inspection was completed late in the third quarter of 2007, all 31 rejected poles will be replaced or remediated with a steel truss in 2008.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

We have a City ordinance that prevents any hedges or trees from being planted in the easements, any tree that is in the easement that has grown to reach the power lines is completely removed. Our feeders are trimmed annually and our laterals are trimmed as needed or as requested by our customers. All customer generated trimming requests are tracked via work orders. We have no management plan outside of road right of ways or easements, this is a private property issue, and however we will work with willing homeowners to remove problem trees on private property.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

All transmission and feeder distribution facilities were checked and trimmed in 2007 as they are every year. For the residential laterals there were 37 customer requests for tree trimming in 2007, 12 were completed and the remainder will be completed in the first quarter of 2008; 8 of the 12 work orders completed involved complete tree removal.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the City of Clewiston has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

City of Clewiston is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

## City of Fort Meade Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

- 1) Introduction
- a) City of Fort Meade
- b) 8 West Broadway Avenue Fort Meade, FI 33841
- c) Frankie Curlee, Utility Director (863) 285-1119 ext. 2 fcurlee@cityoffortmeade.com
- 1) Number of customers served in calendar year 2007 2,805
- 2) Standards of Construction
- a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade are guided by the extreme wind loading standards specified by figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after

December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Fort Meade is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electrical Association.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade address the effects of flooding and the storm surges on underground distribution facilities and supporting overhead facilities.

City of Fort Meade is also participating in the Public Utility Research Center's (PURC) study on the conversation of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

#### e) Attachment by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Fort Meade include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles.

- 4. Facility Inspections
- a) Policies, guidelines, practices, and procedures for inspecting transmission and distributions lines, poles, and structures.

The City of Fort Meade has developed and implemented an eight year inspection program for our electrical system.

b) Number and percentages of transmission and distribution lines, poles, and structure.

The City of Fort Meade has distribution lines only. The City of Fort Meade replaced 36 poles for the calendar year 2007.

c) Number and the percentage of transmission poles and structures and distribution poles, failing inspection and the reason for the failure.

The City of Fort Meade has distribution poles only. The city had (7) seven poles or approximately .3 % of the total number of poles of 2,725 poles that were replaced due to inspections. The city inspected 342 poles for the calendar year 2007 The poles failed inspection for the following reasons:

- 1) Age deterioration.
- 2) Animal infestation (wood boring birds).
- d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Response: The city replaced (7) poles or approximately .3% of the total number of poles in the system.

The poles were replaced with (40) forty foot, class (4) poles.

#### 5. Vegetation Management

a) Utilities policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-a-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Fort Meade has developed and implemented a three year tree trimming program for our electrical system. The City has a low outage rate due to problem trees.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Fort Meade has completed approximately 33% of trimming in our system. The City of Fort Meade had 132 reported outages in the calendar year 2007. The percentages for outages due to tree limbs were 22.44 % or 17 outages.

6) Storm Hardening Research

The City of Fort Meade is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida.

# Fort Pierce Utilities Authority Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Fort Pierce Utilities Authority
- b) P.O. Box 3191, Fort Pierce, 34948-3191
- c) Thomas W. Richards, PE
  Director of Electric & Gas Systems
  772 466-1600
  772 595-9841 (fax)
  tom@fpua.com
- 2) Number of customers served in calendar year 2007

28,479 at the end of calendar year 2007

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the <u>Fort Pierce Utilities Authority</u> comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

At this time, (Fort Pierce Utilities Authority) facilities are not designed to be guided by the extreme loading standards on a system-wide basis. However, (Fort Pierce Utilities Authority) is guided by the extreme wind loading standard NESC 2007 of 150mph for:

- a) New construction.
- b) Major planned work, including expansion, rebuilds, or relocation of existing facilities assigned on or after February 1, 2007
- c) Targeted critical infrastructure.

FPUA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the (Fort Pierce Utilities Authority) address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. Fort Pierce Utilities Authority is abiding by the FMEA 100 Flood zone for new construction of underground facilities. Fort Pierce Utilities Authority currently installed a vacuum switch gear, submersible, to minimize the effects of flooding and storm surges at areas susceptible to these events

FPUA is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the (Fort Pierce Utilities Authority) provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that (Fort Pierce Utilities Authority)'s facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. (Fort Pierce Utilities Authority) decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the (Fort Pierce Utilities Authority) include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on a \_\_8\_ year cycle.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Transmission: A new transmission pole inspection program was instituted at the beginning of fiscal year 2007. Fort Pierce Utilities Authority has 446 transmission poles. All 250 wood poles are inspected annually. Concrete (106) and steel (90) poles are included in the inspection every third year to inspect the hardware, bolts and bonding on these poles and the wood poles. Wood poles are tested using the sound and bore method. All 446 transmission poles (wood, concrete and steel) were inspected in fiscal year 2007. This included all hardware, bolt and bonding inspection on all poles, as well as sound and bore test on wood poles. All wood transmission poles will be tested during fiscal year 2008

Distribution: Fort Pierce Utilities Authority has hired OSMOSE to perform a system wide inspection of all distribution lines, poles, and structures. Completion is scheduled for mid-May 2008. Staff believes, because of the utilities size, it is more efficient to inspect the entire distribution system every 8 years. Staff will, however, continue to monitor the process to ensure this is a valid assumption.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

Transmission: 100% of the transmission pole inspection was completed. This included all 250 wood poles, 106 concrete poles and 90 steel poles.

Distribution: Prior to fiscal year 2007 there were no formal inspections on distribution poles. Poles were replaced on an as found/ reported basis from various field supervisors, engineers and other field employees. Fort Pierce Utilities Authority has hired OSMOSE to perform a system wide inspection of all distribution lines, poles, and structures. Completion is scheduled for mid-May 2008.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Transmission: No transmission poles failed inspection in 2007.

Distribution: No formal distribution inspection in 2007.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007 including a description of the remediation taken.

Transmission: No transmission poles were replaced in 2007.

Distribution: No formal distribution inspection in 2007.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Fort Pierce Utilities Authority maintains a tree trimming contract covering tree removal, power line trimming, and right-of-way clearing. The contractor performs tree trimming year round with particular attention paid to critical infrastructure in the spring preceding Hurricane season. All transmission distribution lines are trimmed on a 3-year cycle with a goal of maintaining foliage cut back to a three-year level. "Problem trees" that threaten primary distribution lines, not located within right-of-ways or easements, are also removed by the Utility on an as needed basis.

The transmission lines are patrolled annually for vegetation management. Twelve trees are identified as trees that need to be monitored. These trees are visited quarterly to ensure there is no trimming needed.

The Fort Pierce Utilities Authority works with developers and suggests which species of trees may be planted under or within specified distances of any overhead utility wire or underground utilities.

The vegetation management practices are believed to be effective based upon outage history dating back to the 2004 hurricane season. During calendar years 2005 through 2007 the Utility's distribution system averaged 748 outages. There was an average of 40 outages identified as due to vegetation management issues. This represents 5.0% of outages are vegetation management related. The Fort Pierce Utilities Authority staff believes this is an indication that our vegetation management practices are sound.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Fort Pierce Utilities Authority plans to continue to provide resources for the same quantity, level and scope of vegetation management as in the past.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, (Fort Pierce Utilities Authority) has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

Fort Pierce Utilities Authority is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.



**Energy Delivery Administration** 

February 28, 2008

08 HAR -3 PH 3: 41

Mr. Tim Devlin Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Dear Mr. Devlin:

Attached is the Gainesville Regional Utilities (GRU) 2007 Storm Hardening Report. We believe all reporting requirements of Rule 25-6.0343 have been addressed and satisfied. However, should there be any unanswered questions or need for further expansion or clarification, we will address such needs in a timely manner upon notice. GRU has been proactive historically in nearly all facets of the Storm Hardening initiative, and we are pleased to report our programs and successes to the Commission.

Sincerely,

David E. Beaulieu P.E. Assistant General

DEB:pl

**Enclosure** 

# Gainesville Regional Utilities Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Gainesville Regional Utilities
- b) 301 SE 4<sup>th</sup> Avenue Gainesville, Florida 32601
- c) David E. Beaulieu, PE Assistant General Manager, Energy Delivery

Office: (352) 393-1513 Fax: (352) 334-2784 beaulieude@gru.com

#### 2) Number of customers served in calendar year 2007

Gainesville Regional Utilities serves Gainesville proper as well as Gainesville's urban fringe but does not serve the University of Florida campus. The number of electric customers for 2007 totaled 88,663 or:

Residential Customers 80,237
Non-Residential Customers 9,675
Total: 89,912

#### 3) Standards of Construction

#### (a) National Electrical Safety Code Compliance

GRU's Material and Construction Standards are continuously maintained and updated to ensure compliance with the applicable version of the National Electric Safety Code. Construction standards, policies, guidelines, practices and procedures for electric distribution facilities installed prior to February 1, 2007 adhered to the requirements of the version of the NESC in effect at the time of installation. Electric distribution facilities installed subsequent to February 1, 2007 complied with the 2007 version of the NESC.

#### (b) Extreme Wind Load Standards

GRU's Material and Construction Standards that are guided by the extreme wind loading requirements specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction, 2) major planned work, including expansion rebuild or relocation assigned on or after December 10, 2006, and 3) targeted critical infrastructure facilities and major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations. Electric distribution facilities installed subsequent

to February 1, 2007 complied with the extreme wind loading standards of the 2007 version of the NESC.

#### (c) Flooding and Storm Surges

Gainesville Regional Utilities is located in north central Florida, roughly equidistant to both coasts. GRU's electric distribution facilities are not subject to storm surges and have limited exposure to flooding. Where there has been significant flooding GRU evaluates the opportunity to relocate facilities, underground and overhead, to more secure locations.

#### (d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at Gainesville Regional Utilities provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Gainesville Regional Utilities has prioritized electric distribution facilities that are to be replaced due to age and repeat outage occurrences. Wherever possible, difficult-to-access facilities are reviewed to determine if they can be relocated. Typically relocating existing back lot electric facilities to the front or roadway is problematical due to the existing tree canopy. GRU utilizes new poles and insulated aerial cable when rebuilding the existing electric to harden and improve the reliability of that system. Also, GRU owns and maintains back lot equipment that facilitates access to and the repair of limited access facilities. Long distribution system laterals have been reconfigured and at times shortened to improve system reliability.

#### (e) Attachment by Others

Electrical construction standards, policies, guidelines, practices, and procedures at Gainesville Regional Utilities include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles.

Gainesville Regional Utilities requires pole attachment agreements for entities that desire to attach to its structures. The agreements stipulate that such entities must submit a permit request to GRU prior to making any attachments, with the exception of attaching a service drop cable. Whenever a pole proposed for joint use is of insufficient height or strength for the existing or proposed attachments the pole is replaced. There is an additional requirement imposed on such entities to install whatever guy and anchor system necessary to sustain any unbalanced load their attachment places on the structure. Dependant upon the nature and age of GRU's pole attachment agreements, some agreements require that the permit request include an engineer's determination that the impact of the proposed attachment will satisfy the applicable NESC requirements.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

GRU has had a comprehensive and periodic pole inspection/treatment program since 1992.

#### Overview

- The inspection cycle has been established at eight (8) years.
- The inspection includes a complete visual inspection of every pole (inclusive of cross arms, etc.) to identify cracks, splitting and obvious decay.
- The inspection also includes sounding and boring every pole. The base is exposed (where possible) to 18 inches to inspect for indications of decay. Where not possible, the pole is Mitc-fumed. Mitc-fume is a pesticide that will migrate throughout the pole to prevent rot, decay and insect damage.
- Poles less than ten (10) years old are not inspected as a result of our empirical data. The youngest pole to fail inspection over the past 3 years was 21 years in age. With rare exception, the poles failing inspection were creosote treated. All creosote poles are inspected on the 8 year cycle and they are no longer standard material for GRU.
- "In service" pole load calculations are not performed at this time. GRU is evaluating the methodology, reliability, and cost of having such work performed by our pole inspection contractor coincidental with the inspection/treatment cycle.
- Pole treatment is documented by Pole Inspection Program Maps.

#### **Transmission**

GRU visually inspects all transmission lines and poles twice each year and following major storm events. GRU has detailed inspection and ground line treatment performed on all wood transmission poles following an 8-year cycle. The inspection and treatment of these poles consists of a full visual inspection, and sound and boring to locate unseen decay pockets. Visual inspection includes below ground line inspection to a depth of 18" around the base of each pole. After inspection any decay is removed and a preservative paste is applied to prevent future decay. Transmission lines are also treated with MITC-fume to prevent internal decay as well. MITC-fume is a pesticide that migrates throughout a pole to prevent rot, decay and insect damage. Visual inspections also provide information about other items such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a "priority" are replaced immediately.

#### Distribution

GRU performs a detailed inspection and ground line treatment on wooden distribution poles over an 8-year cycle. All wood poles 10 years of age and older are inspected and treated over the cycle. The inspection and treatment of these poles consists of a full visual inspection, and sounding and boring to locate unseen decay pockets. Visual inspection includes below ground line inspection to a depth of 18" around the base of each pole. After inspection any decay is removed and a preservative paste is applied to prevent future decay. Distribution poles that can not be fully ground line inspected are treated with MITC-fume to prevent internal decay. Visual inspections also provide information on other problems such as damaged hardware, woodpecker holes, cracks, splits and decayed pole tops. GRU

replaces all rejected poles within one year of the inspection date. Rejected poles determined to be a "priority" are replaced immediately.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

GRU planned to inspect 164 transmission poles and completed 164 (100%). GRU planned to inspect 2854 distribution poles that met annual inspection criteria (10 years of age or older) and, therefore required inspection and completed 2854 (100%).

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Of the 164 transmission poles inspected in 2007, 2 were replaced (failure percentage 1.2%; cause woodpecker damage). Of the 2854 distribution poles inspected in 2007, 28 poles were replaced (failure percentage 1.0%; cause shell rot, decay, split pole top and carpenter ants).

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

#### Transmission Poles

Height/Class	# in class	% of total	remediation
70/1	2	100	replaced

#### Distribution Poles

Height/Class	# in class	% of total	remediation
30/6	4	14.3	replaced
35/5	2	7.1	replaced
35/6	7	25	replaced
40/3	1	3.6	replaced
40/4	3	10.7	replaced
40/5	4	14.3	replaced
45/4	2	7.1	replaced
55/2	2	7.1	replaced
55/3	3	10.7	replaced

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

GRU's Vegetation Management Department maintains approximately 600 miles of distribution lines on a three year rotating cycle. Scheduling of work is accomplished according to defined electrical distribution circuits. Maintenance trimming is also accomplished by circuit. GRU circuits range in size from approximately two to twenty five miles in length. Prioritizing of these circuits is based upon reliability, customer requests and visual inspections. We are initiating our 6<sup>th</sup> maintenance cycle. The Vegetation Management Program includes maintenance of primary, secondary and service drops. We also have an aggressive herbicide program to reduce the density of undesirable vegetation as well as a tree growth regulator program to address specific problems. As much as it is possible to identify potentially hazardous trees from beyond the limits of the right-of-way/easement, we have had a program to negotiate with the property owner to remove these trees and provide the owner with a voucher redeemable for low growing species if need be.

The distribution vegetation maintenance program is based upon nationally recognized standards of tree care and vegetation management practices and adapted to Gainesville's environment and specific operating concerns.

These standards and practices include, but are not limited to the following:

- National Electric Safety Code
- ANSI A300 (Tree care standard practices)
- ANSI Z133.1 (Tree care safety practices)
- Shigo Pruning trees near electrical utility lines
- Shigo Tree Pruning
- Matheny and Clark Evaluation of hazardous trees in urban areas

Components of the distribution maintenance program are:

- Routine utility tree pruning
- Selective tree removals based upon hazardous conditions
- Selective use of herbicides
- Selective use of tree growth regulators
- Wood chip recycling

#### **Appropriate Planting**

GRU has produced a "Plant the Right Tree in the Right Place" brochure with a list of compatible tree species. By compatible we mean that these species may be planted within ten feet of an overhead power line. The mature height of these species is such that they should never reach GRU facilities.

GRU maintains a number of different types of ground level electric facilities. The two that we are concerned with are switch gear and pad-mount transformers. It is imperative

that customer **do not** plant shrubs and small trees directly in front of these facilities. Each structure has a decal that reflects the above recommendations.

We have also developed a set of tree planting guidelines for use by developers and engineers as to appropriate species to be planted within prescribed distances from our facilities.

The City of Gainesville enjoys an especially dense tree canopy, one that is clearly favored by our community and its citizens. As a neighbor and responsive municipal electric utility, GRU has long acknowledged our obligation to serve our customers in this environment in the most effective yet least intrusive manner. Consequently, GRU is among those Florida utilities with the highest ratio of underground to overhead facilities.

Our Vegetation Management program was developed over time with a care and control agenda that has been recognized as a model program for electric utilities. GRU records and continually monitors vegetation related service interruptions. GRU records tree related outages in one of three categories: Trees Preventable – vegetation to be maintained within our easements; Tree Non-Preventable – vegetation from outside of our easements and Vines. Preventable tree outages make up only 1% or less of the total outages experienced system wide and has held steady for the past 3 years. Tree preventable outages for 2007 were:

• Tree Preventable Outages 2007 = 1%

#### Transmission Program

Gainesville Regional Utilities was the subject of a North American Electric Reliability Council (NERC) performance and readiness audit in April 2006 where GRU's Vegetation Management Program received a Potential Example of Excellence (PEOE).

Their report stated "GRU has a well documented and comprehensive vegetation management policy, program and knowledgeable staff. The GRU vegetation-management program and staff oversight is identified as a potential example of excellence for its comprehensive, detailed procedures and performance of the program itself."

### b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

GRU's Transmission and distribution right-of way maintenance of vegetation is a routine and on-going, year round program accomplished through a utility approved contractor directed and supervised and by GRU Forestry professionals and Utility management staff. All current plans and trim time-lines are on schedule.

#### Transmission System Information

240.4 circuit miles @138 kV

2.5 circuit miles @ 230kV (falls into NERC Standard FAC-003-1)
GRU applies NERC Guideline FAC-003-1 over our entire transmission system.

GRU's Transmission program is based on a six-year cycle. The program calls for semi-annual inspections (spring and fall) to identify conditions which would pose a near-term threat to the operation of the system such as insect infestations or any other factor that would impact tree mortality or structural integrity. The program also calls for a complete inspection immediately following any significant events such as hurricanes, tornadoes or fires. Inspections cover 100% of the transmission system and are conducted by GRU Foresters.

#### **Inspection Summary Spring 2007** – February 22 – March 28, 2007

Inspected 100% of Transmission system.

Results: Discovered 22 sites with problem trees outside GRU right-of-way, informed

owners of hazards and negotiated removal.

Follow-up activities: February 23 – May 5, 2007: Removed trees.

#### **Inspection Summary Fall 2007 –** November 2 - 16,2007

Inspected 100% of Transmission system.

**Results:** Discovered 5 sites requiring tree removal or trimming. **Follow-up activities:** November 14, 2007 work completed.

#### Transmission work 2007

In 2007, GRU performed limited access road maintenance activities on its transmission system.

The entire floor of the transmission system was maintained by scheduled herbicide application (six-year cycle) in 2006. GRU's herbicide application program is selective and targeted only those species which were capable of growing to a mature height that would interfere with the conductors. Low growing species, except for the access areas, were not discouraged from growing.

#### Distribution work 2007

GRU adhered to its three-year maintenance cycle and trimmed approximately 195 circuit miles that included 22 distribution circuits in 2007.

#### 6. Storm Hardening Research

Gainesville Regional Utilities is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.



## City of Green Cove Springs Electric Utility

321 Walnut Street Green Cove Springs, FL 32043 Phone: (904) 529-2229 Fax: (904) 529-2232

February 15, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Storm Hardening Report for Rule 25-6.0343, F.A.C.

Dear Tim,

Please find enclosed a copy of our final report for 2007 on the subject of Storm Hardening and compliance with Rule 25-6.0343. The City of Green Cove Springs along with the Florida Municipal Electric Association is pleased to provide the enclosed information as required by the Public Service Commission. We are available to answer any questions you may have on our responses.

Sincerely,

Gregg Griffin

**Director Electric Utility** 

Enclosure

Cc: Barry Moline, FMEA
Don Bowles, City Manager
Marjorie Robertson, City Clerk

E. R. Biff

GG/mq

# City of Green Cove Springs Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Green Cove Springs
- b) 321 Walnut Street, Green Cove Springs, FL 32043
- c) Contact information:

Gregg Griffin
Director Electric Utility
Phone: 904-529-2249

Fax: 904-529-2232

Email: ggriffin@greencovesprings.com



#### 2) Number of customers served in calendar year 2007

3,770

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Green Cove Springs is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. The city lies adjacent to the St. Johns River and as such could come under the coastal category. All facilities are installed a minimum of 8 inches above the roadway with appropriate grading to prevent erosion.

The City of Green Cove Springs is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of under grounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Green Cove Springs provide for placement of new and replacement of distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All new residential development is required to be of an underground feed design, even in existing overhead areas. Commercial applications require truck access to the facility and feeder main lines have already been relocated to front lot lines. All facilities are installed and accessible by crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Green Cove Springs decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

Attachment policies, guidelines, practices, and procedures at the City of Green Cove Springs are covered by city ordinances and joint use agreements with CATV and telephone entities. The pole attachment agreements between the City of Green Cove Springs and third-party attachers' include language which specifies that the attacher, not the City has the burden of assessing pole strength and safety before they attach to the pole. The City of Green Cove Springs performs follow up audits of attachments to ensure the attachment is properly installed and maintained.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Green Cove Springs does not own or operate transmission facilities as defined by 69 KV and above. We are currently in the process of evaluating the benefits of an inspection program vs. accomplishing the same activity during a 4 KV conversion to 13 KV of a portion of our system. For the remainder of our overhead system we plan on contracting with Osmose using the sound and bore technique to perform pole inspections on an eight year cycle.

- b) Number and percentage of transmission and distribution inspections planned and completed for 2007.
  - We visually inspect any distribution pole we interface with under normal maintenance work flow patterns. With the limited number of wooden poles in our system (2998 poles), and plans to upgrade two major sections of 4 KV in the next 4 years, approximately 15% of distribution system, we will have no problem completing these inspections in an 8 year cycle.
- c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.
  - In 2007 we replaced six (6) wood poles on visual inspection. This represents 0.20 % of our installed infrastructure.
- d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.
  - One (1) 35 ft Class 3 Concrete pole replaced for damages due to vehicle impact.
  - Six (6) 30 ft Class 3 Wood poles replaced due to rot.

#### 5. Vegetation Management

- a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.
  - The City of Green Cove Springs contracts annually to trim 100% of our entire system including all sub-transmission and distribution feeder facilities. Problem trees are trimmed and removed as identified.
- b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.
  - Our entire system was trimmed in 2007, and has been completed for six (6) consecutive years now. Trimming of 100% of our system for 2008 will begin in the spring.

#### 6. Storm Hardening Research

The City of Green Cove Springs is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or banding a painting power count.

## Town of Havana Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Town of Havana, Florida
- b) P.O. Box 1068, Havana, Florida 32333

c) Contact information: Howard McKinnon, Town Manager

Tele: 850-539-2820 Fax: 850-539-2830

E-mail: hmgr@mchsi.com

#### 2) Number of meters served in calendar year 2007

1378

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Town of Havana comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

At this time, the Town of Havana's existing facilities are not designed to be guided by the extreme wind loading standards on a systemwide basis. As indicated in the previous section, all new construction is designed to the NESC's Extreme Wind Loading Standards. The Town of Havana is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. We will monitor the results of this research to determine the most appropriate response for system upgrades and hardening.

#### c) Flooding and Storm Surges

The Town of Havana is a non-coastal utility, therefore, storm surge/flooding is not an issue.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Town of Havana provide for placement of new and replacement distribution facilities so as to

facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that the Town of Havana's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The Town of Havana decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

We do not have standards addressing attachments by others to our poles. We are currently reviewing other electric companies' policies to assist us in developing an attachment policy in 2008.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

We have a small system with only 1,169 poles. Our electrical superintendent inspects our distribution lines, poles and structures several times per year. Currently, we have no formal policy in place to document this process. We are currently under contract with an electrical engineering fund to digitally map our poles, the attached equipment and electric line size. We will use this information to assist us in developing a policy in 2008.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

Our electrical superintendent inspects our system continuously. He completed an inspection of our entire system (as planned) in 2007.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

None of our transmission poles failed inspection. He did determine we needed to replace a section of our electrical transmission line due to old age.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

Five hundred feet of three phase overhead electrical transmission line and 390 feet of single phase overhead electrical transmission line was replaced due to old age. We were able to replace all 890 feet underground.

#### 5) Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Town of Havana's vegetation management policy is formalized. We hire a professional vegetation management company specializing in electric utilities to trim vegetation along our distribution system. We have written guidelines on vegetation management for them to follow in addition to them relying upon their expertise in knowing the best management practices in this field. We believe our vegetation management practices are sufficient in that our outages due to limb damage are at a minimum. Our policy calls for a third of our system to be maintained each year.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

Our entire system was trimmed in 2007. Future years we plan to trim a third each year. The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the Town of Havana has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

The Town of Havana is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

### **Homestead Energy Services** Homestead, Florida

## Storm Hardening Report to the Florida Public Service Scommission Pursuant to Rule 25-6.0343, F.A.C. Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007 Calendar Year 2007 Suction Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007 Calendar Year 2007 Calendar Year 2007 Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007 Calendar Year 2007

#### 1) Introduction

- a) Homestead Energy Services, Homestead Florida
- b) 675 N. Flagler Ave. Homestead, Florida 33030
- c) Kenneth J. Konkol, Assistant Director Ph. (305) 224-4707 Fax (305) 224-4769 kkonkol@homesteadenergy.org
- 2) Number of customers served in calendar year 2007

21,161

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities.

Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association

d) <u>Safe and Efficient Access of New and Replacement Distribution Facilities</u>

Electrical construction standards, policies, guidelines, practices, and procedures at

Homestead Energy Services provide for placement of new and replacement distribution
facilities so as to facilitate safe and efficient access for installation and maintenance.

All new residential services are in the front lot and are underground.

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. All of these items are part of the Pole Attachment Agreements that Homestead Energy Services enters into with each attaching party.

#### 4. Facility Inspections

a) <u>Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.</u>

All transmission poles are concrete.

Wooden distribution poles will be inspected in accordance with standard industry guidelines including sound and bore and loading evaluations. HES will employ a contractor to perform pole inspections on an eight-year cycle. The intent for this fiscal year is to inspect approximately 800 distribution poles. All new wooden poles are CCA as are the majority of the poles currently installed in the system.

Annually, a thermographic inspection is performed on all of the feeder circuits and any problems noted are repaired. This inspection was completed in November, 2007.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

The entire transmission system was inspected in 2005. All transmission structures are concrete. The schedule for the inspection of distribution poles will be 12.5% of the total number of poles per year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

No transmission poles failed inspection in 2005. HES did not begin the formal inspection of the distribution poles until this fiscal year, October, 2007 through September, 2008. HES will have at a minimum 800 wooden poles inspected during this time frame.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

None

#### 5. Vegeta tion Management

a) <u>Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.</u>

Homestead Energy Services employs a contractor for tree trimming services. Homestead's geographic area is small and it is estimated that the entire system is trimmed on a two-year cycle. The City of Homestead recently enacted Code changes that require property owners to keep vegetation on private property trimmed to maintain six feet of clearance from HES facilities. There are no issues with vegetation management for transmission facilities.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

See 5a.

#### 6. Storm Hardening Research

Homestead Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com



February 25, 2008

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Dear Mr. Devlin:

Please find the enclosed JEA Storm Hardening Report for 2007, pursuant to Rule 25-6.0343, F.A.C. You may direct any inquiries to me.

Sincerely,

Jed E. Holson

Ted E. Hobson
Vice President, Fuels, Purchased Power and Compliance
JEA
21 W. Church Street
Jacksonville, Fl 32202-3139
904-665-712
hobste@jea.com

xc: T. Milton, JEA

#### **JEA**

#### Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2006

#### 1) Introduction

- a) Jacksonville: JEA
- b) 21 W Church St, Jacksonville, Fl 32202-3139
  - i) Ted Hobson, VP, Fuels, Purchased Power & Compliance, Office-904-665-7126 Fax 904-665-4238

#### 2) Number of customers served in calendar year 2006:

JEA served approximately 409,000 electric customers in 2006.

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

JEA's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

JEA's construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. These standards primarily affect electric transmission structures 60' and taller, and require those structures to withstand winds up to 120 mph for JEA's service territory.

JEA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

JEA historically has experienced very little flooding of our distribution or substation facilities, even during storms and consequently has not developed specific policies or guidelines addressing the effects of flooding and storm surges on our underground

distribution or supporting overhead facilities. JEA does have a written Storm Policy and associated procedures that address shutting down specific generating plants when a Category 3 storm or greater causes flooding or storm surges that threaten the safe operation of the plants.

JEA is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at JEA provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

During the design process, traffic patterns, trees, lot lines, environmental hazards and future customer needs in undeveloped areas are taken into consideration when determining the best location for poles and equipment. Consideration is also taken when designing circuits to ensure that line crews and troubleshooters will have a suitable means of approach in order to reach the facilities and equipment for the purpose of operation and maintenance. JEA's standard construction of vertical framing at the right-of-way line reinforces this by preventing overhang into private property and allowing bucket truck access to equipment on the back of the pole due to phase separation requirements. JEA has very few facilities requiring rear property line entrance and has not constructed any rear-entrance facilities in over 30 years.

#### e) Attachments by Others

JEA requires permits for all attachments by others to our poles. This permit requires the entity requesting to attach to a JEA pole to provide the design calculations to insure the addition of their attachment does not violate the requirements of the NESC in effect at the time of the request. In addition, attachments are generally limited to 7% of the total wind load capacity of the structure.

#### 4. Facility Inspections

## a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Transmission-JEA utilizes a contractor to perform the Transmission inspection. JEA has 240KV, 138KV and 69KV circuits. Every transmission circuit is on a 4-year cycle with the exception of the "critical" N-1 240KV circuits which are inspected on a 2-year cycle. JEA inspects approximately 30 circuits each year.

Distribution- JEA utilizes an external contractor to perform a general pole by pole inspection (sound and bore with excavation) for 1/8 of the distribution system annually using the NESC

standards for decay and reject status. The poles are treated at ground level for poles that are installed 15-years or older. JEA crews inspect the highest outage circuits, pole by pole, for insulators, arrestors, cross arms, grounding and pole integrity. JEA crews inspect laterals with more than 3-outages in 90-days for insulators, arrestors, cross arms, grounding and pole integrity.

## b) Number and percentage of transmission and distribution inspections planned and completed for 2006.

Transmission- JEA did a complete transmission inspection in 2004 - 2005 in response to the storms of 2004. JEA scheduled no routine transmission inspections in 2006. JEA began it's 4 year cycle again in FY07. As of Feb. 1, 2007, 10 of the 30 circuits are complete and the total inspection cycle is on schedule for the FY07 year which ends on Sept. 30, 2007.

Distribution- In 2006, JEA completed the assigned circuits in accordance with our schedule. As of Feb 1, 2007, the contractor has completed 6 of the 40 (8-year inspection cycle) schedule circuits for FY07. The contractor started in December 2006 and is adding additional crews as required to meet schedule. JEA crews are inspecting circuits on a reliability basis and are on schedule.

### c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Based on FY2007 inspections to date: Transmission-7 wooden poles (0.5%) failing for reject on decay at ground level, 4 steel mono-poles (0.3%) failing for minor damage that could lead to loss of structural integrity several years in the future. JEA has analyzed these 4 poles and determined that their structural integrity is strong and that the minor damage is not sufficient to compromise pole strength. Nevertheless, we will replace these poles in FY2008."]

Based on FY2007 inspections to date: Distribution-6% of poles are failing inspection for FY2007. Approximately 60% of the failures are for ground decay and 40% of the failures are for pole top decay.

## d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Based on FY2007 inspections to date: Transmission- 100% of decayed poles have been replaced (7 poles). As stated above, the 4 transmission poles with minor damage are scheduled for replacement with other circuit outage work in FY2008.

Based on FY2007 inspections to date: Distribution-56% of rejected poles have been replaced (418 poles). The poles are put on a list and worked in the order reported—typically about a 90- day cycle. The poles that are not rejected per NESC but older than 15-years are ground treated.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Transmission-JEA maintains transmission line clearances and reporting in accordance with the NERC Reliability Standard FAC-003-1 requirements.

Distribution-JEA has maintained a 3-year trim cycle for more than 8 years on feeder and lateral circuits. The cycle was verified by benchmarking and an engineering study performed in 2000. In an effort to improve reliability even further – as requested by our customers – JEA started a 2.5 year trim cycle for the feeder and laterals in FY2007 (October 2006).

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

JEA fully completed all FY2006 vegetation management activities described above. Vegetation management activities for FY2007 are on schedule.

#### 6. Storm Hardening Research

JEA is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.



(305) 295-1000 1001 James Street PO Box 6100 Key West, FL 33040-6100 www.KeysEnergy.com

#### UTILITY BOARD OF THE CITY OF KEY WEST

Fed Ex 8619 1243 3060

February 25, 2008

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

RE: Florida Public Service Commission Storm Hardening Report - 2007

Dear Mr. Devlin:

In accordance with FPSC's rule #25-6.0343, please find attached two bound copies of the Utility Board of the City of Key West's (Keys Energy Services - KEYS) "2007 Storm Hardening Report".

We have also enclosed one copy of the final report in digital format (CD enclosed).

If any questions develop during your review, please do not hesitate to call me at 305.295.1042.

Sincerely,

Dale Finigan

Director of Engineering/Control Center

Dale.Finigan@KeysEnergy.com

DF/ba

c:

L. Tejeda, General Manager & CEO

J. Wetzler, Asst. General Manager & CFO

D. Price, Director of T&D/Electrical

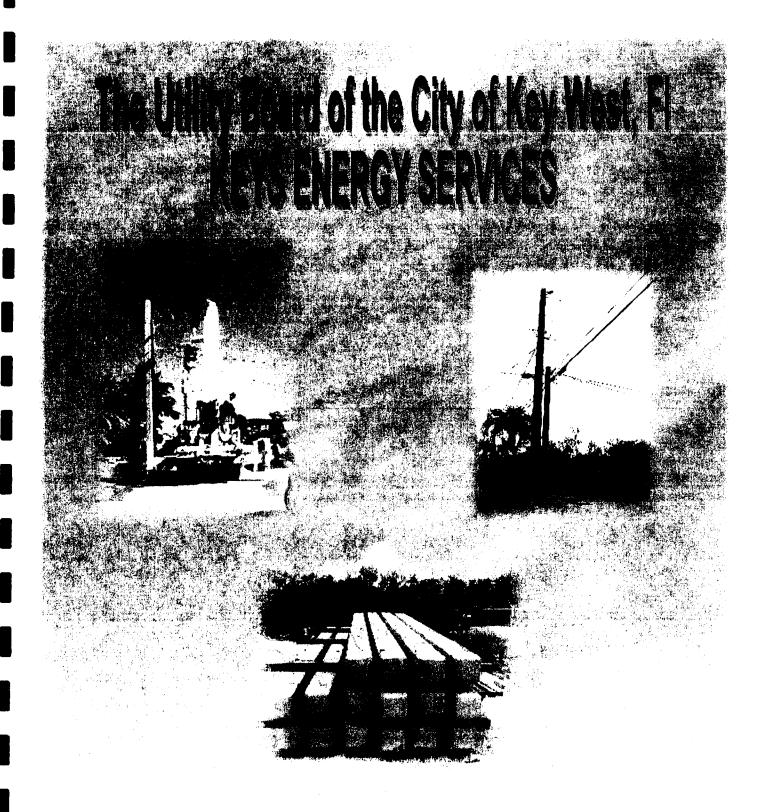
A. Tejeda, Director of Customer Service

M. Alfonso, Supervisor of Engineering

J. Barroso, Communications/Marketing Coordinator

Barry Moline, FMEA

File: PSC



## 2007 FPSC STORM HARDENING REPORT

**RULE # 25-6.0343** 



2007 Report **PSC Rule # 25-6.0343** 



#### INTRODUCTION

- a. Name of Utility
- **b.** Contract Information

## **UTILITY DESCRIPTION**

- a. Territory
- b. Facility
- c. Customer Profile

#### STANDARDS OF CONSTRUCTION

- a. NESC Compliance
- b. Extreme Loading Standards
- c. Flooding/Surge Construction d. Safe and Efficient Location of Facilities
- e. Foreign Attachment Policies

# **FACILITY INSPECTION**

- a. Pole Inspection Program/Policy b. Data on Inspection Quantities
- c. Failure Data
- d. Corrective Action on Repairs

#### VEGETATION MANAGEMENT

- a. Description of Vegetation Management Policy
- b. Describe Trim Cycle Planned/ completed Data

# 6

#### STORM HARDENING RESEARCH

- a. FMPA Involvement
- **b. FMPA Contact Information**

#### SUPPLEMENTAL DATA

KEYS "Storm Hardening Project" aka Project Name "Powerful"

2007 Status Report

# SECTION 1 Introduction/Contact Information

**Utility Name:** The Utility Board of the City of Key West, Florida

dba, Keys Energy Services (KEYS)

Address: 1001 James Street

P. O. Box 6100

Key West, Florida 33040

Contacts: Lynne Tejeda, General Manager/CEO

Ph. 305-295-1020 Fax 305-295-1034

Lynne.Tejeda@KeysEnergy.com

Dale Z. Finigan, Director of Engineering/Control Center

Ph. 305-295-1042 Fax 305-295-1044

Dale.Finigan@KeysEnergy.com

NOTE: This report was developed by Dale Finigan.
For questions and/or clarifications please call

Dale Finigan at 305-295-1042

# SECTION 2 Utility History and Description

# History/Company Profile:

- Municipal Electrical Company Since 1943
- •Five Members Elected Utility Board
- •158 Employees
- •KEYS Maintains and Operates Transmission, Distribution and Generation
- Member of FMPA
- •FMPA Primary Power Provider

### Service Territory:

Key West Florida and the Lower Florida Keys

# Electrical Facility Description:

- Transmission
  - -Voltage Level -138kV and 69kV
  - -Circuit Miles -68 Miles
  - -Age of Poles -1965 through 2004
  - -Pole Types Qty:
    - -Concrete -700 -Steel -150 -Wood - 0
- •Distribution:
  - -Voltage Level -13.8kV -Circuit Miles -270
  - -Age of Poles -1950-2007
  - -90% Aerial
  - -Pole Types Qty:
    - -Concrete 4,500 -Steel - 0 -Wood -10,200
- •Substation:
  - -Voltage Level -138kV, 69kV and 13.8kV
  - -Quantity of Substations: -8
- •Generation:
  - -Quantity of Units -8
  - -Type -High Speed Diesel, Low Speed Diesel,
- **Combustion Turbine** 
  - -Capacity -125 MW -Black Start Capabilities for Emergency

# **Customer Profile:**

- •Total of Customers -29,540
- •Breakdown
  - -Residential -81% -Commercial -13% -Others - 6%
  - (Street Lights, churches)

#### Load Profile:

•2007 Peak Demand -142MW •2007 GWH Size -706.0GWH

# SECTION 3 Standards of Construction

# 3a) National Electric Safety Code (NESC) Compliance:

- •KEYS' current construction standards, policy, guidelines, practices and procedures comply with the NESC 2007 (ANSI C-2). These new standards took effect on February 1, 2007.
- •KEYS' electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facilities' initial construction.

# 3b) Extreme Wind Loading Standards:

- •KEYS' is in compliance with the new NESC "Extreme Wind Load" requirement for KEYS' Distribution System for:
  - 1) New construction
  - 2) Major planned work, and relocation of facilities
  - 3) Targeted critical infrastructure
- •KEYS has been very aggressive in analyzing the wind impacts on its electrical facilities, and have structurally studied the modifications needed in order to accomplish/adhere to new Florida Public Service Commission (FPSC) Rule. The following has been performed by KEYS:
  - 1) Structurally analyzed current system's capacity
  - 2) Modified construction standards on distribution system to adhere to the "Extreme Wind Design"
  - 3) Ordered new material in order to construct to the 150MPH

     poles designed to meet new wind load
     anchoring and down guy systems
  - 4) See Section (4) for status "report on poles replaced"
- •KEYS submitted a significant amount of back up support data in its 2006 report

# **3c)** Flooding and Storm Surge:

•KEYS' Construction Standards, for underground construction, has always incorporated the elevation of switches and padmount transformers to the" FEMA Flood Elevation" in order to prevent electrical damage due to storm surge and flooding. This long standing policy for over 30 years, proved to be very successful during Hurricane Wilma. Significantly flooding occurred over the entire Florida Keys and Key West from 4 to 12 feet. No damage occurred to KEYS' underground system as a result of flooding due to this longstanding construction standard.

# SECTION 3 continue

# 3d) Safe and Efficient Access of New and Replacement Distribution Facility:

- •This issue is aggressively been reviewed and addressed. Keys Energy Services and the City of Key West are investigating options on how to replace approximately 600 wood poles that are located in easements and right-of ways that are inaccessible (poles behind customers' property). Efforts to date:
  - 1) AT&T, Comcast KEYS and City formed a committee to study issues and solutions
  - 2) KEYS performed impact study on options
  - 3) KEYS' Utility Board Resolution #748 on Easement Inaccessibility policy to install new and upgraded facilities at a safe and accessible location
  - 4) KEYS presented report to City of Key West for direction
  - 5) Currently under legal review by the "City of Key West"
  - 6) KEYS developed website to keep public/customers informed
- •Electrical construction standards, policies, guidelines, practices, and procedures KEYS provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that KEYS' facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible.

# 3e) Attachments by Others:

•Electrical construction standards, policies, guidelines, practices, and procedures at KEYS include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on an 8 year cycle.

# SECTION 4 Facility Inspections

# 4a) KEYS' Policy, Guidelines, Process, and Procedures as They Relate to Pole Testing:

- •Distribution Poles:
  - 1) KEYS' contracted with Osmose, Inc. to perform a detail testing of **100%** of KEYS' utility poles at one time.
  - 2) KEYS elected not to delay, and currently tested all poles for NESC compliance. Osmose commenced testing in December of 2006. Testing of 100% of poles was completed by May of 2007.
  - 3) In summary, Osmose performed the task below:

Item #	Task Description			
1	Site visit and Visual inspection of pole(concrete and wood)			
2	Sound and Bore test for wood			
3	Excavated base- soil around wood pole Reject pole			
4	Excavated base- soil around wood pole External treat			
5	Excavated base- soil around wood pole External treat, then reinforce using cost items below			
6	Internal Treat of wood pole			
7	Difficult accessible( poles located in rear lot lines)			
8	Ground wire Repair near pole base			
9	Load Calculation Assessment per pole as per PSC			
10	Digital Images/photos for reject poles and code problems in items( 18,19 and 20)			
11	Computerized report of task performed per pole(includes 3 copies of software)			
12	Install "Guy Guard" on Down Guy			
13	Osmose C2 external steel reinforce installation at base (35' wood pole)(All labor and material)			
14	Osmose C2 external steel reinforce installation at base (40' wood pole)(All labor and material)			
15	Osmose C2 external steel reinforce installation at base (45' wood pole)(All labor and material)			
16	Down guy wire and anchor rod inspection(6" below grade)			
17	Identify/ document locations of missing KEYS pole # on the pole			
18	Identify/document locations that the "pole ground rod" extends above grade/ground			
	Identify/document ADA non-compliance( b/w pole and any object) if clearance is lower then 33"			
19	(on sidewalks)			
	Identify/document locations that clearance between pole and Fire hydrant is -less then 4 feet (at			
20	ground level)			
Identify/document locations where clearance b/w OH wire and Structures is less t				
21	(overhead)			
22	Joint Use Survey of 2 other utility attachments(for each of the foreign attachments)			

## •Transmission Poles:

- 1) KEYS has no "wood" transmission poles.
- 2) Since KEYS has only one incoming transmission line into its service territory, KEYS has a policy to perform the following:
  - •Detailed inspection/survey of concrete foundations on transmission structures located in the water. This is performed every 4 years. Last inspection occurred in July 2007.
  - •Detailed helicopter inspections of all concrete poles. This aerial inspection is performed every 2 years.
  - •Infrared survey KEYS performs a 100% infrared inspection every 2 years.

# **SECTION 4** continue

# 4b) Number and Percent of Transmission and Distribution Pole Inspections planned and completed:

- •Transmission Facility Inspections
  - ⇒Concrete Foundations -100% inspected in 2007.
  - ⇒Aerial inspection 100% inspected in 2007
- •Distribution Facility Inspection
  - ⇒See detail summary table below.

# 4c) Statistical data on T&D poles failing inspections

- Transmission
  - ⇒Number of poles failed (rejected) -0.0
  - ⇒Percentage of rejected failed rate -0.0%
- Distribution

# POLE TESTING SUMMARY DISTRIBUTION

Test Area	Keys Energy	AT&T	Combined Totals		
Total poles tested	11,100	3,171	14,271		
Total concrete poles tested to date	3647	0	3647		
Total wood poles tested to date	7453	3171	10624		
% of Total poles tested to date	100.00%	100.00%	100.00%		
Reject/Failed pole Summary					
Total concrete rejects to date	18	0	18		
% of total concrete	0.5%	0.00%	0.5%		
Total wood pole reject to date	2232	700	2932		
% of total wood	29.9%	22.1%	20.7%		
Reject/Failure Reasons					
% Ground / Shell Rot	75%	n/a	n/a		
% Structural Overload	2%	n/a	n/a		
% Pole Top Rot	18%	n/a	n/a		
% Other	5%	n/a	n/a		

# SECTION 4 continue

# 4d) Number and Percentage of T&D Poles Replaced and the Remediation Plan to Correct

•Transmission Facilities Plan

Since no transmission facilities have failed inspection. No plan is needed.

•Distribution Facilities Plan

KEYS has completed 100% field check of all poles in 2007. The Utility Board has already approved a very aggressive schedule to correct and replace failed facilities (Tab 7 & 8 for detailed plan). Below are some of the highlights of the remediation plan:

- ⇒KEYS has entered into a 5 year contract with Diversified Inc. (line construction company) to provide construction labor services to replace approximately 2,800 poles over 5 years. The \$17 million dollar contract is for approximately 150,000 manhours to replace the 2,800 poles with "Storm Harden" facilities.
- ⇒KEYS approved a 5 year contract with USI (concrete pole manufacture) to manufacture approximately 2,800 new concrete poles designed to the new Extreme Wind Load Design.
- ⇒Pole Replacement Plan:
  - •In 2007 KEYS replaced 274 rejected/failed poles

<u>YEAR</u>	Estimated Quantity to be Replaced
2008	800
2009	800
2010	700
2011	226

# **SECTION 5**

# Vegetation Management Program

5a & b) KEYS ENERGY SERVICES VEGETATION MANAGEMENT PROGRAM AND QUANTITY, LEVEL, AND SCOPE OF PLANNED/COMPLETED ON KEYS T&D SYSTEM

#### •Mission:

Keys Energy Services (KEYS) is dedicated to maintaining safe clearances surrounding electrical facilities to reduce outages and increase the public's safety and awareness. This is achieved through various programs including, continuous zone trimming, tree safety press releases, Tree Give-A-Way, and by responding to Customer Service requests for vegetation management. The following information describes KEYS programs in greater detail.

#### •KEYS' Service Area:

KEYS service area consist of 226.71 miles of 3 phase Distribution lines & 66.3 miles of transmission lines. Our service territory consist of 74 square miles.

#### •KEYS' Staff and Contractual Crews:

KEYS have a total of 5 tree trimming crews, 2 in-house crews and 3 contractor crews. KEYS in-house crews maintain all customer request orders, revisit tree trimming list as well as zone trimming and tree removals. Contractor crews specifically work in zone trimming and tree removals. All worked is compiled and documented, such as footage, tree removals, zone trimming and man-hours it takes to complete these zones. These crews have received special training in the line clearance tree trimming and follow arborist guidelines for utilities which specify how trees should be cut. Industry standards specify the minimum safety clearances that must be maintained for safety and for reliability.

# •KEYS Trim Cycle Information:

KEYS' implemented a policy to maintain a 2 year cycle for system trimming, which KEYS has been able to complete in this time frame. This 2 year cycle has been in place since 2000 which includes trimming of all 3 phase feeders, laterals, secondary and communication conductors. KEYS perform a quarterly maintenance of tree clearances on all of the 66.3 miles of transmission lines and maintain these clearances. KEYS averages about 7 customer requests a day, the low volume of requests are due to the cycle trimming that is in place. KEYS in house crews spend approximately 25% of their time on customer generated requests, which include service trims, communication and conductor trims. When not working on customer request the KEYS crews work on revisits and zone trimming.

While zone trimming contractor crews as well as KEYS tree crews remove all invasive trees in the right-of-way and easements. Trees are cut to ground level and sprayed with an herbicide to prevent re-growth.

# SECTION 5 continue

• Problem Trees Outside of Right-of-Ways or Easements:

For customer trees that are infringing into KEYS lines, KEYS will make contact with the customer and explain to the customer the safety issues that exist with a tree getting into high voltage lines. Most customers are receptive to the tree removal once contacted by KEYS.

KEYS has initiated a quarterly revisit list for the locations throughout the system where customer's trees are infringing on KEYS lines and are not willing to have the tree removed. This revisit list was just put into place in late 2006 and is working well. The quarterly revisit list is necessary due to KEYS' tropical climate and the substantial growth rate throughout the year. KEYS is also looking into a tree replacement program as an incentive for reluctant customers to allow the removal of problem trees.

•Addressing Appropriate Planting, Landscaping:

KEYS has a tree give-a-way program that has been in place since 1995 to help promote energy conservation and public awareness. KEYS help the customer determine the proper placement of the tree to maintain adequate clearance from facilities with one on one consultation. KEYS review a site layout of the customer's yard and advice on the best placement for shade benefit and proper clearance. During the consultation, KEYS gives the customer a brief summery of what type of problems may occur if a tree was to be placed under the high voltage lines/service drops. Generally, the customer agrees to plant the tree where KEYS indicates on the layout of the property resulting in fewer future tree trimming problems and increases safety.

•Benchmark Reports on Vegetation Management:

KEYS implementation of the 2 year trim cycle, revisit list, tree removals, tree give-a-way program, and public service announcements, responding to customer request, and hiring contractor crews for zone trimming has allowed KEYS to reduce outages.

KEYS maintain records and produce an annual report of all outages throughout the system. In 2007, KEYS had 9 reclosure, 3 feeder outages and 12 lateral outages due to trees from February to December 2006. These proactive measures have resulted in the low number of occurrences due to KEYS Vegetation Management Program. KEYS will strive to continue to improve this program and further reduce outages and increase safety for the public and KEYS employees.

•Line Clearances:

KEYS strive to maintain the following line clearances where practical:

- •15 feet clearance on all transmission lines.
- •10 feet clearance on all open conductors greater than 600 volts (where possible)
- •5 feet minimum clearance on all open conductors less than 600 volts. (where possible)
- •3 feet minimum clearance on all communication conductors.

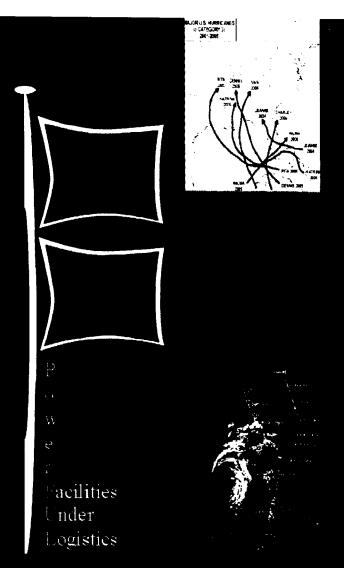
The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, Keys Energy Service has a copy of the report and will use the information to continually improve vegetation management practices.

# SECTION 6 Storm Hardening Research

Keys Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida.

- •Under separate cover, FMEA is providing the FPSC with a report of research activities.
- •For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmclime@publicpower.com">bmclime@publicpower.com</a>.

# SECTION 7 Supplemental Data



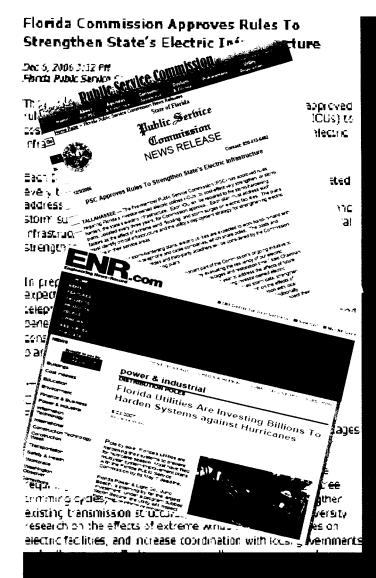
# **KEYS ENERGY Storm Hardening Program**

# Status Report 2007

Dale Z. Finigan

Director of Engineering & Control





Florida PSC - HeW Rules

# **Public Service Commission**

Infrastructure Storm Hardening Mandates

**Pole Inspection 8-yr Cycle** 

Tesign/Construct New Facilities to EWL

Critical Customers EOC. Hospitals, Ports

Elevate Underground

Inaccessible Facilities
(Easements)

Status Reports Yearly
PSO



Utility to test all wood poles within an 8 yr cycle. Poles shall be tested using the 18in excavation method, and testing shall take into account Electric and Communication loading.

# **Pole Inspection** 2-yr Cycle

# **Comprehensive Inspection Includes:**

Visual inspection

Sound & bore

Excavation (18" at base) Strength & load analysis

Treatment

Data collection

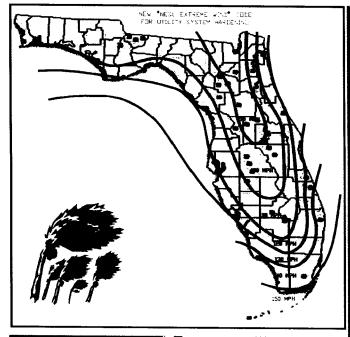
KEYS completed in 1yr cycle

# **Contractor Procured:**

Osmose Inc.

Inspected approx 14,000 poles (10,800 wood) 99% inspection completed Re-evaluating poles in sidewalks

# HISPECTION SUMMARY





Design/construct New Facilities to EWL

Modify Construction Standards
Structurally evaluated existing OH system
Modified standards (i.e. pole design)
New stronger concrete poles (275%)
Larger and heavier then previous
Four types designed for various
construction needs

Contractor Procured:
USI (in Ft Myers)
KEYS witness test factor load breaks
Started delivery in June 2007
Type A-40 delivered

Utility shall design and construct *new and rebuilt* overhead facilities to the Extreme Wind Load capacity of 150mph.

# Key West Port (Outer Mole)



Utility replace all Facilities that provide a public health, safety and security to the community (i.e. PORT, Hospital, and EOC). This applys even if facilities pass pole test.

# Critical Facility Upgrade

# **Key West Port (Outer Mole)**

Current facilities
3 yrs old

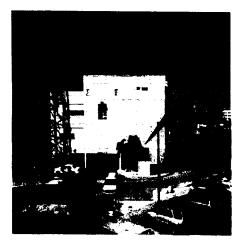
100mph rated

KEYS explored upgrade justification
Navy content with current capacity
CITY content with current capacity
PSC exemption reasonable and compliant

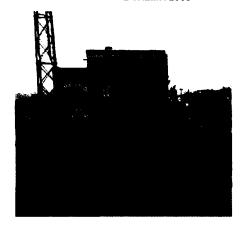
# LKHS (Hospital)

Current facilities
25 yrs old
90-120mph rated

Upgrade estimated at approx \$175K Planned upgrade in 2010



Before and During PHOTOS
HURRICANE WILMA 2005

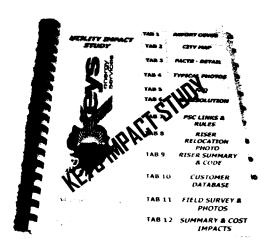


Utility to design future underground facilities to consider the effect of flooding and minimize effects and improve reliability.

# Elevate Underground Facilities

# For 25+yrs KEYS has elevated to FEMA Flood Elevation No damage to UG system in WILMA KEYS in conformance to PSC RULE







For new or rebuild OH facilities the Utility shall install in order to facilitate safe and efficient access for maintenance.

# **Inaccessible Facilities** (Easements)

**Status Update on PSC Rule** 

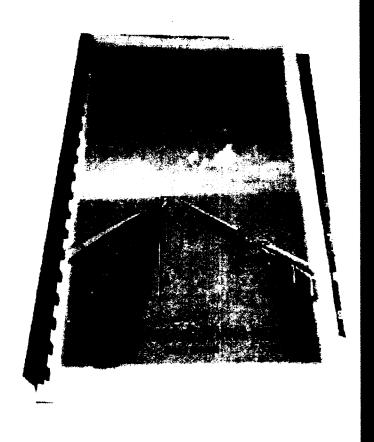
CITY formed a committee to investigate CITY of KW

**KEYS** 

ATT

**COMCAST** 

- KEYS performed detail report/study KEYS' UB passed Resolution #748 KEYS developed interactive "website" on this topic
- As of late Dec 2007, the CITY advised the committee that the "easement issue" is under review by CITY Legal Counsel



# **PSC Yearly Reporting**

# **PSC Reporting Requirements**

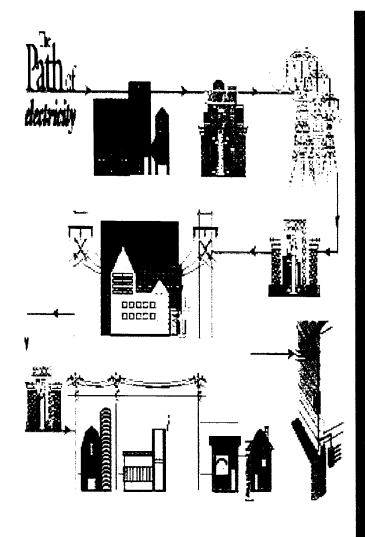
Yearly Utility report due every March Provide status of "Storm Hardening Program" on...

Pole testing program
Revised construction standards
Corrective actions on pole
replacement

- Vegetation clearance(tree trimming) Inaccessible facilities
- Elevation of UG facilities

Coordination with 3<sup>rd</sup> party utilities that attach (i.e. ATT and Comcast)

Utility to design future Underground Facilities to consider the effect of flooding and minimize effects and improve reliability.



Customers may think upgrades are done "quickly". It's a five year program.

Just because it's a concrete pole does not mean it is at the 150mph load capacity (existing concrete poles are "NESC Code Compliant" and will remain).

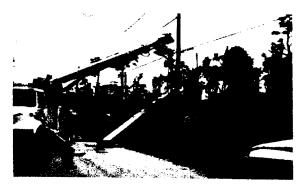
After 5 years into the program

Not every pole will be concrete.

Only 30% of our distribution will be at 150mph "extreme code".

Remaining facilities will be upgraded to the 150mph extreme code, at the pole's "end of life" (when pole is 66% decayed per NESC code and FPSC).









# Visinille elliste

gn.

Overall Schedule/Status
Pole replacement on track. Complete by 2012
No major Issues to delay
"Easement poles" may impact schedule





Obtain of Project Funds

# Fund Disbursement

**Total Project Budget- \$17.0M** 

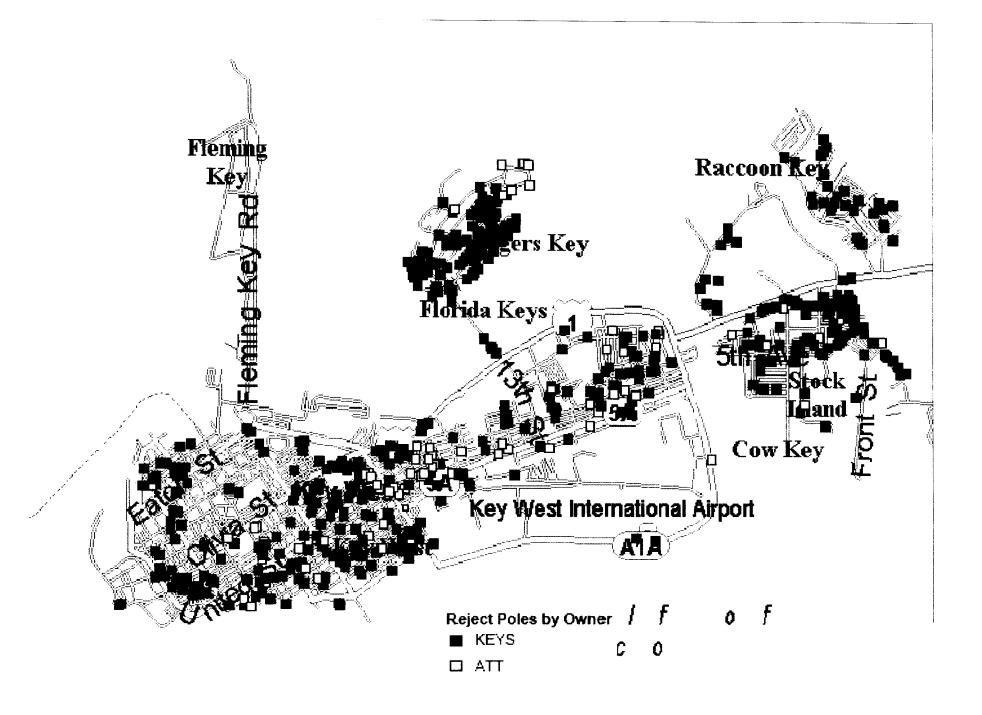


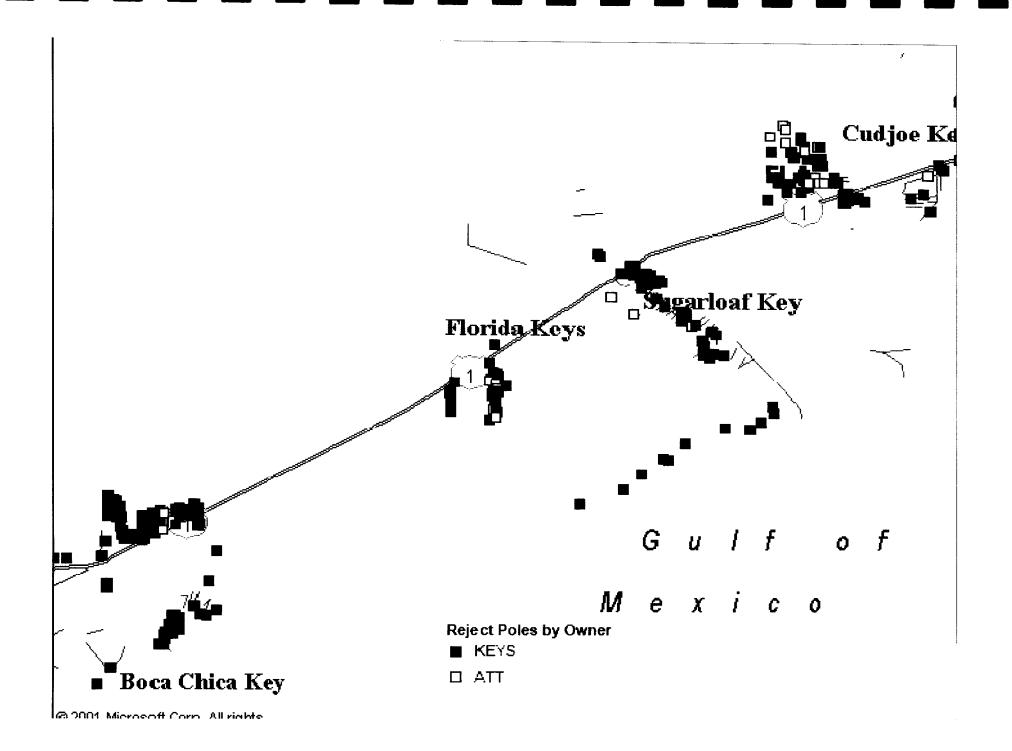
# KEYS ENERGY's program

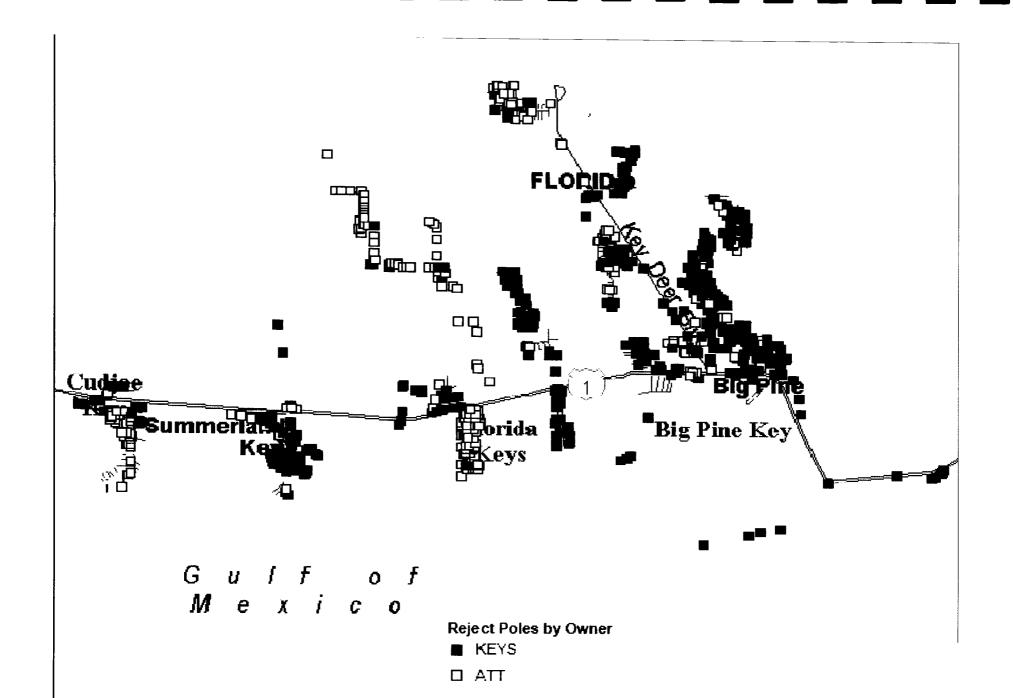
"on target"

# Credits

- UB for Strategic Planning and Project Approval/Support
- Finance/Purchasing for Bidding/Funding
- Engineering for Design and Project Management
- T&D for Project Support









# Engineering & Operations Department

P.O. Box 423219 • Kissimmee, Florida 34742-3219 407/933-7777 • Fax 407/933-4178

February 29, 2008

Tim Devlin Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Kissimmee Utility Authority Storm Hardening Report

PSC Rule 25-6.0343, FAC

Calendar Year 2007

Dear Mr. Devlin,

Please find enclosed the Storm Hardening report for calendar year 2007 for Kissimmee Utility Authority (KUA). This report is filed in accordance with the subject Florida Public Service Commission Rule.

Please contact me if you require additional information.

Sincerely,

Kenneth L. Davis

Vice President

Engineering & Operations

Enclosure

# Kissimmee Utility Authority Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

### 1) Introduction

This report is filed in response to the above referenced rule for:

- a) Kissimmee Utility Authority (KUA)
- b) 1701 W. Carroll Street Kissimmee, Florida 34741

Mailing Address: P.O. Box 423219 Kissimmee, Florida 34742-3219

## c) Contact information:

Kenneth L. Davis Vice President – Engineering & Operations Phone: (407) 933-7777 Ext 1210

Fax: (407) 933-4178 Email: kdavis@kua.com

#### 2) Number of customers served during calendar year 2006

During calendar year 2007 KUA served an average number of 64,753 customers. As of December 2007, KUA served a total of 66,005 customers.

# 3) Standards of Construction

a) National Electric Safety Code Compliance

All construction standards, policies, guidelines, practices and procedures at KUA comply with the National Electrical Safety Code, ANSI C-2, (NESC). All electrical facilities constructed prior to February 1, 2007, were governed by the NESC edition in effect at the time of construction or later revisions of the code as determined by KUA. All facilities constructed on or after February 1, 2007, are constructed in compliance with the 2007 edition of the NESC.

## b) Extreme Wind Loading Standards

KUA standards for distribution construction have been adopted that are guided by the extreme wind loading standards specified by Figure 250-2 (d) of the 2002 edition of the NESC (or later revisions as appropriate) for all 1) new construction; 2) major expansions, rebuilds or relocation projects 3) individual pole replacements for certain targeted "critical" structures such as main three-phase underground riser poles, poles containing three-phase transformer banks with 75 KVA or larger transformers, and poles within main three-phase feeders. Although this guideline was implemented earlier, the policy was officially issued for all construction on or after December 20, 2006.

KUA standards for transmission construction have met or exceeded NESC extreme wind loading standards since approximately 1984. During 2007, 46 wood transmission poles were replaced with steel structures in conjunction with a road widening project. Phase II of this project will be initiated in 2009 which will include the replacement of another 41 wood poles.

KUA is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continually evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas. KUA is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

# c) Flooding and Storm Surges

The KUA service territory is not in a coastal area and therefore does not contain areas subject to storm surges. The KUA service territory has not experienced any significant flooding, even as a result of major storms, and therefore has not adopted any specific standards or policies addressing the protection of the distribution system. Any low areas that may be more susceptible to flooding have been identified and are monitored when the flooding potential is present.

Through the Florida Municipal Electric Association, KUA is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages.

# d) Safe and Efficient Access of New and Replacement Distribution Facilities

Construction standards, policies and practices at KUA provide for the placement of all facilities so as to provide for safe, unobstructed access. All new distribution facilities are constructed on front-lot lines. KUA has not constructed on rear-lot lines for a number of years and therefore has a very minimal amount of existing rear-lot construction. When feasible, any infrastructure currently constructed on rear-lot lines is modified to front-lot during any major replacement or upgrade project. All existing rear-lot construction areas

are also monitored for reliability, maintenance and operational problems. Significant problems with any of these issues will result in a planned conversion to front-lot construction. KUA allocates funding each fiscal year for these types of conversion projects. In conjunction with the road widening project referenced in article 3. b), approximately 3.5 circuit miles of three-phase overhead distribution feeder infrastructure is being converted to underground.

# e) Attachments by Others

KUA standards, policies and practices include consideration of pole loading capacity for both electrical infrastructure and for attachments to KUA poles by others. KUA's current pole attachment agreement also addresses this issue in detail and requires the appropriate data to provide for loading analysis on all poles for which attachments are being requested. As each existing pole attachment agreement comes up for renewal, KUA is negotiating new agreements with the attaching entity. The new agreement significantly strengthens requirements for loading and inspection standards.

## 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

KUA policies, guidelines, practices and procedures include visual inspection of all distribution lines on a five-year cycle. In addition, 100% of distribution feeders are inspected via infrared scanning on an annual basis. Outage data for all distribution feeders is evaluated on a regular basis. Detailed component by component inspections are conducted on feeders experiencing higher than normal outage incidents. Visual ground inspection of transmission lines are conducted on an annual basis. Infrared scanning of transmission line facilities are also conducted on an annual basis.

KUA guidelines also call for inspection of all wood distribution poles on an eight-year cycle. KUA currently outsources pole inspections to an experienced contractor. Pole inspections include sound and bore and ground-line excavation and treatment. During pole inspections, facilities are also inspected for problems such as missing grounds, missing guy guards and broken insulators. Digital photos are also taken of each structure. These photos enable engineering personnel to review construction configurations for problem areas. All wood transmission poles are inspected on a bi-annual schedule. The same inspection techniques utilized for distribution poles are utilized for transmission poles.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007. A summary of the results of the 2007 pole inspections is shown in Exhibit 1.

#### **Transmission**

During 2007 KUA conducted visual ground inspections of 100% of transmission circuits. These inspections were conducted in conjunction with visual inspections for vegetation management requirements.

Also during 2007 KUA inspected a total of 207 wood transmission poles. This inspection covered all existing wood poles except those being currently being replaced as referenced in article 3. b).

# **Distribution**

KUA inspects the distribution system on a five-year cycle. A total of approximately 170 circuit miles distribution circuits were targeted for inspection. This equates to approximately 20% of the total of 850 circuit miles (overhead and underground). Infrared scanning of all 850 circuit miles of distribution feeders was conducted during the year. In addition, approximately 200 circuit miles were inspected via visual inspections.

Based on an eight-year inspection cycle, approximately 2,000 distribution poles were scheduled for inspection during 2007. A total of 5,742 poles were actually inspected.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

# **Transmission**

Five (2.4% of total) transmission poles were classified as rejected and warranted replacement or restoration. Poles failed inspection for the following reasons:

Heart Rot Above Ground	3
Enclosed Pocket Above Ground	1
Decay Pocket	1

# **Distribution**

A total of 79 (1.4%) of the 5,742 poles failed inspection. Poles failed inspection for the following reasons:

Shell Rot	40
Rotten Butt	11

Shell Rot Above	7
Decay Pocket	5
Woodpecker Holes	3
Heart Rot	3
Heart Rot Above	2
Decay Pocket Above	2
Wind Shake	1
Split Top	1
Mechanical Damage Below	1
Mechanical Damage Above	1
Enclosed Pocket	1
Decayed Top	1

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

## **Transmission**

The five transmission poles failing inspection are all scheduled for replacement. Of the remaining 202 poles that passed inspection, ground-line treatment was performed on 178 poles and insect deterrent treatment was applied to 196 poles.

#### **Distribution**

Seven of the poles were deemed as priority replacements and have been replaced. Of the remaining 71, it is currently planned to replace restore 52 poles and replace the remaining 19 poles. Schedules for the replacement and treatment of these poles are currently being developed to coincide with planned outages and other scheduled maintenance work. In addition, 5,102 poles were treated with ground-line treatment and insect deterrent treatment was applied to 454 poles.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

# **Transmission**

KUA policies, guidelines, practices and procedures for transmission system vegetation management are in accordance with NERC Reliability Standard FAC-003-1

requirements. KUA currently schedules a target plan of visual inspection of all transmission lines for potential vegetation problems on an annual basis.

#### **Distribution**

KUA practices currently targets a complete vegetation inspection of the entire distribution system on a three-year cycle. Based on past experience we believe this three-year trim cycle is sufficient.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

#### **Transmission**

During calendar year 2007, vegetation inspections of all transmission circuits were conducted and required corrective action was indentified and completed on one transmission circuit. Work plans for other vegetation management has been scheduled for later in calendar year 2008.

#### **Distribution**

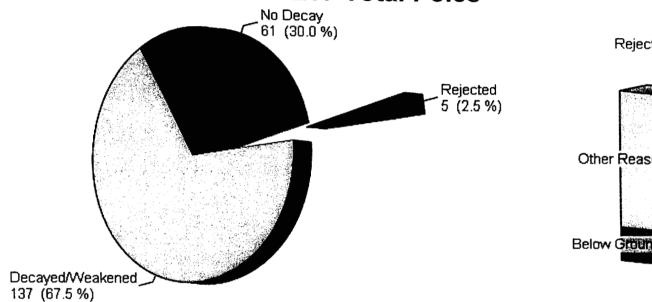
KUA targets a three-year vegetation management inspection cycle for distribution circuits. This equates to an annual target of approximately 115 miles of the total 350 miles of overhead distribution circuits. During 2007, KUA inspected approximately 130 circuit miles of distribution circuits in conjunction with our distribution facilities inspections. In addition, infrared scanning is conducted on all 350 circuit miles. Although this is not a detailed inspection of vegetation, inspectors will look for obvious vegetation problem areas and report them as needed.

# 6. Storm Hardening Research

KUA is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

# Osmose<sub>®</sub>

# **Composite** 207 Total Poles



Rejected Poles

Other Reasons 4 (80.0 %)
Below Groundine (20.0 %)

Average Age: 24.3 Years

Kissimmee Utility Authority Florida / 2007 Transmission Poles

# Osmose.

# Osmose Inspection Groundline Decay by Age Group Composite

Kissimmee Utility Authority Florida / 2007 Transmission Poles

TOTAL POLES
REJECTED OR
DECAYED

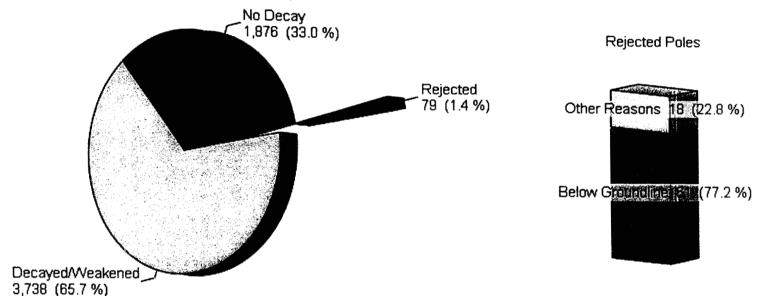
POLES REJECTED POLES DECAYING AND WEAKENED

		PULES REJECTED				PULES DECAYING AND WEAKENED					DECATED		
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total	
0-5 Years	44	0	0	0	0.0%	0	0	0	5	11.4%	5	11.4%	
6-10 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	
11-15 Years	2	0	0	0	0.0%	0	0	0	2	100.0%	2	100.0%	
16-20 Years	28	0	0	0	0.0%	1	0	0	19	71.4%	20	71.4%	
21-25 Years	23	0	0	0	0.0%	0	0	0	21	91.3%	21	91.3%	
26-30 Years	27	0	0	0	0.0%	1	0	0	18	70.4%	19		
31-35 Years	79	4	1	0	6.3%	3	2	0	65	88.6%	75	<b></b>	
36-40 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0		
41-45 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	<b></b>		
46-50 Years	0	0	0	0	0.0%	0	(	0	0	0.0%			
51-55 Years	0	0	0	0	0.0%	0	(	0	0	0.0%	<u> </u>	0.0%	
56-60 Years	0	C	0	0	0.0%			) (	0	0.0%		0.0%	
61+ Years	0	(	) 0	C	0.0%	(	)	0	) (	0.0%	<u></u>	0.09	
Unknown	4	(	) (		0.0%			0	0	0.0%	<u> </u>	0.00	
TOTALS	207		4	(	2.4%		5	2	0 13	66.29	6 14	2 68.69	

Average Age - 24.3



## Composite 5,742 Total Poles



Average Age: 23.0 Years

Kissimmee Utility Authority Florida / 2007 Distribution Poles

#### EXHIBIT 1 - PAGE 4

### Osmose,

### Osmose Inspection Groundline Decay by Age Group Composite

Kissimmee Utility Authority Florida / 2007 Distribution Poles

TOTAL POLES
REJECTED OR
DECAYED

#### POLES REJECTED

#### POLES DECAYING AND WEAKENED

			POLES R	EJECTED	)	POL	LES DECE	AYING AN	D WEAK	ENED	DEC	CAYED				
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total				
0-5 Years	493	0	0	1	0.2%	0	1	0	157	32.0%	159	32.3%				
6-10 Years	560	0	0	1	0.2%	1	2	0	283	51.1%	287	51.3%				
11-15 Years	716	0	0	0	0.0%	1	18	0	395	57.8%	414	57.8%				
16-20 Years	968	0	2	1	0.3%	0	52	0	674	75.0%	729	75.3%				
21-25 Years	1,235	0	2	0	0.2%	0	70	1	829	72.9%	902	73.0%				
26-30 Years	794	0	3	2	0.6%	0	65	0	503	71.5%	573	72.2%				
31-35 Years	461	3	9	0	2.6%	3	57	3	320	83.1%		85.7%				
36-40 Years	374	3	49	3	14.7%	0	134	9	157	80.2%	355	94.9%				
41-45 Years	3	0	0	0	0.0%	0	1	0	1	66.7%		66.7%				
46-50 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	ļ	0.0%				
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	<b> </b>	0.0%				
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%		0.0%				
61+ Years	0	0	0	0	0.0%	0	(	0	0	0.0%						
Unknown	119	0	0	0	0.0%	0	(	0	0	0.0%		0.0%				
TOTALS	5.742	-	65	8	1.4%	5	400	13	3,319	65.1%	3,816	66.5%				

Average Age - 23.0



1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561-586-1665 · Fax: 561-586-1702



February 26, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Dear Tim,

Enclosed you will find the Annual Storm Hardening Status report for the City of Lake Worth Florida Utilities.

Regards,

Larry Drenski, Superintendent

Energy and Delivery Lake Worth Utilities

Lary Kruh

1900 2<sup>nd</sup> Avenue North

Lake Worth, Florida

33461

City of Lake Worth
Where the Trapics Begin



1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561-586-1665 · Fax: 561-586-1702

## Lake Worth Utility Report to the Florida Public Service Commission

## Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

City of Lake Worth Utilities Administration 1900 2<sup>nd</sup> Avenue North Lake Worth, Florida 33461

#### Contact Person:

Mr. Larry Drenski 2.
Superintendent of Energy and Delivery 561-586-1672
E-Mail: <a href="mailto:ldrenski@lakeworth.org">ldrenski@lakeworth.org</a>.

2) Number of Meters served in calendar year 2007

26,385

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Lake Worth comply with the National Electric Safety Code (ANSI C-2) [NESC] for electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Loading Standards

At this time, CLW facilities are not designed to be guided by the extreme loading standards on a system wide basis. However, CLW is guided by the extreme wind loading standard for new construction, major planned work including expansion, rebuild or relocation of existing facilities assigned on or after December 10, 2006.

City of Lake Worth
Where the Tropics Begin
www.lakeworth.org

Topics in the Tropics
Information Line:
561-586-1791

Working Together



1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561-586-1665 · Fax: 561-586-1702

#### c) Flooding and Storm Surges

Underground distribution construction practices at CLW require installation of dead front padmounted equipment in areas susceptible to flooding and storm surges. No special design or construction practices for overhead facilities have been deemed necessary.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at CLW provide for placement of new distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Policies for new construction require placement in front easements. Underground installations require placement in conduit. CLW practice is to maintain existing overhead laterals in rear lot easements.

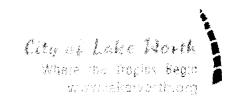
#### e) Attachments by Others

Electrical construction standards, policies, and guidelines at CLW provide space for attachment of communication facilities by others. The communication utility is responsible for the design of communication facilities including meeting NESC clearance requirements and providing structure guying. CLW construction practice is to provide sufficient pole strength capacity such that NESC strength requirements are normally met after attachments by others.

#### 4) Facility Inspections

CLW performs a visual inspection of all transmission facilities on an annual basis. All transmission poles are concrete or steel and no pole testing is performed.

CLW performs a visual inspection of all distribution facilities on a 2-3 year cycle. The pole inspection practices at CLW in 2007 and prior years were to perform pole tests on poles with visual problems. Pole tests consist of hammer sounding and pole prod penetration six (6) inches below ground line. Poles are replaced when pole prod penetration exceeds two (2) inches. Detailed records documenting pole inspection testing and failure rates have recently begun to be documented by CLW. In 2007, no poles were inspected for the purpose of storm hardening due to the separation of leadership. A formal pole inspection program has begun in mid February 2008. Results are being compiled and records maintained. Failed poles are currently in the process of being replaced and will continue until completion during the year 2008.





1900 2nd Avenue North · Lake Worth, Florida 33461 · Phone: 561-586-1665 · Fax: 561-586-1702

CLW is modifying the pole inspection plan as follows:

- Test poles on an eight year cycle. Pole testing schedule will be coordinated with major reconstruction and/or voltage conversion projects.
- Test by sounding wood poles with a hammer and excavate and test by pole prod penetration below ground line.
- Maintain records of pole inspection plan documenting inspection schedule; type, class, and location of reject poles; and description of remediation taken.

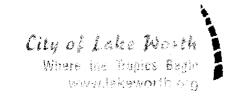
#### 5) Vegetation Management

CLW has an on-going management plan and is currently in process to go out for bids to award a line clearance contract to be preformed on a two (2) year cycle. Trees are to be trimmed to obtain maximum clearance considering rate of tree growth, symmetry, tree health, and the rights and interests of property owners and the public. A minimum clearance of ten (10) feet in any direction from CLW conductors is obtained. The contractor attempts to obtain permission from property owners to remove trees described in the following categories:

- Small trees which the property owner does not value, but which will require trimming in future years.
- Dead or defective trees which are a hazard to CLW conductors.
- Trees that are unsightly as a result of the necessary trimming and that have no chance for future development.
- Fast growing soft-wooded or weed trees located under or dangerously close to CLW conductors.
- Trees that are non native and invasive and subject to removal as declared by the Palm Beach County Resources Department.

#### 6. Storm Hardening Research

CLW is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.





February 28, 2008

Tim Devlin
Director of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Devlin:

Enclosed is Lakeland Electric's Storm Hardening Report for 2007. Please let me know if any additional information is required.

Sincerely.

Alan W. Shaffer

Assistant General Manager - Delivery

Lakeland Electric (863) 834-6505

Phone: 863.834.6300 ◆ Fax: 863.834.6344

# Lakeland Electric Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

a) Name of city/utility

City of Lakeland Department of Electric Utilities / Lakeland Electric

b) Address, street, city, zip

501 East Lemon Street Lakeland, FL 33801

c) Contact information: Name, title, phone, fax, email

Alan Shaffer

Assistant General Manager - Delivery

Phone: (863) 834-6505 Fax: (863) 834-6373

Alan.Shaffer@lakelandelectric.com

2) Number of customers served in calendar year 2007

122,176

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Lakeland Electric (LE) comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Lakeland Electric have considered the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. LE designs and builds to meet or exceed the extreme wind loading strength requirements for all pole heights 60 feet and above and meet or exceed Grade B Construction below this height.

#### c) Flooding and Storm Surges

The LE service territory is not a coastal area and, therefore, not subject to storm surges or other wide-spread significant flooding.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at Lakeland Electric provide for placement of new and replacement distribution facilities so as to

facilitate safe and efficient access for installation and maintenance. In all locations possible and with rare exception facilities are immediately adjacent to public roadways. Rear lot line construction away from roads and alleyways was discontinued over 25 years ago. Where significant reconstruction of inaccessible line sections may occur, they are considered for relocation to the roadway.

#### e) Attachments by Others

Lakeland Electric's engineering and construction standards account for the influence of potential telecommunications attachments for pole strength and height in maintaining compliance to the applicable NESC standards. Additionally, previous agreements and the current ordinance governing pole attachments with external entities has maintained requirements that those making the licensed attachments comply with NESC requirements in their design, construction, operation, and maintenance activities. The pole strength calculations completed during the pole inspections include all attachments in the assessment.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Lakeland Electric initiated a contract in 2007 to inspect all wood poles on an eight year cycle using visual and the sound and bore techniques with ground line excavation and strength calculations that include all pole attachments. Additionally, LE personnel inspect for T&D facility damage throughout the service territory during the course of normal travel, operations work, and in response to outages. LE also uses concrete and tubular steel poles which receive a visual inspection only. Copies of the inspection reports are enclosed.

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

Documented pole inspection results	Distribution	Transmission
Poles planned for inspection	10,000	200
Percentage planned	16.7 %	17%
Poles inspected	13,439	231
Percentage inspected	22.3%	19.7%

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Four transmission poles or 1.7% of those inspected failed to meet minimum strength requirements due to decay.

- 256 distribution poles or 1.9% of those inspected failed to meet minimum strength requirements due to decay.
- d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

All poles for which strengthening was recommended have now been assessed. 37 distribution poles will be reinforced with struts before June 2008. Six poles have been replaced and the remaining poles, including all four transmission poles, are having work orders written for replacement this year.

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Lakeland Electric's Vegetation Management Contract, policies, guidelines, practices, and procedures address vegetation planting recommendations and the handling of threatening trees and limbs within and outside of the road rights-of-way and easements. They include a combination of trimming, removal, growth retardant and herbicide application. Copies of the procedures are enclosed with this report.

Transmission circuits have been maintained on a 3 year trim cycle and progress is being made to reduce the distribution trim cycle from its present interval of 4 years down to 3 years to better assure the clearance is maintained with with the tree growth rates. In addition to the planned maintenance hot spot trimming is done as problems are noted.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Transmission circuits have been maintained on a 3 year trim cycle and efforts are underway to reduce the distribution trim cycle, presently at 4 years, to 3 years. The distribution trimming includes secondaries and service drops, however, they do not add to the indicated mileage.

2007 Distribution Goal: 300 Miles Completed: 347 Miles

2007 Transmission Goal: 40 Miles Completed: 46

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, Lakeland Electric has a copy of the report and will use the information to continually improve vegetation management practices.

#### 6. Storm Hardening Research

Lakeland Electric is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.



#### **Transmission System Vegetation Management Procedures**

#### Vegetation Outage Prevention Inspections

- All transmission circuits shall be inspected annually for potential vegetation interference by the Energy Delivery line clearance staff.
- Trees within falling distance of the transmission conductors, poles and guy wires should be inspected for decayed limbs, weak structures and defective root systems.
- Inspections should be scheduled in winter due to drier site conditions and reduced tree canopy density.

#### Transmission Line Clearance Plan for Trimming

- A three year trim cycle shall be maintained on 69kV and 230kV transmission circuits.
- Dead, decadent or shallow rooted trees within falling distance of the circuit outside the rightof-way should be topped to a safe height or removed with consent from the property owner.
- All vegetation that will exceed 15 feet of height at maturity should be removed from the rightof-way adjacent to paved roadways if permitted.
- All woody type vegetation or obstructions that hinder vehicle access should be removed from remote or rural right-of-ways.
- The fullest extent of right-of-way and easement agreements should be observed and used as needed.

#### Minimum Clearances immediately after trimming:

TYPE OF CIRCUIT	VOLTAGE	LINE TO	LINE TO TREE DISTANCE (IN FEET)							
		UNDER	SIDE	ABOVE						
TRANSMISSION	230 kV	30	20	NO OVERHANG						
SUB TRANSMISSION	69 kV	15	15	NO OVERHANG						

Minimum clearance needed to accommodate conductor sag due to increased load, changes in ambient temperatures and wind and vegetation growth between trimming cycles.

TYPE OF CIRCUIT	VOLTAGE	LINE TO TREE DISTANCE (IN FEET)						
		UNDER	SIDE	ABOVE				
TRANSMISSION	230 kV	6	6	NO OVERHANG				

### <u>Transmission Line Clearance Mitigation Measures</u> <u>Vegetation Control</u>

- Selective herbicide should be applied annually to effectively control woody species.
- Applications should be scheduled in the winter to take advantage of drier site conditions and brown out during the dormant season.

- Vines attached to poles and guy wires shall be cut 3 feet above the ground and the lower portion treated with herbicide and listed for inspection at a later date to check for effective control.
- Herbaceous species (non-woody) should be promoted to control erosion and provide aesthetics.

#### Imminent Threat Communication

• Potential problems caused by insufficient clearance from vegetation or dead/leaning trees from outside the right-of-way shall be immediately reported to System Control Operator.

#### Future easement acquisitions should include:

- A minimum trim easement of 15' for 69 kV circuits and 20' for 230 kV circuits should be considered when planning transmission routing and design of right-of-way;
- A hazardous tree provision "the right to remove or top to a safe height any tree outside the right-of-way or easement that is deemed hazardous to the safe operation and or maintenance of the transmission facility, including conductors, poles and guy wires."



#### **Distribution System Vegetation Management Procedures**

#### **GENERAL INFORMATION**

MAINTENANCE ASSIGNMENTS Line clearance crews will be assigned to circuits as determined by the reliability goals of the department. Line clearance operations will be arranged progressively by circuit, beginning at the substation or designated starting point and continue to the end of the circuit or designated ending point. Circuit priorities include public safety facilities, key account customers and other facilities identified in the Emergency Operation Plan.

MAINTENANCE FREQUENCY Distribution circuits should be scheduled on a three year cycle; however due to limited resources it may be necessary to prioritize the three phase feeder portion of circuits prior to scheduling the total circuit.

<u>LINE CLEARANCE TREE TRIMMING</u> Line clearance tree trimming is performed in accordance with guidelines established by the International Society of Arboriculture, the National Arborist Association, and current arboriculture practices. Tree trimming is performed in a professional manner to render a uniform appearance.

- 1. <u>DIRECTIONAL PRUNING</u> Trees are trimmed to provide for the remaining branches to be directed and encouraged to grow away from power lines.
- 2. <u>CLEARANCE</u> Trees are trimmed to provide a safe and reliable clearance from power lines for a three (3) year period. The following factors will be considered to determine the actual safe and reliable clearance necessary:
  - Tree Species, Condition, Rate of Growth, Limb Integrity
  - Location, Proximity to Power Lines, Soil/Site Conditions
  - Line Construction and Potential Sagging of Conductors
  - Weather Effects and Wind Sway
  - Removal of limbs that are a potential hazard to the power lines due to decay or weak configuration.
  - Removal of dead limbs within falling distance of power lines.
  - Removal of dead wood larger than 2 inches (2") in diameter above power lines.
  - Removal of overhanging limbs.
  - Exception: Substantial, structurally sound limbs with adequate clearances that will not interfere with the power lines during the next three (3) years.
  - Exception: Limbs with adequate vertical clearance that will not interfere with the power lines in the event of a structural failure.

#### RECOMMENDED MINIMUM CLEARANCES IMMEDIATELY AFTER TRIMMING

TYPE OF CIRCUIT	VOLTAGE	LINE TO TREE DISTANCE (IN FEET					
		UNDER	SIDE	ABOVE			
DISTRIBUTION	13 kV	10	10	15			
SECONDARY/OPEN WIRE	<u>&lt;</u> 480	5	10	5			
SECONDARY/CABLE	≤480	2	2	2			

<u>SERVICE CABLES</u> Service cables are trimmed to provide a minimum of three (3) years of clearance from abrading limbs and/or two feet (2') of clearance from limbs less than 2 inches (2") in diameter.

Limbs larger than 4 inches (4") in diameter will not be removed without consent from the property owner.

Limbs larger than six inches (6") in diameter will not be removed if the installation of a tree guard is a practical solution to protect the cable from abrasion.

TREE REMOVAL Tree removal within dedicated utility easements is limited to the following categories:

- Fast growing, softwood and exotic species located within ten (10) feet of distribution power lines.
- Trees less than twelve inches (12") dbh (dbh = diameter at four and one-half feet (4-1/2') above ground level) located within ten (10) feet of distribution power lines.
- Small trees and saplings (less than 4" dbh) that are capable of growing into the power lines.
- Trees and/or shrubs that hinder access to utility poles.

Trees located on private property outside the existence of easements will not be removed. Dead, decayed, damaged, uprooted, or structurally unsound trees within ten (10) feet of primary voltage lines will be topped to a safe height at the property owner's request. The debris generated from such requests will be the property owner's responsibility and a signed liability release will be required.

Trees located on public right-of-way will not be removed except when permission has been obtained from the jurisdictional authority.

<u>STUMPS</u> Stumps are cut within to two inches (2") of the natural ground-line. Hardwood stumps and the exposed roots will be treated with herbicide.

<u>VINE ERADICATION</u> Vines attached to utility poles and support structures will be clipped at a safe vertical height and at eighteen (18") above the ground. The lower portion shall be treated with an appropriate herbicide.

<u>HERBICIDE APPLICATION</u> Herbicide will be used to control stump sprouts, saplings and vines.

#### STREET AND PRIVATE AREA LIGHTS

#### TREE TRIMMING GUIDELINES FOR PRIVATE AREA LIGHTS

Trees located within ten feet (10') of overhead electric equipment, including private area light fixtures will be trimmed to provide appropriate clearance for the equipment. Trimming for illumination of the light pattern will not be provided.

#### TREE TRIMMING GUIDELINES FOR STREET LIGHTS

Trees located within ten feet (10') of overhead electric equipment, including street light fixtures will be trimmed to provide appropriate clearance for the equipment and light pattern area for a three (3) year period. Trimming for illumination will be limited to one request every three years.

Trees located beyond ten feet (10') of street light will be trimmed to the edge of the right-of-way to provide illumination of the roadway.

If heavy tree canopy hinders illumination, a Lakeland Electric lighting technician will evaluate the situation to determine if additional fixtures are needed.

Trimming will be performed in accordance with established arboricultural practices.

- Trees will be trimmed to a maximum vertical height of three feet (3') above the attachment of the fixture.
- Limbs larger that ten inches (10") will not be removed.
- Topping or minimizing the center limb of a tree will not be provided.
- Severe trimming that will adversely affect the health of a tree will not be provided.

#### **CUSTOMER SERVICE**

<u>REQUESTING TREE TRIMMING</u> Reports and requests from property owners will be inspected within 10 business days. Inspections that generate work orders will be scheduled in order of priority.

REQUESTING ASSISTANCE FOR PRIMARY VOLTAGE LINES A forty-eight hour notice is required to provide safety clearance.

<u>REQUESTING ASSISTANCE FOR SERVICE CABLE LINES</u> A forty-eight hour notice is required to arrange for service cable disconnections.

<u>PROPERTY OWNER CONTACT</u> A reasonable effort will be made to notify property owners at least three days prior to work, except for emergency situations, and a courtesy contact will be made immediately prior to working at each property.

<u>CLEAN-UP</u> Immediately upon the completion of scheduled work, all severed limbs and branches will be removed. Debris generated from restoration and/or non-tropical event storm work will be cleaned up within 5 days from notification provided by the property owner. Debris generated by dead, decayed, damaged, uprooted, or structurally unsound trees will be the property owner's responsibility.

Clean-up of jurisdictional wetland areas will be done in accordance with any regulations governing such activities.

Disposal of citrus tree debris will be done in accordance with regulations governing such activities.

<u>WOOD CHIPS</u> Property owners may request truck loads of wood chips that will be delivered when a line clearance crew is working in the vicinity. A signed liability release is required.

Osmose,

Osmose Utilities Services, Inc. 980 Ellicot Street | Buffalo, NY 14209 Phone: (716) 882-5905 / (800) 877-7653

Fax: (716) 882-7822 www.OsmoseUtilities.com

Report for:

Lakeland Electric

Location:

Florida

**Project Dates:** 

Commenced: August 14, 2007

Completed:

December 29, 2007

Project description:

Groundline Inspection and Treatment of Distribution Poles

#### Value Received

Wood poles form the backbone of T&D delivery systems, connecting utilities with their customers. When ignored, wood poles create the potential for excessive O&M and capital spending; failures and lengthy outages; accidents and liabilities. When maintained, wood poles offer equivalent opportunities for savings, improved earnings and dependable, storm-hardened performance. For these reasons, utilities choose to manage the life-cycles of wood poles.

The return on your investment in this program can be measured in several ways. Accurate inspection combined with effective remedial treatment allows poles to retain design strength even as they age and adds many years to the expected service life. The value of outages that don't occur and poles that don't fail in storms is difficult to measure, but real. The reduction in overtime from emergencies that don't occur is difficult to measure, but real. Osmose's approach to this program is comprehensive and includes inspection, maintenance, repair and software for record-keeping and documentation. These options can be tailored to your specific needs.

The contractor that you choose to perform your program can have a significant impact on the life cycle costs and performance of your pole plant and your internal costs for management and oversight. A contractor's price per pole may not reflect either the real total cost or total value. Following is a brief summary of work performed and a description of several critical components of your recent project.

Osmose,

Osmose Utilities Services, Inc. 980 Ellicot Street | Buffalo, NY 14209 Phone: (716) 882-5905 / (800) 877-7653

Fax: (716) 882-7822 www.OsmoseUtilities.com

#### **Services Provided**

Total Poles treated with COP-R-PLASTIC II - Passed	10,942
Total Poles treated with MITC-FUME	462
Total Poles treated with Hollow Heart CF	105
FastGate Delivery	13,439
Locate Riser-UG Cable	6,436
LoadCalc	5,345
Install Groundwire Molding	1,863
Reattach Groundwire	1,847
Install Guy Marker - Customer	716
GPS Reading (3-10 meter)	172
Repair Groundwire	136
	13,439
Total Poles Inspected	•
Total Cost	\$449,700.90
Cost Per Pole	\$33.46

#### Safety Performance

The primary function of wood poles is to provide adequate separation of electrified conductor and equipment from people, animals and structures. Utilities place a high degree of importance on the safety of their facilities. This most recent project has helped to improve or maintain the safety of your facilities in several ways. Osmose located 256 poles that fail to meet minimum strength requirements. These poles were classified as rejects and should be restored or replaced. Advanced decay and strength loss sufficient to warrant priority attention was noted and reported on 7 of these poles.

Osmose inspectors noted 1,429 additional conditions that warrant attention. This list includes such conditions as "Split Top", "Woodpecker Holes Large", "Woodpecker Holes Medium" and "Woodpecker Holes Small". These items are found in the table, "Related Inspections and Defects".

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#### Savings and Economics

Adding extra years of dependable service life to a pole defers its replacement, reduces capital and O&M spending and can help to increase earnings and future cash flow. These economic benefits are most easily illustrated by poles that have active and measurable decay present but are not yet sufficiently weakened to be rejected. During this inspection program Osmose inspectors identified 1,787 poles in this condition. These poles were treated with effective preservatives that will control the advance of decay and strength loss. If recommended treatment cycles are followed, it is typical that 95% or more of these poles will still be serviceable after the next inspection, scheduled for 2017. By comparison, it is likely that 50% of these poles would have become rejects within 10 years of this inspection, if they had not been in-service treated.

#### Decaying and Weakened Poles Savings Analysis Assuming \$2,000 Replacement Cost

1,787 poles @ 95% survival = 89 replacements at next scheduled inspection, or

\$178,000.00

1,787 poles @ 50% survival = 894 replacements at next scheduled inspections, or

\$1,788,000.00

Estimated Savings produced by treating decaying poles

\$1,610,000.00

#### **Restorability Savings Analysis**

Osmose inspectors identified 256 poles that failed to meet minimum strength requirements, but also determined that 101 of these poles could be restored rather than replaced.

#### Reliability and Resiliency

Poles are typically not considered to be among the leading causes of outages. When outages include pole failures they are almost always more expensive and longer than average and may include media and regulator attention. Besides helping to ensure that poles will provide durable service in storms and other heavy load conditions, Osmose supplements your predictive maintenance programs by identifying your leading conditions that contribute to outages.

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#### **Related Inspections and Defects**

Woodpecker Holes Small	588
Decayed Top	337
Woodpecker Holes Medium	207
Split Top	187
Woodpecker Holes Large	91
Decay Pocket Above	13
Lightning Damage	5
Enclosed Pocket Above	1

The detection and reporting of defective overhead conditions is often judged by customers to be equally as valuable as the pole inspection itself. Utilities stand to save O&M funds in two ways. First, the costs of outages may be reduced. Second, the costs of needed repairs can be prioritized and planned for the greatest efficiency and during normal working hours.

Poles inspected were Southern Pine - CCA Type C treated, Southern Pine - Penta treated, Southern Pine - Creosote treated, Southern Pine - Penta in Petroleum treated, Southern Pine - Napthenate treated, Southern Pine - CCA treated and Southern Pine - CCA Type A treated.

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### **Priority Poles List**

There were 7 poles marked as high-priority out of a total of 13439 poles that were inspected.

MAP NUMBER	LINE NUMBER	POLE NUMBER	LOCATION
		116766	320 BRIDGES RD
		117724	
		163468	SE C\O TILLMAN RD & GREENBRIAR RD
		165243	1615 MANN RD.
		202762	A\F 6211 PINE AVE
		202792	1 POLE S\O SE C\O
			CHEATWOOD DR &
			KATHLEEN PINES
		202882	A\F 3418 SHERETZ RD

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### **Reject Poles List**

Shell Rot	130
Split Top	38
Decayed Top	29
Decay Pocket	8
Woodpecker Holes	7
Termites	7
Shell Rot Above	6
Heart Rot Above	6
Decay Pocket Above	6
Carpenter Ants	6
Lightning Damage	2
Hazardous Conditions	2
Rotten Butt	1
Previous Reject	1
Other Insects	1
Other / Unknown	1
Mechanical Damage Below	1
Mechanical Damage Above	1
Internal Decay Above	1
Fire Damage	1

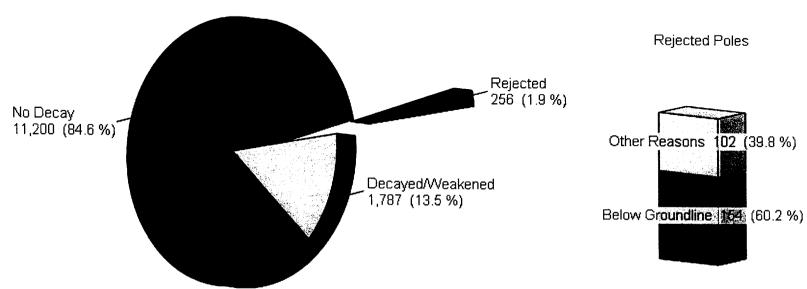
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Excessive Cracking or Checking										,								1
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## Osmose<sub>®</sub>

### Composite 13,439 Total Poles



Average Age: 25.3 Years

Lakeland Electric

Florida / 2007 Distribution Poles

### Osmose.

### Osmose Inspection Groundline Decay by Age Group Composite

Lakeland Electric Florida / 2007 Distribution Poles

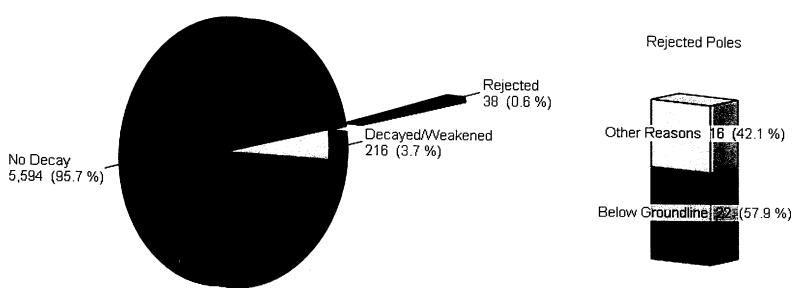
> **TOTAL POLES** REJECTED OR

POLES REJECTED					POI	LES DECA	ENED	DECAYED				
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	456	0	0	1	0.2%	0	0	0	1	0.2%	2	0.4%
6-10 Years	1,038	1	0	1	0.2%	0	2	0	2	0.4%	6	0.6%
11-15 Years	1,377	0	1	2	0.2%	0	6	0	41	3.4%	50	3.6%
16-20 Years	1,878	0	0	5	0.3%	2	14	0	74	4.8%	95	5.1%
21-25 Years	2,245	0	5	6	0.5%	1	43	2	133	8.0%	190	8.5%
26-30 Years	937	7	19	15	4.4%	2	91	3	126	23.7%	263	28.1%
31-35 Years	1,009	2	28	11	4.1%	2	153	1	144	29.7%	341	33.8%
36-40 Years	2,431	8	60	34	4.2%	9	424	9	218	27.1%	762	31.3%
41-45 Years	1,166	3	33	7	3.7%	1	111	3	147	22.5%	305	26.2%
46-50 Years	54	0	3	2	9.3%	0	15	0	5	37.0%	25	46.3%
51-55 Years	8	0	1	0	12.5%	0	2	0	0	25.0%	3	37.5%
56-60 Years	2	0	1	0	50.0%	0	0	0	0	0.0%	1	50.0%
61+ Years	1	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	837	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	13,439	21	151	84	1.9%	17	861	18	891	13.3%	2,043	15.2%

Average Age - 25.3

## Osmose<sub>®</sub>

### Initial 6,040 Total Poles



Average Age: 15.2 Years

Lakeland Electric Florida / 2007 Distribution Poles

### Osmose.

### Osmose Inspection Groundline Decay by Age Group **Initial**

Lakeland Electric Florida / 2007 Distribution Poles

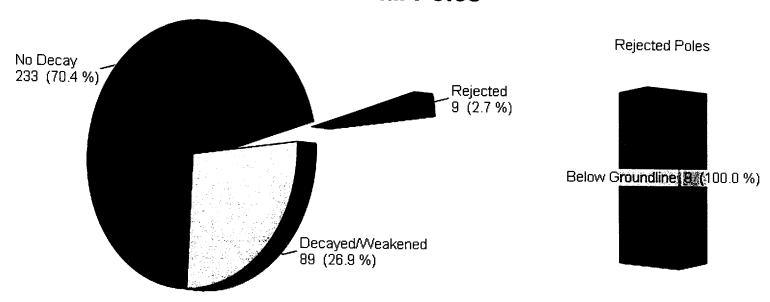
> **TOTAL POLES** REJECTED OR

POLES REJECTED					)	POI	ES DECA	ENED	ED DECAYED			
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	exterior & Interior & % of Exterior Other Gr		% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	456	0	0	1	0.2%	0	0	0	1	0.2%	2	0.4%
6-10 Years	1,031	0	0	1	0.1%	0	2	0	1	0.3%	4	0.4%
11-15 Years	1,360	0	0	2	0.1%	0	5	0	40	3.3%	47	3.5%
16-20 Years	1,202	0	0	1	0.1%	2	9	0	50	5.1%	62	5.2%
21-25 Years	867	0	0	2	0.2%	1	10	2	40	6.1%	55	6.3%
26-30 Years	76	1	3	1	6.6%	0	3	0	5	10.5%	13	17.1%
31-35 Years	41	0	1	1	4.9%	0	3	0	5	19.5%	10	24.4%
36-40 Years	90	2	8	6	17.8%	0	10	0	8	20.0%	34	37.8%
41-45 Years	78	0	8	0	10.3%	0	8	1	8	21.8%	25	32.1%
46-50 Years	3	0	0	0	0.0%	0	2	0	0	66.7%	2	66.7%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	
Unknown	836	0	0	0	0.0%	0	0	0	0	0.0%	0	<del></del>
TOTALS	6,040	3	20	· 15	0.6%	3	52	3	158	3.6%	254	4.2%

Average Age - 15.2

## Osmose<sub>®</sub>

## Previously Treated by OSMOSE in 1997 331 Total Poles



Average Age: 29.8 Years

Lakeland Electric
Florida / 2007 Distribution Poles

### Osmose.

### Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 1997

Lakeland Electric Florida / 2007 Distribution Poles

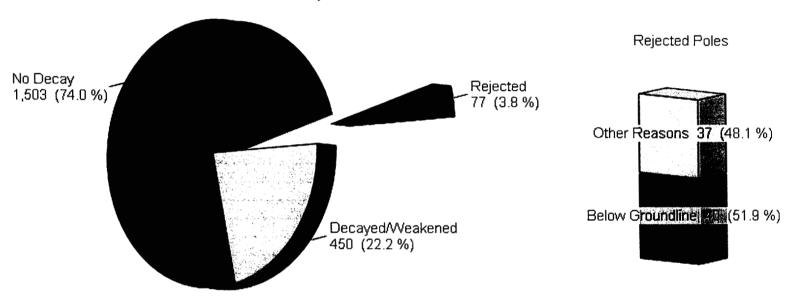
> TOTAL POLES REJECTED OR

POLES REJECTED POLES DECAYING AND WEAKENED **DECAYED** % of Age Interior & % of Age % of Age **Total Poles** Interior Exterior Interior Exterior Age Span Other Group Exterior Other Group Pole Count Group Inspected Decay Decay Decay Decay Total Total Decay Total 0-5 Years 0 0 0.0% 0 0 0 0 0.0% 0 0.0% 0 6-10 Years 0 0 0 0 0 0.0% 0 0.0% 0 0.0% 11-15 Years 0 0 0 0.0% 0 0 0 0.0% 0 0.0% 16-20 Years 0 33 0 0 0.0% 0 0 0 6.1% 6.1% 21-25 Years 83 0 3 0.0% 0 0 8 13.3% 11 13.3% 26-30 Years 63 1 0 0 0 6 13 31.7% 21 33.3% 1.6% 31-35 Years 65 0 3 0 10 0 31 47.7% 0 18 43.1% 4.6% 55 21 38.2% 36-40 Years 0 5.5% 17 0 32.7% 41-45 Years 0 0 10 35.7% 28 3.6% 0 5 0 4 32.1% 3 0 0 33.3% 2 66.7% 46-50 Years 0 0 33.3% 1 0 0 0 0.0% 0.0% 51-55 Years 0 0 0 0 0.0% 0 0 0 0 0.0% 0 0.0% 56-60 Years 0 0 0.0% 0 0 0 0 0.0% 0.0% 0 0 0 0.0% 0 61+ Years 0 0 0 0.0% 0 0 0 0.0% Unknown 0 0 0 0 0.0% 26.9% 98 29.6% 2.7% 42 46 TOTALS 331

Average Age - 29.8

### Osmose<sub>®</sub>

## Previously Treated by OSMOSE in 1999 2,030 Total Poles



Average Age: 31.9 Years

**Lakeland Electric** 

Florida / 2007 Distribution Poles

### Osmose.

### Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 1999

DOLES DECAVING AND WEAVENED

Lakeland Electric
Florida / 2007 Distribution Poles

TOTAL POLES
REJECTED OR

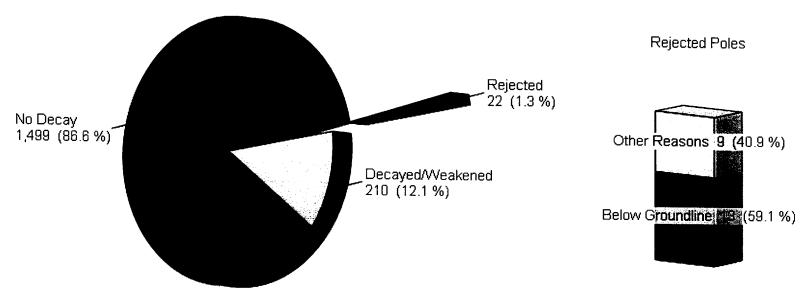
POLES REJECTED

TOLES REJECTED					POI	TE2 DEC	DECAYED					
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	3	1	0	0	33.3%	0	0	0	1	33.3%	2	66.7%
11-15 Years	3	0	0	0	0.0%	0	1	0	0	33.3%	1	33.3%
16-20 Years	181	0	0	2	1.1%	0	2	0	16	9.9%	20	11.0%
21-25 Years	395	0	1	2	0.8%	0	9	0	38	11.9%	50	12.7%
26-30 Years	340	3	7	12	6.5%	1	46	0	26	21.5%	95	27.9%
31-35 Years	194	0	8	3	5.7%	0	38	1	16	28.4%	66	34.0%
36-40 Years	593	3	15	11	4.9%	5	82	0	73	27.0%	189	31.9%
41-45 Years	319	1	5	3	2.8%	1	26	0	68	29.8%	104	32.6%
46-50 Years	1	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
61+ Years	1	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	2,030	8	36	33	3.8%	7	204	1	238	22.2%	527	26.0%

Average Age - 31.9

## Osmose<sub>®</sub>

## Previously Treated by OSMOSE in 2000 1,733 Total Poles



Average Age: 29.3 Years

Lakeland Electric
Florida / 2007 Distribution Poles

### Osmose.

### Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 2000

Lakeland Electric Florida / 2007 Distribution Poles

> TOTAL POLES REJECTED OR

> > **DECAYED**

POLES REJECTED POLES DECAYING AND WEAKENED

% of Age Interior & % of A

Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	4	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
11-15 Years	10	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
16-20 Years	417	0	0	2	0.5%	0	1	0	5	1.4%	8	1.9%
21-25 Years	468	0	1	0	0.2%	0	7	0	5	2.6%	13	2.8%
26-30 Years	36	0	0	0	0.0%	0	2	0	5	19.4%	7	19.4%
31-35 Years	89	0	1	0	1.1%	0	8	0	3	12.4%	12	13.5%
36-40 Years	529	0	9	3	2.3%	1	77	2	56	25.7%	148	28.0%
41-45 Years	170	0	4	1	2.9%	0	28	0	6	20.0%	39	22.9%
46-50 Years	9	0	0	1	11.1%	0	3	0	0	33.3%	4	44.4%
51-55 Years	1	0	0	0	0.0%	0	1	0	0	100.0%	1	100.0%
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	1,733	0	15	7	1.3%	1	127	2	80	12.1%	232	13.4%

Average Age - 29.3

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Report for:

Lakeland Electric

Location:

Florida

**Project Dates:** 

Commenced: August 14, 2007

Completed:

December 29, 2007

Project description:

Groundline Inspection and Treatment of Transmission Poles

#### Value Received

Wood poles form the backbone of T&D delivery systems, connecting utilities with their customers. When ignored, wood poles create the potential for excessive O&M and capital spending; failures and lengthy outages; accidents and liabilities. When maintained, wood poles offer equivalent opportunities for savings, improved earnings and dependable, storm-hardened performance. For these reasons, utilities choose to manage the life-cycles of wood poles.

The return on your investment in this program can be measured in several ways. Accurate inspection combined with effective remedial treatment allows poles to retain design strength even as they age and adds many years to the expected service life. The value of outages that don't occur and poles that don't fail in storms is difficult to measure, but real. The reduction in overtime from emergencies that don't occur is difficult to measure, but real. Osmose's approach to this program is comprehensive and includes inspection, maintenance, repair and software for record-keeping and documentation. These options can be tailored to your specific needs.

The contractor that you choose to perform your program can have a significant impact on the life cycle costs and performance of your pole plant and your internal costs for management and oversight. A contractor's price per pole may not reflect either the real total cost or total value. Following is a brief summary of work performed and a description of several critical components of your recent project.

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#### **Services Provided**

Total Poles treated with COP-R-PLASTIC II - Passed	215
Total Poles treated with MITC-FUME	13
Total Poles treated with Hollow Heart CF	2
FastGate Delivery	231
LoadCalc	163
Reattach Groundwire	76
Install Groundwire Molding	65
Locate Riser-UG Cable	45
Install Guy Marker - Customer	14
Repair Groundwire	4
Total Poles Inspected	231
Total Cost	\$10,456.53
Cost Per Pole	\$45.27

#### Safety Performance

The primary function of wood poles is to provide adequate separation of electrified conductor and equipment from people, animals and structures. Utilities place a high degree of importance on the safety of their facilities. This most recent project has helped to improve or maintain the safety of your facilities in several ways. Osmose located 4 poles that fail to meet minimum strength requirements. These poles were classified as rejects and should be restored or replaced.

Osmose inspectors noted 15 additional conditions that warrant attention. This list includes such conditions as "Split Top", "Woodpecker Holes Large", "Decayed Top" and "Enclosed Pocket Above". These items are found in the table, "Related Inspections and Defects".

#### Savings and Economics

Adding extra years of dependable service life to a pole defers its replacement, reduces capital and O&M spending and can help to increase earnings and future cash flow. These economic benefits are most easily illustrated by poles that have active and measurable decay present but are not yet

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sufficiently weakened to be rejected. During this inspection program Osmose inspectors identified 35 poles in this condition. These poles were treated with effective preservatives that will control the advance of decay and strength loss. If recommended treatment cycles are followed, it is typical that 95% or more of these poles will still be serviceable after the next inspection, scheduled for 2017. By comparison, it is likely that 50% of these poles would have become rejects within 10 years of this inspection, if they had not been in-service treated.

#### Decaying and Weakened Poles Savings Analysis Assuming \$5,000 Replacement Cost

35 poles @ 95% survival = 2 replacements at next scheduled inspection, or

\$10,000.00

35 poles @ 50% survival = 18 replacements at next scheduled inspections, or

\$90,000.00

Estimated Savings produced by treating decaying poles

\$80,000.00

#### Reliability and Resiliency

Poles are typically not considered to be among the leading causes of outages. When outages include pole failures they are almost always more expensive and longer than average and may include media and regulator attention. Besides helping to ensure that poles will provide durable service in storms and other heavy load conditions, Osmose supplements your predictive maintenance programs by identifying your leading conditions that contribute to outages.

#### **Related Inspections and Defects**

Woodpecker Holes Large	10
Split Top	2
Decayed Top	2
Enclosed Pocket Above	1

The detection and reporting of defective overhead conditions is often judged by customers to be

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equally as valuable as the pole inspection itself. Utilities stand to save O&M funds in two ways. First, the costs of outages may be reduced. Second, the costs of needed repairs can be prioritized and planned for the greatest efficiency and during normal working hours.

Poles inspected were Southern Pine - CCA Type C treated, Southern Pine - Creosote treated and Southern Pine - Penta treated.

# Osmose.

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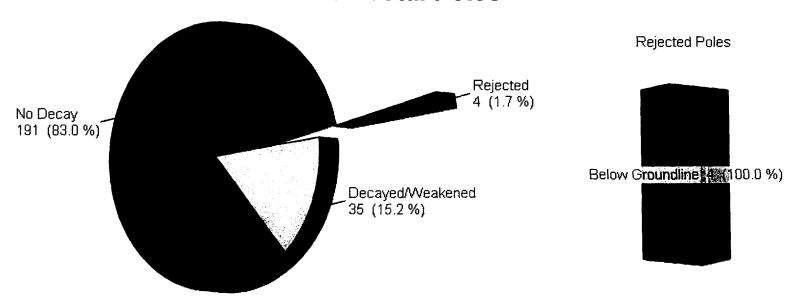
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# **Reject Poles List**

Shell Rot														3	\$
Decay Pocket							_							1	

# Osmose<sub>®</sub>

# Composite 231 Total Poles



Average Age: 27.9 Years

**Lakeland Electric** 

Florida / 2007 Transmission Poles

# Osmose.

# Osmose Inspection Groundline Decay by Age Group Composite

Lakeland Electric Florida / 2007 Transmission Poles

> TOTAL POLES REJECTED OR

POLES REJECTED

POLES DECAYING AND WEAKENED

DECAYED

				ECECIE			DE DECI	LING A	ID WEAR		DEC	AID
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	5	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
11-15 Years	16	0	1	0	6.3%	0	0	0	0	0.0%	1	6.3%
16-20 Years	5	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
21-25 Years	85	0	0	0	0.0%	0	0	0	1	1.2%	1	1.2%
26-30 Years	6	0	0	0	0.0%	0	0	0	2	33.3%	2	33.3%
31-35 Years	63	0	1	0	1.6%	0	13	0	11	38.1%	25	39.7%
36-40 Years	42	0	2	0	4.8%	0	5	1	1	16.7%	9	21.4%
41-45 Years	1	0	0	0	0.0%	0	0	0	1	100.0%	1	100.0%
46-50 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	8	0	0	. 0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	231	0	4		1.7%	0	18	1	16	15.2%	39	16.9%

Average Age - 27.9

# City of Leesburg Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

# 1) Introduction

a) Name of city/utility: City of Leesburg

b) Address, street, city, zip: 2010 Griffin Road, Leesburg, FL 34748

c) Contact information: Paul D. Kalv, Director

Voice: 352.728.9809 Fax: 352.728.9809

E-mail: Paul.Kalv@leesburgflorida.gov

## 2) Number of meters served in calendar year 2007

The City of Leesburg electric utility served approximately 22,000 customer meters.

#### 3) Standards of Construction

# a) National Electric Safety Code Compliance

City of Leesburg construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

## b) Extreme Wind Loading Standards

City of Leesburg construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. These standards require structures to withstand winds up to 100 mph within the City of Leesburg electric service territory.

The City of Leesburg is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

## c) Flooding and Storm Surges

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The City of Leesburg is approximately 60 miles inland from the Atlantic and Gulf coasts and is not subject to major flooding or storm surge. City of Leesburg construction standards, policies, guidelines, practices, and procedures do not address the effects of flooding and storm surges on our underground distribution facilities or supporting overhead facilities.

The City of Leesburg is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

## d) Safe and Efficient Access of New and Replacement Distribution Facilities

City of Leesburg construction standards, policies, guidelines, practices, and procedures provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. New overhead and underground facilities for residential and commercial installations are placed in accessible locations. Some rear lot line overhead facilities exist in scattered neighborhoods, but these facilities are generally relocated to the front lot line to the greatest extent possible when converted to underground. All feeder main lines have already been relocated to front lot lines.

#### e) Attachments by Others

City of Leesburg electrical construction standards, policies, guidelines, practices, and procedures include written safety, pole wind loading capacity, and engineering standards for attachment by others to Leesburg transmission and distribution poles. The City requires permits for all foreign utility attachments to City owned overhead facilities. This permit requires the entity requesting to attach to a City of Leesburg pole to provide the design calculations to insure the addition of their attachment does not violate the requirements of the NESC in effect at the time of the request.

Foreign utility attachments are inspected on a 8 year cycle.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Leesburg does not own or operate transmission facilities. The City of Leesburg contracts general pole inspection and sound and bore with excavation on wood poles using the NESC standards for decay and reject status.

All poles (wood and concrete - City owned and Foreign owned) are inspected by the

contractor and all wood poles are treated at ground level as necessary to preserve the strength of the poles. Field notes and reports of other wood pole defects (top split, woodpecker holes, etc.) are prepared by the contractor and delivered to the City weekly. Appropriate action is taken by the City to repair or replace the wood poles. The City plans an 8 year inspection cycle. The City is attached to approximately 16,500 poles of which approximately 10,200 are wood poles and approximately 6,300 are concrete poles. Distribution pole inspections commenced during 2007.

# b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

During the period from August 13, 2007 through December 19, 2007 a total of 6,220 distribution poles were inspected. These 6,200 poles are almost 38% of the total poles to which electric facilities are attached. A copy of the Project Report from Osmose Utilities Services, Inc. is attached.

# c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Service Provided	Number Poles	% Poles
Poles treated with COP-R-Plastic II - Passed	2,365	38.0%
Poles treated with MITC-FUME	1,293	20.8%
Poles treated with Hollow Heart CF	45	0.7%
No treatment	2,517	40.5%
TOTAL	6,220	100.0%
Priority Rejects requiring immediate attention	3	0.05%
Poles that failed minimum strength and are being replaced	160	2.57%
Additional conditions – Split top, Woodpecker Holes, etc.	1,346	21.64%

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

Pole Type	Pole Class	Remediation	Number Poles	% Poles
Wood	Not Available	Replaced	163	2.62%

# 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and

problem tree removal practices for vegetation management outside of road right-ofways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Leesburg maintains a 4-year trim cycle for feeder and lateral circuits. Problem trees are trimmed or removed as identified. Twenty-Eight vegetation outages caused 87,875 customer minutes interrupted during calendar year 2007. Four vegetation outages caused 65,280 customer minutes interrupted.

- 4 Outages (14%) caused 65,280 CMI (74%) 24 Outages (86%) caused 22,595 CMI (26%)
- b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

Vegetation management activities were completed as scheduled during calendar year 2007. An additional Tree Crew will be added during April 2008. The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the Cit of Leesburg has a copy of the report and is using the information to continually improve vegetation management practices.

## 6. Storm Hardening Research

The City of Leesburg is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or bmoline@publicpower.com.

Osmose

Osmose Utilities Services, Inc. 980 Ellicot Street | Buffalo, NY 14209 Phone: (716) 882-5905 / (800) 877-7653

Fax: (716) 882-7822 www.OsmoseUtilities.com

Report for:

City of Leesburg

Location:

Florida

**Project Dates:** 

Commenced: August 13, 2007

Completed:

December 19, 2007

Project description:

Groundline Inspection and Treatment of Distribution Poles

#### Value Received

Wood poles form the backbone of T&D delivery systems, connecting utilities with their customers. When ignored, wood poles create the potential for excessive O&M and capital spending; failures and lengthy outages; accidents and liabilities. When maintained, wood poles offer equivalent opportunities for savings, improved earnings and dependable, storm-hardened performance. For these reasons, utilities choose to manage the life-cycles of wood poles.

The return on your investment in this program can be measured in several ways. Accurate inspection combined with effective remedial treatment allows poles to retain design strength even as they age and adds many years to the expected service life. The value of outages that don't occur and poles that don't fail in storms is difficult to measure, but real. The reduction in overtime from emergencies that don't occur is difficult to measure, but real. Osmose's approach to this program is comprehensive and includes inspection, maintenance, repair and software for record-keeping and documentation. These options can be tailored to your specific needs.

The contractor that you choose to perform your program can have a significant impact on the life cycle costs and performance of your pole plant and your internal costs for management and oversight. A contractor's price per pole may not reflect either the real total cost or total value. Following is a brief summary of work performed and a description of several critical components of your recent project.

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#### Services Provided

Total Poles treated with COP-R-PLASTIC II - Passed	2,365
Total Poles treated with MITC-FUME	1,293
Total Poles treated with Hollow Heart CF	45
FastGate Delivery	6,220
Pole Tag Install	5,954
LoadCalc	227
Install Guy Marker - Customer	40
Repair Groundwire	25
Total Poles Inspected	6,220
Total Cost	\$131,040.30
Cost Per Pole	\$21.07

## Safety Performance

The primary function of wood poles is to provide adequate separation of electrified conductor and equipment from people, animals and structures. Utilities place a high degree of importance on the safety of their facilities. This most recent project has helped to improve or maintain the safety of your facilities in several ways. Osmose located 160 poles that fail to meet minimum strength requirements. These poles were classified as rejects and should be restored or replaced. Advanced decay and strength loss sufficient to warrant priority attention was noted and reported on 3 of these poles.

Osmose inspectors noted 1,346 additional conditions that warrant attention. This list includes such conditions as "Split Top", "Woodpecker Holes Large", "Woodpecker Holes Medium" and "Woodpecker Holes Small". These items are found in the table, "Related Inspections and Defects".

#### Savings and Economics

Adding extra years of dependable service life to a pole defers its replacement, reduces capital and O&M spending and can help to increase earnings and future cash flow. These economic benefits are

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most easily illustrated by poles that have active and measurable decay present but are not yet sufficiently weakened to be rejected. During this inspection program Osmose inspectors identified 1,498 poles in this condition. These poles were treated with effective preservatives that will control the advance of decay and strength loss. If recommended treatment cycles are followed, it is typical that 95% or more of these poles will still be serviceable after the next inspection, scheduled for 2017. By comparison, it is likely that 50% of these poles would have become rejects within 10 years of this inspection, if they had not been in-service treated.

## Decaying and Weakened Poles Savings Analysis Assuming \$1,500 Replacement Cost

1,498 poles @ 95% survival = 75 replacements at next scheduled inspection, or

\$112,500.00

1,498 poles @ 50% survival = 749 replacements at next scheduled inspections, or

\$1,123,500.00

Estimated Savings produced by treating decaying poles

\$1,011,000.00

#### Restorability Savings Analysis

Osmose inspectors identified 160 poles that failed to meet minimum strength requirements, but also determined that 3 of these poles could be restored rather than replaced.

#### Reliability and Resiliency

Poles are typically not considered to be among the leading causes of outages. When outages include pole failures they are almost always more expensive and longer than average and may include media and regulator attention. Besides helping to ensure that poles will provide durable service in storms and other heavy load conditions, Osmose supplements your predictive maintenance programs by identifying your leading conditions that contribute to outages.

## **Related Inspections and Defects**

Decayed Top	1,085
Split Top	226

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Woodpecker Holes Small	18
Woodpecker Holes Medium	12
Woodpecker Holes Large	5

The detection and reporting of defective overhead conditions is often judged by customers to be equally as valuable as the pole inspection itself. Utilities stand to save O&M funds in two ways. First, the costs of outages may be reduced. Second, the costs of needed repairs can be prioritized and planned for the greatest efficiency and during normal working hours.

Poles inspected were Southern Pine - CCA Type C treated, Southern Pine - Penta treated, Southern Pine - Creosote treated, Southern Pine - Penta in Gas treated and Southern Pine - Other treated.

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# **Priority Poles List**

There were 3 poles marked as high-priority out of a total of 6220 poles that were inspected.

MAP NUMBER	LINE NUMBER	POLE NUMBER	<u>LOCATION</u>
		201259	W/O MICRO
			RACETRACK RD
		201280	PINE RIDGE DAIRY RD
		201414	36014 POINTSETTIA
			AVE

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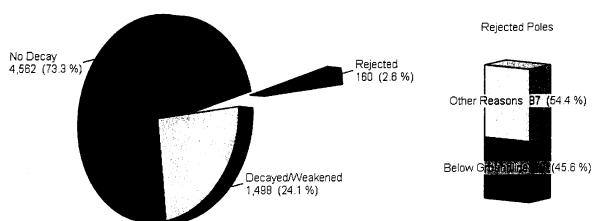
Fax: (716) 882-7822 www.OsmoseUtilities.com

# **Priority Poles List**

Decayed Top .					٠									82
Shell Rot											•			69
Split Top													• .	5
Decay Pocket														3
Rotten Butt														1

# Osmose.

# Composite 6,220 Total Poles



Average Age: 22.7 Years

City of Leesburg

Florida / 2007 Distribution Poles

# Osmose.

# Osmose Inspection Groundline Decay by Age Group Composite

City of Leesburg Florida / 2007 Distribution Poles

**TOTAL POLES** REJECTED OR DECAYED

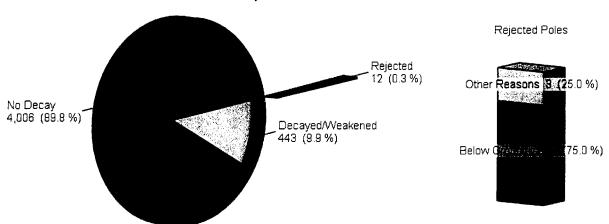
POLES REJECTED POLES DECAYING AND WEAKENED

			I OLLES I	TEDEC I EI	,	10		ALIMO AL	ID WEAK		DEV	
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	1,847	0	0	0	0.0%	0	0	0	1	0.1%	1	0.1%
6-10 Years	202	0	0	0	0.0%	0	1	0	22	11.4%	23	11.4%
11-15 Years	363	0	0	0	0.0%	0	2	0	75	21.2%	77	21.2%
16-20 Years	680	0	0	0	0.0%	0	2	0	130	19.4%	132	19.4%
21-25 Years	762	0	0	1	0.1%	0	5	0	142	19.3%	148	19.4%
26-30 Years	1,098	0	26	70	8.7%	1	157	0	397	50.5%	651	59.3%
31-35 Years	210	0	7	9	7.6%	0	36	0	96	62.9%	148	70.5%
36-40 Years	873	0	40	7	5.4%	0	137	0	257	45.1%	441	50.5%
41-45 Years	42	0	0	0	0.0%	0	4	0	20	57.1%	24	57.1%
46-50 Years	6	0	0	0	0.0%	0	2	0	4	100.0%	6	100.0%
51-55 Years	6	0	0	0	0.0%	0	1	0	2	50.0%	3	50.0%
56-60 Years	5	0	0	0	0.0%	0	2	0	2	80.0%	4	80.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	95	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	6,220	0	73	87	2.6%	1	349	0	1,148	24.1%	1,658	26.7%

Average Age - 22.7

# Osmose<sub>®</sub>

# Initial 4,461 Total Poles



Average Age: 17.3 Years

City of Leesburg

Florida / 2007 Distribution Poles

# Osmose,

# Osmose Inspection Groundline Decay by Age Group Initial

City of Leesburg Florida / 2007 Distribution Poles

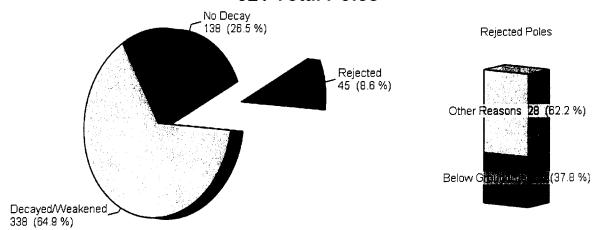
TOTAL POLES REJECTED OR

	189ected   Decay   Decay				)	PO	ENED DECAYEI					
Age Span	1			Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	1,846	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	201	0	0	0	0.0%	0	1	0	21	10.9%	22	10.9%
11-15 Years	355	0	0	0	0.0%	0	2	0	72	20.8%	74	20.8%
16-20 Years	650	0	0	0	0.0%	0	2	0	117	18.3%	119	18.3%
21-25 Years	709	0	0	0	0.0%	0	5	0	128	18.8%	133	18.8%
26-30 Years	268	0	3	2	1.9%	0	12	0	44	20.9%	61	22.8%
31-35 Years	18	0	1	1	11.1%	0	3	0	0	16.7%	5	27.8%
36-40 Years	281	0	5	0	1.8%	0	11	0	22	11.7%	38	13.5%
41-45 Years	5	0	0	0	0.0%	0	0	0	1	20.0%	1	20.0%
46-50 Years	1	0	0	0	0.0%	0	0	0	1	100.0%	1	100.0%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	1	0	0	0	0.0%	0	0	0	1	100.0%	1	100.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	95	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	4.461	0	9	3	0.3%	0	36	0	407	9.9%	455	10,2%

Average Age - 17.3

# Osmose<sub>®</sub>

# Previously Treated by OSMOSE in 1997 521 Total Poles



Average Age: 36.5 Years

City of Leesburg

Florida / 2007 Distribution Poles

# Osmose,

# Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 1997

City of Leesburg Florida / 2007 Distribution Poles

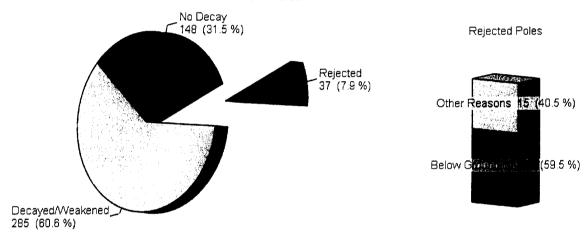
TOTAL POLES REJECTED OR

			POLES F	REJECTEI	)	PO	LES DECA	AYING AN	ND WEAK	ENED	DEC	CAYED
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
11-15 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
16-20 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
21-25 Years	11	0	0	1	9.1%	0	0	0	4	36.4%	5	45.5%
26-30 Years	267	0	2	23	9.4%	0	42	0	123	61.8%	190	71.2%
31-35 Years	49	0	1	3	8.2%	0	11	0	26	75.5%	41	83.7%
36-40 Years	175	0	14	1	8.6%	0	44	0	75	68.0%	134	76.6%
41-45 Years	16	0	0	0	0.0%	0	2	0	9	68.8%	11	68.8%
46-50 Years	1	0	0	0	0.0%	0	0	0	1	100.0%	1	100.0%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	2	0	0	0	0.0%	0	1	0	0	50.0%	1 :	50.0%
61+ Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
Unknown	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	521	0	17	28	8.6%	0	100	0	238	64.9%	383	73.5%

Average Age - 36.5

# Osmose<sub>®</sub>

# Previously Treated by OSMOSE in 1998 470 Total Poles



Average Age: 37.3 Years

City of Leesburg

Florida / 2007 Distribution Poles

# Osmose.

# Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 1998

City of Leesburg Florida / 2007 Distribution Poles

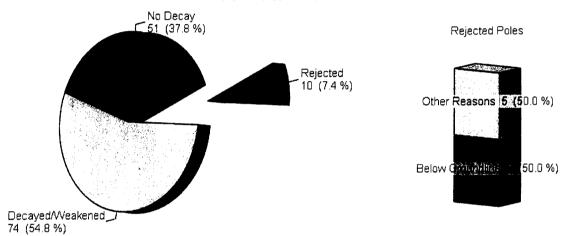
TOTAL POLES REJECTED OR

POLES DECAYING AND WEAKENED POLES REJECTED **DECAYED** Interior & % of Age % of Age % of Age Total Poles Interior Exterior Interior Exterior Pole Count Age Span Group Exterior Other Group Group Inspected Decay Decay Decay Decay Total Decay Total Total 0-5 Years 100.0% 100.0% 6-10 Years 0 0 0 0 0.0% 0 0 0.0% 0.0% 0 0.0% 0.0% 11-15 Years 0 0 0 0.0% 0 0 0 0 0 0 0.0% 16-20 Years 0 0.0% 0 0 0 0.0% 0 40.0% 2 40.0% 21-25 Years 0 0 0.0% 0 0 61.6% 26-30 Years 198 0 13 11 12.1% 1 50 0 71 146 73.7% 31-35 Years 50 0 2 2 8.0% 0 9 0 19 56.0% 32 64.0% 61.7% 130 36-40 Years 196 0 7 2 4.6% 0 46 0 75 66.3% 7 57.1% 41-45 Years 14 0 0 0 0.0% 0 0 57.1% 100.0% 100.0% 46-50 Years 0 0 0 0.0% 0 0 0 50.0% 50.0% 51-55 Years 4 0 0 0 0.0% 0 0 0 2 0.0% 56-60 Years 0 0 0 0 0.0% 0 0 0 0 0.0% 0.0% 61+ Years 0 0 0 0 0.0% 0 0 0 0 0.0% 0 0 0.0% Unknown 0 0 0 0.0% 0 0 0 0.0% 322 TOTALS 0 22 15 177 60.6% 68.5% 470 7.9% 107

Average Age - 37.3

# Osmose<sub>®</sub>

# Previously Treated by OSMOSE in 1999 135 Total Poles



Average Age: 38.0 Years

City of Leesburg

Florida / 2007 Distribution Poles

# Osmose,

# Osmose Inspection Groundline Decay by Age Group Previously Treated by OSMOSE in 1999

City of Leesburg Florida / 2007 Distribution Poles

TOTAL POLES REJECTED OR

			POLES R	REJECTEI	)	POLES DECAYING AND WEAKENED					DECAYED	
Age Span	Total Poles Inspected	Interior Decay	Exterior Decay	Other	% of Age Group Total	Interior Decay	Exterior Decay	Interior & Exterior Decay	Other	% of Age Group Total	Pole Count	% of Age Group Total
0-5 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
6-10 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
11-15 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
16-20 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
21-25 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
26-30 Years	53	0	2	5	13.2%	0	11	0	13	45.3%	31	58.5%
31-35 Years	17	0	0	0	0.0%	0	2	0	9	64.7%	11	64.7%
36-40 Years	63	0	3	0	4.8%	0	12	0	25	58.7%	40	63.5%
41-45 Years	1	0	0	0	0.0%	0	1	0	0	100.0%	1	100.0%
46-50 Years	1	0	0	0	0.0%	0	0	0	1	100.0%	1	100.0%
51-55 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
56-60 Years	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
61+ Years	0	0	0	0	0.0%	0	. 0	0	0	0.0%	0	0.0%
Unknown	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%
TOTALS	135	0	5	5	7.4%	0	26	0	48	54.8%	84	62.2%

Average Age - 38.0

# City of Moore Haven Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

## 1) Introduction

City of Moore Haven
P.O. Box 399 Moore Haven, Fl. 33471
Michael E. Jones, Director of Public Works
Phone (863) 946-0909
Fax (863) 946-2185
E-mail: miones@moorehaven.net

- 2) Number of meters served in calendar year 2007: For calendar year 2007 in the month of December, the City of Moore Haven served 829 residential customers and 165 commercial customers for a total of 994 customers.
- 3) Standards of Construction: The City of Moore Haven does not officially list standards for our distribution system. We use consulting engineers that follow all current applicable standards in construction of our electric distribution system including the NESC. Any new large construction project is designed by a Florida registered electrical engineer on a consultant basis. Small projects are designed with assistance from Glades Electric Cooperative engineers. There were no new projects during the 2007 calendar year.
  - a) National Electric Safety Code Compliance: Because the City of Moore Haven uses consulting engineers; all current NESC requirements are incorporated in to designs for new construction, major rebuilds, or targeted critical infrastructure facilities.
  - b) Extreme Wind Loading Standards: Because the City of Moore Haven uses consulting engineers; all current Extreme Wind Loading Standards are incorporated in to designs for new construction, major rebuilds, or targeted critical infrastructure facilities. At this time the City of Moore Haven facilities are not designed to be guided by the extreme loading standards on a system wide basis. The City is participating in the Public Utility Research Center's granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine immediate needs for system upgrades and hardening in specific areas. The City has performed many "storm hardening" activities during calendar year 2007 such as relocating services from easements to road right-of-ways for easier access and total tree removal from power lines.
  - c) Flooding and Storm Surges: The City of Moore Haven is a non-coastal community, therefore, storm surge or flooding is not a major issue. New construction or major rebuilds that have the possibility of flooding are factored in to the design.

- d) Safe and Efficient Access of New and Replacement Distribution Facilities: Electrical construction guidelines, practices, and procedures at the City of Moore Haven provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed, all facilities are installed so they are accessible by crews and vehicles to ensure proper maintenance/repair is performed expeditiously and safely as possible. The City decides on a case by case basis whether existing facilities need to be relocated. The City relocated two small areas in calendar year 2007 for easier and safer access.
- e) Attachment by others: The pole attachment agreement between the City of Moore Haven and Comcast (local cable TV provider) is currently under review for renewal. The City will provide language in the new agreement which specifies that the attacher, not the City, has the burden of assessing the impact on pole strength and safety before they attach to the pole. This language will be negotiated with the attacher.

## 4. Facility Inspections

- a) The City of Moore Haven continuously inspects distribution lines, poles and structures. As discrepancies are located the electric crew, consisting of a lineman and an apprentice, plan and perform repairs and is recorded on daily work tickets recording labor and materials. We perform a visual inspection of all poles within every year
- b) The City of Moore Haven continuously inspected lines, poles, and structures during 2007. The City is one square mile and easily inspected during routine activities.
- c) We had 0 failures of our distribution poles during the 2007 calendar year.
- d) The City of Moore Haven had 0 poles replaced because of failure and replaced 5 questionable poles during relocation of electrical distribution wires from easements to right of ways to obtain easier access.

#### 5. Vegetation Management

- a) The City of Moore Haven is continuously trimming trees located in easements and on right-of-ways. 100% of the power distribution system is trimmed every year. The city is monitoring all new construction on private property and communicating with owners the importance of locating vegetation away from all utilities. The City of Moore Haven is a small town of one square mile. Because of the experience with Hurricane Wilma, most residents are willing to comply with requests of the city concerning vegetation near utilities.
- b) The City of Moore Haven expended approximately 20% of our Electric Dept. Resources to vegetation management. All vegetation management is performed in-house.

# 6. Storm Hardening Research

The City of Moore Haven is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.



**UBLIC WORKS AND UTILITIES** 

City Hall 510 N. Baker St. Mount Dora, FL 32757

Office of the City Manager 352-735-7126 Fax: 352-735-4801

Finance Department 352-735-7118 Fax: 352-735-1406

Human Resources 352-735-7106 Fax: 352-735-9457

Planning and Development 352-735-7112 Fax: 352-735-7191

City Hall Annex 900 N. Donnelly St. Mount Dora, FL 32757

Parks and Recreation 352-735-7183 Fax: 352-735-3681

Public Safety Complex 1300 N. Donnelly St. 10unt Dora, FL 32757

Police Department 352-735-7130 Fax: 352-383-4623

Fire Department 352-735-7140 Fax: 352-383-0881

Public Works Complex 1250 N. Highland St. Mount Dora, FL 32757 352-735-7151

Alt. Tel: 352-735-7105 Fax: 352-735-1539 Alt. Fax: 352-735-2892

W. T. Bland Public Library 1995 N. Donnelly St. Mount Dora, FL 32757 352-735-7180

Fax: 352-735-0074

Website:

www.cityofmountdora.com

VIA US MAIL

February 21, 2008

Tom Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

RE: City of Mount Dora Storm Hardening Report for Rule 25-6.0343 F.A.C

Dear Mr. Devlin:

Enclosed is the City of Mount Dora Storm Hardening Report pursuant to Rule 25-6.0343 F.A.C. for Calendar Year 2007.

Please contact me if you have any questions.

Very truly yours,

Charles F. Revell

Electric Utility Manager

Phone: (352) 735-7155, x1802

Email: revellc@cityofmountdora.com

# **City of Mount Dora**

# Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

## 1) Introduction

a) Name of city/utility

City of Mount Dora

b) Address, street, city, zip

1250 North Highland Street Mount Dora, FL 32757

c) Contact information: Name, title, phone, fax, email

Mr. Charles F. Revell Electric Utility Manager

Phone: (352) 735-7155, ex 1802

Fax: (352) 735-1539

Email: revellc@cityofmountdora.com

#### 2) Number of customers served in calendar year 2007

Approximately 5,412 Customers

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Mount Dora (City) does not currently have written documentation that its construction standards, policies, guidelines, practices, and procedures comply with the various editions of the National Electrical Safety Code (NESC) that were in effect during the construction of the City's distribution system. However, the City has replaced many older overhead distribution facilities during the last ten years using new wood and concrete poles, new insulators, and other new equipment. For new construction, the City generally uses concrete poles for its main distribution feeders. While no formal analysis of construction standards has yet been made, the City's distribution system held up well during the hurricanes of 2004. Hurricanes Charlie, Jeanne, and Francis caused relatively minor damage to the City's electric distribution system.

The City's five year Capital Improvement Program now includes a wood pole replacement program that is designed to replace older wood poles on the City's main distribution feeders with concrete poles.

As a first step in evaluating compliance with the NESC, in 2007 the City began field inventorying and inspecting its overhead and underground distribution facilities. Also, in 2007 the City issued a Request for Proposal (RFP) for engineering services and has selected three qualified firms. In 2008, the City plans to retain one of these firms to conduct an engineering review of its construction standards to insure that future construction will comply with the 2007 NESC.

## b) Extreme Wind Loading Standards

The City does not have written documentation that its construction standards, policies, guidelines, practices, and procedures meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. However, the City has replaced many older overhead distribution facilities during the last ten years using new wood and concrete poles, new insulators, and other new equipment. For new construction, the City generally uses concrete poles for its main distribution feeders. As mentioned earlier, the City's distribution system held up well during the hurricanes of 2004.

The City's five year Capital Improvement Program now includes a wood pole replacement program that is designed to replace older wood poles on the City's main distribution feeders with concrete poles.

As a first step in evaluating compliance with the wind loading standards of the 2002 NESC, in 2007 the City began field inventorying and inspecting its overhead and underground distribution facilities. Also, in 2007 the City issued a Request for Proposal (RFP) for engineering services and has selected three qualified firms. In 2008, the City plans to retain one of these firms to conduct an engineering review of its construction standards to insure that future construction will comply with the wind loading standards of the 2002 NESC.

The City is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City address the effects of flooding on underground distribution facilities and supporting overhead facilities. Because of the hilly terrain around Mount Dora, flooding of low-lying areas is not generally a problem.

The City is not subject to storm surges because of its inland location.

The City is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Most distribution facilities are on public streets which are easily accessible. The City no longer allows back-lot line utility services for new developments. All new distribution facilities are required to be near a street or within a utility easement.

## e) Attachments by Others

The City does not currently have written safety, pole reliability, pole loading capacity, or engineering standards for attachments by others to the City's distribution poles. However, knowledgeable field personnel examine City electric facilities to identify obviously overloaded poles. In addition, the City has not experienced any failures of poles due to overloading by pole attachments of other entities. In 2007 the City issued a Request for Proposal (RFP) for engineering services and has selected three qualified firms. In 2008, the City plans to retain one of these firms to conduct an engineering review of its construction standards with respect to distribution pole loading capacity for attachments by others.

## 4) Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City electric system consists of distribution lines, poles, and structures – it owns no transmission facilities. Since its service territory is relatively small, the Electric Division is able to make visual inspections of its six distribution feeders on a routine basis. Wood poles are visually inspected for cracks and a sounding technique is used to determine potential wood rot. Poles that appear to have wood rot are replaced when they are found, rather than being further inspected below ground level. The City has found this inspection process to result in the ability of its utility system to withstand storm events.

The inspection also includes a visual survey of equipment attached to each pole, including insulators, conductors, lightning arrestors, fused cut-outs, capacitor banks, guy wires and guards, streetlights, and attachments by others (cable, fiber, and telephone). Damaged poles or equipment are immediately replaced. If a third-party

attachment appears damaged or does not meet NESC clearance requirements, the City notifies the respective party in writing.

In 2007 the City issued a Request for Proposal (RFP) for engineering services and has selected three qualified firms. In 2008, the City plans to retain one of these firms to develop a more formalized program for inspecting distribution lines, poles, and structures.

Some of the City's distribution lines are attached to 69 kV wood transmission poles owned by Progress Energy. Any observed problems with the transmission poles are reported directly to Progress Energy.

The City is currently utilizing hard-copy maps to manage the facilities of its electric distribution system, including inspections. The City has completed a needs assessment and implementation plan for a city-wide GIS system. Once available, the Electric Division will utilize the GIS system to map and manage all of its distribution facilities including wood and concrete poles, attached hardware, pole attachments by other entities, and underground electrical facilities.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

The City has not historically maintained formal inspection records, so these statistics are not currently available. The City will continue developing a more formal inspection program for distribution facilities during 2008 with associated forms to track this information. The City owns no transmission facilities.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

The City has not historically maintained formal inspection records, so these statistics are not currently available. The City will continue developing a more formal inspection program for distribution poles during 2008 with associated forms to track this information. The City owns no transmission facilities.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

The City has not historically maintained formal inspection records, so these statistics are not currently available. The City will continue developing a more formal inspection program for distribution poles during 2008 with associated forms to track this information. The City owns no transmission facilities.

#### 5) Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City Electric Division trims trees on a 12 month cycle using an outside contractor with a two-man crew working 40 hours per week. This contractor focuses exclusively on clearing vegetation that could adversely impact the reliability of the City's electric distribution system. In addition to the contractor crew, the City employs one two-man crew that is continuously trimming trees and reducing vegetative growth throughout other parts of the City. In some situations, the City crew assists the contractor crew in trimming or removing large trees.

The City routinely removes limbs from trees located outside road right-of-ways or easements that could create clearance problems for its overhead distribution circuits. The City has also removed entire trees in such locations if those trees threaten overhead distribution circuits (usually dead trees in danger of falling).

The City believes that its vegetation management practices result in high reliability because it trims trees on a 12 month cycle, which is much more frequent than the practices of most of Florida's electric utilities.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

The City Electric Division will continue to trim trees on a 12 month cycle using an outside contractor with a two-man crew working 40 hours per week. The City will also continue to remove limbs from trees located outside road right-of-ways or easements that could create clearance problems for its overhead distribution circuits.

The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, The City has a copy of the report and will use the information to continually improve vegetation management practices.

# 6. Storm Hardening Research

The City is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

# UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH, FLORIDA

200 Canal Street New Smyrna Beach, Florida 32168 386-427-1361



Mailing Address: Post Office Box 100 New Smyrna Beach, Florida 32170

March 3, 2008

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

RE: Storm Hardening Report

Dear Mr. Devlin:

In compliance with requirements, enclosed please find our Storm Hardening Report for Rule 25-6.0343, F. A. C.

Should you have any questions, please feel free to contact us at the contact information enclosed in the report.

Thank you,

Miguel Rodriguez, Electrical Engineer

Utilities Commission, City of New Smyrna Beach

200 Canal Street

New Smyrna Beach, Florida 32168

cc: Barry Moline, FMEA Robert Rodi, UCNSB Ray Mitchum, UCNSB Jim White, UCNSB

# Utilities Commission, City of New Smyrna Beach Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

## 1) Introduction

- a) Name of city/utility Utilities Commission, City of New Smyrna Beach
- b) Address, street, city, zip200 Canal Street,New Smyrna Beach, Florida 32168
- c) Contact information:

Ray Mitchum, Director Electric Operations

Office: (386) 424-3162 Fax: (386) 423-7133

mailto:rmitchum@ucnsb.org

Miguel Rodriguez, Elect.Engineer

Office: (386) 424-3029 Fax: (386) 409-4720

mailto:mrodriguez@ucnsb.org

## 2) Number of customers served in calendar year 2007

The Utilities Commission City of New Smyrna Beach served an average of 24,911 customers during 2007 calendar year.

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) (NESC)) applicable at the time of facilities installation. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction. Electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies.

#### b) Extreme Wind Loading Standards

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures are being studied to determine the effects of hardening for flooding and storm surges will have to the ratepayers and facilities installation practices.

We only install stainless steel dead front pad mounted transformers in our system. Additionally, all major planned work, including expansion, rebuild, relocation or replacement of existing pad mounted transformer installations are being upgraded to our standard of dead front stainless steel transformers. We recently installed two stainless steel dead front completely sealed pad mounted switchgear. We are closely monitoring their performance.

The Utilities Commission City of New Smyrna Beach is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damages and outages through the Florida Municipal Electric Association.

## d) Safe and Efficient Access of New and Replacement Distribution Facilities

The Utilities Commission City of New Smyrna Beach construction standards, policies, guidelines, practices, and procedures provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Whenever possible, easements are secured from private property owners for the installation of required new and/or relocated facilities. If easements are not secured, facilities are installed in the public right of ways.

#### e) Attachments by Others

The Utilities Commission City of New Smyrna Beach has existing pole attachment agreements with joint users. We have enforced the 2007 NESC guidelines to proposed new attachments requests recently received. We have performed stress pole calculations and if attachments are found to potentially overload the existing facilities, facilities are upgraded or the project reengineered.

We have revised our attachment agreements to include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric distribution poles. Normally, joint use attachments are not permitted on our transmission poles.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Transmission facilities are inspected on an ongoing basis. Staff inspects every pole from top to bottom, including all hardware and wires, performing repairs as needed. An inspection of our entire transmission system is usually completed every 4-5 years.

Distribution facilities are not under a "formal" inspection cycle. They are inspected as part of our normal maintenance when patrolling distribution feeders. An inspection of our distribution poles is generally completed every 7-9 years using the sound and spike method. Distribution facilities that are found defective are scheduled for remediation or replacement.

To further our "Storm Hardening" efforts, within the next month we will have pole inspection specifications. We will contract an outside agency to inspect and treat transmission and distribution poles as part of our eight year inspection program.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

The Utilities Commission, City of New Smyrna Beach has approximately 420 transmission poles. By the end of FY 2007 we had inspected approximately 100 transmission poles, approximately 25 % of our transmission system. All poles were found to be in good condition.

The Utilities Commission, City of New Smyrna Beach has approximately 10,250 distribution poles. During FY 2007 we inspected approximately 600 distribution poles, approximately 6% of our distribution system. Our records indicate 26 poles had reached end of life and were replaced.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Transmission: 0 % (see Item 4b)

Distribution: 4 % (see Item4b) 18 poles were found to have decayed, 8 poles were replaced due to woodpecker damage.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Due to the size of our system and available personnel, the Utilities Commission, City of New Smyrna Beach has not kept information regarding class type and failure records. This type data sometimes is not available as pole birthmarks may have deteriorated over time. In the future, if type and class of structure is available it will be provided. When we establish our proposed pole inspection contract with an outside agent, we will try to secure this type data.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Due to the size of our system and available personnel, the Utilities Commission, City of New Smyrna Beach has not kept cycle trimming records. The Utilities Commission, City of New Smyrna Beach trims trees on an ongoing basis. We currently have two crews continuously trimming trees and reducing vegetative growth throughout the system. Each crew works 40 hours a week. We maintain one crew trimming main feeders and the other crew performing "hot spot" trimming as required.

Our tree trimming records indicate that during FY 2007 we trimmed approximately 20 % of our distribution system. Similar to the previous year, we performed clear cutting on approximately 20 % of our transmission lines. As in previous years, we continued our practice of mowing our transmission lines on a yearly basis.

The Utilities Commission, City of New Smyrna Beach is working to partner with the City of New Smyrna Beach and Volusia County to increase tree trimming and clearing along public right of ways. We are in the process of coordinating these efforts.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

See response to Item 5a.

#### 6. Storm Hardening Research

The Utilities Commission, City of New Smyrna Beach is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

### City of Newberry

# Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Newberry
- b) P. O. Box 369, Newberry, Fl. 32669
- c) Contact information: Blaine Suggs, Utilities Director

Phone: (352) 472-1537 Fax: (352) 472-1799 Email: blaine.suggs@ci.newberry.fl.us

#### 2) Number of customers served in calendar year 2006

1,436

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Newberry comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Newberry, meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after January 1, 2007; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Newberry is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

NOT Applicable, The City of Newberry is an inland Community located 45 miles from a coastal area.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

All New Electrical Construction and Replacement Distribution Facilities within the City of Newberry are constructed along Road Right of Ways or on accessible easements. No construction is allowed on rear lot lines within Residential Subdivisions.

e) Attachments by Others

We have established pole loading rates for our system which limits 3<sup>rd</sup> party attachers.

#### 4. Facility Inspections

- a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.
  - All distribution poles are inspected on a Three (3) year cycle by City of Newberry Personnel. Poles are inspected at ground line for deterioration, entire upper part of the pole for cracks and soundness of upper part of pole.
- b) Number and percentage of transmission and distribution inspections planned and completed for 2007.
  - All 1,007 Distribution Poles were inspected in 2006 and will be inspected again in 2009 per cycle stated in 4 (a).
- c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.
  - In 2006 Inspections, a total of 73 distribution poles, or 7% of poles inspected, were found to be defective.
  - 27 distribution poles were found to have wood decay at or below ground level, 46 poles were found to have decay on the tops, animal destruction or structural cracks in the main body.
- d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.
  - 28 (38% of poles failing inspection) Class 5, 45' wood poles were replaced in 2007
  - 2 (3% of poles failing inspection) Class5, 35' wood poles were replaces in 2007
  - 7 (10% of poles failing inspection) Class 5, 30' wood poles were replaced in 2007

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Newberry trims all distribution lines on a three (3) year cycle and attention is given to problem trees during the same cycle. Any problem tree not located within the right-of-way is addressed with the property owner and a solution is agreed upon before corrective actions are taken.

 b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.
 One third (1/3) of the Distribution facilities are trimmed every year to obtain a three year cycle.

#### 6. Storm Hardening Research

The City of Newberry is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>

## Ocala FL/Ocala Electric Utility

# Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Name of city/utility Ocala FL/ Ocala Electric Utility
- b) Address, street, city, zip 201 SE 3<sup>rd</sup> Street Ocala, FL 34471
- c) Contact information: Name, title, phone, fax, email David Anderson Regulatory Manager Phone (352)629-8509
  Fax (352)629-8502
  danderson@ocatanlorg

#### 2) Number of metered customers served in calendar year 2007

Ocala Electric Utility has a total electric service territory of 160.2 sq. miles and serves a total of 49,510 metered Electric Customers

#### Customer Break down:

Residential Customers 40,843
General Service Customers 7,691
General Service Demand Customers 976

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Ocala Electric Utility has standards for construction and materials for its overhead and underground lines. Ocala Electric Utility has evaluated its standards for feeder lines and transmission lines and determined that we comply with the NESC. We are still evaluating standards for single and two phase lines and expect to have them complete in 2008. Ocala Electric Utility passed an ordinance on 12/18/2007 requiring new developments to go underground. This ordinance will help lessen exposure to wind damage and speed restoration efforts after future storm events.

#### b) Extreme Wind Loading Standards

Ocala Electric Utility's practice is to design new lines to conform to the latest edition of the NESC, however there are no written standards specifically addressing wind loading on distribution poles. Ocala Electric Utility has evaluated its standards for feeder lines and transmission lines and determined that we comply with the NESC. We are still evaluating standards for single and two phase lines and expect to have them complete in 2008. Ocala Electric Utility passed an ordinance on 12/18/2007 requiring new developments to go underground. This ordinance will help lessen exposure to wind damage and speed restoration efforts after future storm events.

#### c) Flooding and Storm Surges

Ocala is located 80 miles from the west coast of Florida and is not subject to storm surge and has limited exposure to flooding. Both the City of Ocala and Marion County require new developments to provide water retainage for 100 year, 24 hour events. The previous standard was a 10 year, 24 hour event. Ocala Electric Utility practices do not allow poles and underground equipment within retention areas, swales or other flood prone areas. Where flooding occurs, Ocala evaluates the facilities for relocation to less flood prone areas.

Ocala Electric Utility is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electric construction standards, policies, guidelines, practices, and procedures at the Ocala Electric Utility provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Our policy is to install all new overhead and underground facilities adjacent to right-or-way or paved areas to allow for access.

#### e) Attachments by Others

Ocala Electric Utility requires attachment agreements with all third party attachees on its poles and requires permits for all new attachments. The permits include information for Ocala Electric Utility to evaluate the impact of the attachment on pole loading. Ocala Electric Utility is evaluating new pole attachments for their impact to pole loading and compliance with the NESC. Ocala Electric Utility completed an inspection of 12.5% of its system this

year and pole loading was evaluated as part of that inspection. There were no overloaded poles reported in this inspection cycle.

#### 4. Facility Inspections

- a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

  Our policy and primary purpose is to be consistent with the Florida Public Service Commission's rules for wood pole inspections and to provide pole restoration where it is economically feasible. Currently we support an eight- year 12.5% inspection cycle of our system. Our guidelines are selected on geographical areas based on the age of our poles. Practices and Procedures are Above-Ground Inspection, Excavation, Sounding, Boring, Chipping, Internal Treatment, and Evaluation of each pole to determine remaining strength
- b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

and reject criteria along with pole loading estimates.

- Based on our estimated 28,000 Distribution wood poles and 672 Transmission wood poles a combination of 2,728 poles were completed during FY 07 inspection cycle. The breakdown is as follows 2,056 Distribution and 672 Transmission poles were inspected and completed for a percentage of 7.2% of our Distribution wood poles and 100% of our Transmission wood poles. Note; The purpose for not meeting our expected goal of 12.5% of our system in FY 07 as mentioned above is that we took an aggressive approach and focused on completing the entire Transmission wood poles on our system which is a higher budgetary per pole cost analysis.
- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure. The results from the 2007 project report show there was a total of 180 Distribution poles rejected equaling a 7.1% rejection rate, 80 of these poles were able to be restored utilizing the Osmose-C- Truss & Osmose C2 Truss bracing system, the remaining 100 poles were treated as Non-Restorable rejects and changed by our T&D crews due to mostly Shell Rot or Split Tops beyond repair. A total of 35 Transmission poles were rejected equaling a 5.2% rejection rate, of those 23 will be restored using the Osmose Truss bracing system in our upcoming FY 08 project. The additional 12 Transmission wood poles tagged as Non-Restorable rejects due to Shell Rot or Split Tops beyond repair were changed out by our crews during the FY 07 project please see results below. 64 transmission poles, and one distribution pole were identified as possibly overloaded during the inspection process. These poles are being further evaluated for change-out or reinforcement to bring them to the required strength.
- d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

There was a total of 35% of the 5.2 % rejection rate or 12 Transmission wood poles that were

Ocala Electric Utility's Vegetation Management program is based on a three (3) year trim cycle, which is augmented as needed to maintain clearance between cycles. Dead and hazard trees located outside of right-of-way on private property, which present an imminent threat to power lines or equipment, are removed or reduced in height to remove the threat. Vegetation Management plan language specifies that all routine trimming shall adhere to the National Arbor Day Foundation standards for Line Clearance and comply with ANSI A300 standards for tree trimming.

The City of Ocala Tree Ordinance includes language that specifies planting distances from power lines depending on species, and Ocala Electric Utility budgets annually for a Remove and Replace tree program. These are used in conjunction with the National Arbor Day Foundations' Plant the Right Tree in the Right Place educational materials, which are mailed to all customers annually, to encourage long term solutions for problem trees on private property. This program of thoughtful planting, cyclic trimming, hazard tree removals, and intermittent (as needed) trimming combined with good pruning practices that direct future growth away from lines allows Ocala Electric Utility to provide safe and reliable electrical service to customers on a day to day basis and reduces the potential for damage during storms.

# b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Annually the line clearance goal is one third (1/3) of the total system overhead line miles, which is currently just over 800 miles or approximately 250 miles per year. To ensure that the this goal is met the Tree Trimming Contract was revised in 2006 to a firm price per mile format that specifies 250 miles of trimming in 2007 with a provision for additional T&M crews year round to perform on demand tree work. In response to the approval in 2006 of new FERC regulations for Transmission Ocala Electric Utility revised our system of documentation for bi-annual inspection patrols performed by in house crews along thirteen (13) miles of 230kV right-of-way and easements. Ocala Electric Utility files a monthly report to FRCC and NERC on Vegetation Management.

Activity during 2007 included mowing and removing trees and underbrush in all accessible areas by in-house tree crews. Scheduled activity in 2008 includes complete side trimming along the corridor and removal of potentially hazardous trees adjacent to the right-of-way. Currently research is underway for beginning an herbicide program to eliminate the need for mowing and create a sustainable wildlife friendly corridor that is easily accessible for maintenance.

#### 6. Storm Hardening Research

Ocala Electric Utility is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or pmoune@publicpower.com.

# Orlando Utilities Commission Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

City of Orlando, Orlando Utilities Commission

500 S. Orange Avenue, Orlando FL 32801

Contact information:

Bryon Knibbs, Vice-President, Electric Delivery Business Unit 407-423-9100 ext. 4938, bknibbs@ouc.com

Steve Langley, Director, Distribution Construction & Maintenance 407-423-9100 ext. 4193, 407-384-4124 fax, <a href="mailto:slangley@ouc.com">slangley@ouc.com</a>

#### 2) Number of meters served in calendar year 2007

Orlando Utilities Commission served 203,1544 electric meters in the Cities of Orlando and St. Cloud and surrounding Orange and Osceola counties as of December 31, 2007.

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

The Orlando Utilities Commission (OUC) complies with the construction standards, policies, guidelines, practices, and procedures directed within the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical

infrastructure facilities and major thoroughfares.

Presently, OUC is in the process of verifying that all future construction does meet the NESC requirements with particular focus on the extreme wind loading standards.

Orlando Utilities is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c) Flooding and Storm Surges

The Orlando Utilities Commission service area is in the middle of Florida. Therefore, flooding and storm surges do not apply.

However, OUC is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of under grounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at OUC provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Orlando Utilities has been installing underground and overhead distribution along property frontage corridors since the 80's. This gives efficient and safer access to these facilities. For existing rear lot installations, OUC provides vegetation maintenance and replacement of aged equipment to ensure an efficient, safe, & robust system.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission include contractual agreement to enable attachment by others. These contracts state that attachments must adhere to the guidelines of the NESC and all governmental authorities that have jurisdiction.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

#### **Summary**

Orlando Utilities Commission (OUC) has maintained an active pole inspection and replacement program with records dating back to 1990. We currently uphold an eight-year quadrant based inspection cycle along with annual inspections targeting essential distribution and transmission equipment. Shared transmission structures are inspected and maintained by OUC based on past inspection date.

Distribution and Transmission pole inspection replacements are tracked through an existing maintenance work order database to insure timely replacement. Implementation has already begun to incorporate inspection records into active maintenance based software for pole inspections.

#### **Inspection Procedures**

Visual inspection shall be made of all poles from the ground line to the top before any other inspection. Visual inspection shall include: type of wood, original treatment, circumference, age of pole (if it can be determined), height, obvious splits, woodpecker holes, and any other physical damages to the pole. Also a visual check within the limitations of the inspector's expertise, is to be made at such time of the attachments to the pole being inspected for obvious conditions that appear improper, such as slack guy wires, slack overhead conductors, broken insulators, leaking transformers, missing guy guards, rotten cross arms, loose or faulty equipment, abandoned poles, etc.

#### **Excavation**

Earth shall be removed from the entire circumference of the pole to a minimum depth of 18 inches below ground line. Width of the hole shall be 4 inches clearance for the pole surface at the bottom and 10 inches at the ground line.

Poles with electric risers should not be excavated, but should be inspected by sounding, bored and fumigated.

#### Sounding and Boring

The pole must be sounded from the ground line to a minimum of six feet above the ground line. Sounding shall be done on all four sides of the pole to locate any shell rot or rot pockets on the side.

Sounding shall be done with an approved hammer that leaves a distinctive hammer pattern. If there is evidence of possible interior voids or rot, at least one boring shall be made where a void is indicated. If rot or voids are detected, several borings shall be made per rot or void location and a shell gauge shall be used to determine the extent of all voids or rot. In any event at least two borings shall be made at the ground line to check for rot.

Poles set in concrete or pavement shall be bored at least twice at opposite sides at the ground line down at a 45-degree angle into the pole and the boring sample checked for rot or voids.

#### **Removal of Exterior Decay**

All exterior decay must be removed where possible, from 18 inches below the ground line to 3 inches above ground line. The rotted wood is to be removed from the premises and deposed of in a proper manner.

#### **Evaluation of Pole Condition**

After the sounding and boring has been performed and all exterior decay has been removed, the effective circumference of the pole, from 18 inches below the ground line to 15 inches above the ground line, is to be determined.

#### Internal Treatment

All sound poles are to be internally treated if any specific voids of specific internal decay pockets are found. This should involve a sufficient number of bored 3/8 inch holes and the preservative should be applied under at least 50 psi of pressure. Fumigant Treatment – The approved fumigant shall be Mitc-Fume.

#### **Ground Line Treatment**

All poles not previously rejected shall be covered from 18 inches below the ground line to 3 inches above the ground line by an Owner approved preservative and moisture barrier film.

Preservative treatment should penetrate a minimum of two inches into the pole. Long-term retention studies should be made available to assure results.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

Total System Wood Poles 50536	Planned Inspection	Planned Percentage of System	Inspection Completed	Completed Percentage of System
2007 Poles Inspected	6400	12.5%	8124 *	16%

<sup>\*</sup> OUC inspected an additional 1700 poles in 2007 remaining from the 2006 schedule to remain on an eight year cycle.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

Total Inspected Poles	8124
Total Inspected Poles Failing Inspection	226
Percentage of Inspection Failure	2.7 %

A detailed failure inspection report of distribution and transmission poles is attached. (2007 Pole Inspection Failure Report.pdf)

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Total Inspection Poles Failing Inspection	Priority Replacement (Complete)	Restoration (Complete)	Work Orders Generated for Replacement in 2008
226	1	81	144

A total of 226 poles failed inspection criteria, one pole deemed priority replacement along with 81 poles which restoration was deemed necessary using a reinforcing truss were completed in 2007. Work orders for the remaining 144 poles have been generated for replacement in 2008. A detailed report denoting the type and class structure is attached.

(2007 Pole Remediation Action Report.pdf)

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The Orlando Utilities Commission (OUC) provides essential electrical service closely tied to our communities' safety, economy and welfare. In delivering reliable electrical service OUC manages the vegetation near approximately 1261 miles of overhead distribution lines that serve Orange and Osceola Counties.

The goal of this Distribution Vegetation Management Plan (DVMP) is to address long-term goals and strategic planning relating to pruning and removals of trees located in close proximity of OUC's distribution facilities. OUC maintains a four-year distribution trimming cycle averaging 330 miles per year. Quarterly reviews closely monitor production trimming throughout the annual cycle. Vegetation pruning is evenly diversified between rear lot and street accessible trimming to insure an achievable work schedule.

Overhead distribution facilities are subjected to pruning and safety methods outlined in American National Standards Institute A300 and Z133.1. A long-term strategy, targeting removal of fast growing invasive tree species compliments the established four-year maintenance cycle.

Annual inspections of the distribution system monitor vegetation clearances and verify an effective schedule. A final measure to insure distribution system reliability involves quarterly reviews of circuit feeder momentary and sustained outages records in correlation to vegetation.

#### **Maintenance Guidelines and Procedures**

A four-year maintenance cycle of distribution facilities anticipates an average annual growth of 2.5 feet. Trees in close proximity of distribution facilities are trimmed to a minimum distance of 10 feet clearance from energized un-insulated conductors. Fast growing invasive species are targeted for removal during distribution pruning. This proactive measure relieves future trimming requirements and insures clearances within the cycle will be maintained.

OUC currently procures vegetation maintenance labor and equipment through a contract with Davey Tree Experts. The contract comprises 10 production line trimming crews used in distribution pruning and removals. An additional 3 crew's supplement production trimming activities, completing work orders generated from inspections and field crews.

Vegetation pruning requests are tracked using an internal CIS system available in the distribution operations, customer service and construction and maintenance area. Requests generated from a system outage are either trimmed immediately or given a work order priority for completion. The general foreman provides additional feedback if additional area trimming is needed.

#### Reliability Centered Maintenance (RCM)

Utilizing a Reliability Centered Maintenance (RCM) approach, a 2007 annual inspection incorporated gathering vegetation approach distances on all main feeder distribution line. Ground visual inspections documented all existing vegetation conductor clearances. Individual work orders were generated from vegetation clearances, which do not conform to specified clearances. This inspection specifically aimed to insure an adequate four-cycle is being maintained.

#### **Appropriate Planting**

Our goals are to educate and inform the public through information provided by the Central Florida Urban Forestry Council. The concept "Right Tree in the Right Place" is conveyed in an effective manner, which promotes the urban forest, yet recognizes the compatibility with trees near power lines.

Strong connections to the City of Orlando Urban Forestry Council and educational community enable OUC to provide information about the benefits of an urban forest, which involves proper tree selection and proper placement planting. OUC is striving to further communications with both City and County ROW planning committees relating to the Urban Forest and proper planting.

#### Distribution and Transmission Vegetation Work Specifications

- 1. Prune or remove trees in the distribution to a minimum conductor clearance of 10 Feet.
- 2. Prune or remove trees in the transmission system to a distance of 18' in the urban corridors and a distance of 21' in the rural corridors.
- Alternative Vegetation Management Strategy; Where restrictions due to easement limitations, legal prohibitions or other impediments do not allow tree removal, we prune trees under the wires to a minimum of 8 feet of clearance and inject ground with tree growth retardant.
- 4. Customers advised of OUC "Right Tree / Right Place" Program

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

#### **Annual Plan**

The 2007 annual budget for Transmission and Distribution Vegetation management was approximately 2.8 million dollars. An increase in the 2008 budget is anticipated due to additional treatment in the transmission ROW corridors.

Distribution Vegetation Management Plan for 2008 objectives is for treatment of 330 miles of overhead distribution facilities.

The Transmission Vegetation Management Plan goals of 2008 are for treatment of 48 miles of urban and 51 miles of rural corridors as part of the transmission vegetation management plan. Treatment of rural corridors is conducted on a three-year maintenance cycle; where as urban corridors are conducted annually. Rural corridors are maintained using a combination of integrated vegetation management (IVM). Urban corridors utilize more traditional pruning and removal maintenance methods.

#### 2007 Distribution Schedule

Distribution \	/egetatio	on Manag	ement S	Schedule		-
Four Year Tre	_	_	,			
	Circuit Rear			Non		
GIS Circuit Number	Lot + Street			Billable		Completion
11/01/05	Tree Trim	Rear Lot Miles	Street Miles	Miles	Initiated Date	Date
	<del></del>	Fi	scal Yea	r 2007		
<u> </u>		1 1	Joan Tou	2007		
October - December					2007 Fiscal First Q	
2-24	11.73	4.30	7.43		Dec-06	Feb-07
8-11	0.92	.43	0.92		Sep-06	Oct-06
16-22	9.88	5.95	3.93	0.59	Jan-07	Mar-07
14-16	0.97	0.23	0.74	0.14	Oct-06	0ct-06
19-22	9.81	5.55	4.26		Sep-06 Sep-06	Sep-06 Oct-06
27-223 11-41	17.30 8.97	3.41 1.59	13.89 7.38		Dec-06	Mar-07
5-24	1.32	0.54	7.36 0.78		Oct-06	Nov-06
14-22	8.83	2.23	6.60		Oct-06	Oct-06
21-24	1.35	0.05	1.30		Dec-06	Dec-07
3-24	8.15	3.50	4.65		Jan-07	Mar-07
14-34	1.44	0.31	1.13	0.84	Nov-06	₹eb-07
Quarterly Total Mileage	80.67	27.66	53.01	1.57	1107 00	1
January - March	00.01	27.00	33.01	1.57	2007 Fiscal <b>Se</b>	cond Quarter
11-43	7.11	0.92	6.19		Feb-07	Mar-07
28-214	44.11	12.42	31.69	5.09	Oct-06	Feb-07
8-15	0.49	0.49	31.03	5.03	OUC OUC	Unbillable
21-11	1.53	1.45	80.0		Jan-07	Feb-07
2-331	6.41	2.94	3.47	4.72	Underground	Underground
21-25	1.58	0.18	1.40		Jan-07	Feb-07
6-311	4.94	3.78	1.16		Feb-07	Feb-07
5-16	1.60	1.60	,,,,		Jan-07	Jan-07
19-24	4.64	3.67	0.97	0.33	Jan-07	Jan-07
14-31	1.74	0.70	1.04	1.05	Dec-06	Jan-07
14-33	4.47	2.23	2.24		Jan-07	Feb-07
5-43	1.93	0.81	1.12	1.27	Feb-07	Mar-07
Quarterly Total Mileage	80.55	31.19	49.36	12.46		
April - June					2007 Fiscal Third Q	uarter
1-42	4.26	.10	4.26	0.02	Feb-07	Jun-07
14-12	1.93	1.10	0.83	0.10	Mar-07	Mar-07
17-25	3.83	3.49	0.34		Apr-07	Apr-07
2-332	11.77	5.31	6.46	1.44	Apr-07	<b>M</b> ay-07
3-13	8.76	5.40	3.36	0.19	Mar-07	Apr-07
1-21	0.30	0.00	0.30		Feb-07	Feb-07
3-32	8.12	1.83	6.29	0.01	Feb-07	Apr-07
21-22	0.39	0.26	0.13	1.37	Mar-07	Mar-07
29-224	7.53	2.02	5.51		Feb-07	Jun-07
32-221	25.40	14.17	11.23		Mar-07	Jun-07
6-12	1.99	0.41	1.58		Mar-07	Mar-07
5-11	2.75	2.26	0.49		Mar-07	Mar-07
8-14	0.03	0.03			ouc	Unbillable
30-14	0.31	0.05	0.26	0.58	Mar-07	Mar-07
14-11	2.40	1.92	0.48	4.00	Mar-07	Mar-07
8-21 11-42	2.54	1.65	0.89	1.26	Mar-07 Feb-07	Mar-07 Mar-07
uarterly Total Mileage	2.41 <b>84</b> .72	0.51 40.41	1.90 44.31	4.97	Feb-07	Mai-07
July - September	04.72	40.41	44.31	4.91	2007 Fiscal Fourth Q	uarter
• •	20.22	40.00	05.07			Sep-07
27-216	38.33 0.03	13.26 0.03	25.07 0.00		Jun-07 Apr-07	Apr-07
21-35	12.54	4.20	8.34	0.06	Apr-07	Jul-07
14-35	0.58	0.58	0.00	0.00	Apr-07	Apr-07
17-15	0.62	0.18	0.44	1.34	May-07	May-07
17-10	0.02	0.18	0.74	0.14	May-07	May-07
14-16	0.01	1.50	9.37	0.17	Jun-07	Aug-07
14-16 19-13						
19-13	10.87				Anr-07	Mav-07
19-13 11-11	10.87 0.83	0.01	0.82		Apr-07 Apr-07	May-07 May-07
19-13 11-11 4-14	10.87 0.83 10.75	0.01 5.35	0.82 5.40	0.30	Apr-07	May-07
19-13 11-11 4-14 19-21	10.87 0.83 10.75 0.83	0.01 5.35 0.44	0.82 5.40 0.39	0.30 1.18	Apr-07 Jul-07	May-07 Jul-07
19-13 11-11 4-14 19-21 14-43	10.87 0.83 10.75 0.83 1.44	0.01 5.35 0.44 0.41	0.82 5.40 0.39 1.03	1.18	Apr-07 Jul-07 Apr-07	May-07 Jul-07 Jun-07
19-13 11-11 4-14 19-21	10.87 0.83 10.75 0.83	0.01 5.35 0.44	0.82 5.40 0.39		Apr-07 Jul-07	May-07 Jul-07

#### 2008 Distribution Schedule

Distribution \	•	_	gement S	Sched	ule		
Four Year Tre	eatment (	Cycle					
	Circuit Rear			Non			
GIS Circuit Number	Lot + Street			Billable			Completio
11/01/05	Tree Trim	Rear Lot Miles	Street Miles	Miles		Initiated Date	Date
			Fiscal Yea	r 2008			_
October - December						2008 Fiscal First Qua	ırter
2-23	10.61	2.88	7.73	0.75		May-07	Jul-
21-21	2.02	0.07	1.95			Jul-07	Jul-
3-33	10.28	3.99	6.29	0.78		Jun-07	Sep-
16-24	2.38	0.75	1.63			Jul-07	Sep-
12-32	9.74	4.85	4.89			May-07	Aug-
18-33	2.68	0.30	2.38	0.02		May-07	Jul-
16-23	9.08	. 3.13	5.95	0.40		May-07	Sep-
16-11	2.86	1.61	1.25	0.62		Jun-07	Jul-
10-34	8.85	1.54	7.31			May-07	Jun-
4-23	3.67	0.06	3.61	5.41		Jul-07	Dec-
2-43	8.60	3.41	5.19			May-07	Jun-
4-11	4.28	1.47	2.81	0.00		Jul-07	Oct-
Quarterly Total Mileage	75.05	24.06	50.99	7.98			
January - March					Invoice	2008 Fiscal Sec	
12-11	12.98	3.47	9.51	0.95		Dec-07	Jan-08
14-13	6.94	3.41	3.53	0.15		Jan-08	
6-24	4.30	2.35	1.95			Sep-07	Dec-
32-12	1.23	0.74	0.49	2.31		Sep-07	Sep-
28-223	27.64	2.07	25.57			Sep-07	Jan-
16-12	7.08	3.13	3.95			Oct-07	Dec-
18-44	4.43	0.50	3.93			Sep-07	Dec-
12-24	7.04	2.43	4.61			Aug-07	Nov-
2-34	4.43	1.43	3.00	1.08		Aug-07	Oct-
5-21	1.30	0.41	0.89			Aug-07	Aug-l
17-21	4.49	4.49	Not Listed	0.13		Sep-07	Sep-(
12-31	6.94	2.34	4.60			Aug-07	Nov-
12-26	4.97	1.35	3.62			Sep-07	Oct-0
Quarterly Total Mileage	73.85	21.24	52.61	4.62			
April - June						2008 Fiscal Third	Quarter
14-23	6.59	5.38	1.21	0.70		<del> </del>	
5-45	0.67	0.00	0.67	0.70			
11-14	0.44	0.00	0.44			<del>                                     </del>	
17-14	77.30	17.52	59.78	4.61			
10-33	0.02	0.02	03.70	7.01			
20-31	1.95	0.80	1.15	0.01		Jan-08	Jan-(
9-24	7.14	3.08	4.06	0.44			
18-14	0.26	Not Listed	0.26	•		Jan-08	Jan-(
6-322	0.85	0.59	0.26	3.08		Jan-08	Jan-(
32-11	0.03	0.03				Jan-08	Jan-(
5-33	0.11	0.10	0.01				
19-23	0.75	0.75	Not Listed			Jan-08	
1-24	0.05	0.01	0.04	0.08			
uarterly Total Mileage	89.57	22.90	66.67	8.92			
July - September				· -		2008 Fiscal Four	tn Quarter
4-32	1.77	0.59	1.18				
19-11	1.20	1.20	Not Listed				
5-15	2.49	0.59	1.90			1	
5-33	0.11	0.10	0.01				
6-22 1-23	2.94	2.15	0.79	0.42		İ	
1-23 27-233	1.36 17.91	0.35 5.68	1.01 12.23	0.12 1.11			
27-233 <b>27-225</b>	16.40	3.18	12.23 13.22	1.11			
1-11	3.90	0.17	3.73				
27-232	16.02	3.68	12.34	1.13			
arterly Total Mileage	64.10	17.69	46.41	2.36			

#### 2007 Transmission Schedule

#### **Orlando Utilities Commission**

# Transmission Vegetation Management Program (TVMP) Annual Work Plan - Maintenance Schedule and Work Order

FRCC 2007 Compliance Audit Requirement R 2 - Rotational Cycle Segments Revised 1/02/08

ROW Corridor Segment Number	OUC Line	Description	Miles Rural	Miles Urban	Structure Number Begin	Structure Number End	Maintenac	ce Trimming	1	rders Issu Ispection
							Date Assigned	Date Completed	Date Assigned	Number of Tickets
		ban ROW Corridor - Annual Cycle		T		- 44	Tanina in a	laus (a.a.	I. (0.0 to 7	- 40
1	5-0212	Pine Hills to Country Club		3.22	1-	48	06/20/07	7/19/07	6/20/07 6/20/07	13
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeraida		1.08	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27	06/20/07	07/19/07	6/20/07	6
3	5-0214	Pine Hills to Turkey Lake		3.03	428 362	365	06/20/07 06/27/07	09/18/07	6/27/07	8
4	5-1424	Turkey Lake to Southwood	<del> </del>	1.82					6/27/07	0
5	5-2405	South Term Sub 24 to Southwood Sub 5		1.74	341		06/27/07	09/18/07		
6	5-0508 A	Southwood to Martin (KingsPointe) East Line		2.83	260	201	06/27/07	09/18/07	6/27/07	4
	7-05FPC	Southwood to Windemere			74	67	06/27/07	09/18/07	6/27/07	4
7	5-0508 B	Southwood to Martin		1.80	-	14	06/27/07	09/28/07	6/27/07	0
8	5-08-30	Martin to Counvention Center		0.41	14	16	07/11/07	09/18/07	7/11/07	0
9	5-0405	Holden to Southwood		3.55	506		7/25/07	09/25/07	7/25/07	5
10	5-0409	Holden to Michigan		3.20	2	78	7/25/07	10/02/07	7/25/07	2
11	5-0910	Michi gan to America (On Division)		3.73	56	132	7/25/07	10/16/07	7/25/07	3
12	5-1013	America to Kaley		1.44	1	26	7/25/07	11/11/07	7/25/07	1
13	5-1618	Michigan and Gowen to Bumby and Jersey		0.21	1	5	7/25/07	11/02/07	7/25/07	0
14	5-0916	Michigan to Grant		2.30	1	52	7/25/07	11/24/07	7/25/07	1
15	5-0609	Michigan to Pershing (Follows Raeford Rd)		5.48	2	93	7/25/07	10/16/07	7/25/07	9
16	5-0616	Grant to Pershing		2.09	1	27	7/25/07	10/16/07	7/25/07	3
17	7-622	Pershing to Sub 22 Term Site	******	3.42	135	157	7/25/07	10/24/07	7/25/07	2
18	5-0306 A & B	Azalea to Pershing A & B		4.14	143	182	7/25/07	10/31/07	7/25/07	11
	4-27KISS	Shared W/ KUA	•	2.64	2	64	7/25/07	11/17/07	7/25/07	1
		al ROW Corridor - Three Year Cycl								
	5-0607 A	Pershing to Indian River A	32.00		7	71	09/10/07		09/10/07	16
20b				L	72	139	09/10/07		09/10/07	
20c					140	209	09/10/07		09/10/07	
20d					210		09/10/07		09/10/07	
	5-0607 B	Pershing to Indian River B			0	130	09/10/07		09/10/07	
	7-0717 A	Indian River to Stanton A&B			54E		09/10/07	i	09/10/07	
	7-0717 B	Indian River to Stanton A&B			135		09/10/07		09/10/07	
	7-0617A	Pershing to Stanton (Shares 5-0607 ) ROW			1	34	09/10/07		09/10/07	
	7-0617 B	Pershing to Stanton (Shares 5-0607 ) ROW			1		09/10/07		09/10/07	
	7-17 FPC A	Stanton to Curry Ford			23		09/10/07		09/10/07	
		Stanton to Rio Pinar			23	53	09/10/07		09/10/07	
	7-07FPL"A"	Indian River to FPL Canaveral "A"			125		09/10/07		09/10/07	
	7-07FPL"B"	Indian River to FPL Canaveral "B"			125	127	09/10/07		09/10/07	
		Narcosse@ Kirby Smith to Sub 28	19.00		1	176	09/10/07	12/22/07	09/10/07	5
	200	7 Total Proposed Annual Miles Treated	51.00	48.12					Sub Total	95

#### 2008 Transmission Schedule

#### **Orlando Utilities Commission**

# Transmission Vegetation Management Program (TVMP) Annual Work Plan - Maintenance Schedule and Work Order

FRCC 2007 Compliance Audit Requirement R 2 - Rotational Cycle Segments Revised 1/02/08

ROW Corridor Segment Number Of	OUC Line	Description	Miles Rural	Miles Urban	Structure Number Begin	Structure Number End	Maintenac	e Trimming	Work Orders Issu Inspection	
							Date Assigned	Date Completed	Date Assigned	Number of Tickets
	2008 Url	oan ROW Corridor - Annual Cycle								
1	5-0212	Pine Hills to Country Club		3.22	1	48				
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeralda		1.08	1	27				
3	5-0214	Pine Hills to Turkey Lake		3.03	428	365				
4	5-1424	Turkey Lake to Southwood		1.82	362	343				
5	5-2405	South Term Sub 24 to Southwood Sub 5		1.74	341	303				
6	5-0508 A	Southwood to Martin (KingsPointe) East Line		2.83	260	201				
	7-05FPC	Southwood to Windemere			74	67		l		
7	5-0508 B	Southwood to Martin		1.80	1	14				
8	5-08-30	Martin to Convention Center		0.41	14	16				
9	5-0405	Holden to Southwood		3.55	506	586				
10	5-0409	Holden to Michigan		3.20	2	78				
11	5-0910	Michi gan to America (On Division)		3.73	56	132				
12	5-1013	America to Kalev	1.5	1,44	1	26				
	5-1618	Michigan and Gowen to Bumby and Jersey	•	0.21	1	5				
	5-0916	Michigan to Grant		2.30	1	52				
15	5-0609	Michigan to Pershing (Follows Raeford Rd)		5.48	2	93				
16	5-0616	Grant to Pershing		2.09	1	27				
17	7-622	Pershing to Sub 22 Term Site		3.42	135	157				
18	5-0306 A & I	B Azalea to Pershing A & B		4.14	143	182				
19	4-27KISS	Shared W/ KUA		2.64	2	64				
	200	8 Rural ROW Corridor - Three Year	Cycle							
22	5-3025	Convention Ctr to Orangewood North Term	2.50		17	29			06/20/07	0
	7-2615	Orangewood South Term to Taft	6.12		34	66			06/20/07	2
		Is 1/4 of the Lakeland Line Shared W/ KUA	6.42		258	220			06/20/07	1
		d 1/4 of the Lake Land Line Shared W/ KUA	4.69		196	220			06/20/07	0
		Ac 1/4 of the Lakeland Line Shared W/ TECO	21.45		196	66			06/20/07	37
		s- 1/4 of the LakeLand Line Shared W/ TECO	9.69		65	1			06/20/07	19
		008 Total Proposed Annual Miles Treated	50.07	48.12				<del>                                     </del>	Sub Total	59

#### 6. Storm Hardening Research

Orlando Utilities Commission is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

Feeder Name: Feeder Number: Map: Line:	NE-04-F		Contra Week Date: Job Ni	Ending:	Osmose 04/14/200 04/10/200 0-38-741	)7	Services, In	ic.	Crew ID: Reference Foreman: Superviso			15A PINEDA ' DAVIS	County: ORANGE State: FL
POLE NUMBER 012690	MFR SWP	<u>YRSET</u> 1970	CLASS CLASS 45/3	%   SPECIES/ O TREAT	OSISO HO 40	04 PREV SR CIRC	40 CIRC	X TYSE	.   PRIORITY	≺   REJECT	.   REST   DECAY	. REST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 4429 PAR 012719 Percent Strength: 56 Location: 4417 PAR	UNK 6%	E1996	E30/5	SP/SK	27	27	21.46	ΤX	······································	Υ	Υ	······································	Decay this Cycle: 5.54in. Reported Item: Trees or Branches in Wires. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 0.0in. Depth: 2.5in. Width: 6.5in. Orientation: -45. Decay Type: Shell Rot. Depth: 0.16in.
012695 Percent Strength: 49 Location: 108 WARI	9% NER LAN		45/3	SP/P	38	38	30	BX	•	Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 8in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C2-TRUSS. Restoration Height: STANDARD. Can Not Treat: Garden, Roots. Decay Type: Shell Rot. Depth: 1.28in.
012688 Percent Strength: 5 Location: 4209 PAR			E45/3	SP/C	40	40	32	X	•	Y	•	•	By: OSM. Year: 1996. Decay this Cycle: 8in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 1.28in.
012687 Location: 4209 PAR	UNK	E1968	E45/3	SP/C	38	38	38	<b>X</b>		Υ		•	By: OSM. Year: 1996. Previous Restored Year: 1988. Previous Restoration Method: C-TRUSS. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Feeder Name: Feeder Number: Map: Line:	NE-04-G		Contrac Week E Date: Job Nu	Ending:	Osmose U 04/14/200 04/11/200 0-38-741	7	ervices, In		Crew ID: Reference Foreman: Supervisor		628JP 628JP1 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER	MFR KOP	<u>YRSET</u> 1973	CLASS 92/5	0   SPECIES/ TREAT	ORIG	OE PREV SR	30 CIRC	X Type	PRIORITY	≺   REJECT	REST   DECAY	.   REST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason:
Location: A/F 905	JAMAJO BL	.VD (R/O)											Decayed Top. Inspection Comments: 3/4 Excavate. Other Conditions: Decayed Top. Shell Rot Shave.
014688 Location: 4344 RIX		E1970	35/4	SP/P	34	34	34	<b>X</b>	•	Υ		•	By: OSM. Year: 1996. Reported Item: Trees or Branches in Wires. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	NE-05-G		Date:		04/12/200	)7							
010668 Percent Strength: 4		E1965	35/5	SP/P	29	29	22	TX	•	Υ	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 7in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height:
Location: 1030 HE 010669  Location: 1017 HE	UNK	E1968	35/5	SP/P	30	30	30	×		Ý	•		STANDARD. Decay Type: Shell Rot. Depth: 1.12in. By: OSM. Year: 1996. Primary Reject Reason: Split Top. Inspection Comments: 3/4 Excavate. Other Conditions: Split Top, Decayed Top.
Map:	NE-04-G	·	Date:	<del></del>	04/13/20	07	-			·			
014705 Percent Strength: 9 Location: 724 HER	55%	E1968	35/5	SP/C	33	33	27	BX	·	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Fence, Roots, Underground Cable. Decay Type: Shell Rot. Depth:
014681 Percent Strength: Location: 905 JOM	66%	E1968	35/5	SP/P	31	31	27	TX	•	Υ	Y	Y	0.95in.  By: OSM. Year: 1996. Decay this Cycle: 4in. Reported Item: Trees or Branches in Wires. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.63in.

eeder Name: eeder Number: //ap: NE-04-G ine:		Contrac Week E Date: Job Nu	Ending:	Osmose Utilities Services, Inc. 04/21/2007 04/16/2007 0-38-741				rew ID: eference oreman: uperviso	628JP 628JP16A JOSE PINEDA JIMMY DAVIS		County: ORANGE State: FL		
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
014720	UNK	E1960	45/4	SP/P	34	34	34	X	•	Υ	•	•	By: OSM. Year: 1996. Reported Item: Loose Insulator. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 814 WIN 014721	The first of the second	E1960	35/5	SP/P	28	28	28	вх	•	Υ	•	•	Primary Reject Reason: Split Top. Can Not Treat: Fence. Other Conditions: Split Top, Decayed Top.
Location: R/O 822	WINGO ST	Г											
Мар:	NE-05-H		Date:		04/17/20	07				_			
010110	UNK	1979	45/4	SP/P	36	36	36	Х		Υ			By: OSM. Year: 1996. Reported Item: Loose Insulator. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: L/S 4923	BEACH B	LVD											
Мар:	NE-04-G	)	Date:		04/19/20	07							
012787	UNK	E1965	45/3	SP/P	37	37	37	X	•	Υ	•		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 4951 SA	NTA ROSA	N DR											
Мар:	NE-04-H	<u></u>					<del></del>			<del></del>			
014776	UNK	E1970	30/5	SP/P	28	28	28	X		Υ	,		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top. Shell Rot Shave.
Location: 5103 BA	םת אחדם												•

Feeder Name: Feeder Number: Map: Line:	NE-05-H	NE-05-H	Date:	actor: Ending: umber:	Osmose Utilities Services, Inc. 04/21/2007 04/20/2007 0-38-741				Reference#: Foreman:		628JP 628JP16A JOSE PINEDA JIMMY DAVIS		County: ORANGE State: FL
POLE NUMBER	MFR UNK	YRSET E1970	C/OSSA/	SPECIES/	90 HAI — — 37		37 	X Type	PRIORITY	≺ REJECT	REST   DECAY	REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Split
J05902	UNK	E1970	40/3	3P/P	31	31	31	^	•	ī	,	•	Top. Other Conditions: Split Top, Decayed Top.
Location: C/O SHC	DREVIEW D	R AND M	ADRID A	VE (R/O A	(PTS)								
005898 Percent Strength: 5 Location: 1000 SH	50%	E1965 DR	35/5	SP/C	29	29	23	BX	•	Y	Y	Υ	Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Roots, Trees. Decay Type: Shell Rot. Depth: 0.96in.
			Week Date:	Ending:	04/28/20 04/23/20				Reference	 e#:	628JP	17A	
005909	UNK	E1965	40/4	SP/P	35	35	35	х		Υ		•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 5509	9 MADRID	AVE (NEX	CT TO PO	OL)									
Мар:	NE-04-H												
		E1968	40/3	SP/C	36	36	36						By: OSM. Year: 1996. Primary Reject Reason: Split

Feeder Name: Feeder Number: Map: Line:	NE-04-H		Contractive Week Education Date: Job Nu	Ending:	Osmose 04/28/200 04/25/200 0-38-741	07	Services, In		Crew ID: Reference Foreman: Supervisor			I7A PINEDA DAVIS	County: ORANGE State: FL
<b>POLE NUMBER</b> 012832	MFR UNK	<u>YRSET</u> E1968	CLASS 9/25	9   SPECIES/ O TREAT	30   ORIG	OS CIREV SR	30 CIFF	A INSP	.   PRIORITY	≺ REJECT POLE	. REST DECAY	. REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Can Not Treat: Pole in Pavement. Other Conditions: Split Top, Decayed Top.
Location: 690 SEM		/D C/O OL	EANDER	RD	. , ,								
Map:	NE-04-I												
012864 Percent Strength:	UNK 92%	E1968	45/3	SP/P	37	36	36	X		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 2 P N/O	780 CENT	JRY DR											
005879 Percent Strength: Location: 5828 DE	59%	E1973	E45/5	SP/P	37	37	31	TX	•	Y	Y	<b>Y</b>	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.96in.
Map:	NE-05-I		Date:	<del></del>	04/26/20	07							
005850 Percent Strength: Location: 919 AM	UNK 85%	E1970	45/3	SP/P	38	38	36	Х		Υ	•	•	By: OSM. Year: 1996. Decay this Cycle: 2in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.32in.

Feeder Name: Feeder Number: Map: Line:	NE-04-I		Contrac Week E Date: Job Nu	Ending:	Osmose 0 04/28/200 04/26/200 0-38-741	)7	Services, I		Crew ID: Reference Foreman: Superviso			I7A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	CLASS	SPECIES/   TREAT	ORIG	PREV SR CIRC	CIRC	T YSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
012901 Percent Strength: 8		E1968	45/3	SP/P	38	38	36	Х		Υ	٠		By: OSM. Year: 1996. Decay this Cycle: 2in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.32in.
012958	SWP	1972	35/5	SP/P	32	32	32	Χ	•	Y	•	•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 816 TUC 012956 Location: 829 TUC	UNK	E1970	45/3	SP/P	37	37	37	X	•	ΥΥ	•	•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	NE-05-I		Date:		04/27/20	07			-				
005834	UNK	E1970	45/3	SP/P	38	38	38	X		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: F/O 950	TUCKER A	VE	,,										
Мар:	NE-04-J									<del></del> .			
013175 Percent Strength: Location: HEATH	64%	E1965 D DENNIS	35/2 S ST (INSI	SP/C	44 STATION)	44	38	х		Υ			By: OSM. Year: 1996. Decay this Cycle: 6in. Primar Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 0.95in.

Feeder Name: Feeder Number: Map: Line:	NE-04-J		Contra Week I Date: Job Nu	Ending:	Osmose 0 05/05/200 04/30/200 0-38-741	)7	ervices, In		Crew ID: Reference Foreman: Supervisor		628JP 628JP1 JOSE I JIMMY	PINEDA	County: ORANGE State: FL
<b>POLE NUMBER</b> 013180	MFR KOP	YRSET 1980	COS   CLASS	%   SPECIES/	51XO 	PREV SR CIRC SR		X INSP	'   PRIORITY	≺   REJECT	.   REST   DECAY	. REST CUST	REMARKS AND NOTES  Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1.
_ocation: C/O HEA	ATHER RD	AND DEN	NIS AVE (	NEXT TO	SUBSTAT	TION)							
			Date:		05/01/20	07							
014801	SWP	1978	30/5	SP/C	28	28	28	X	•	Υ		•	By: OSM. Year: 1996. Primary Reject Reason: Spli
													Top. Other Conditions: Split Top, Decayed Top.
Location: 6703 HE	ATHER RD	) <i>.</i>		,,,									Top. Other Conditions: Split Top, Decayed Top.
Location: 6703 HE.	ATHER RD	)						· · · · · ·	·	·· · · · ·		····	Top. Other Conditions: Split Top, Decayed Top.
	NE-04-I SWP	1970	45/4	SP/C	36	36	17.96	TX	Υ	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 18.04in. Priority Pole. Primary Reject Reason: Shell Rot.
Map: 012982	NE-04-I SWP 21%	1970	45/4	SP/C	36	36	17.96	TX	Υ	<b>Y</b>	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 18.04in.
Map: 012982 Percent Strength: 2	NE-04-I SWP 21%	1970 DR	45/4 Date:	SP/C	36		17.96	TX	Υ	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 18.04in. Priority Pole. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: TALL. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 3.0in. Depth: 4.0in. Width: 8.0in. Orientation: +90. Decay

Feeder Name: Feeder Number: Map: Line:	NE-07-H		Contractive Week Education Date:  Job Nu	Ending:	Osmose 1 05/05/200 05/03/200 0-38-741	)7	Services, In	ı	Crew ID: Reference Foreman: Superviso		628JP 628JP1 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
007067 Percent Strength: Location: 5531 TU		E1970	45/3	SP/P	38	38	33	TX		Y	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.80in.
Map:	NE-08-H		<del></del>										
006173 Location: 5506 GB	UNK ENOA LN	E1980	30/5	SP/SK	30	30	30	х		Y	•		By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.
 Map:	NE-07-H	<del></del>	Date:		05/04/20	07							
007049 Percent Strength: Location: R/O 150	: 48%	E1965	40/3	SP/C	37	37	29	TX		Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 8in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 1.27in.
Map:	NE-08-H			<u> </u>			· · · · · · · · · · · · · · · · · · ·						
006156 Percent Strength: Location: R/O 172	: 46%	E1965 E AVE	45/3	SP/C	39	39	30	TX		Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 9in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Split Top, Decayed Top. Carpenter Ants. Decay Type: Shell Rot. Depth: 1.44in.

# $Osmose_{\tiny{\scriptsize{\$}}}$

Feeder Name: Feeder Number: Map: Line:	NE-07-H		Contrac Week E Date: Job Nu	Inding:	Osmose I 05/05/200 05/04/200 0-38-741	7	Services, Inc	i i	Crew ID: Reference Foreman: Supervisor			18A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/	ORIG	PREV SR CIRC	EFF.	INSP	PRIORITY	REJECT	REST   DECAY	REST	REMARKS AND NOTES
007048 Percent Strength: Location: R/O 150	E1965 E AVE	45/3	SP/P	38	38	33	TX	•	Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.80in.	
			Week I Date:	Ending:	05/12/200 05/07/200				Reference	e#:	628JP	19A	
007059	UNK	E1968	35/5	SP/C	31	31	31	X		Y			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 5512 BA 007030 Percent Strength: Location: 1617 VI	UNK 69%		40/4	SP/P	34	34	30	X		Y		•	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Compression Wood. Decay
007018 Location: 1421 TF	UNK	E1965	45/3	SP/P	40	40	40	X		Ÿ 		•	Type: Shell Rot. Depth: 0.64in.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Small Woodpecker Holes: 3.
Map:	NE-09-H		Date:		05/08/20	07	<del></del>						
008173 Percent Strength: Location: R/O AP	58%	E1970	45/4 AN BLVD (	SP/P BALDWII	36 N PALMS A	36 PTS)	30	вх	•	Y	Y	Y	Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth: 0.96in.

Feeder Name: Feeder Number: Map: Line:	NE-08-H	<u></u>	Contra- Week I Date: Job Nu	Ending:	Osmose 05/12/200 05/08/200 0-38-741	07	Services, Ir	R F	crew ID: deference oreman: uperviso		628JP 628JP1 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
<b>POLE NUMBER</b> 006136	MFR UNK	YRSET E1970	S/0P   CLASS	SPECIES/	9180  - 42	CIRC SR	75   EFF CIRC	X Type	PRIGRITY	≺   REJECT	.   REST	REST	REMARKS AND NOTES  By: OSM. Year: 1986. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 6054 CL	UB CT (RE NE-10-F	T POND A	REA) Date:		05/09/20	07							······································
Map: 013935 Location: 1857 LA	UNK	E1968 DR	45/3	SP/C	38	38	38	BX		Υ	•		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.
Мар:	NE-06-I		Date:		05/10/20	07			<del></del>				
005771 Percent Strength: Location: 1240 KI			E45/3	SP/C	36	36	27.6	TX		Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 8.4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C2-TRUSS. Restoration Height: STANDARD. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 3.0in. Depth: 1.0in. Width: 2.0in. Orientation: -90. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	NE-07-I		Date:		05/12/20	07		<del></del>		·			
007124 Percent Strength: Location: C/O CO		1964 E AND KI	45/3 NGSTON	SP/C AVE	39	39	33	вх		Υ	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Roots, Trees. Decay Type: Shell Rot. Depth: 0.96in.

# $Osmose_{\tiny{\$}}$

Feeder Name: Feeder Number: Map: Line:	NE-06-I		Contrac Week E Date: Job Nu	Ending:	Osmose U 05/19/200 05/15/200 0-38-741	7	Services, I		Crew ID: Reference Foreman: Superviso			20A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER 005767 Percent Strength: 6 Location: C/O OLD	CHENEY	YRSET E1965 HWY AND	CLASSTH/ CLASSTH/ 2/202	OO(B) - SPECIES/	SU ESI — 29 D CHENEY	S APTS)	25	TX	.   PRIORITY	≺   REJECT	√ REST DECAY	∠ CusT CusT CusT CusT CusT CusT CusT CusT	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.64in.
Map:	NE-09-1	<del></del>			<del></del>	<del> </del>	<del></del>					-	
008236	SWP	1968	45/3	SP/C	39	39	39	X	٠	Υ	٠		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 2400 CO	MMERCE	BLVD											
Мар:	NE-10-J	···	Date:	<del></del>	05/17/200	07							
013887	UNK	E1968	30/5	SP/P	27	27	27	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: S/O 6840	HANGING	MOSS R	D.										
	NE-11-J		<del></del>									<del></del>	
Мар:													

Feeder Name: Feeder Number: Map: Line:	NE-10-I		Contra Week Date: Job Nu	Ending:	Osmose 05/19/20 05/17/20 0-38-741	07	Services, I		Crew ID: Reference Foreman: Superviso			20A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/	SPECIES/	ORIG	PREV SR CIRC	EFF	INSP TYNSP	PRIORITY	REJECT	REST   DECAY	REST	REMARKS AND NOTES
013997 Percent Strength: 6 Location: C/O SEM		E1970 VD AND H	45/3	SP/C MOSS RI	40	40	35	TX	•	Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.80in.
Мар:	NE-09-J		Date:		05/18/20	07							
008251	KOP	1967	30/5	SP/C	28	28	28	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above.
Location: R/O 6909	9 F TURQU	JOISE LN											
Мар:	NE-06-J		Week Date:	Ending:	05/26/20 05/22/20				Reference	= e#:	628JP	21A	
011325	UNK	E1968	40/3	SP/C	37	37	37	X		Y		•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 1147 DE													
011320	UNK	E1968	45/3	SP/C	40	40	40	X		Υ		•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 6507 AR	GYLE ST												

Feeder Name: Feeder Number: Map: Line:	NE-06-J		Contrac Week E Date: Job Nu	Ending:	Osmose 05/26/200 05/23/200 0-38-741	7	Services, Ir	nc.	Crew ID: Reference Foremar Supervis	: :			County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	CIRC	PREV SR	EFF.	TNSP	PRIORITY	REJECT	REST   DECAY	REST CUST	REMARKS AND NOTES
011373 Location: 1155 ME	UNK EADOW LN	E1965	35/5	SP/C	28	28	28	X		Υ	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Shell Rot Above.
Map:	NE-07-J						<del> </del>						
014275 Percent Strength: ( Location: 6493 E 0		E1968 DR	50/2	SP/C	41	41	31.95	X		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 9.05in. Primary Reject Reason: Shell Rot. Other Conditions: Shell Rot Above. Decay Type: Enclosed Pocket. Location: Above Groundline. Height: 84.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: +45. Decay Type: Enclosed Pocket. Location: Below Groundline. Height: 36.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: -90. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	NE-11-G		Date:		05/24/20	07							
039883 Percent Strength: Location: 1322 LIN	92%	E1970 D LN	45/3	SP/P	36	36	35	X		Υ			By: OSM. Year: 1996. Decay this Cycle: 1in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.
039889 Location: 2134 Wo		E1968 「DR	45/3	SP/C	37	37	37	VX	•	Υ	•	•	Primary Reject Reason: Split Top. Can Not Treat: Fence. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.

Feeder Name: Feeder Number: Map: NE-12-G Line:			Contra Week Date: Job No	Ending:	Osmose 05/26/20/ 05/25/20/ 0-38-741	07	Services, Ir	F	Crew ID: Reference Foreman: Supervisor			21A PINEDA DAVIS	County: ORANGE State: FL	
POLE NUMBER	MFR KOP	YRSET 1958	ENGTH/ CLASS	9   SPECIES/	ORIG CIRIG	O PREV SR	OP   EFF	X Type	PRIORITY	<   REJECT	REST	REST	REMARKS AND NOTES  By: OSM Year: 1996 Primary Reject Reason:	
Location: 2119 W											•		By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 2.	
Map:	NE-09-A													
014325 Percent Strength: Location: 406 ROI		E1968	E45/3	SP/C	36	36	27	TX		Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 9in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Internal Sapwood Decay.	
014310	UNK	E1968	45/3	SP/P	36	36	36	X	•	Ý	•	•	Decay Type: Shell Rot. Depth: 1.43in.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.	
Location: C/O SM 014311 Percent Strength: Location: 110 SM	UNK 64%	PFORMO: E1970	SA AVE 45/3	SP/P	36	36	31	TX		Ϋ́	··· Ý	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.80in.	
Map:	NE-08-A		Week Date:	Ending:	06/02/20 05/29/20		*		Reference	<del></del>	628JP	22A		
009113 Percent Strength: Location: R/O 192	65%	E1965 GE AVE	35/5	SP/C	30	30	26	тх		Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.63in.	

Feeder Name: Feeder Number: Map: Line:	NE-08-A		Contra Week Date: Job No	Ending:	Osmose 06/02/200 05/30/200 0-38-741	)7	Services, l	R F	rew ID: eference oreman: uperviso		628JP 628JP2 JOSE F JIMMY	INEDA	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	CIRC	INSP	PRIORITY	REJECT	REST   DECAY	CUST	REMARKS AND NOTES
009033 Percent Strength: Location: F/O 610		E1965	35/5 OR	SP/P	28	28	24	TX	•	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.64in.
Map:	NE-09-D							<del></del> "					
006379	SWP	1969	45/3	SP/C	39	39	39	Х		Υ	•		Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1. Small Woodpecker Holes: 1.
Location: 2310 L/	AKESIDE DR												
Мар:	NE-09-C		Date:		05/31/20	07							
007518	SWP	E1970	45/3	SP/P	36	36	36	X	•	Y		•	By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1. Small Woodpecker
Location: F/O 17	14 LAKESIDI	E DR											Holes: 3.
Мар:	NE-08-C												
Map: 015697 Location: F/O 16	UNK	E1965	45/3	SP/P	37	37	37	X		Υ			By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top, Shell Rot Above. Large Woodpecker Holes: 1. Small Woodpecker Holes: 2.

Feeder Name: Feeder Number: Map: Line:	NE-08-C		Date:	actor: Ending: umber:	Osmose 06/02/200 05/31/200 0-38-741	07	Services, Inc		Crew ID: Reference Foreman: Supervisor		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER 015701 Location: 2105 ME	MFR ACE ERRIT PARI	YRSET 1992	CLASS 7/05	S/d   SPECIES/ X/S/ TREAT	91 NO   45	94   PREV SR	128 1410 110 110 45	X - INSP	.   PRIORITY	≺   REJECT	.   REST	REST	REMARKS AND NOTES  Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Map:	NE-09-C						<u> </u>						
007500 Percent Strength: Location: 2211 LA	65%	E1965	40/5	SP/C	30	30	26	вх		Υ	Y	Υ	By: OSM. Year: 1996. Decay this Cycle: 4in. Reported Item: Rotten Crossarm. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type:
007526	ACE	1992	50/2	SP/SK	42	42	42	X		Υ		•	Shell Rot. Depth: 0.63in.  Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 2201 ME	RRIT PAR	K DR											
Мар:	NE-08-C									<del></del>			
015670 Location: C/O ME	ACE	1992 RK DR ANI	50/2 D LEU RI	SP/SK	43	43	43	Х		Υ			Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2. Medium Woodpecker Holes: 1.

Feeder Name: Feeder Number: Map: Line:	NE-08-D		Contra Week I Date: Job Nu	Ending:	Osmose 06/02/200 06/01/200 0-38-741	07	Services, Inc.	•	Crew ID: References Foreman: Supervisor		628JP 628JP2 JOSE I JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER 015777 Percent Strength: Location: R/O 250		YRSET E1968	CLASS 42/3	S   SPECIES/	ORIG CIRCG	PREV SR CIRC SR	32   EFF	BX BX	PRIGRITY POLE	≺   REJECT	A   REST DECAY	- REST	REMARKS AND NOTES  By: OSM. Year: 1986. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth: 0.96in.
Map:	NE-09-D					<del></del>							
006396 Percent Strength: Location: F/O 231		1972 E DR	30/5	SP/P	29	29	25	X		Υ			By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.64in.
Map:	NE-08-D		Date:		06/02/20	07							
015803 Location: C/O CC	UNK DRRINE DR		50/2 SUE DR	SP/P	46	46	46	X		Y			By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Мар:	NE-09-E		Week Date:	Ending:	06/09/20 06/04/20				Reference	#:	628JP	23A	
008035 Percent Strength Location: R/O 22			35/5	SP/C	31	31	21	Х		Y			By: OSM. Year: 1996. Decay this Cycle: 10in. Note: PER ALLEN KEMP. Reported Item: Roots. Primary Reject Reason: Shell Rot. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 1.59in.

Feeder Name: Feeder Number: Map: Line:				ctor: Ending: ımber:	Osmose 06/09/200 06/04/200 0-38-741	07 07	Services, I	R Fo	rew ID: eference oreman: uperviso		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER 006022 Percent Strength: 4 Location: 2813 NO		YRSET E1969	CLASS // CLASS	0   SPECIES/	900 Heigh Heigh Heigh	SZ CIRC	21     	dSd- TX	.   PRIORITY	A REJECT	≺   REST	A REST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.96in.
			Date:		06/05/20	07							
006041 Percent Strength: 4 Location: F/O 2824		E1968	30/5	SP/P	29	25	22	TX	•	Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 3in. Primary Reject Reason: Previous Reject. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.48in.
Map:	NE-09-D		Date:		06/06/20	07	<del></del>						
006415 Percent Strength: 6 Location: R/O 2711		1984 D PKWY	35/5	SP/C	31	31	27	TX		Y	Y	Y	Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.63in.
Мар:	NE-08-D		<del></del>										
015859 Location: 1914 HA	ESC	1974	45/3	SP/P	41	41	41	х		Υ		•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
015296 Percent Strength: 6 Location: R/O 185	UNK 65%	E1970	45/3	SP/P	38	33	33	ΤX		Y	Υ	Υ	By: OSM. Year: 1996. Primary Reject Reason: Previous Reject. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD.

Feeder Name: Feeder Number: Map: N Line:	√E-09-E		Contrac Week E Date: Job Nu	Inding:	Osmose 06/09/200 06/07/200 0-38-741	)7	Services, Ind		Crew ID: References Foreman: Supervisor		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER 008019 Percent Strength: 64%	MFR UNK	YRSET 1952	SS   CLASS   CLASS	S SPECIES/	0816 CIRC	62 PREV SR	25 ————————————————————————————————————	X I INSE	.   PRIORITY	≺   REJECT	A BEST	A REST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 4in. Reported Item: Trees or Branches in Wires. Reported Item: Vines Present Not Cut. Reported
Location: R/O 2245 H 008003 Percent Strength: 64%	SWP	DR 1970	45/3	SP/C	36	36	31	TX		Ý	····Y	Ϋ	Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.64in.  By: OSM. Year: 1996. Decay this Cycle: 5in. Reported Item: Vines Present Not Cut. Primary
Location: R/O 2838 W	-				00/00/00	07					·		Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.80in.
_ <del>'</del>	NE-08-D		Date:		06/08/20								
015837 Percent Strength: 659		E1965	45/3	SP/C	37	37	32	TX	,	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height:
Location: 2611 WEST 015833 Percent Strength: 619	SWP %	E1970	40/3	SP/P	39	39	33	TX	•	· · · ·	Y	Υ	STANDARD. Decay Type: Shell Rot. Depth: 0.80in. By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height:
_ocation: 2505 WEST 015814 Percent Strength: 339	UNK	E1968	E35/5	SP/C	29	29	20	TX	•	Υ	Υ	Υ	STANDARD. Decay Type: Shell Rot. Depth: 0.96in. By: OSM. Year: 1996. Decay this Cycle: 9in. Reported Item: Roots. Primary Reject Reason: Shell
Location: R/O 1802 J													Rot. Recommended Restoration Method: C-TRUSS Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 1.44in.
015743 Percent Strength: 25 Location: 2623 CORF	%	E1965	35/5	SP/P	30	28	19	TX	•	Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 9in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 1.44in.

Feeder Name: Feeder Number: Map: Line:	NE-08-D	_	Contra Week I Date: Job Nu	Ending:	Osmose 06/09/200 06/08/200 0-38-741	)7	Services, Inc.	F	Crew ID: References Foreman: Supervisor		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	CIRC	INSP	PRIORITY	REJECT	REST DECAY	REST	REMARKS AND NOTES
015755 Percent Strength: 6 Location: 2611 COF		E1968	35/5	SP/C	30	30	26 I	вх		Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Garden. Decay Type: Shell Rot. Depth: 0.63in.
015735 Percent Strength: 3 Location: 1860 OAk		1966	35/5	SP/C	29	29	20	вх	•	Υ	Y	Υ	Decay this Cycle: 9in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Fence. Decay Type: Shell Rot. Depth: 1.44in.
015730 Percent Strength: 6 Location: R/O 1883		1969	30/5	SP/P	29	29	25	TΧ	•	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	NE-08-C		Week Date:	Ending:	06/16/20 06/11/20				Reference	#:	628JP:	24A	
015674 Percent Strength: 5 Location: R/O 2335		1955 OOD DR	30/7	SP/C	22	22	18	TX	·	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
015652 Percent Strength: 5 Location: R/O 2325	51%	E1964 WOOD LN	35/5 N	SP/C	30	30	24	BX	•	Y	Y	Y	Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Fence. Decay Type: Shell Rot. Depth: 0.95in.

Feeder Name: Feeder Number: Map: Line:	NE-11-A		Date:	nctor: Ending: umber:	Osmose 06/16/200 06/14/200 0-38-741	07 07	Services, I	F	Crew ID: Reference Foreman: Superviso			24C PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	CLASS"	SPECIES/ TREAT	ORIG	PREV SR	EFF	INSP TYPE	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
017116 Percent Strength: Location: R/O 118		E1968	30/5	SP/P	29	29	25	TX	٠	Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
017117 Percent Strength: Location: C/O PAR	UNK 59%	E1965 ORMOSA	45/3 AVE	SP/P	37	37	31	X		Υ	•	•	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Other Conditions: Decayed Top, Shell Rot Above. Decay Type: Shell Rot. Depth: 0.96in.
			Week Date:	Ending:	06/23/20 06/18/20			j	Reference	e#:	628JP	25A	
017066	KOP	E1970	30/5	SP/P	29	29	29	X		Υ			Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 304 BAY	RUN ST												
Мар:	NE-10-A		Date:		06/19/20	07	<del></del> -						
007310 Percent Strength: Location: 2 P S/O	65%	E1964 AE AVE	45/3	SP/C	37	37	32	TX	-	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot.
007312 Percent Strength: Location: 3 P S/O	60%	1970 AE AVE	45/3	SP/C	38	38	32	TX	•	Υ	Y	Υ	Depth: 0.80in.  By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Carpenter Ants. Decay Type: Shell Rot. Depth: 0.96in.

Feeder Name: Feeder Number: Map: Line:	NE-10-A		Date:	actor: Ending: umber:	Osmose 06/23/200 06/19/200 0-38-741	07	Services, I	nc.	Crew ID: Reference Foreman: Superviso			25A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/	CIRC	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
007316 Percent Strength: 589 Location: EVANS ST		E1960 ICRAE ST	35/5 FAND SA	SP/C	30 M AVE	30	25	ΤX	·	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Reported Item: Guy Slack or Broken. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.79in.
007317 Percent Strength: 59 Location: C/O EVANS	%	E1964 D SANITA	35/5 RIUM AV	SP/C	31	31	26	TX	•	Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.79in.
007318 Percent Strength: 549 Location: 1P N/O C/C	UNK %	E1964	35/5	SP/C	32	32	26	ВХ	•	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Roots, Trees. Decay Type: Shell Rot. Depth: 0.95in.
Мар:	NE-11-A					···							
007320 Percent Strength: 31 Location: R/O 700 W			35/5	SP/C	31	31	21	X		Y			Decay this Cycle: 10in. Primary Reject Reason: Shell Rot. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 1.59in.

Feeder Name: Feeder Number: Map: Lìne:	eeder Number: ap: NE-11-A		Contraduce Veck Ender Date: Job Nu	Ending:	Osmose 1 06/23/200 06/20/200 0-38-741	7	ervices, Ind	E E	Crew ID: Reference Foreman: Supervisor		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
017425 Percent Strength: Location: R/O 754		E1968 N ST	50/2	SP/C	46	46		TX	•	Υ	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.95in.
Мар:	NE-11-B		Date:		06/21/200	07							
005033 Percent Strength: Location: R/O 111		1968 STER ST	45/3	SP/C	38	38	32	TX	-	Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.96in.
048128	UNK	E1968	30/5	SP/P	27	27	27	ВХ	•	Υ	•	•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Can Not Treat: Fence, Garden. Other Conditions: Split Top, Decayed Top.
Location: R/O 111					-							· · · · · · · · · · · · · · · · · · ·	
Map:	NE-10-B												
007373	UNK	E1968	35/5	SP/C	31	31	31	X		Υ	•		By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Location: 1115 DO	DRCHESTE	RST											
			Date:		06/22/20	07							
007337 Percent Strength: Location: R/O 633	65%	E1965 YAH	35/5	SP/C	30	30	26	TX		Υ	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 4in. Reported Item: Low Conductor Clearance. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height STANDARD. Decay Type: Shell Rot. Depth: 0.63in.

# $Osmose_{\text{\tiny{\$}}}$

Feeder Name: Feeder Number: Map: Line:	NE-11-A		Contrac Week E Date: Job Nu	Ending:	Osmose 1 06/23/200 06/22/200 0-38-741	)7	Services, In		Crew ID: Reference Foreman: Superviso			25A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER 017031 Location: R/O 330	MFR SWP	YRSET 1968	/HENGTH/ CLASSS 12/3	SPECIES/	900 180 — 37	37 CIREV SR	127 117 117 37	X INSP	.   PRIORITY	≺   REJECT	.   REST DECAY	.   REST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Map:	NE-12-A		····			<del></del>			····				
017402 Percent Strength: Location: R/O 164		1966 RE AVE	40/5	SP/C	32	32	19.12	X	•	Υ	•	•	Decay this Cycle: 12.88in. Reported Item: Vines Present Not Cut. Primary Reject Reason: Enclosed Pocket Above. Other Conditions: Decayed Top, Shell Rot Above. Decay Type: Internal Sapwood Decay. Decay Type: Enclosed Pocket. Location: Above Groundline. Height: 36.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: -90. Decay Type: Shell Rot. Depth: 0.95in.
Мар:	NE-10-B		Week Date:	Ending:	06/30/20 06/25/20				Reference	:e#:	628JP	26A	
007398 Percent Strength: Location: R/O 120	38%	E1965 STER ST	30/7	SP/P	22	22	16	TX		Y	Y	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Reported Item: Vines Present Not Cut. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.95in.
007391 Percent Strength: Location: R/O 125		E1961 STER ST	40/3	SP/C	38	38	32	TX	•	Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.96in.

eeder Name: eeder Number: ap: I ne:	NE-11-B		Date:	actor: Ending: umber:	Osmose 06/30/200 06/25/200 0-38-741	07	Services, Ir		Crew ID: Reference Foreman: Supervisor		628JP 628JP2 JOSE F JIMMY	PINEDA	County: ORANGE State: FL
POLE NUMBER 005403 Percent Strength: 61	MFR UNK %	YRSET E1960	CLASSA/	9   SPECIES/	39 	66 PREV SR	33 ———————————————————————————————————	TX TANSE	.   PRIORITY	A REJECT	A REST DECAY	A REST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 6in. Reported Item: Footer Buried. Primary Reject Reason: Shell Rot. Recommended Restoration
Location: R/O 3028		OD DR E1961	40/3	SP/C	39	39	39	X		Y			Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.96in.  By: OSM. Year: 1996. Reported Item: Roots. Primary
Location: R/O 1221	WILKINSO	ON ST		-							·		Reject Reason: Split Top. Inspection Comments: 3/4 Excavate. Other Conditions: Split Top, Decayed Top.
005101 Percent Strength: 47 Location: R/O 1251	7%	E1960 TER ST	30/5	SP/C	27	27	21	ΤX	·	Y	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 6in. Reported Item: Vines Present Not Cut. Reported Item: Vegetation Problem. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.96in.
Мар:	NE-12-B												
005084 Location: R/O 1201	KOP	E1970	45/3	SP/C	38	38	38	X		Υ	•		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Feeder Name: Feeder Number: Map: NE-11-C Line:	Contractor: Week Ending: Date: Job Number:	Osmose Utilities Service 06/30/2007 06/26/2007 0-38-741		Crew ID: Reference#: Foreman: Supervisor:	628JP 628JP26A JOSE PINEDA JIMMY DAVIS	County: ORANGE State: FL
POLE NUMBER MFR YRSET 005111 KOP 1968 Percent Strength: 58%	2/05   CLASS /		O BX	PRIGRITY  REJECT	A DECAY	REMARKS AND NOTES  Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS.
Location: NEXT TO 906 GROVER AVE 005124 KOP 1960 Percent Strength: 64%  Location: NEXT TO 906 GROVER AVE	40/3 SP/C	37 37 3	0.18 TX	. Y	Υ Υ	Restoration Height: STANDARD. Can Not Treat: Fence, Roots. Decay Type: Shell Rot. Depth: 0.64in. By: OSM. Year: 1996. Decay this Cycle: 6.82in. Reported Item: Vines Present Not Cut. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 3.0in. Depth: 3.5in. Width: 8.0in. Orientation: -LOL. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 3.0in. Depth: 2.5in. Width: 4.0in. Orientation: -90. Decay Type: Shell Rot. Depth: 0.32in.
005151 UNK E1960 Percent Strength: 50%  Location: 3327 LAKE SHORE DR 005437 UNK E1968 Percent Strength: 48%  Location: R/O 1525 NOTTINGHAM ST	35/5 SP/P 35/5 SP/C	30 30 2	23 X 21.93 TX	. Y	· Y Y	Decay this Cycle: 6in. Reported Item: Footer Buried. Primary Reject Reason: Shell Rot Above. Inspection Comments: 3/4 Excavate. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 0.96in. By: OSM. Year: 1996. Decay this Cycle: 8.07in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Exposed Pocket. Location: Below Groundline. Height: 3.0in. Depth: 3.0in. Width: 7.0in. Orientation: +135. Decay Type: Shell Rot. Depth: 0.31in.
005175 KOP 1968 Percent Strength: 58%  Location: R/O 1423 CHICHESTER ST	40/3 SP/C	36 36 3	30 TX	, Y	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.96in.

Feeder Name: Feeder Number: Map: Line:	eder Number: ap: NE-11-B		Contrac Week E Date: Job Nu	inding:	Osmose U 06/30/200 06/26/200 0-38-741	7	Services, I	i	Crew ID: Reference Foreman: Superviso			26A PINEDA DAVIS	County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	LENGTH/	S PECIES/	98   ORIG	98   PREV SR	OFF CIRC	XI INSP	PRIORITY	<pre>&lt;   REJECT</pre>	≺   REST DECAY	KEST CUST	REMARKS AND NOTES
005182 Percent Strength: Location: R/O 130		1960 TER ST	40/3	SP/P	36	36	31		•	· · · · · · · ·	·····	r 	Decay this Cycle: 5in. Reported Item: Roots. Reported Item: Footer Buried. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.80in.
Мар:	NE-10-B												
007415 Percent Strength:		1979	30/5	SP/P	30	30	24	TX		Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height:
Location: R/O 292	8 LAKE SH	ORE DR											STANDARD. Decay Type: Shell Rot. Depth: 0.95in.
Map:	NE-11-C												
005413 Percent Strength:	UNK 65%	E1961	45/3	SP/C	37	37	32	TX		Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Reported Item: Roots. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS.
Location: R/O 302	0 LAKE SH	ORE DR											Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.80in.
Map:	NE-10-B		Date:		06/27/200	 07					··		
007446 Percent Strength: Location: R/O 262	59%	E1965 K RD	40/3	SP/C	37	37	31	TX		Υ	Y	Υ	By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.96in.

Feeder Name: Feeder Number: Map: Line:	NE-11-C		Contra Week Date: Job Nu	Ending:	Osmose 06/30/20/ 06/27/20/ 0-38-741	07 07	ervices, Ind		Crew ID: Reference Foreman: Supervisor				County: ORANGE State: FL
POLE NUMBER	MFR	YRSET	CLASS	SPECIES/	ORIG	PREV SR	EFF CIRC	INSP	PRIORITY   POLE	REJECT	REST	REST	REMARKS AND NOTES
005164 Percent Strength: Location: R/O 302		E1961 ORE DR	35/5	SP/C	29	29	24	TX		Υ	Υ	Υ	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.80in.
Мар:	NE-11-B												
005407 Percent Strength: Location: NEXT T	51%	1952 KINSON S	35/5 ST	SP/C	30	29	24	TX		Y	Υ	Y	By: OSM. Year: 1996. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.80in.
Мар:	8-09-P		Date:		06/29/20	)07			Reference	 e#:	628JP	26B	County: OSCEOLA
19094	UNK	E1960	35/4	SP/C	33	33	33	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: C/O CH	IEROKEE R	D AND PC	MELO A	VΕ									·
Мар:	8-11-P		Week Date:	Ending:	07/07/20 07/02/20				Reference	——— e#:	628JF	27A	
127208 Percent Strength: Location: S/O 298	58%	E1965	30/7	SP/P	24	24	20	TX		Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.64in.

Feeder Name: Feeder Number: Map: Line:	8-12-P		Contra Week Date: Job Nu	Ending:	Osmose 07/07/200 07/03/200 0-38-741	)7	ervices, I	R F	Crew ID: Reference Foreman: Superviso		628JP 628JP2 JOSE F JIMMY	NEDA	County: OSCEOLA State: FL
POLE NUMBER 49240 Percent Strength: 5 Location: R/O 3080		YRSET E1968	L/OS LENGTH/ CLASS	%   SPECTES/	9 N N N N N N N N N N N N N N N N N N N	S >3K C		d∃d I TX	PRIORITY	≺ REJECT	≺   REST	A REST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	8-14-P		Date:		07/05/20	07							
50156	ACE	2001	45/3	SP/SK	37	37	37	VX		Υ			Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 3330 AP/	ACHE RD												
Мар:	8-14-O								· <u></u> -				
50149	ACE	2001	45/3	SP/SK	37	37	37	VX		Υ			Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 1880 AP/ 18987		1971	35/4	SP/P	32	32	32	×		· <sub>Y</sub> ·			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 1985 PA	RKWAY A	/E											Small Woodpecker Holes: 4.
Мар:	8-13-P												
49295	KOP	1987	35/4	SP/SK	32	32	32	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 4575 KIS	SSIMMEE F	PARK RD											Fr. 3 and 3 dominations. Spile 10p, Decayed 10p.

## $Osmose_{\tt \$}$

Feeder Name: Feeder Number: Map: Line:	8-13-N		Date:	ector: Ending: umber:	Osmose 07/07/200 07/06/200 0-38-741	07	Services, Inc		Crew ID: Reference: Foreman: Supervisor			27A PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER 18905 Location: F/O 3256	MFR SWP	<b>YRSET</b> 1980	P/OP   CLASS	G   SPECIES/ S   TREAT	PING   34	PREV SR	28 110  34	X INSP	PRIORITY	≺   REZECT	.   REST	.   REST	REMARKS AND NOTES  By: OSM. Year: 1999. Note: WOODPECKER HOLE AFFECTING INSULATOR. Primary Reject Reason: Woodpecker Holes. Medium Woodpecker Holes: 1.
Мар:	8-13-O												
50822 Percent Strength: Location: R/O 325	64%	E1970 A RD	30/5	SP/P	29	29	25	TX		Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	8-15-N		Week Date:	Ending:	07/14/20 07/09/20				Reference	#:	628JP:	28A	
47760	LAN	1968	35/4	SP/C	32	32	32	X		Υ	•	•	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Location: CECIL V	VHALEY R	) (RANCH	)										· · · · · · · · · · · · · · · · · · ·
Мар:	8-15-M												
47759 Location: CECIL V	BRN VHALEY RI	1997 D (RANCH	40/5	SP/P	31	31	31	X	•	Y			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2. Medium Woodpecker Holes: 2.

Feeder Name: Feeder Number: Map: Line:	8-09-O		Contra Week I Date: Job Nu	Ending:	Osmose 07/14/200 07/09/200 0-38-741	)7	Services, In	; !	Crew ID: Reference Foreman: Superviso		628JP 628JP2 JOSE I JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER 27308  Location: 2901 CH	MFR LAN HEROKEE F	YRSET 1993 RD (PAST)	/HESSH/ GLASSH/ 400/4	%   SPECTES/ % X	SINO OINO 34	PREV SR	94 	∃d\identification X	The party '	≺   REJECT	.   REST   DECAY	. REST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1.
Map:	8-16-K		Date:		07/10/20	07	·						
18820 Location: 1 MILE S	SWP	1968 HOPEKAH	35/4 IIA RD	SP/P	33	33	33	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Medium Woodpecker Holes: 2.
Мар:	8-13-K		Date:		07/11/20	07							
18769 Percent Strength: Location: 1 P W/O		1984 IMMEE PA	40/4 ARK RD	SP/SK	34	34	22.16	TX	-	Y	Y	Υ	By: OSM. Year: 1999. Decay this Cycle: 11.84in. Primary Reject Reason: Exposed Pocket Above. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Excessive Spur Cuts, Excessive Cracking/Checking, Mechanical Damage. Carpenter Ants, Termites. Decay Type: Exposed Pocket. Location: Above Groundline. Height: 48.0in. Depth: 2.0in. Width: 8.0in. Orientation: -90. Decay Type: Shell Rot. Depth 0.64in.

Feeder Name: Feeder Number: Map: Line:	8-09-K		Date:	actor: Ending: umber:	Osmose 07/14/200 07/13/200 0-38-741	07	Services, I		Crew ID: Reference Foreman: Superviso			28A PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER 18699 Percent Strength: Cocation: C/O CLA		YRSET 1974 R RD AND	SILVER	Z = SPECTES/	OKIG 34	S   PREV SR	29 ————————————————————————————————————	TX	-   PRIORITY	≺   REJECT	- BEST	KEST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.15in.
Мар:	8-17-D		Week Date:	Ending:	07/21/20 07/17/20				Reference	======================================	628JP	29B	
12931	KOP	1983	40/4	SP/SK	35	35	35	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: F/O 4226	OAKWOO	DD DR											
Мар:	8-18-D										<del></del>	<del></del> ,	
51273	LAN	1976	30/7	SP/P	25	25	25	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: F/O 3719 51271	5 EDSEL A KOP	VE 1990	40/4	SP/SK	34	34	34	X		Υ		•	Primary Reject Reason: Split Top. Other Conditions: Split Top.
Location: 3765 ED	SEL AVE												

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Feeder Name: Feeder Number: Map: Line:	8-14-D		Contrac Week E Date: Job Nu	inding:	Osmose 07/21/200 07/19/200 0-38-741	7	ervices, Inc	 	Crew ID: Reference Foreman: Supervisor			29B PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	CLASS	SPECIES/   TREAT	ORIG	PREV SR CIRC	CIRC	INSP	PRIORITY	REJECT   POLE	REST	REST	REMARKS AND NOTES
48101 Percent Strength: Location: 3250 ED		1973	35/4	SP/C	32	32	30	X		Υ			By: OSM. Year: 1999. Decay this Cycle: 2in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.32in.
Мар:	8-13-C		Date:		07/20/20	07							
13247 Location: C/O CYF	LAN PRESS DR	1972 AND HEN	40/4 RY J AVE	SP/P	32	32	32	X		Y	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	8-17-C		Week I Date:	Ending:	07/28/20 07/24/20				Reference	#:	628JP	30B	
51238 Percent Strength: Location: 3610 KA	63%	E1970	35/4	SP/C	35	35	30	вх	•	Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth: 0.80in.
Мар:	8-18-C		Date:		07/25/20	07							
13001 Location: N/T 441	UNK 5 CITRUS E		40/4	SP/C	35	35	35	вх		Y			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Can Not Treat: Roots. Large Woodpecker Holes: 1.

Feeder Name: Feeder Number: Map: Line:	8-16-B		Contrac Week E Date: Job Nui	inding:	Osmose U 07/28/200 07/25/200 0-38-741	7	ervices, Ir	F	Crew ID: Reference Foreman: Superviso		628JP 628JP3 JOSE F JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF CIRC	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
20462 Percent Strength: 3 Location: F/O 3524		1972 AVE	40/4	SP/P	33	33	22.8	<b>X</b>	Υ	Υ	•		By: OSM. Year: 1999. Decay this Cycle: 10.2in. Priority Pole. Primary Reject Reason: Woodpecker Holes. Other Conditions: Rotten Butt, Shell Rot Above. Large Woodpecker Holes: 1. Decay Type: Heart Rot. Min Shell: 0.5in.
Мар:	8-18-C		Date:		07/26/200	7							
51227 Percent Strength: ( Location: 3745 KA		E1970	30/6	SP/C	26	26	22	BX		Υ	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth: 0.64in.
12995	LAN	E1970	35/4	SP/P	32	32	32	Χ		Υ	•	•	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 3734 LA	SALLE DR												
51251 Percent Strength:		E1970	35/4	SP/C	30	30	20	TX	•	Y	Y	Y	Decay this Cycle: 10in. Primary Reject Reason: Shel Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell
Location: C/O DEE	R RUN RD	AND HE	VRY J <sub>.</sub> AVE	(FARM)	-								Rot. Depth: 1.59in.
Мар:	8-13-B		Date:		07/27/200	)7			Referenc	e#:	628JP	30C	
20493	KOP	1988	35/4	SP/SK	31	31	31	Х	-	Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Feeder Name: Feeder Number: Map: Line:	8-18-A		Contrac Week E Date: Job Nu	inding:	Osmose L 08/04/200 07/30/200 0-38-741	7	Services, I	F	Crew ID: Reference oreman: Superviso		628JP 628JP3 JOSE F JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER 13069 Location: 471 ROE	MFR LAN	YRSET 1986	9/00	S   SPECIES/ S   YREAT S	900 HH 24 24	PREV CIRC SR	24	d 3d Å NI H BX	-   PRIGRITY	≺   gElect	.   REST   DECAY	. REST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.
Map:	8 <b>-</b> 17-A		Date:	· <u>-</u>	08/01/200	)7	<u>.</u>	<del> </del>	<del></del> -			,	
13273 Percent Strength: 6 Location: 4864 LAI		E1970	40/4	SP/C	35	35	30	BX		Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.80in.
49979		E1979	30/6	SP/SK	26	26	26	X	•	Y	•	•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Wind Shake.
Location: 4854 LA	KE SHORE	DR	· · · · · ·	· ·									
Map:	8-16-A		Date:	<del></del>	08/02/200	7							
13359	KOP	1986	30/6	SP/SK	25	25	25	X		Υ		-	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Wind Shake.

Feeder Name: Feeder Number: Map: Line:	7-14-A		Contra Week I Date: Job Nu	Ending:	Osmose I 08/04/200 08/04/200 0-38-741	7	Services, Inc	F	Crew ID: Reference Foreman: Superviso			31C PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER	MFR LAN	YRSET 1969	PS   LENGTH/	SPECIES/	92 ORIG	92   PREV SR	OEFF	X INSP	PRIORITY	<   REJECT	REST   DECAY	REST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 5in. Primary
Percent Strength: Location: 5075 RC	63%										•		Reject Reason: Previous Reject. Other Conditions: Shell Rot Above. Carpenter Ants. Decay Type: Shell Rot. Depth: 0.80in.
Map:	7-13-B				<del></del>								
20314  Location: PAYNES	UNK S OAK HAM	E1964 IMOCK NU	35/5 JRSERY (	SP/C NW/O SH	31 IORE DR)	31	31	вх	,	Y		•	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Мар:	7-15-A	<del></del>	Week Date:	Ending:	08/11/20 08/06/20				Reference	 e#:	628JP	32B	<del></del>
20334 Percent Strength: Location: R/O 365			30/6 D	SP/P	25	25	21	TX	•	Υ	Y	Υ	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.64in.
Мар:	8-12 <b>-</b> A		Date:		08/07/20	07							
47392	LAN	1976	35/4	SP/P	34	34	34	вх		Υ		,	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.
Location: S/O 312 47343 Percent Strength: Location: F/O 313	UNK 62%	E1968	40/4	SP/C	34	34	29	вх		Y	Ϋ́	Y	By: OSM. Year: 1999. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth: 0.79in.

Feeder Name: Feeder Number: Map: Line:	8-15-B		Contra Week Date: Job Nu	Ending:	Osmose 0 08/11/200 08/08/200 0-38-741	07	Services,		Crew ID: Reference Foreman: Superviso			32B PINEDA DAVIS	County: OSCEOLA State: FL
<b>POLE NUMBER</b> 49643	MFR UNK	<u>YRSET</u> E1964	LENGTH/ CLASS	S   SPECIES/	999 1810 — 21	12 PREV SR CIRC		X   INSP	PRIORITY POLE	≺ REJECT	.   REST	. REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 3448 PA 49647 Location: 3457 PA	UNK	E1970	40/4	SP/P	36	36	36	X	•	Υ		•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	7-15-A		Date:		08/09/20	07							
50375	UNK	E1964	35/4	SP/C	32	32	32	Х		Y			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: R/O 372	5 HICKORY	TREE RI	D .					-					
Мар:	8-17-A												
13313 Percent Strength:			30/6 .AKE SHC	SP/C ORE RD A	24 IND CITRUS	24 S RD	20	BX		Υ	Υ	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Roots. Decay Type:

Feeder Name: Feeder Number: Map: Line:	7-19-A		Contrac Week E Date: Job Nu	nding:	Osmose 08/11/200 08/10/200 0-38-741	)7	Services, In		Crew ID: Reference Foreman: Superviso			32B PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	REST	REMARKS AND NOTES
50993	UNK	E1964	35/5	SP/C	31	31	31	X		Y			By: OSM. Year: 1999. Primary Reject Reason: Previous Reject. Other Conditions: Split Top, Decayed Top.
Location: R/O 412	5 HICKORY	TREE											
Мар:	8-18-B		Week I Date:	Ending:	08/18/20 08/14/20				Reference	e#:	628JP	33B	
51203 Percent Strength: Location: 4695 DE			25/7	SP/P	22	22	18	TX		Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.64in.
 Мар:	7-18 <b>-</b> D		Date:		08/16/20	07			Reference	e#:	628JP	33C	
25112 Percent Strength: Location: CHAPL	LAN 84%	1974	40/4	SP/P	36	36	34	X	•	Υ		•	By: OSM. Year: 1999. Decay this Cycle: 2in. Note: WOODPECKER HOLE AT HARDWARE. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.32in.
Мар:	7-08-G		Date:		08/17/20	07							
13880 Percent Strength: Location: 1 P NW		E1970	E40/4	SP/P	35	34	30	вх		Υ	Υ	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height:
13881 Location: 2 P NW	LAN	1988	40/4	SP/SK	34	34	34	X	•	Υ	•	•	STANDARD. Can Not Treat: Roots. Decay Type: Shell Rot. Depth: 0.64in. By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Excessive Cracking/Checking. Medium Woodpecker Holes: 4.

Feeder Name: Feeder Number: Map: Line:	7-08-G		Contrac Week E Date: Job Nu	Ending:	Osmose U 08/18/200 08/17/200 0-38-741	)7	ervices, Inc		Crew ID: Reference Foreman: Supervisor		628JP 628JP3 JOSE F JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	LENGTH/	SPECIES/	ORIG	S   PREV SR	EFF.	Z INSP	PRIORITY	≺   REZECT	REST	REST	REMARKS AND NOTES
13876	UNK	E1970	E40/4	SP/P	36	36	36	X	•	Y	•	•	Primary Reject Reason: Woodpecker Holes. Medium Woodpecker Holes: 3.
Location: 1 P W/O	HIP O WIL	L LANE AI	ND BARKI	ER RD									
Map:	7-07-G										<u></u>		
49584 Location: 2730 BA	UNK	E1970	40/4	SP/P	35	35	35	X		Y		-	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top Lighting Damage. Large Woodpecker Holes: 1.
Location. 2730 BP	ארוייר אט	· · · · · · · · · · · · · · · · · · ·	Week	Ending:	08/25/200	07			Reference	#:	628JP:	34B	Small Woodpecker Holes: 2.
Мар:	7-18-E		Date:		08/22/20	07							
13698	LAN	E1970	Date: 35/4	SP/P		33	33	X		Y			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Medium Woodpecker Holes: 3.
	LAN		Date: 35/4	SP/P	08/22/20		33				•		By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Medium Woodpecker Holes: 3.
13698	LAN		Date: 35/4	SP/P	08/22/20	33	33	×	Reference	Y	628JP	•	Woodpecker Holes. Other Conditions: Split Top,

Feeder Name: Feeder Number: Map: Line:	6-03-H		Contractive Week Education Date:  Job Nu	Ending:	Osmose U 09/01/200 08/27/200 0-38-741	7	ervices, In	C.	Crew ID: References Foreman: Supervisor		471JR 471JR3 JOEL F DAVID	RAMPER	County: OSCEOLA State: FL SAD
POLE NUMBER	MFR	YRSET	P/CLASS	S   SPECIES/	33   ORIG	SE PREV SR CIRC	33 — DID DIS	X INSP	PRIORITY	<   REJECT	REST	REST	REMARKS AND NOTES
25534 Location: 6400 TO	UNK PSY TRI	E1964	35/4	SPIC	33	33		^	•	Y	٠	•	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Map:	6-02-J		Date:		08/28/200	)7					 		
16256 Percent Strength:		E1961	40/4	SP/C	35	35	21	X		Υ			Decay this Cycle: 14in. Primary Reject Reason: Shell Rot. Other Conditions: Decayed Top, Shell Rot Above. Decay Type: Shell Rot. Depth: 2.23in.
Location: 6825 BA 16255		E1971	30/7	SP/P	23	23	23	X	• • • • • • • • • • • • • • • • • • • •	Y	•	•	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 6830 BA 16245 Percent Strength: Location: 1833 LIL	LAN 91%	1976	35/4	SP/P	33	33	32	X	· · · · · · · · · · · · · · · · · · ·	Υ		•	By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.16in.
Мар:	6-04-K		Date:		08/30/20	07			Crew ID: Reference Foreman: Superviso				
16664 Percent Strength: Location: F/O 1636		1983 CE DR	30/6	SP/SK	27	27	23	ВХ		Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Can Not Treat: Underground Cable. Other Conditions: Wind Shake. Decay Type: Shell Rot. Depth: 0.64in.

Feeder Name: Feeder Number: Map: Line:	7-02-F		Contra Week I Date: Job Nu	Ending:	Osmose U 09/01/200 08/30/200 0-38-741	7	ervices, Inc	<b>&gt;.</b>	Crew ID: Reference: Foreman: Supervisor			35A RAMPE GROW	
POLE NUMBER 47891 Percent Strength: 9 Location: A/F 2165		YRSET E1970 R ST	CLASSTH/ CLASSTH/ STANDARD	0   SPECIES/ - Ja   TREATES/	33   ORIG CIRC	23 CIRC SR	32 32	X Type	.   PRIORITY	≺   REJECT	.   REST   DECAY	.   REST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.
 Map:	6-04-G		Date:		09/01/200	)7							
51831 Percent Strength: E		E1970	30/7	SP/P	23	23	22	Х		Y			By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.
51853 Percent Strength:	UNK 82%	E1971	E35/5	SP/P	32	32	30	X	······································	Y	•	•	By: OSM. Year: 1999. Decay this Cycle: 2in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top, Compression Wood. Decay Type:
51854 Percent Strength: Location: 6185 BA	UNK 87%	E1971	30/6	SP/P	22	22	21	X		Y	•	•	Shell Rot. Depth: 0.32in.  By: OSM. Year: 1999. Decay this Cycle: 1in. Priman Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in
Мар:	7-03-F	· - · - · - · · · · · · · · · · · · · ·	Week Date:	Ending:	09/08/200 09/04/200				Reference	 e#:	471JR	36A	
16376 Percent Strength: Location: R/O 608		E1969 SON HWY	E40/3	SP/C	35.5	35.5	34	X		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 1.5in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.24in.

Feeder Name: Feeder Number: Map: Line:	7-03-G		Contractive Week for Date: Job Nu	Ending:	Osmose 0 09/08/200 09/04/200 0-38-741	7	ervices, In		Crew ID: Reference Foreman: Supervisor		471JR 471JR3 JOEL R DAVID	AMPER	County: OSCEOLA State: FL SAD
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	CUST	REMARKS AND NOTES
16380 Percent Strength: Location: 6110 E E		E1967	E40/4	SP/C	34.5	34.5	26	X		Υ			By: OSM. Year: 1999. Decay this Cycle: 8.5in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 1.35in.
Мар:	7-04-G												
16389 Percent Strength:		E1961	E50/3	SP/C	46	46	28	X		Υ			Decay this Cycle: 18in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 2.86in.
Location: 6184 E I	BRONSON	HWY			· · · · · · · · · · · · · · · · · · ·								becay Type. Ones Not. Depth. 2.00s.
Мар:	7-07-1		Date:		09/05/20	07			Crew ID: Reference Foreman: Superviso			36B PINEDA DAVIS	
49554 Percent Strength: Location: 6600 OL	76%	E1970 JRNE HW	E40/4 Y (DRIVE)	SP/P WAY NEX	34 XT TO)	31	31	X		Y	•		By: OSM. Year: 1999. Primary Reject Reason: Previous Reject. Other Conditions: Split Top, Decayed Top.
Мар:	7-02-F								Crew ID: Reference Foreman: Superviso				
15981 Percent Strength: Location: 1 P W/C	25%	E1967 RONSON F	35/5 HWY	SP/C	30	30	19	TX		Y	Y	Y	Decay this Cycle: 11in. Primary Reject Reason: She Rot. Recommended Restoration Method: C2-TRUSS. Restoration Height: STANDARD. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 1.75in.

Feeder Name: Feeder Number: Map: Line:	7-03-G		Contra Week I Date: Job Nu	Ending:	Osmose 0 09/08/200 09/05/200 0-38-741	)7	ervices, In		Crew ID: Reference#: Foreman: Supervisor:	471JR 471JR36A JOEL RAMPER DAVID GROW	
POLE NUMBER 16394 Location: A/F 6215		YRSET E1980 ZIE DR	CLASSTH/ CLASSTH/	S   SPECIES/ O   TREAT	22   ORIG	SEV SR CIRC	35 	X	. Y	. DECAY	REMARKS AND NOTES  Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.
Мар:	8-03-B		Date:		09/06/20	07			Crew ID: Reference#: Foreman: Supervisor:	628JP 628JP36C JOSE PINEDA JIMMY DAVIS	
47476 Location: 2100 OAk	KOP	1983	40/4	SP/SK	34	34	34	вх	. Y		By: OSM. Year: 2001. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top.
Map:	8-03-A		· ·		· · · · · · · · · · · · · · · · · · ·		<del>-,</del>			·· · · · · · · · · · · · · · · · · · ·	
12657 Location: 1525 JAN		E1983	30/6	SP/SK	26	26	26	X	. Ү		By: OSM. Year: 2001. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Wind Shake.
Мар:	7-01-B								Crew ID: Reference#: Foreman: Supervisor:	471JR 471JR36B JOEL RAMPE DAVID GROW	
		E1971	35/5	SP/P	32	32	32	Х			By: OSM. Year: 1999. Primary Reject Reason:

Feeder Name: Feeder Number: Map: Line:	8-03-A		Contra Week I Date: Job Nu	Ending:	Osmose 8 09/08/200 09/06/200 0-38-741	7	Services, Ind		Crew ID: Reference# Foreman: Supervisor:		628JP 628JP3 JOSE F JIMMY	INEDA	County: OSCEOLA State: FL
POLE NUMBER 12686 Location: 1455 BE	MFR ACE ECH WOO!	<b>YRSET</b> 1983	P/OP CLASS	S/d PREGIES/	900 Ha WI WI WI WI WI WI WI WI WI WI WI WI WI	94 CIRC SR	127 117 117 34	agki — BX	.   PRIORITY	≺   BEJECT	.   REST	.   REST	REMARKS AND NOTES  By: OSM. Year: 2001. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top.
Мар:	6-01-E								Crew ID: References Foreman: Supervisor			36B RAMPER GROW	RSAD
47907	UNK	E1974	E40/3	SP/P	33	33	33	X		Υ	•	•	Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 5855 LA	KE LIZZIE I	DR (W SID	E HOUSE	E) ,									
Мар:	5-01-A		Date:		09/07/20	07			Crew ID: Reference: Foreman: Supervisor			B6C PINEDA DAVIS	
45015 Location: 1725 E	KOP 10TH ST	1983	40/4	SP/SK	32	32	32	BX		Υ			By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.

Feeder Name: Feeder Number: Map: Line:	7-03-E		Contrac Week E Date: Job Nur	inding:	Osmose U 09/08/200 09/07/200 0-38-741	7	ervices, Ir		Crew ID: Reference Foreman: Superviso		471JR 471JR3 JOEL R DAVID	RAMPER	
POLE NUMBER 50931 Percent Strength: Location: R/O 225 50929 Location: 5750 E.	55 LEA DR UNK	YRSET E1974 E1974 ENONT LEF	35/4 E40/4	O/ds   SPECIES/	31 33.5	31 33.5	19 33.5	X X	. PRIORITY	A A REJECT	.   REST	. CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 12in. Primary Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 1.91in.  By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top.
Мар:	6-03-E		Date:		09/08/200	)7					<del></del>		
26899 Percent Strength Location: E/O 576	: 33%	1992	30/6	SP/SK	27.5	27.5	19	TX	•	Y	Υ	Υ	Decay this Cycle: 8.5in. Primary Reject Reason: Fire Damage. Recommended Restoration Method: C2-TRUSS. Restoration Height: STANDARD. Other Conditions: Fire Damage. Decay Type: Shell Rot. Depth: 1.36in.
Мар:	6-05-B		Week I Date:	Ending:	09/15/200 09/10/200				Crew ID: Reference Foreman: Supervise			37B PINEDA DAVIS	
10485 Location: 5280 H	LAN	1979 RUFFIN RD	35/4	SP/SK	32	32	32	вх		Y			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 3.
49325 Location: 5175 H	LAN IAYWOOD F	1978 RUFFIN RD	30/7	SP/SK	23	23	23	X	•	Y	•	•	Holes: 3.  By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.

Feeder Name: Feeder Number: Map: Line:	6-05-A		Contrac Week E Date: Job Nur	inding:	Osmose 09/15/200 09/10/200 0-38-741	)7	Services, In		Crew ID: Reference Foreman: Supervisor		628JP 628JP3 JOSE F JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG	PREV SR CIRC	EFF	INSP	PRIORITY	REJECT	REST	CUST	REMARKS AND NOTES
10472 Location: 5030 HA	LAN	1978 UFFIN RD	35/4	SP/P	34	34	34	BX	· · · · · · · · · · · · · · · · · · ·	Y		•	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Can Not Treat: Underground Cable. Large Woodpecker Holes: 1. Small Woodpecker Holes: 2.
Map:	6-03-A			<del></del> )							· · · · ·		
10458 Percent Strength:	LAN 91%	1972	35/4	SP/P	33	32	32	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top. Large Woodpecker Holes: 1.
Location: F/O 165 51910 Percent Strength:	UNK	OSSEE R E1972	D 35/4	SP/P	34	33	33	Χ	•	Y	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: F/O 165	1 S NARCO	OSSEE R	D										
Мар:	6-01-D								Crew ID: Reference Foreman: Superviso				· - · · -
15221 Percent Strength: Location: C/O LIZ	91%	E1972	E35/5	SP/C	31	31	30	вх		Y			By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Shell Rot Above. Can Not Treat: Underground Cable. Decay Type: Shell Rot. Depth:
15234 Percent Strength: Location: A/F 562	UNK 50%	E1978	E35/5	SP/P	29	29	23	ΤX	•	Y	Y		0.16in. By: OSM. Year: 1999. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C2-TRUSS. Restoration Height: STANDARD. Decay Type: Shell Rot. Depth: 0.96in.

Feeder Name: Feeder Number: Map: Line:	6-03-A		Contrac Week E Date: Job Nu	Ending:	Osmose 09/15/200 09/11/200 0-38-741	)7	Services, Ir	nc.	Crew ID: Reference Foreman: Supervisor		628JP 628JP3 JOSE F JIMMY	PINEDA	County: OSCEOLA State: FL
POLE NUMBER 51907 Location: 5005 LIL	MFR LAN LIAN LEE F	<b>YRSET</b> 1973	CLASSTH/	S   SPECTES/	53 OINO PRIG	53 	53 — — FII O	agy <u>†</u> BX	.   PRIORITY	✓ RELECT	.   REST   DECAY	.   REST	REMARKS AND NOTES  Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.
Мар:	7-01-D								Crew ID: Reference Foreman: Superviso			37B RAMPER GROW	RSAD
15183 Percent Strength: Location: A/F 28 C		E1968 DR	E40/5	SP/C	31	31	23	Х		Υ	-	-	Decay this Cycle: 8in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Large Woodpecker Holes: 1. Decay Type: Shell Rot. Depth 1.27in.
15210 Percent Strength: Location: W/O 559	UNK 42%	E1968	E40/3	SP/C	36	36	27	<b>X</b>	•	Y	•	•	By: OSM. Year: 1999. Decay this Cycle: 9in. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 3. Decay Type: Shell Rot. Depth. 1.43in.
Мар:	6-03-B		Date:		09/12/20	07		·					
51889 Percent Strength: Location: R/O 160			E40/3	SP/P	36	36	28	X	•	Υ		•	By: OSM. Year: 1999. Decay this Cycle: 8in. Primary Reject Reason: Decayed Top. Other Conditions: Spli Top, Decayed Top. Decay Type: Shell Rot. Depth: 1.27in.

Feeder Name: Feeder Number: Map: Line:	8-06-B		Contra Week I Date: Job Nu	Ending:	Osmose 09/15/200 09/12/200 0-38-741	)7	ervices, Ind	C.	Crew ID: Reference#: Foreman: Supervisor:	628JP 628JP3 JOSE P JIMMY	INEDA	County: OSCEOLA State: FL
POLE NUMBER 12726 Percent Strength: 92 Location: A/F 2545 (		YRSET E1964 KORY TRE	45/3	W   SPECIES/	992 813  37	98   PREV SR	36 CIRC	dShI X	-   PRIGRITY	.   REST	.   REST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Shell Rot Above. Other Conditions: Decayed Top, Shell Rot Above. Small Woodpecker Holes: 5. Carpenter Ants.
Мар:	6-04-B								Crew ID: Reference#: Foreman: Supervisor:	471JR 471JR3 JOEL F DAVID	RAMPER	esad
51902 Percent Strength: 49 Location: 1035 NOV			E40/4	SP/P	33	33	26	X	. Y	•	•	By: OSM. Year: 1999. Decay this Cycle: 7in. Primary Reject Reason: Decayed Top. Other Conditions: Spli Top, Decayed Top. Decay Type: Shell Rot. Depth: 1.11in.
Мар:	8-07-B								Crew ID: Reference#: Foreman: Supervisor:		37B PINEDA DAVIS	
20001 Percent Strength: 6 Location: 1 P S/O C		1966 ORY TREE	35/3 ERD AND	SP/P	35 DES AVE	35	30	TX	. Y	Y	Y	By: OSM. Year: 1999. Decay this Cycle: 5in. Primary Reject Reason: Shell Rot. Recommended Restoration Method: C-TRUSS. Restoration Height: STANDARD. Inspection Comments: 3/4 Excavate. Decay Type: Shell Rot. Depth: 0.80in.

Feeder Name: Feeder Number: Map: Line:	8-05-B		Date:	Ending:	Osmose 09/15/20 09/13/20 0-38-741	07 07	Services, Ir	nc.	Crew ID: Reference Foreman: Superviso			37B PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER 12746 Location: 3100 GR	MFR UNK REEN ACRE	YRSET E1970	CLASS 4/4	S   SPECIES/ 	31 	31 CIREV SR	шё Шё — 31	A INSP	PRIORITY POLE	≺   REJECT	REST   DECAY	REST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Map:	8-06-A			<del></del>							<u> </u>		
48418	UNK	E1970	35/4	SP/P	32	32	32	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 3455 GR	REEN ACRE	ES RD							· · · · · · · · · · · · · · · · · · ·				
Мар:	8-09-A												
49161 Percent Strength:	UNK 91%	E1970	35/5	SP/P	31	31	30	X		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Spli Top, Decayed Top. Decay Type: Shell Rot. Depth:
Location: 3040 OL	D HICKOR	Y TREE R	<u>,</u>										0.16in.
Мар:	8-10-A												
20061 Percent Strength: Location: F/O 313		1967 KORY TRI	40/3 EE RD	SP/C	37	37	36	×		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.16in.

Feeder Name: Feeder Number: Map: Line:	7-11-A		Contra Week I Date: Job Nu	Ending:	Osmose 09/15/200 09/14/200 0-38-741	)7	ervices, I	F	Crew ID: Reference Foreman: Superviso			37B PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER 20098	MFR UNK	<b>YRSET</b> E1970	PSC   LENGTH/ CLASS	S   SPECIES/	35 ORIG	35 CIRC SR	00 	X TNSP	PRIORITY POLE	≺   REJECT	. REST	. REST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 2in. Primary Reject Reason: Decayed Top. Other Conditions: Split
Percent Strength: 8 Location: A/F 4980 50322 Percent Strength: 9	ALLIGATO UNK	OR LAKE F E1970	RD 45/3	SP/P	34	33	33	X	 •	Y			Top, Decayed Top. Other Conditions: Spir Top, Decayed Top. Medium Woodpecker Holes: 2. Decay Type: Shell Rot. Depth: 0.32in.  By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1.
Location: C/O WIN 20109 Location: 1 P E/O (	UNK	1976	50/3	SP/P	39	39 ORANGE	39 GROVE	X S)	•	Υ	•	•	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top.
Мар:	8-03-A		Week Date:	Ending:	09/22/20 09/17/20				Referenc	e#:	628JP	38B	
58275	UNK	E1968	35/5	SP/C	31	31	31	Х		Υ			Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top.
Location: VACANT	HOME 1/4	MILE S/C	192 ON	HICKORY	Y TREE RD	)							
	7-11-B		Date:		09/18/20	07				···			
Map:													

Feeder Name: Feeder Number: Map: Line:	7-12-B		Date:	Ending:	Osmose 09/22/200 09/19/200 0-38-741	07	Services, Inc	F	Crew ID: Reference Foreman: Supervisor			38B PINEDA DAVIS	County: OSCEOLA State: FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/	ORIG	PREV SR CIRC	CIRC	TYPE	PRIORITY	REJECT	REST   DECAY	REST CUST	REMARKS AND NOTES
13011 Percent Strength: 8 Location: 5180 HE		E1970	35/4	SP/P	33	33	31	BX		Y			Decay this Cycle: 2in. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Medium Woodpecker Holes: 3. Decay Type: Shell Rot. Depth: 0.32in.
Мар:	7-02-A												
13979	UNK	E1970	40/5	SP/C	33	33	33	X		Υ	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 203 13980	T. T. C. C. T. C. C.	( BLVD E1970	40/5	SP/C	30	30	30	X	•	Y	•	•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 204 13981		( BLVD 1955	35/4	SP/C	29	29	29	х	·	· <b>Y</b>	٠	•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 216	1 SPRING I	LAKE CIR											
Мар:	7-03-A												
13984 Percent Strength: Location: S/O 221	51%	E1970 LAKE CIR	35/4	SP/C	30	24	24	вх		Y	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.

External Treat (T)	0	External Treat w/ Decay (TD)	0	External Treat Reject (TX)	62
Partial Excavate (P)	0	Partial Excavate w/ Decay (PD)	0	Partial Excavate Reject (PX)	0
Sound & Bore (B)	0	Sound & Bore w/ Decay (BD)	0	Sound & Bore Reject (BX)	36
Sound & Selective Bore (SSB)	0	Sound & Selective Bore w/Decay(SSBD)	0	Sound & Selective Bore Reject (SSBX)	0
Sound Only (S)	0	Sound Only w/ Decay (SD)	0	Sound Only Reject (SX)	· · · · · · · · · · · · · · · · · · ·
Visual Report (V)	0		0	Visual Reject (VX)	···3
Not Inspected (NI)	0		0	Excavated Reject (X)	125

Мар:	NE-04-F		Contractive Week Education Date: Job Nu	Ending:	Osmos 04/14/: 04/10/: 0-38-7	2007 2007	es Serv	ices, Inc.	R F	crew II Referent Forema Superv	nce#: in:	6	S28JP County: ORANGE S28JP15A State: FL IOSE PINEDA IIMMY DAVIS
<b>POLE NUMBER</b> 012690	MFR SWP	<u>YRSET</u> 1970	SP LENGTH/ CLASS	<b>%</b> I SPECIES/ TREAT う	5 ORIG CIRC	O PREV SR CIRC	OP   EFF CIRC	X I INSP TYPE	.   PRIORITY POLE	≺ I REJECT POLE	. 1 REST DECAY	'   REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 4429 F 012688 Percent Strength Location: 4209 F	UNK h: 51%	E1970	E45/3	SP/C	40	40	32	X	•	Y	·	•	By: OSM. Year: 1996. Decay this Cycle: 8in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 1.28in.
012687 Location: 4209 F	UNK	E1968	E45/3	SP/C	38	38	38	X	•	Y	•	•	By: OSM. Year: 1996. Previous Restored Year: 1988. Previous Restoration Method: C-TRUSS. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	NE-04-G		Date:		04/11/	2007							
014675 Location: A/F 90	KOP	1973	35/5	SP/P	30	30	30	Х		Υ	-		By: OSM. Year: 1996. Primary Reject Reason: Decayed Top. Inspection Comments: 3/4 Excavate. Other Conditions: Decayed Top. Shell Rot Shave.
014688 Location: 4344 I	UNK	E1970	35/4	SP/P	34	34	34	X	•	Ý	•	•	By: OSM. Year: 1996. Reported Item: Trees or Branches in Wires. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Мар:	NE-05-G		Contrac Week E Date: Job Nu	Ending:	Osmos 04/14/2 04/12/2 0-38-74	2007 2007	es Servi	ices, Inc.	R F	rew II deferen orema uperv	nce#: n:	6	528JP 528JP15A IOSE PINEDA JIMMY DAVIS	County: State:	ORANGE FL
POLE NUMBER 010669 Location: 1017	MFR UNK HERMAN ST	YRSET E1968	S   LENGTH/ CLASS	Ø l SPECIES/ TREAT 한	8 ORIG CIRC	08   PREV SR CIRC	08   EFF CIRC	X   INSP TYPE	. I PRIORITY POLE	A REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NO  By: OSM. Year: 1996 Inspection Comment Decayed Top.	 3. Primary Reje	ct Reason: Split Top. . Other Conditions: Split Top,
Мар:	NE-04-G		Week I	Ending:	04/21/ 04/16/				F	Refere	nce#:	-	628JP16A	-	
014720	UNK	E1960	45/4	SP/P	34	34	34	Х		Υ			By: OSM. Year: 1996 Reject Reason: Split Top.	6. Reported Iter Top. Other Cor	n: Loose Insulator. Primary nditions: Split Top, Decayed
Location: 814 V 014721	VINGO ST UNK	E1960	35/5	SP/P	28	28	28	вх	•	Y	•	•	Primary Reject Reas Conditions: Split Top	on: Split Top. 0	Can Not Treat: Fence. Other
Location: R/O 8	22 WINGO S	ST.													
Мар:	NE-05-H		Date:		04/17/	2007			<u>.</u>					- <del></del>	
010110  Location: L/S 4	UNK		45/4	SP/P	36	36	36	Х	•	Y		٠	By: OSM. Year: 1996 Reject Reason: Split Top.	6. Reported Iter Top. Other Co	n: Loose Insulator. Primary nditions: Split Top, Decayed

Мар:	NE-04-G		Contrac Week E Date: Job Nu	Ending:	Osmos 04/21/2 04/19/2 0-38-7	2007 2007	es Servi	ces, Inc.	R	crew II deferer orema superv	nce#: in:	(	628JP County: ORANGE 628JP16A State: FL JOSE PINEDA JIMMY DAVIS
<b>POLE NUMBER</b> 012787	MFR UNK	YRSET E1965	SP LENGTH/ CLASS	の SPECIES/ TREAT つ	22 ORIG CIRC	28   PREV SR CIRC	22   EFF CIRC	X I INSP TYPE	'   PRIORITY POLE	A! REJECT POLE	' I REST DECAY	. I REST CUST	
Location: 4951 :	NE-04-H	A DR						· · · · · · · · · · · · · · · · · · ·					
014776	UNK	E1970	30/5	SP/P	28	28	28	Х		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top. Shell Rot Shave.
Location: 5103	BARTON DR												······································
Мар:	NE-05-H		Date:		04/20/	2007							
005902	UNK	E1970	40/3	SP/P	37	37	37	X	•	Y	•		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: C/O S	SHOREVIEW	DR AND	MADRID	AVE (R	O APTS	)							
			Week Date:	Ending:	04/28 04/23				F	Refere	nce#:		628JP17A
005909	UNK	E1965	40/4	SP/P	35	35	35	X		Υ	-		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 5	5509 MADRIE	O AVE (NI	EXT TO F	POOL)									

<b>Мар</b> :	NE-04-H		Contractive Week Education Date: Job Nu	Ending:	Osmos 04/28/2 04/23/2 0-38-7	2007 2007	es Servi	ces, Inc.	Ref For	ew ID feren remai pervis	ce#: n:	6 J	328JP County: ORANGE 328JP17A State: FL OSE PINEDA IIMMY DAVIS
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG CIRC	PREV SR CIRC	EFF CIRC	INSP TYPE	PRIORITY POLE	REJECT POLE	REST DECAY	REST CUST	REMARKS AND NOTES
014755	UNK	E1968	40/3	SP/C	36	36	36	X	•	Y			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: C/O R	COUSH AVE	AND SOL		———	0.4.05								
			Date:		04/25/	2007							
012832	UNK		35/5	SP/C	30	30	30	ВХ	•	Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Can No Treat: Pole in Pavement. Other Conditions: Split Top, Decayed Top.
012832 Location: 690 S	2,				30	30	30	вх	•	Υ	•	•	Treat: Pole in Pavement. Other Conditions: Split Top, Decayed
Location: 690 S	2,				30	30	30	BX	·	Y 			Treat: Pole in Pavement. Other Conditions: Split Top, Decayed
	EMORAN BI NE-04-I UNK	_VD C/O (			30	36	36	BX X	· 	Y Y	· ·	· 	Treat: Pole in Pavement. Other Conditions: Split Top, Decayed
Location: 690 S Map: 012864	NE-04-I UNK th: 92%	LVD C/O ( E1968	OLEAND 45/3	ER RD					· 		-		Treat: Pole in Pavement. Other Conditions: Split Top, Decayed Top.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other
Location: 690 S Map: 012864 Percent Strengt	NE-04-I UNK th: 92%	LVD C/O ( E1968	OLEAND 45/3	ER RD					· 		-		Treat: Pole in Pavement. Other Conditions: Split Top, Decayed Top.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other
Location: 690 S Map: 012864 Percent Strengt Location: 2 P N	NE-04-I UNK th: 92%	LVD C/O ( E1968	OLEAND 45/3	ER RD		36			· 		-	•	Treat: Pole in Pavement. Other Conditions: Split Top, Decayed Top.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other

Мар:	NE-04-I		Contract Week Educate: Job Nu	Ending:	Osmos 04/28/2 04/26/2 0-38-7	2007 2007	es Servi	ices, Inc.	R Fo	rew [[ eferer orema uperv	nce#: in:	6 J	628JP County: ORANGE 628JP17A State: FL IOSE PINEDA IIMMY DAVIS
POLE NUMBER 012901 Percent Streng	<u>MFR</u> UNK h: 85%	YRSET E1968	S/S   LENGTH/ CLASS	Ø l SPECIES/ TREAT 권	88   ORIG CIRC	8   PREV SR CIRC	99   EFF CIRC	X   INSP TYPE	'   PRIORITY POLE	≺  REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 2in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 711 A 012958	MBER RD SWP	1972	35/5	SP/P	32	32	32	X	•	Υ	•	•	Decay Type: Shell Rot. Depth: 0.32in.  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 816 T 012956		E1970	45/3	SP/P	37	37	37	X		Y	•	•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 829 T	UCKER AVE			· · · · · · · · · · · · · · · · · · ·			 						· · · · · · · · · · · · · · · · · · ·
Мар:	NE-05-I		Date:		04/27/	2007							
005834	UNK	E1970	45/3	SP/P	38	38	38	х		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Мар:	NE-04-J		Contrac Week E Date: Job Nu	ending:	Osmo: 04/28/ 04/27/ 0-38-7	2007 2007	es Serv	ices, Inc.	R F	Crew II Referer orema Superv	nce#: in:	6	628JP County: ORANGE 628JP17A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 013175 Percent Streng Location: HEAT	th: 64%	YRSET E1965 ND DENN	S SI LENGTH/ CLASS	S I SPECIES/ TREAT	ORIG CIRC	OO PREV SR CIRC	88 - EFF CIRC	X I INSP TYPE	'   PRIORITY POLE	< 1 REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 6in. Primary Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 0.95in.
		<del></del> .	Week l	Ending:	05/05/ 04/30/				F	Refere	nce#:	(	628JP18A
013180	KOP	1980	50/2	SP/P	44	44	44	X		Y			Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1.
Location: C/O H	HEATHER RD	AND DE	NNIS AV	E (NEXT	TO SUI	BSTATI	ON)						
			Date:		05/01	/2007							
014801	SWP	1978	30/5	SP/C	28	28	28	X		Y			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 6703	HEATHER R	D											
Мар:	NE-06-H		Date:		05/03	/2007							
010106	UNK	E1970	40/4	SP/P	35	35	35	Х		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 1251	SUSANAH B	LVD						<b></b>					

Мар:	NE-08-H		Contra Week Date: Job Nu	Ending:	Osmos 05/05/: 05/03/: 0-38-7	2007 2007	es Servi	ices, Inc.	F	Crew II Refere Forema Superv	nce#: an:	6	628JP County: ORANGE 628JP18A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 006173 Location: 5506	MFR UNK GENOA LN	YRSET E1980	00   LENGTH/ CLASS	© I SPECIES∕ TREAT Ø X	08   ORIG CIRC	08   PREV SR CIRC	90 - FFF CIRC	X I INSP TYPE	.   PRIORITY POLE	≺   REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.
Мар:	NE-07-H	····	Week Date:	Ending:	05/12/ 05/07/					Refere	nce#:	i	628JP19A
007059	UNK	E1968	35/5	SP/C	31	31	31	X		Υ	-		By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 5512 007030 Percent Streng Location: 1617	UNK th: 69%	E1965 F DR	40/4	SP/P	34	34	30	X	•	Ϋ́		•	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Compression Wood. Decay Type: Shell Rot. Depth: 0.64in.
007018 Location: 1421	UNK	E1965	45/3	SP/P	40	40	40	×	•	Υ	•	•	By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Small Woodpecker Holes: 3.

Мар:	NE-08-H		Contra Week I Date: Job Nu	Ending:	Osmos 05/12/3 05/08/3 0-38-7	2007 2007	es Servi	ces, Inc.	F	Crew II Refere Forema Superv	nce#: an:	6 J		ounty: ate:	ORANGE FL
POLE NUMBER 006136 Location: 6054	MFR UNK CLUB CT (R	YRSET E1970	CASS   LENGTH/ CLASS	Ø I SPECIES∕ TREAT →	5   ORIG CIRC	75 PREV SR CIRC	75 - EFF CIRC	X I INSP TYPE	.   PRIORITY POLE	≺I REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1986. Prin Conditions: Split Top, Dec		ct Reason: Split Top. Other
Мар:	NE-10-F		Date:		05/09/	2007									
013935 Location: 1857	UNK LAKE SPIER	E1968 DR	45/3	SP/C	38	38	38	BX		Υ	•	•	By: OSM. Year: 1996. Prir Treat: Underground Cable Top.	nary Reje . Other C	ct Reason: Split Top. Can Not onditions: Split Top, Decayed
Мар:	NE-09-I		Week Date:	Ending:	05/19/ 05/15/			<u></u>		Refere	nce#:		628JP20A		
008236	SWP	1968	45/3	SP/C	39	39	39	Х	•	Υ			By: OSM. Year: 1999. Prin Conditions: Split Top, Dec	nary Reje ayed Top	ct Reason: Split Top. Other
Location: 2400	COMMERCE	BLVD													

Мар:	NE-10-J		Contractive Week Education Date: Job Nu	Inding:	Osmos 05/19/2 05/17/2 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew II Referei Forema Superv	nce#: in:	6 J	528JP County: ORANGE 528JP20A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 013887 Location: S/O 6	MFR UNK	YRSET E1968	US LENGTH/ CLASS	0 SPECIES/ TREAT 전 전	22 ORIG CIRC	22   PREV SR CIRC	57 EFF CIRC	X I INSP TYPE	'   PRIORITY POLE	<	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Мар:	NE-11-J												
017507	UNK	E1970	45/3	SP/P	39	39	39	Х	-	Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O	2480 N FORS	YTH RD											
Мар:	NE-09-J		Date:		05/18/	/2007							
008251	KOP	1967	30/5	SP/C	28	28	28	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above.
Location: R/O	6909 F TURQ	UOISE LI	N										
Мар:	NE-06-J		Week Date:	Ending:	05/26 05/22				ı	Refere	nce#:	(	628JP21A
011325	UNK	E1968	40/3	SP/C	37	37	37	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other

Мар:	NE-06-J		Contra Week I Date: Job Nu	Ending:	Osmos 05/26/ 05/22/ 0-38-7	2007 2007	es Servic	es, Inc.	R F	rew II tefere orema uperv	nce#: an:	6	628JP County: ORANGE 628JP21A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 011320 Location: 6507	MFR UNK ARGYLE ST	<u>YRSET</u> E1968	S/S   LENGTH/ CLASS	90   SPECIES/ TREAT	04   ORIG CIRC	OP   PREV SR CIRC	O L EFF CIRC	X   INSP TYPE	.   PRIORITY POLE	<pre></pre> <pre>&lt;</pre>	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
			Date:		05/23	/2007							
011373	UNK	E1965	35/5	SP/C	28	28	28	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top, Shell Rot Above.
Location: 1155	MEADOW LI	N.											
Мар:	NE-07-J												
014275 Percent Streng Location: 6493			50/2	SP/C	41	41	31.95	X		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 9.05in. Primary Reject Reason: Shell Rot. Other Conditions: Shell Rot Above. Decay Type: Enclosed Pocket. Location: Above Groundline. Height: 84.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: +45. Decay Type: Enclosed Pocket. Location: Below Groundline. Height: 36.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: -90. Decay

Мар:	NE-11-G		Contrac Week E Date: Job Nu	Ending:	Osmos 05/26/2 05/24/2 0-38-74	2007 2007	es Servi	ces, Inc.	F	Crew II Referent Forema Superv	nce#: an:	6	628JP County: ORANGE 628JP21A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 039883 Percent Strengt Location: 1322 039889 Location: 2134	LINDENWOO	E1968	15/3 LENGTH/ CLASS	S S S S S S S S S S S S S S S S S S S	36 CIRC	96   PREV SR CIRC	35 - EFF CIRC	X X INSP TYPE	.   PRIORITY POLE	A A REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Decay this Cycle: 1in. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.  Primary Reject Reason: Split Top. Can Not Treat: Fence. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1.
Мар:	NE-12-G	<del></del>	Date:		05/25/	2007			_				
021309 Location: 2119	KOP	1958	45/3	SP/C	40	40	40	X		Υ			By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 2.
Map:	NE-09-A			-									
014310 Location: C/O \$	UNK	E1968	45/3	SP/P	36	36	36	Х		Y			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

Мар:	NE-09-D		Contra Week I Date: Job Nu	Ending:	Osmos 06/02/2 05/30/2 0-38-7	2007 2007	es Servi	ces, Inc.	R F	rew II deferent orema superv	nce#: an:	6 J	628JP County: ORANGE 628JP22A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER	MFR SWP	YRSET 1969	Syl Length/ CLASS	0 SPECIES/ TREAT	& ORIG CIRC	©∣ PREV SR CIRC	6 L EFF CIRC	X   INSP TYPE	PRIORITY POLE	≺    REJECT POLE	REST DECAY	REST CUST	REMARKS AND NOTES  Primary Point Bosson: Woodpocker Holes, Lorge Woodpocker
006379	SVVP	1909	43/3	SPIC	39	39	39	^	•	ī	•	•	Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 1. Small Woodpecker Holes: 1.
Location: 2310	LAKESIDE D	R											
Мар:	NE-09-C		Date:		05/31/	2007					<del></del>	<u>- ,,                                   </u>	
007518	SWP	E1970	45/3	SP/P	36	36	36	X	•	Υ	-	•	By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes Large Woodpecker Holes: 1. Medium Woodpecker Holes: 1. Small
Location: F/O 1	714 LAKESI	DE DR											Woodpecker Holes: 3.
Map:	NE-08-C												
015697	UNK	E1965	45/3	SP/P	37	37	37	Х		Υ		-	By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes Other Conditions: Decayed Top, Shell Rot Above. Large Woodpecker Holes: 1. Small Woodpecker Holes: 2.
Location: F/O 1 015701		DE DR 1992	50/2	SP/SK	45	45	45	X		Y			Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 2105	MERRIT PAI	RK DR											

Мар:	NE-09-C		Contrac Week E Date: Job Nu	Ending:	Osmos 06/02/2 05/31/2 0-38-7	2007 2007	es Serv	ices, Inc.	R	rew II deferei orema Superv	nce#: an:	6 J	628JP County: ORANGE 628JP22A State: FL JOSE PINEDA JIMMY DAVIS
<b>POLE NUMBER</b> 007526	MFR ACE	YRSET 1992	00 LENGTH/ CLASS	0   SPECIES/ TREAT	7 ORIG CIRC	S   PREV SR CIRC	24 EFF CIRC	X I INSP TYPE	' I PRIORITY POLE	≺I REJECT POLE	. I REST DECAY	· I REST CUST	REMARKS AND NOTES  Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 2201	MERRIT PAR	RK DR											·······
Мар:	NE-08-C												
015670	ACE	1992	50/2	SP/SK	43	43	43	X	٠	Υ	•	•	Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2. Medium Woodpecker Holes: 1.
Location: C/O M	ERRITT PAI	RK DR AI	ND LEU F	RD									
Мар:	NE-09-D		Date:		06/01/	2007							
006396 Percent Strengt	KOP h: 64%	1972	30/5	SP/P	29	29	25	X	,	Υ	•	-	By: OSM. Year: 1996. Decay this Cycle: 4in. Primary Reject Reason: Shell Rot. Other Conditions: Split Top, Decayed Top.
Location: F/O 2	313 LAKE SU	JE DR											Decay Type: Shell Rot. Depth: 0.64in.
Мар:	NE-08-D		Date:		06/02	/2007						<del></del>	
015803	UNK	1976	50/2	SP/P	46	46	46	х		Υ			By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Ho Other Conditions: Split Top, Decayed Top. Large Woodpecker

Мар:	NE-09-E		Contra Week Date: Job Nu	Ending:	Osmos 06/09/ 06/04/ 0-38-7	2007 2007	es Servi	ces, Inc.	R F	rew II eferei orema uperv	nce#: in:	6	628JP 628JP23A JOSE PINEDA JIMMY DAVIS	County: State:	ORANGE FL
POLE NUMBER 008035 Percent Strengt Location: R/O 2		YRSET E1965	CF   LENGTH/ CLASS	%   SPECIES/ TREAT	15   ORIG CIRC	18   PREV SR CIRC	51 EFF CIRC	X I INSP TYPE	. I PRIORITY POLE	≺! REJECT POLE	. I REST DECAY	. I REST CUST	KEMP. Reported Ite	6. Decay this C m: Roots. Prim	Cycle: 10in. Note: PER ALLEN ary Reject Reason: Shell Rot. e. Decay Type: Shell Rot.
Мар:	NE-08-D		Date:		06/06/	2007				<del></del>					
015859	ESC	1974	45/3	SP/P	41	41	41	Х		Υ			By: OSM. Year: 199 Conditions: Split Top	6. Primary Rejo o, Decayed Top	ect Reason: Split Top. Other b. Large Woodpecker Holes: 1.
Location: 1914	HAMMERLIN	AVE													
Мар:	NE-11-A		Week Date:	Ending:	06/16/ 06/14/				F	Refere	nce#:		628JP24C		
017117 Percent Strengt Location: C/O F		E1965	45/3 SA AVE	SP/P	37	37	31	X		Y			By: OSM. Year: 199 Reason: Shell Rot. ( Above. Decay Type	Other Condition	Cycle: 6in. Primary Reject ns: Decayed Top, Shell Rot pth: 0.96in.

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Мар:	NE-11-A		Contrac Week E Date: Job Nu	Ending:	Osmos 06/23/2 06/18/2 0-38-7	2007 2007	es Serv	ices, Inc.	R	rew II eferer orema uperv	nce#: in:	6 J	528JP County: ORANGE 528JP25A State: FL JOSE PINEDA JIMMY DAVIS
<b>POLE NUMBER</b> 017066	MFR KOP	YRSET E1970	S   LENGTH/ CLASS	W l SPECIES/ TREAT 한	6 ORIG CIRC	6 PREV SR CIRC	66 FFF CIRC	X   INSP TYPE	'   PRIORITY POLE	✓ ! REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 304 F	BAY RUN ST										· · · · · · · · · · · · · · · · · · ·		
			Date:		06/19/	2007							
007320 Percent Streng	UNK hth: 31%	E1965	35/5	SP/C	31	31	21	Х		Υ			Decay this Cycle: 10in. Primary Reject Reason: Shell Rot. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 1.59in.
Location: R/O	700 WILKINS	ON ST											1.05III.
Мар:	NE-11-B		Date:		06/21/	2007							
048128	UNK	E1968	30/5	SP/P	27	27	27	ВХ		Υ			By: OSM. Year: 1996. Primary Reject Reason: Split Top. Can Not Treat: Fence, Garden. Other Conditions: Split Top, Decayed Top.
Location: R/O	1115 CHICHE	STER ST											
Мар:	NE-10-B		<del></del>					_					
007373	UNK	E1968	35/5	SP/C	31	31	31	Х		Υ	•	•	By: OSM. Year: 1996. Primary Reject Reason: Woodpecker Holes Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Location: 1115	DORCHEST	ER ST											

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Мар:	NE-11-A		Contra Week Date: Job Nu	Ending:	Osmos 06/23/2 06/22/2 0-38-7	2007 2007	es Servio	ces, Inc.	F	Crew II Referent Forema Superv	nce#: in:	6 J	628JP County: ORANGE 628JP25A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 017031 Location: R/O 3		YRSET 1968 VE	C/SP LENGTH/ CLASS	0   SPECIES/ TREAT	22 - ORIG CIRC	22   PREV SR CIRC	37 EFF CIRC	X   INSP TYPE	PRIORITY POLE	≺   REJECT POLE	' I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1996. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Map:	NE-12-A												
017402 Percent Strengt Location: R/O 1		1966 HIRE AVE	40/5	SP/C	32	32	19.12	X		Υ			Decay this Cycle: 12.88in. Reported Item: Vines Present Not Cut Primary Reject Reason: Enclosed Pocket Above. Other Conditions: Decayed Top, Shell Rot Above. Decay Type: Internal Sapwood Decay. Decay Type: Enclosed Pocket. Location: Above Groundline. Height: 36.0in. Min Shell: 1.0in. Depth: 3.0in. Orientation: -90. Decay Type: Shell Rot. Depth: 0.95in.
Мар:	NE-11-B		Week Date:	Ending:	06/30/ 06/25/				(	Refere	nce#:	(	628JP26A
005190 Location: R/O 1	UNK 221 WILKIN	_,_,	40/3	SP/C	39	39	39	X		Υ	·		By: OSM. Year: 1996. Reported Item: Roots. Primary Reject Reason: Split Top. Inspection Comments: 3/4 Excavate. Other Conditions: Split Top, Decayed Top.

Мар:	NE-12-B		Contra Week I Date: Job Nu	Ending:	Osmos 06/30/: 06/25/: 0-38-7	2007 2007	es Servi	ices, Inc.	F	Crew II Refere Forema Superv	nce#: an:		628JP County: ORANGE 628JP26A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 005084 Location: R/O 1	MFR KOP 201 NOTTIN	YRSET E1970 GHAM ST	S   LENGTH/ CLASS	0   SPECIES/ TREAT	88   ORIG CIRC	8   PREV SR CIRC	88   EFF CIRC	X   INSP TYPE	PRIORITY POLE	≺! REJECT POLE	. I REST DECAY	. I REST CUST	
Мар:	NE-11-C	····	Date:		06/26/	2007			<del></del>				
005151 Percent Streng Location: 3327			35/5	SP/P	29	29	23	X		Y		•	Decay this Cycle: 6in. Reported Item: Footer Buried. Primary Reject Reason: Shell Rot Above. Inspection Comments: 3/4 Excavate. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 0.96in.
Мар:	8-09-P		Date:		06/29	/2007		<u>-</u>	1	Refere	nce#:	-	County: OSCEOLA 628JP26B
19094	UNK	E1960	35/4	SP/C	33	33	33	X		Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other

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			Date: Job Nu	mber:	07/05/: 0-38-7					orema uperv			IOSE PINEDA IIMMY DAVIS
POLE NUMBER 50156  Location: 3330 A	ACE	<u>YRSET</u> 2001	SC LENGTH/ CLASS	%   SPECIES/ TREAT	25   ORIG CIRC	28   PREV SR CIRC	25 EFF CIRC	X I INSP TYPE	' I PRIORITY POLE	≺	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Мар:	8-14 <b>-</b> O												
50149	ACE	2001	45/3	SP/SK	37	37	37	VX		Υ	-	•	Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 2.
Location: 1880 A 18987	PACHE RD KOP	1971	35/4	SP/P	32	32	32	· · X	•	Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top. Small Woodpecker Holes: 4
Location: 1985 P	'ARKWAY A	VE											
Мар:	8-13-P							-					
49295	KOP	1987	35/4	SP/SK	32	32	32	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.

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Мар:	8-13-N		Contra Week Date: Job Nu	Ending:	Osmos 07/07/ 07/06/ 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew (C Refere Forema Superv	nce#: an:		628JP County: OSCEOLA 628JP27A State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 18905 Location: F/O 3		<b>YRSET</b> 1980 _A RD	OP   LENGTH/ CLASS	W   SPECIES/ TREAT W SW S	98   ORIG CIRC	58   PREV SR CIRC	PE EFF CIRC	X I INSP TYPE	PRIORITY POLE	<	. I REST DECAY	. I REST CUST	
Map:	8-15-N		Week Date:	Ending:	07/14/ 07/09/				F	Refere	nce#:		628JP28A
47760  Location: CECII	LAN	1968 RD (RANC	35/4 :H)	SP/C	32	32	32	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Hole Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
			····			-			· ·				
Map:	8-15-M			<del></del>									
47759  Location: CECI	BRN	1997 RD (RANC	40/5	SP/P	31	31	31	Х	•	Υ	-	•	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Hole Large Woodpecker Holes: 2. Medium Woodpecker Holes: 2.

Мар:	8-09-O		Contrac Week E Date: Job Nu	Inding:	Osmos 07/14/ 07/09/ 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew II Refere Forema Superv	nce#: in:	6 J	628JP 628JP28A IOSE PINEDA JIMMY DAVIS	County: State:	OSCEOLA FL
<b>POLE NUMBER</b> 27308 Location: 2901	MFR LAN CHEROKEE	<b>YRSET</b> 1993	P/OP   LENGTH/ CLASS	S   SPECIES/ TREAT	98   ORIG CIRC	5 PREV SR CIRC	PE EFF CIRC	X   INSP TYPE	'   PRIORITY POLE	AI REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NO By: OSM. Year: 1999 Large Woodpecker H	9. Primary Rej	ect Reason: Woodpecker Holes.
Мар:	8-16-K	····	Date:		07/10/	/2007								<del></del>	
18820 Location: 1 MIL	SWP	1968 )HOPEKA	35/4 .HIA RD	SP/P	33	33	33	X		Υ			By: OSM. Year: 1999 Conditions: Split Top 2.	9. Primary Rej o, Decayed To	ect Reason: Split Top. Other p. Medium Woodpecker Holes:
Мар:	8-17-D			Ending:	07/21/ 07/17/			•		Refere	nce#:		628JP29B		· · · · · · · · · · · · · · · · · · ·
12931	KOP	1983	40/4	SP/SK	35	35	35	Х		Υ	-		By: OSM. Year: 199 Conditions: Split Top	9. Primary Re o, Decayed To	ject Reason: Split Top. Other p.
Location: F/O 4	220 OAKWO	OD DR													

Мар:	8-18-D		Contrac Week E Date: Job Nu	nding:	Osmos 07/21/2 07/17/2 0-38-7	2007 2007	es Servi	ices, Inc.	Refe Fore	w ID: erence: eman: ervisor		62 JC	8JP 8JP29B OSE PINEDA MMY DAVIS	County: State:	OSCEOLA FL
<b>POLE NUMBER</b> 51273	MFR LAN	YRSET 1976	00   LENGTH/ CLASS	Ø I SPECIES/ TREAT →	25   ORIG CIRC	S PREV SR CIRC	SP EFF CIRC	X   INSP TYPE	l PRIORIT	. REJECT POLE		. I REST CUST	REMARKS AND NOT  By: OSM. Year: 1999. Conditions: Split Top,	 Primary Reje	ct Reason: Split Top. Other
Location: F/O 3	· · · · · · · · · · · · · · · · · · ·		55. 57												
Location: 3765	KOP EDSEL AVE	1990	40/4	SP/SK	34	34	34	X	. `	Υ.	-	-	Primary Reject Reaso	n: Split Top. (	Other Conditions: Split Top.
Location: 3765  Map:			40/4 Date:	SP/SK	07/19/		34	×		·			Primary Reject Reaso	n: Split Top. (	Other Conditions: Split Top.
Location: 3765	EDSEL AVE  8-14-D  LAN th: 82%	1973		SP/SK SP/C			34	×		Y .			By: OSM. Year: 1999.	. Decay this C	cycle: 2in. Primary Reject s: Split Top, Decayed Top.
Location: 3765  Map:  48101  Percent Strengt	EDSEL AVE  8-14-D  LAN th: 82%	1973	Date:		07/19/	2007				Y .	-		By: OSM. Year: 1999. Reason: Split Top. Ot	. Decay this C	cycle: 2in. Primary Reject s: Split Top, Decayed Top.

Мар:	8-18-C		Contra Week I Date: Job Nu	Ending:	Osmos 07/28/2 07/25/2 0-38-7	2007 2007	es Servi	ces, Inc.	Re Fo	ew ID feren remai pervis	ce#: n:	(	528JP 528JP30B JOSE PINEDA JIMMY DAVIS	County: State:	OSCEOLA FL
POLE NUMBER 13001 Location: N/T 4	MFR UNK 415 CITRUS	YRSET E1970	D   LENGTH/ CLASS	0   SPECIES/ TREAT	S ORIG CIRC	G   PREV SR CIRC	GE FF CIRC	X I INSP TYPE	'   PRIORITY POLE	≺ I REJECT POLE	. I REST DECAY	I REST CUST	REMARKS AND NOT By: OSM. Year: 1999. Can Not Treat: Roots.	 Primary Reje	ect Reason: Woodpecker Holes. pecker Holes: 1.
Localion, in .	ria ciliata														
	8-16-B														
Map: 20462 Percent Strengt Location: F/O 3	8-16-B UNK th: 33%	1972	40/4	SP/P	33	33	22.8	Х	Y	Y	•		Primary Reject Reason	n: Woodpeck Above. Larg	Cycle: 10.2in. <b>Priority Pole.</b> er Holes. Other Conditions: e Woodpecker Holes: 1. Decay
Map: 20462 Percent Strengt	8-16-B UNK th: 33%	1972	40/4 Date:	SP/P	33		22.8	X	Y	Y		•	Primary Reject Reason Rotten Butt, Shell Rot	n: Woodpeck Above. Larg	er Holes. Other Conditions:

Мар:	8-13-B		Contrac Week E Date: Job Nu	Ending:	Osmos 07/28/2 07/27/2 0-38-7	2007 2007	es Servi	ices, Inc.	F	Crew II Refere Forema Superv	nce#: an:	(	628JP 628JP30C JOSE PINEDA JIMMY DAVIS	County: State:	OSCEOLA FL
POLE NUMBER 20493  Location: PACK	MFR KOP	<b>YRSET</b> 1988	S   LENGTH/ CLASS	の   SPECIES/ TREAT の 対	12 - ORIG CIRC	12   PREV SR CIRC	12 L EFF CIRC	X I INSP TYPE	' I PRIORITY POLE	≺l REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NO By: OSM. Year: 199 Conditions: Split To	9. Primary Reje	ect Reason: Split Top. Other o.
Map:	8-18-A		Week	Ending:	08/04/ 07/30/					Refere	nce#:		628JP31C		
13069 Location: 471 F	LAN ROBIN DR	1986	30/6	SP/SK	24	24	24	ВХ		Υ	•	•	By: OSM. Year: 199 Treat: Underground Top.	99. Primary Rej Cable. Other C	ect Reason: Split Top. Can Not Conditions: Split Top, Decayed
Map:	8-17-A				···			· · · · · · · · · · · · · · · · · · ·	 -	· · ·					
		<del> </del>	Date:		08/01/	2007									
49979	UNK	E1979	30/6	SP/SK	26	26	26	X		Υ			By: OSM. Year: 199 Conditions: Split To	99. Primary Rej	ect Reason: Split Top. Other p, Wind Shake.
Location: 4854	LAKE SHOR	E DR													

Мар:	8-16-A		Contrac Week E Date: Job Nu	inding:	Osmos 08/04/: 08/02/: 0-38-7	2007 2007	es Servi	ces, Inc.	R F	rew IE deferer orema superv	nce#: n:	6	628JP County: OSCEOLA 628JP31C State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 13359 Location: F/O 4	MFR KOP 870 ORIOLE	YRSET 1986 AVE	00 LENGTH/ CLASS	の   SPECIES/ TREAT の 対	52   ORIG CIRC	G   PREV SR CIRC	SE EFF CIRC	X   INSP TYPE	' I PRIORITY POLE	≺ I REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Wind Shake.
Мар:	7-14-A		Date:	· · · · · · · · · · · · · · · · · · ·	08/04/	20007							
20302 Percent Streng Location: 5075		1969 RD (INSID	35/4	SP/P SE GROV	35	35	30	X		Y	•	•	By: OSM. Year: 1999. Decay this Cycle: 5in. Primary Reject Reason: Previous Reject. Other Conditions: Shell Rot Above. Carpenter Ants. Decay Type: Shell Rot. Depth: 0.80in.
Map:	7-13-B	··-											
20314  Location: PAYN	UNK NES OAK HA		35/5 NURSER	SP/C Y (NW/O	31 SHORE	31 EDR)	31	вх		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1.
Map:	8-12-A			Ending:	08/11 08/07	/2007		<u> </u>	F	Refere	nce#:		628JP32B
47392 Location: S/O 3	LAN 3129 RAMBLI	1976 ER AVE	35/4	SP/P	34	34	34	ВХ	•	Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.

Мар:	8-15-B		Contrac Week E Date: Job Nu	Ending:	Osmos 08/11/3 08/08/3 0-38-7	2007 2007	es Servio	ces, Inc.	R F	Crew II Referen Orema Superv	nce#: in:	6 J	S28JP County: OSCEOLA S28JP32B State: FL IOSE PINEDA IIMMY DAVIS
POLE NUMBER 49643  Location: 3448 49647		YRSET E1964 VE E1970	7/074 CLASS	S SPECIES/ TREAT	12 ORIG CIRC	15 PREV SR CIRC	21 EFF CIRC	X X INSP TYPE	. I PRIORITY POLE	A A REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other
Location: 3457	PACKARD A	VE											Conditions: Split Top, Decayed Top.
Map:	7-15-A		Date:		08/09/	/2007							
50375	UNK	E1964	35/4	SP/C	32	32	32	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes Large Woodpecker Holes: 2.
Location: R/O 3	3725 HICKOR	RY TREE	RD										
Мар:	7-19-A		Date:		08/10	/2007							
50993	UNK	E1964	35/5	SP/C	31	31	31	x		Y			By: OSM. Year: 1999. Primary Reject Reason: Previous Reject. Other Conditions: Split Top, Decayed Top.
Location: R/O 4	1125 HICKOF	RY TREE											-

Мар:	7-18-D		Contrac Week E Date: Job Nu	inding:	Osmos 08/18/2 08/16/2 0-38-74	2007 2007	es Serv	ices, Inc.	R	rew II deferei orema superv	nce#: in:	6	628JP County: OSCEOLA 628JP33C State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 25112 Percent Strengt Location: CHAF		<u>YRSET</u> 1974	OF LENGTH/ CLASS	0   SPECIES/ TREAT	8   ORIG CIRC	9   PREV SR CIRC	PE EFF CIRC	X INSP TYPE	.   PRIORITY POLE	≺   REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 2in. Note: WOODPECKER HOLE AT HARDWARE. Primary Reject Reason: Woodpecker Holes. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.32in.
Мар:	7-08-G		Date:		08/17/	2007							
13881	LAN	1988	40/4	SP/SK	34	34	34	X		Y			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Excessive Cracking/Checking. Medium Woodpecker Holes: 4.
Location: 2 P N 13876	firster en a	E1970	E40/4	SP/P	36	36	36	X	•	Υ	· ·	•	Primary Reject Reason: Woodpecker Holes. Medium Woodpecker Holes: 3.
Location: 1 P W	WO HIP O WI	LL LANE	AND BA	RKER RD	)								
Мар:	7-07-G				<u></u>								
49584 Location: 2730	UNK BARKER RE		40/4	SP/P	35	35	35	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes Other Conditions: Decayed Top, Lightning Damage. Large Woodpecker Holes: 1. Small Woodpecker Holes: 2.

Мар:	7-18-E		Contra Week I Date: Job Nu	Ending:	Osmo: 08/25/ 08/22/ 0-38-7	2007 2007	ies Serv	ices, Inc.	F	Crew II Referent Forema Superv	nce#: in:	(	628JP County: OSCEOLA 628JP34B State: FL JOSE PINEDA JIMMY DAVIS
<b>POLE NUMBER</b> 13698	MFR LAN	<u>YRSET</u> E1970	SE LENGTH/ CLASS P/F	ଏ   SPECIES/ TREAT ପ୍	SE   ORIG CIRC	SE   PREV SR CIRC	SE   EFF CIRC	X   INSP TYPE	'   PRIORITY POLE	<	. I REST DECAY	. I REST CUST	
Location: R/O 5	5225 HICKOR	Y TREE I	RD										Holes: 3.
Мар:	7-05-K	- · · · · · · · · · · · · · · · · · · ·	Date:		08/24	/2007			ı	Refere	nce#:		628JP34C
16738	LAN	1981	40/4	SP/SK	33	33	33	Х		Υ		•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 1 P N	I/O BRANCH	CT AND I	BRIDLE I	PATH									
Мар:	6-03-H		Week Date:	Ending:	09/01/ 08/27/				j	Crew I Refere Forem Supen	nce#: an:		471JR 471JR35A JOEL RAMPERSAD DAVID GROW
25534	UNK	E1964	35/4	SP/C	33	33	33	×		Υ			By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.

Мар:	6-02-J		Contrac Week E Date: Job Nu	Ending:	Osmos 09/01/: 08/28/: 0-38-7	2007 2007	es Serv	ices, Inc.	R	rew II eferei orema uperv	nce#: in:	4 J	71JR County: OSCEOLA 71JR35A State: FL OEL RAMPERSAD OAVID GROW
POLE NUMBER 16256 Percent Streng Location: 6825		YRSET E1961	4/0P   LENGTH/ CLASS	0 0 SPECIES/ TREAT	35 ORIG CIRC	S CIRC	15 EFF CIRC	X I INSP TYPE	.   PRIORITY POLE	<	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  Decay this Cycle: 14in. Primary Reject Reason: Shell Rot. Other Conditions: Decayed Top, Shell Rot Above. Decay Type: Shell Rot. Depth: 2.23in.
Location: 6830		E19/1	30//	5P/P	23	23	23	Х	•	Y	•	-	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
16245 Percent Streng Location: 1833	LAN th: 91%	1976	35/4	SP/P	33	33	32	X	•	Y	•		By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.16in.
Мар:	7-02-F		Date:		08/30/	2007	<u>.</u>					_	
47891 Percent Streng Location: A/F 2			E35/4	SP/P	33	33	32	Х		Υ		•	By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.

Мар:	6-04-G		Contrac Week E Date: Job Nur	inding:	Osmos 09/01/2 09/01/2 0-38-74	2007 2007	s Servi	ices, Inc.	F	Crew II Refere Forema Superv	nce#: an:	4 J	471JR County: OSCEOLA 471JR35A State: FL JOEL RAMPERSAD DAVID GROW
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG CIRC	PREV SR CIRC	l EFF CIRC	INSP TYPE	PRIORITY POLE	REJECT POLE	REST DECAY	REST CUST	REMARKS AND NOTES
51831 Percent Streng Location: 1638		E1970	30/7	SP/P	23	23	22	X		Y	•		By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.
51853 Percent Streng Location: 6201	UNK th: 82%	E1971	E35/5	SP/P	32	32	30	X		Υ	•	•	By: OSM. Year: 1999. Decay this Cycle: 2in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top, Compression Wood. Decay Type: Shell Rot. Depth: 0.32in.
51854 Percent Streng Location: 6185	UNK th: 87%	E1971	30/6	SP/P	22	22	21	<b>X</b>	•	Y	•	•	By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 0.16in.
Мар:	7-03-F		Week E	Ending:	09/08/2 09/04/2					Refere	nce#:		471JR36A
16376 Percent Streng Location: R/O			E40/3	SP/C	35.5	35.5	34	х		Υ			By: OSM. Year: 1999. Decay this Cycle: 1.5in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Mediur Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.24in.

Мар:	7-03-G		Contrac Week E Date: Job Nui	inding:	Osmoso 09/08/2 09/04/2 0-38-74	007 007	s Servi	ces, Inc.	F	Crew II Referei Forema Superv	nce#: in:	4	471JR County: OSCEOLA 471JR36A State: FL JOEL RAMPERSAD DAVID GROW
POLE NUMBER 16380 Percent Strength Location: 6110 E		YRSET E1967	M I LENGTH/ CLASS	0   SPECIES/ TREAT	ST ORIG CIRC	G. PREV SR CIRC	95 - EFF CIRC	X   INSP TYPE	.   PRIORITY POLE	<	. I REST DECAY	I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Decay this Cycle: 8.5in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 1.35in.
Мар:	7-04-G												
16389 Percent Strength Location: 6184 E		E1961	E50/3	SP/C	46	46	28	X	•	Y			Decay this Cycle: 18in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Decay Type: Shell Rot. Depth: 2.86in.
Мар:	7-07-1		Date:		09/05/2	2007				Crew I Refere Forem Supen	nce#: an:		628JP 628JP36B JOSE PINEDA JIMMY DAVIS
49554	UNK 1: 76%	E1970	E40/4	SP/P	34	31	31	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Previous Reject. Other Conditions: Split Top, Decayed Top.

Мар:	7-03-G		Contractive Week Education Date: Job Nu	Ending:	Osmo: 09/08/ 09/05/ 0-38-7	2007 2007	es Serv	ices, Inc	! !	Crew II Refere Forema Superv	nce#: an:		471JR 471JR36A JOEL RAMPERSAD DAVID GROW	County: State:	OSCEOLA FL
POLE NUMBER 16394 Location: A/F 62	<u>MFR</u> UNK 215 LAKE LIZ	YRSET E1980	H LENGTH/ CLASS	Ø I SPECIES∕ TREAT	92   ORIG CIRC	G   PREV SR CIRC	92   EFF CIRC	X I INSP TYPE	'   PRIORITY POLE	≺ I REJECT POLE	. I REST DECAY	. I REST CUST		on: Decayed T arge Woodpe	op. Other Conditions: Split cker Holes: 1. Medium
Мар:	8-03-B		Date:		09/06/	/2007				Crew I Refere Forem Super	nce#: an:		628JP 628JP36C JOSE PINEDA JIMMY DAVIS		
47476	KOP	1983	40/4	SP/SK	34	34	34	ВХ		Y			By: OSM. Year: 2001 Treat: Underground C	. Primary Rejo Cable. Other C	ect Reason: Split Top. Can Not Conditions: Split Top.
Location: 2100	OAK WIND F	RD													
Мар:	8-03-A									<u>-</u>					
12657 Location: 1525		E1983	30/6	SP/SK	26	26	26	X		Υ			By: OSM. Year: 2001 Conditions: Split Top,	. Primary Rejo Decayed Top	ect Reason: Split Top. Other o, Wind Shake.

Мар:	7-01-B		Contrac Week E Date: Job Nui	inding:	Osmos 09/08/2 09/06/2 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew II Referei Forema Superv	nce#: in:		471JR County: OSCEOLA 471JR36B State: FL JOEL RAMPERSAD DAVID GROW
<b>POLE NUMBER</b> 47783	MFR UNK	<u>YRSET</u> E1971	C LENGTH/ CLASS	0   SPECIES/ TREAT	25 ORIG CIRC	25   PREV SR CIRC	35 - EFF CIRC	X   INSP TYPE	.   PRIORITY POLE	≺  REJECT POLE	' I REST DECAY	' l REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: R/O 5		ISON HW	Y							O 1			000 ID
Map:	8-03-A									Crew I Refere Forem Supen	nce#: an:		628JP 628JP36C JOSE PINEDA JIMMY DAVIS
12686	ACE	1983	40/4	SP/SK	34	34	34	вх		Y			By: OSM. Year: 2001. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top.
Location: 1455	BEECH WO	OD DR											· · · · · · · · · · · · · · · · · · ·
Мар:	6-01-E									Crew I Refere Forem Super	nce#: an:		471JR 471JR36B JOEL RAMPERSAD DAVID GROW
47907	UNK	E1974	E40/3	SP/P	33	33	33	Х		Y		•	Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top.
Location: 5855	LAKE LIZZIE	DR (W S	SIDE HOL	JSE)									

Мар:	5-01-A		Contrac Week E Date: Job Nur	nding:	Osmose 09/08/2 09/07/2 0-38-74	007 007	s Servic	es, Inc.	İ	Crew II Referei Forema Superv	nce#: in:		628JP County: OSCEOLA 628JP36C State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 45015 Location: 1725	MFR KOP E 10TH ST	YRSET 1983	D   LENGTH/ CLASS	%   SPECIES/ TREAT   %   %   %   %   %   %   %   %   %	28   ORIG CIRC	25   PREV SR CIRC	32 EFF CIRC	X I INSP TYPE	.   PRIORITY POLE	≺   REJECT POLE	. I REST DECAY	. I REST CUST	
Мар:	7-03-E									Crew I Refere Forem Supen	nce#: an:		471JR 471JR36B JOEL RAMPERSAD DAVID GROW
50931 Percent Streng		E1974	35/4	SP/C	31	31	19	X	٠	Υ			By: OSM. Year: 1999. Decay this Cycle: 12in. Primary Reject Reason: Shell Rot Above. Other Conditions: Shell Rot Above. Decay Type: Shell Rot. Depth: 1.91in.
Location: R/O 2 50929		E1974	E40/4	SP/C	33.5	33.5	33.5	X		Y		•	By: OSM. Year: 1999. Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top.
Location: 5750	EASTIRLO (I	FRONT L	EFT HOU	SE)									
Мар:	6-05-B		Week I Date:	Ending:	09/15/2 09/10/2					Crew I Refere Forem Super	nce#: an:		628JP 628JP37B JOSE PINEDA JIMMY DAVIS
10485 Location: 5280	LAN HAYWOOD	1979 RUFFIN F	35/4 RD	SP/SK	32	32	32	вх	•	Υ		•	By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Large Woodpecker Holes: 1. Medium Woodpecker Holes: 3.

Мар:	6-05-B		Contra Week Date: Job Nu	Ending:	Osmos 09/15/ 09/10/ 0-38-7	2007 2007	es Serv	ices, Inc.	R	Crew II Refere Forema Superv	nce#: an:	6	628JP County: OSCEOLA 628JP37B State: FL JOSE PINEDA JIMMY DAVIS
POLE NUMBER 49325 Location: 5175	MFR LAN HAYWOOD	YRSET 1978 RUFFIN F	OS LENGTH/ CLASS	% SPECIES/ TREAT S/ S/ S/ SPECIES/ TREAT S/ S/ S/ SPECIES/ TREAT S/ S/ S/ S/ S/ S/ S/ S/ S/ S/ S/ S/ S/	S   ORIG CIRC	SS   PREV SR CIRC	SS - EFF CIRC	X I INSP TYPE	. I PRIORITY POLE	≺   REJECT POLE	. I REST DECAY	.   REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes: Other Conditions: Decayed Top. Large Woodpecker Holes: 1.  Medium Woodpecker Holes: 1.
Map:	6-05-A												
10472	LAN	1978	35/4	SP/P	34	34	34	вх		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Hole: Can Not Treat: Underground Cable. Large Woodpecker Holes: 1. Small Woodpecker Holes: 2.
Location: 5030	HAYWOOD	RUFFIN F	RD						-				
Map:	6-03-A												
10458 Percent Strengt	LAN th: 91%	1972	35/4	SP/P	33	32	32	Х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Hole Other Conditions: Decayed Top. Large Woodpecker Holes: 1.
Location: F/O 1 51910 Percent Streng	UNK	OOSSEE E1972	RD 35/4	SP/P	34	33	33	X		Υ		•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: F/O 1	651 S NARC	OOSSEE	RD				,						

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Мар:	6-01-D		Contrac Week E Date: Job Nur	inding:	Osmos 09/15/2 09/10/2 0-38-7	2007 2007	es Servi	ices, Inc.	F	Crew II Referei Forema Superv	nce#: in:		471JR County: OSCEOLA 471JR37B State: FL JOEL RAMPERSAD DAVID GROW
POLE NUMBER 15221 Percent Strengtl Location: C/O L		YRSET E1972 DR AND M	CHTAN	S SPECIES/ TREAT	12 ORIG CIRC	LU PREV SR CIRC	00 EFF CIRC	BX INSP TYPE	'   PRIORITY POLE	≺   REJECT POLE	. I REST DECAY	. I REST CUST	
Мар:	6-03-A		Date:		09/11/	2007			 	Crew I Refere Forem Supen	nce#: an:		628JP 628JP37B JOSE PINEDA JIMMY DAVIS
51907 Location: 5005 I	LAN LILLIAN LEE	1973 ERD	25/7	SP/P	23	23	23	вх		Y			Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top.
Мар:	7-01-D									Crew I Refere Forem Supen	nce#: an:		471JR 471JR37B JOEL RAMPERSAD DAVID GROW
15183 Percent Strengt Location: A/F 28	h: 41%	E1968	E40/5	SP/C	31	31	23	Х		Y		•	Decay this Cycle: 8in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Large Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 1.27in.
15210 Percent Strengt Location: W/O 5	UNK h: 42%	E1968	E40/3	SP/C	36	36	27	X	•	Υ	•	•	By: OSM. Year: 1999. Decay this Cycle: 9in. Primary Reject Reason: Woodpecker Holes. Large Woodpecker Holes: 3. Decay Type: Shell Rot. Depth: 1.43in.

Мар:	6-03-B		Contrac Week E Date: Job Nu	inding:	Osmos 09/15/2 09/12/2 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew II Referei Forema Superv	nce#: in:	•	471JR County: OSCEOLA 471JR37B State: FL JOEL RAMPERSAD DAVID GROW
POLE NUMBER 51889 Percent Strengt Location: R/O 1		YRSET E1970 YSON RE	C/OPPI LENGTH/ CLASS	Ø l SPECIES/ TREAT 한	99   ORIG CIRC	98   PREV SR CIRC	85 - EFF CIRC	X   INSP TYPE	. PRIORITY POLE	≺l REJECT POLE	. I REST DECAY	. I REST CUST	
Map:	8-06-B								<b>!</b>	Crew II Refere Forem Supen	nce#: an:		628JP 628JP37B JOSE PINEDA JIMMY DAVIS
12726 Percent Strengt Location: A/F 2	th: 92%	E1964 CKORY TE	45/3 REE RD	SP/C	37	36	36	<b>X</b>		Υ	•	•	By: OSM. Year: 1999. Primary Reject Reason: Shell Rot Aborther Conditions: Decayed Top, Shell Rot Above. Small Woodpecker Holes: 5. Carpenter Ants.
Мар:	6-04-B									Crew I Refere Forem Super	nce#: an:		471JR 471JR37B JOEL RAMPERSAD DAVID GROW
51902 Percent Strengt Location: 1035	th: 49%	E1979 ON RD	E40/4	SP/P	33	33	26	X		Υ	•	•	By: OSM. Year: 1999. Decay this Cycle: 7in. Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Decay Type: Shell Rot. Depth: 1.11in.

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Мар:	8-05-B		Contra Week Date: Job Nu	Ending:	Osmos 09/15/ 09/13/ 0-38-7	2007 2007	es Servi	ices, Inc.	R Fe	rew ([ eferei orema uperv	nce#: in:	6 J	S28JP County: OSCEOLA S28JP37B State: FL IOSE PINEDA IIMMY DAVIS
POLE NUMBER 12746	MFR UNK	YRSET E1970	S I LENGTH/ CLASS	ଓ l species/ TREAT जे	15   ORIG CIRC	12 PREV SR CIRC	15 - EFF CIRC	X   INSP TYPE	'   PRIORITY POLE	≺∤ REJECT POLE	'   REST DECAY	' I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 3100 Map:	8-06-A	CE2 KD			<del></del>								
48418	UNK	E1970	35/4	SP/P	32	32	32	×		Υ	•		By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: 3455	GREEN ACF	RES RD											· · · · · · · · · · · · · · · · · · ·
Мар:	8-09-A						<del></del>				-		
49161 Percent Strengt	UNK th: 91%	E1970	35/5	SP/P	31	31	30	Х		Y			By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Split Top, Decayed Top.
Location: 3040	OLD HICKO	RY TREE	RD										Decay Type: Shell Rot. Depth: 0.16in.
Мар:	8-10-A											7. 4.	
20061 Percent Strengt Location: F/O 3		1967 CKORY TI	40/3 REE RD	SP/C	37	37	36	Х		Y	-		By: OSM. Year: 1999. Decay this Cycle: 1in. Primary Reject Reason: Decayed Top. Other Conditions: Decayed Top. Medium Woodpecker Holes: 1. Decay Type: Shell Rot. Depth: 0.16in.

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Мар:	7-11-A		Contra Week Date: Job Nu	Ending:	Osmo: 09/15/ 09/14/ 0-38-7	2007 2007	es Serv	ices, Inc.	F	Crew II Referent Forema Superv	nce#: in:	6	28JP County: 28JP37B State: OSE PINEDA IMMY DAVIS	OSCEOLA FL
POLE NUMBER	MFR	YRSET	LENGTH/ CLASS	SPECIES/ TREAT	ORIG CIRC	PREV SR CIRC	EFF CIRC	INSP TYPE	PRIORITY POLE	REJECT POLE	REST DECAY	REST CUST	REMARKS AND NOTES	
20098 Percent Streng Location: A/F 4		E1970	35/4 RD	SP/P	32	32	30	x		Ÿ			By: OSM. Year: 1999. Decay this Cycl Reason: Decayed Top. Other Condition Medium Woodpecker Holes: 2. Decay 0.32in.	ons: Split Top, Decayed Top.
Percent Streng  Location: C/O V	th: 91%	E1970	45/3	SP/P	34 RD	33	33	X	•	Ý	•	•	By: OSM. Year: 1999. Primary Reject Other Conditions: Decayed Top. Medi	Reason: Woodpecker Holes um Woodpecker Holes: 1.
20109 Location: 1 P E	UNK	1976	50/3	SP/P	39	39 RD (OI	39 RANGE	X GROVES	S)	Y	•	•	By: OSM. Year: 1999. Primary Reject Other Conditions: Split Top, Decayed	Reason: Decayed Top. Top.
Мар:	8-03-A		Week Date:	Ending:	09/22 09/17				 F	Refere	nce#:		528JP38B	
58275	UNK	E1968	35/5	SP/C	31	31	31	X		Υ			Primary Reject Reason: Decayed Top Top, Decayed Top.	. Other Conditions: Split

### Osmose<sub>3</sub>

Мар:	7-11-B		Contra Week I Date: Job Nu	Ending:	Osmos 09/22/2 09/18/2 0-38-7	2007 2007	es Servi	ces, Inc.	R Fo	rew II eferei orema uperv	nce#: in:	6 J	228JP County: OSCEOLA 228JP38B State: FL OSE PINEDA IIMMY DAVIS
POLE NUMBER 20143 Location: F/O	MFR LAN 5185 ALLIGA	YRSET 1978 FOR LAKE	CD S   LENGTH/ CLASS	0   SPECIES/ TREAT	98   ORIG CIRC	9   PREV SR CIRC	96   EFF CIRC	X   INSP TYPE	' I PRIORITY POLE	≺l REJECT POLE	. I REST DECAY	. I REST CUST	REMARKS AND NOTES  By: OSM. Year: 1999. Primary Reject Reason: Woodpecker Holes. Medium Woodpecker Holes: 4.
Мар:	7-12-B		Date:		09/19/	2007							
13011 Percent Streng Location: 5180	_	E1970	35/4	SP/P	33	33	31	ВХ		Υ	•	•	Decay this Cycle: 2in. Primary Reject Reason: Split Top. Can Not Treat: Underground Cable. Other Conditions: Split Top, Decayed Top. Medium Woodpecker Holes: 3. Decay Type: Shell Rot. Depth: 0.32in.
Мар:	7-02-A				,								
13979	UNK	E1970	40/5	SP/C	33	33	33	х		Υ			By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O 13980		AK BLVD E1970	40/5	SP/C	30	30	30	X	•	Ý	•	•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O													
13981		1955	35/4	SP/C	29	29	29	X		Y	•	•	By: OSM. Year: 1999. Primary Reject Reason: Split Top. Other Conditions: Split Top, Decayed Top.
Location: R/O	2161 SPRING	LAKE C	R										

### Osmose<sub>®</sub>

Мар:	7-03-A		Date:	ictor: Ending: umber:	Osmos 09/22/3 09/19/3 0-38-7	2007 2007	ies Serv	rices, Ind	F F	Crew II Refere Forema Superv	nce#: an:	6 J	328JP 328JP38B OSE PINEDA IIMMY DAVIS	County: State:	OSCEOLA FL
POLE NUMBER 13984 Percent Strengt Location: S/O 2		YRSET E1970	S I LENGTH/ CLASS	9   SPECIES/ TREAT	S ORIG CIRC	5   PREV SR CIRC	54 EFF CIRC	M I INSP TYPE	. I PRIORITY POLE	≺	.   REST DECAY	. I REST CUST	REMARKS AND NO  By: OSM. Year: 1999 Treat: Underground (Top.	 ). Primary Rej	ect Reason: Split Top. Can Not Conditions: Split Top, Decayed
Evtornal Treat /T)								oppy (T					0 54		

External Treat (T)	0	External Treat w/ Decay (TD)	0	External Treat Reject (TX)	0
Partial Excavate (P)	0	Partial Excavate w/ Decay (PD)	0	Partial Excavate Reject (PX)	0
Sound & Bore (B)	0	Sound & Bore w/ Decay (BD)	0	Sound & Bore Reject (BX)	17
Sound & Selective Bore (SSB)	0	Sound & Selective Bore w/Decay(SSBD)	0	Sound & Selective Bore Reject (SSBX)	Ω
Sound Only (S)	0	Sound Only w/ Decay (SD)	0	Sound Only Reject (SX)	0
Visual Report (V)	0		0	Visual Reject (VX)	3
Not Inspected (NI)	0		0	Excavated Reject (X)	125

# City of Quincy Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Quincy
- b) 423 W Washington St, Quincy, FL 32351
- c) Mike Wade
  Director of Utilities
  (850)627-7681 -- (office)
  (850)875-7357 -- (fax)
  mwade@myquincy.net

#### 2) Number of customers served in calendar year 2007

4,925

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Quincy is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

The City of Quincy is not located near a coastal area and is not exposed to severe flooding or storm surges.

However, we are participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Quincy provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

The City of Quincy practices clearing of right-of-ways to maintain access and this is also considered for new installations and determines the location of installations based on accessibility.

#### e) Attachments by Others

We are reviewing our pole attachment agreements to consider incorporating strength assessment calculations by the attacher at the time the attachment is made, as well as amending existing pole attachment agreements to determine the feasibility of such calculations for 2008.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Quincy did drive-by patrols of all poles once per month for every month in 2007. This allowed the city to identify structures that were of immediate threat.

Policies and procedures are being developed in 2008 to implement the "sound and bore technique" over an 8 year period for the entire system.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

Drive-by inspections were carried out on all 2,842 distribution poles for 2007.

Detailed inspection was carried out on all 31 transmission poles for 2006. These poles are made of concrete.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

The City of Quincy had 6 poles or 0.2%, that failed distribution inspection. The poles showed signs of rotting around the base of the pole.

No transmission poles failed inspection

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The City of Quincy replaced six Class 3 distribution poles for reasons mentioned in (c) above.

#### 5. Vegeta tion Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Quincy trims 25% of its system each year for the past 4 years using in-house crews.

The City of Quincy did not experience a direct hit from storms over the past 4 yrs and did not change any poles as a result .However, the city plans to intensify the program by acquiring additional staff and employ contractors in the months prior to the hurricane season.

Trees that are outside the city's right-of way that are deemed a threat are removed only after discussion with the owner. At times the City replaces trees for the customers with a slower growth option.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Approximately 25 miles or 24% of distribution system vegetation trimming was planned and completed on the distribution system.

100% of our transmission lines were trimmed in 2007.

#### 6. Storm Hardening Research

The City of Quincy is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

## City of Quincy Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) City of Quincy
- b) 423 W Washington St, Quincy, FL 32351
- c) Mike Wade
  Director of Utilities
  (850)627-7681 -- (office)
  (850)875-7357 -- (fax)
  mwade@myquincy.net

#### 2) Number of customers served in calendar year 2007

4,925

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Quincy are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Quincy is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

The City of Quincy is not located near a coastal area and is not exposed to severe flooding or storm surges.

However, we are participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Quincy provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

The City of Quincy practices clearing of right-of-ways to maintain access and this is also considered for new installations and determines the location of installations based on accessibility.

#### e) Attachments by Others

We are reviewing our pole attachment agreements to consider incorporating strength assessment calculations by the attacher at the time the attachment is made, as well as amending existing pole attachment agreements to determine the feasibility of such calculations for 2008.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Quincy did drive-by patrols of all poles once per month for every month in 2007. This allowed the city to identify structures that were of immediate threat.

Policies and procedures are being developed in 2008 to implement the "sound and bore technique" over an 8 year period for the entire system.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

Drive-by inspections were carried out on all 2,842 distribution poles for 2007.

Detailed inspection was carried out on all 31 transmission poles for 2006. These poles are made of concrete.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

The City of Quincy had 6 poles or 0.2%, that failed distribution inspection. The poles showed signs of rotting around the base of the pole.

No transmission poles failed inspection

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

The City of Quincy replaced six Class 3 distribution poles for reasons mentioned in (c) above.

#### 5. Vegeta tion Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Quincy trims 25% of its system each year for the past 4 years using in-house crews.

The City of Quincy did not experience a direct hit from storms over the past 4 yrs and did not change any poles as a result. However, the city plans to intensify the program by acquiring additional staff and employ contractors in the months prior to the hurricane season.

Trees that are outside the city's right-of way that are deemed a threat are removed only after discussion with the owner. At times the City replaces trees for the customers with a slower growth option.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Approximately 25 miles or 24% of distribution system vegetation trimming was planned and completed on the distribution system.

100% of our transmission lines were trimmed in 2007.

#### 6. Storm Hardening Research

The City of Quincy is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

# Reedy Creek Improvement District Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Reedy Creek Improvement District
- b) 1900 Hotel Plaza Blvd, Lake Buena Vista, FL 32830
- c) C. Ray Maxwell, District Administrator, 407-934-7853, Fax: 407-934-6200, ray\_maxwell@rcid.dst.fl.us

#### 2) Number of customers served in calendar year 2006

Reedy Creek Improvement District had 1,256 electric customers in 2007.

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Reedy Creek Improvement District (the "District") comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

1.5

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the District are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares. The District is primarily an underground utility by standard design with less than 15 miles of overhead lines and more than 275 miles of underground.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the Reedy Creek Improvement District address the effects of flooding on underground distribution facilities and supporting overhead facilities. Storm surges do not apply to the District as it is

located in Central Florida 60 miles away from the nearest coastal areas. The District has no underground vault switchgear.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the District provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

e) The District does not have any foreign attachments on its facilities.

#### 4. Facility Inspections

The District's 69kV "transmission system" (Note: For the purposes of this report, transmission is defined as 69kV and distribution is defined as 12.5kV. RCID is not a Transmission Owner or Transmission Operator as defined by NERC) has 5 wooden poles with the remainder being concrete or steel. The system includes approximately 15 miles of overhead transmission right-of-way. The District's 12.5kV "distribution system" is essentially an underground system with a very limited amount of overhead. The overhead distribution includes only 13 wood poles with the remainder of the distribution overhead on concrete or steel.

- a) The District's overhead transmission system is ridden monthly by Utility Division personnel for the purpose of performing a basic visual inspection of the condition of the poles, lines and right of way. Transmission and distribution wood poles are inspected, tested, and treated by an outside pole inspection contractor every 2 years.
- b) All transmission and distribution wood poles were inspected and treated by an outside contractor in 2006. (Wood poles will be re-inspected in 2008)
- c) All transmission and distribution poles passed inspection.
- d) No pole replacement or remediation on District poles was required based on the 2006 inspection results.

#### 5. Vegetation Management

a) The District's 15 miles of transmission right-of-ways are ridden monthly for the purpose of visual inspection including vegetation issues. The District contracts tree trimming each spring to clear any issues existing on District right-of-ways. In 2006, the trimming plan was enhanced to cut back all vegetation on the transmission right-of-ways that could potentially "fall" into the lines. Trimming completed in 2007 and that planned for spring 2008 will complete this more aggressive approach on all transmission lines. Limited vegetation areas exist within the District distribution system and these limited areas on the distribution system are maintained along with the transmission system program.

b) In 2007, approximately 90% of all the transmission right-of-ways were addressed per the more aggressive trimming plan described above with the remainder to be completed in spring 2008.

#### 6. Storm Hardening Research

RCID is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

#### Outline for

## City of Starke Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.

Calendar Year 2007

Deadline to FMEA if you would like assistance or review of your draft by FMEA: February 21, 2008

Return to Barry Moline: bmoline@publicpower.com

#### Deadline to the Florida Public Service Commission: March 3, 2007

#### 1) Introduction

- a) City of Starke
- b) 209 N. Thompson St., P.O. Drawer C, Starke, Fl 32091
- c) Ricky Thompson, Operations Manager Phone # 904-964-5027 Fax # 904-966-0584 Email: rthompson@cityofstarke.org
- 2) Number of meters served in calendar year 2007-Customers 2776
- 3) Standards of Construction
  - a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Starke comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Starke are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for: (Note: include a, b, or c below as appropriate)

- a) new construction.
- b) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.
- c) targeted critical infrastructure facilities and major thoroughfares.

The City of Starke participates in the Public Utility Research Centers (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

Flooding and Storm surges are not applicable. The City of Starke is an inland community with the nearest coastline being 60 plus miles away.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Every new electrical construction and replacement distribution facilities located in the City of Starke are constructed along Highway/Road Right of Ways or on easy accessible easements. All residential sub-divisions electrical construction is constructed on the front right of way. We do not allow rear lot construction.

#### e. Attachments by Others

We are studying this issue in 2008 to determine pole loading ratings by others.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Starke Distribution poles are visually inspected on an annual basis by City of Starke electric Department staff. The City of Starke is currently in an electric upgrade and our contractor has and will be inspecting and changing poles as needed.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

All 3,389 Poles inspected

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

In the 2007 pole inspection a total of 87 poles inspected were found to be bad.

55 poles bad 14 splitting/animal contact 18 New-replacements for upgrade

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

17 – (.50 % poles failing inspection) Class 2, 30 Ft. wood poles were replace in 2007
17 – (.50 % poles failing inspections) Class 2, 35 Ft. wood poles were replaced in 2007
24 – (.70 % poles failing inspections) Class 2, 40 Ft. wood poles were replaced in 2007
18 – (.53 % poles failing inspections) Class 2, 45 Ft. wood poles were replaced in 2007
11 – (.32 % poles failing inspections) Class 7, 25 Ft. wood poles were replaced in 2007

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Starke has an annual Tree Trimming and Vegetation contract with Gainesville Regional utilities to provide 12 weeks of annual tree trimming. The City of Starke has electric department employees that trim trees yearly as needed. We trim 33% of our distribution system annually.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

The City of Starke trims distribution lines throughout the year as needed and when applicable removes dead or decayed trees. Trees that are not on our right of way and present a concern

or safety issues are addressed with the property owner. The City of Starke will trim 33% of our electric distribution system in the year 2008.

#### 6. Storm Hardening Research

The City of Starke is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

2602 Jackson Bluff Road, Tallahassee, Florida 32304, (850) 891-4YOU (4968), talgov.com

February 26, 2008

Tim Devlin Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Dear Mr. Devlin,

Please find enclosed the Storm Hardening Report for the City of Tallahassee - Electric Utility. If you have any questions please let us know at 850-891-5633.

Sincerely,

Kevin G. Wailes

General Manager - Electric Utility

Cc: Gary Oberschlake

Brian Fisher

### System Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

## From the City of Tallahassee Electric Utility February 26, 2008

- 1) Introduction
  - a) City of Tallahassee Electric Utility
  - b) 2602 Jackson Bluff Road, Tallahassee, Florida 32304-4408
  - c) Contact:

Kevin G. Wailes, General Manager Electric Utility Office Phone # (850) 891-5532 Fax # (850) 891-5162 Kevin.Wailes@talgov.com or Gary A. Oberschlake Manager Electric T&D Phone Number (850) 891-5003 Fax# (850) 891-5033 Gary.Oberschlake@talgov.com or Brian D. Fisher Manager Power Engineering Phone Number (850) 891-5034 Fax# (850) 891-5162 Brian.Fisher@talgov.com

- 2) Number of customers served in calendar year 2007 111,965 customers
- 3) Standards of Construction

#### a) National Electric Safety Code Compliance

The City of Tallahassee Electric Utility (City) has adopted the National Electric Safety Code as the standard for electric transmission and distribution system design and therefore designs electric transmission and distribution facilities to the latest edition of the National Electric Safety Code. During the calendar year 2007, the City designed new facilities according to the 2007 Edition of the NESC. All distribution engineering standards, guidelines, policies, practices and procedures are in accordance with this Code. The City has examples of pole loading in our construction standards detailing an easily manipulated process by which our design staff determines the loads for the City's poles. (See Exhibits 1, 2, and 3).

#### Exhibit 1 TARTE T TABLE II FORCE ON CONDUCTORS DUE TO T LB. PER SQ. FT. WIND PORCE ON TRANSPORMERS DUE TO DIE. PER SD. FT. WIND (with Grade C Overload Factor) (with Grade C Overload Factor) PUBLIE DI POUNDE CONDUCTOR REZE, RYA PORCE BY POUNDS PER POOT **U-10** AL AAAC BARE .418 25-31.5 50 #1/0 AAAD BARB 81 #1/0 AAAC COT. #4/0 AAAC BARE #4/0 AAAC COT. #556 AAAC BARE #586 AAAC COY. 1.173 76 184 184 1.506 167 145 1.418 1.668 154 HIFE 971 Cupacitur Rack, 800 kvill 122 #1/0 TPE 1.501 9.004 J1/D CFI 1.601 Regulator Flatform 605 PROCEDURE: 1. CONDUCTOR EDAD: MORTPLY THE VALUE BY TABLE I BY THE SUM OF 1/2 THE SPAN LIDIGITE ON MACE SIDE OF THE POLE. 2. MULTIPLY THE VALUE OSTAINED IN (1) BY THE HEIGHT ABOVE THE CHOUND. STEPS (1) AND (8) SHOULD HE DONE FOR MACE CONDUCTOR AT A REFERENT MEIGHT. FOR THREE CONDUCTORS ON A CROSSAIM, MULTIPLY BY THREE. 3. If equipment is on the pole, multiply the value in table in by the attachment EEGET. 4. SUM ALL VALUES CHTAINED BY STEPS (2) AND (3). RESULTS WILL HE IN FOOT- POURDS. B. COMPANE WITH VALLEY DE NEXT PAGE TO DETERMINE APPROXIMATE POLE SIXE. TITLE COMPTRUCTION STANDARDS MANUAL WIND LOAD CALCULATIONS DUE TO POLK SIKE City Electric Tallahassee PAGE 21 - 101

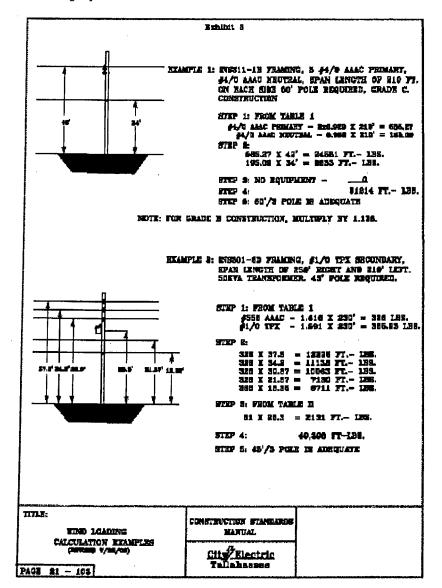
Byhlbit 8 WOOD POLE COADUNG CAPABELTY

POLE	<b>STZE</b>	ALLOWABLE LOADING	TUCATURE COTORA		
HEIGHT	CLASS	IN FOOT-POLITIES AT GROUND LEVEL GRADE C	AT ERGUND LEVEL SHADE B		
80	5	31458	22818		
36	5	38386	25019		
36	4	40140	32943		
40	4	63351	36020		
40	8	68729	43619		
16	8	75572	54878		
60	5	43608	5THC 6		
56	a	69821	45051		
60	3	88802	#5203		
66	8	99923	67288		
70		T04808	88888		
50		105618	76277		
<b>\$6</b> .	Z	114194	50624		
60	B .	123485	56426		
86	8	130748	F0410		
70	2	127521	93611		
70	1	174082	180969		

#### NOTES:

- 1. THE LOADING VALUES IN THE TABLE
  ARE NET VALUES, AS THE WORD FORCE
  ON THE POLE SUBFACE HAS SHEN DESUCTED.
- N. SEE NEXT PAGE FOR METEOD OF CALCULATION.
- LOADING IS BASED ON EXTREME WITH PACTORS: AGAINST THE POLE ITSELF WITH NO OVERLOAD FACTOR.

COMMERCICATION STANDARDS	TITE:
City Electric Tallahaesee	(CHURD 7/M/W)



#### b) Extreme Wind Loading Standards

The City's construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the National Electric Safety Code for 1) new construction; 2) major planned work, including expansion, rebuild or relocation of existing facilities; and 3) targeted critical infrastructure facilities and major thoroughfares. There have not been any catastrophic events to date to indicate that stronger design considerations are necessary on the City's electric system.

The City is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association (FMEA).

#### c) Flooding and Storm Surges

As the City is not a coastal community subject to flooding and storm surges, these types of standards, practices, guidelines, and procedures do not apply to the City's system.

The City is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

All newly designed distribution facilities are placed within either distribution easements or are within the right of way limits on a road. The City discontinued the practice of rear lot construction many years ago. No distribution easements are allowed away from easily accessed areas for new construction. To the extent that alternatives exist for replacing other distribution facilities in a safe and efficiently accessed area, the City would consider all possibilities before leaving existing situations in less than desirable locations.

#### e) Attachments by Others

The Joint-Use agreements between <u>City</u> and third-party(s) address terms and conditions of pole attachments. Since July 2006, the City has not issued a permit for pole attachment(s) without reviewing both the loading details and clearance details supplied by the joint user. Poles are replaced as the clearances and loading dictates. All loading is reviewed in compliance with the latest edition of the National Electric Safety Code.

#### 4. Facility Inspections

a) The City's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures are as follows:

#### Pole Inspection Treatment Program - Eight Year cycle

• The City's pole/structure inspection and treatment program was initiated several years ago and has been refined through each inspection cycle. The City's program is defined so that every eight years a new pole inspection and treatment cycle is initiated to inspect all the distribution and transmission wood poles and structures on the city's system over a three-year period. Also during these inspections, visual inspections are made of the City's concrete and/or steel structures with any deficiencies needing attention reported. The inspection/treatment program includes all of the following; (i) visual inspection for wood poles less than 10 years old, (ii) sound and bore inspection for poles greater than 10 years old, (iii) internal treatment and fumigant treatment as required, (iv) reinforcement/replacement as required, (v) assessment and evaluation of poles to determine whether they meet the applicable N.E.S.C. strength standard and (vi) record keeping of data for the GIS database. The City has found that this inspection process,

used typically throughout the industry, has resulted in high reliability and appropriate maintenance levels at reasonable cost.

#### Transmission Inspection Program -

• Five Year cycle. The City performs a climbing and physical inspection of every transmission structure on its system at least every five years. A plan is developed from these inspections to make all of the necessary repairs and/or refurbishments during periods of the year when load conditions permit the scheduling of line outages (typically fall and spring periods unless it is an emergency repair).

#### Infrared Inspections/Flying Inspections - Transmission and Distribution Facilities

• Infrared Inspections/Flying Inspections of Facilities - the Electric Utility and Tallahassee Police Department have jointly funded a Forward Looking Infrared Radar (FLIR) system that is utilized from the Leon County Sheriff's Office (LCSO) helicopters. In return for our funding the LCSO provides flight time for transmission and distribution inspections. The transmission system is routinely inspected twice per year. Other aerial inspections of different segments of the distribution and transmission system are performed as needed.

#### **Technical Assessments**

- Technical Assessments after a significant electrical service interruption event has impacted the City of Tallahassee service territory and restoration of the City's customer has been completed, staff initiates technical and service related reviews:
  - Crews are assigned specific circuits and areas to patrol and inspect to make sure that the system facilities are in normal operating condition.
  - Assessment team personnel, engineering staff and restoration supervisory staff meet to assess, review and evaluate system performance, strength, problem-areas and prioritize issues/items that need to be addressed and/or improved upon.

#### **Documentation/Record Keeping**

- o The City's Outage Management System (OMS) tracks all transmission and distribution facilities outages and identifies the causes of these facility interruptions. The interfacing of the OMS and Geographic Information System (GIS) allows OMS to track outages allowing the determination and classification of the cause as overhead or underground.
- o GIS contains information concerning the system construction and has the capability for connectivity that will trace from the source point to the end point of service to a specific customer. This aids in assessment of outage causes.

#### **Post Mortem Interruption Reviews**

- O After every major outage on the City's system, Engineering & Operations Staff conduct a "post mortem" meeting to analyze the cause of the outage, the response to the outage and evaluate any changes or improvements that can be made to the system or the response process. Forensic analysis is utilized on an as-needed basis. The City has been consistently proactive in maintaining and improving the reliability and integrity of its distribution and transmission systems. In addition to the eight-year cycle pole inspection, treatment and replacement program, Infrared Inspection Program, five-year transmission inspection program, we have other ongoing programs such as the following that we perform for reliability purposes:
  - Line Clearance and Vegetation Management Program

- Distribution, Transmission, and Substation Engineering Designs
- Distribution System Inspection/ Monitoring/Maintaining
- Geographic Information System (GIS)/Outage Management System (OMS)
- Training/Preparation
- Emergency Operations & Disaster Recovery Planning
- b) Describe the number and percentage of transmission and distribution inspections planned and completed.

#### • Transmission Poles:

- o Wood Poles/Structures in-service 3,006
- o Number treated and inspected during FY2005 and FY2006 1,694 (56%)
- o Number treated and inspected during FY2007 1,312 (44%)

#### Distribution Poles:

- O Wood Poles/Structures in-service 46,191
- o Number treated and inspected during FY2005 and FY2006 43,280 (93%)
- o. Number treated and inspected during FY2007 2,911 (7%)
- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

#### Transmission Poles:

- o Rejected poles replaced 8 (.0.27% of transmission poles inspected)
  - A rejected pole is one found to be deteriorated below the required minimum circumference as defined in the standard industry table for inspection and treated poles specified by the City. Rejected poles typically have weakened due to wood decay, insect, or mechanical/structural damage and age.
  - These poles have been replaced with spun concrete poles.

#### Distribution Poles:

- o Rejected poles in need of replacement 275 (0.6% of distribution poles inspected)
  - Eighty percent —of the 275 rejected poles were replaced in FY2005 and FY2006 and the remainder were replaced in FY2007.
  - A rejected pole is one found to be deteriorated below the required minimum circumference as defined in the standard industry table for inspection and treated poles specified by the City. Rejected poles typically have weakened due to wood decay, insect, or mechanical/structural damage and age.
  - The replaced poles are evaluated and assessed to ensure the appropriate class pole used to meet the City's applicable Construction Standards.
- d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Replaced poles -283 poles (0.6% of all poles inspected)

- All 179 rejected poles sizes from 25' class 7 through 35' class 5 replaced with 35' 5 poles (63% of all the rejected poles). All the poles in need of replacement are evaluated and assessed to ensure the appropriate class pole used to meet the City's applicable Construction Standards
- o Remaining 104 poles (37% of all the rejected poles):

<u>Pole</u>	<b>Number</b>	Percent of all pole inspected
40'-3	35	0.08 %
40'-4	27	0.06 %
40 –5	3	0.01 %
45'- 0	1	0.00 %
45'-2	1	0.00 %
45'-3	12	0.04 %
45'-4	3	0.01 %
50'-2	1	0.01 %
50'-3	8	0.02 %
55'-3	2	0.01 %
60'-1	1.	0.00 %
60'-2	1	0.01 %
60 <b>'-</b> 3	1	0.00 %
70'-2	3	0.01 %
75'2	3	0.01 %
80'-2	2	0.01 %

o All poles determined to be in need or replacement are evaluated and assessed to ensure the appropriate class pole is used to meet the City's applicable Construction Standards

#### Re-enforcement of Poles – 592 poles (1.2% of all poles inspected)

o 592 various size poles were re-enforced with a C-truss to extend their useful serviceability. At this time we do not have a breakdown of the re-enforced poles by size and class.

#### 5. Vegetation Management

- a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.
  - The City's design standards exceed the National Electric Safety Code requirements for horizontal clearances to all transmission lines. This typically dictates easement widths that provide for larger clear zones from trees and other structures. City Line Clearance and Vegetation Management Program maintains an eighteen-month trimming cycle of all overhead distribution lines targeting at least four to six feet of line clearance and the

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removal of hazard trees pursuant to the City Commission's established guidelines. The transmission system is managed on a three-year trim cycle with target clearance of twenty (20) feet. City's vegetation management program also utilizes directional pruning, tree growth regulators and the removal/replacement of invasive trees with "power line friendly" trees.

- b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.
  - Transmission All transmission Rights of Way and/or easements will be mowed this fiscal year and will be mowed annually for the foreseeable future. Those lines that pass through residential areas will be mowed 3-4 times during the growing season in order to reduce customer complaints regarding "overgrown ROWs". The lines running through rural areas were managed with the use of a Jaraff mechanical trimmer in 2005. Our plan is to prune in FY2008 again utilizing some type Jaraff mechanical trimmer or equivalent. The Jaraff crew skips over locations where the lines pass near or through residential areas because of the appearance of the trees after being mechanically pruned. Those locations are pruned with the use of aerial lifts so that proper pruning cuts can be made leaving a more aesthetically pleasing appearance. However, whether mechanical or by hand, target clearance is twenty feet from the conductors. A broad-spectrum herbicide is applied to the base of all poles, steel structures, guy wires, and cross fences to eliminate the growth of underbrush and vines around the facilities.
  - Distribution Vegetation around approximately 650 miles of overhead distribution lines will be managed this fiscal year. This represents 2/3 of the total 1,000 overhead line miles on the system that has vegetation exposure. This is based on an eighteenmonth trim cycle of which we have maintained since 1997 pursuant to City Policy. A target clearance of 4-6 feet based on ANSI A-300 standards is obtained each cycle. All line clearance maintenance work is performed by our contractor under a Firm Price contract, which requires that the entire overhead distribution system shall be completed within the 18 month trim cycle. We are currently working on the seventh trim cycle since this program was initiated. In addition to pruning, all appropriate trees that have the potential to grow into the established clear zone of the lines will be treated with a Tree Growth Regulator. The entire overhead distribution system has been treated twice since 1997 and the treatment continues.

#### 6. Storm Hardening Research

The City of Tallahassee Electric Utility is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.



## City of Vero Beach

T & D Department

P.O. Box 1389 3455 Airport West Dr. Vero Beach, FL 32961-1389

Telephone: (772) 978-5400 Fax. (772) 770-2230

Tim Devlin Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Dear Mr. Devlin,

Enclosed is the City of Vero Beach System Hardening Report pursuant to rule 35-6.0343, F.A.C. for 2007. I have also enclosed a spreadsheet listing the poles the were replaced. If you have any questions please contact me.

Sincerely,

J. Randall McCamish, P.E. Director Electric T & D Email: rmccamish@covb.org

# City of Vero Beach System Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

a) City of Vero Beach

b) 3455 Airport Dr. WestP.O. Box 1389Vero Beach, FL 32961-1389

c) Contact information: Name, title, phone, fax, email

Randall McCamish Director Electric T & D Phone: 772-978-5431 Fax: 772-770-2230

Email: rmccamish@covb.org

#### 2) Number of customers served in calendar year 2007

34,032

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

#### b) Extreme Wind Loading Standards

In 2005 the construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach were revised and as a result are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities; and 3) targeted critical infrastructure facilities and major thoroughfares. Plans are being made to make any changes necessary based on the 2007 NESC.

The City of Vero Beach is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

#### c) Flooding and Storm Surges

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. All facilities are installed a minimum of 8 inches above the roadway and grading is required to prevent erosion.

The City of Vero Beach is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All new facilities are installed on the roadway for easy access. Right-of-ways are maintained to existing overhead back lot lines as much as possible. Overhead back lot lines are replaced by underground lines in high-risk areas. Remote control equipment is also available for hard to reach areas.

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Vero Beach include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. The use, number, size, elevation of attachment, and wind loading are all taken into consideration when determining the strength of the pole.

#### 4. Facility Inspections

- a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.
  - The City of Vero Beach has 55 miles of transmission lines that are mostly on road or canal right-of-way. The transmission lines are driven and visually inspected once every 2 to 3 months.

The overhead distribution system is made up of approximately 6,000 poles that are inspected once every 5 years. Plans are to inspect 1,000 to 1,250 poles per year. Just over half (3,100) of the poles are owned by BellSouth with the City of Vero Beach owning the rest. The City of Vero Beach contracts a four-person line crew to inspect and repair or replace anything that doesn't meet current NESC standards including poles and hardware. The crew is given a GIS map printout with instructions to inspect everything in the map area. The condition of the poles and equipment is marked on the map including the estimated life expectancy of the poles not failing inspection. The poles are inspected using the sound and bore method with some excavation. Normally the poles are sounded and bored at ground line unless the pole is over 20 years old or looks weathered, then some excavation around the pole is performed for further inspection.

All poles and equipment failing inspection are replaced within two weeks. BellSouth is notified when one of their poles fails inspection and they usually replace them within 90 days.

- b) Number and percentage of transmission and distribution inspections planned and completed for 2007.
  - The transmission system was inspected 4 times in 2007 with no poles failing inspection. We currently have approximately 700 square concrete, 65 steel, 125 spun concrete, 65 wooden, and 5 round hybrid concrete/steel poles. Any additions or replacements will be either spun concrete or round hybrid poles.

The City of Vero Beach initiated an inspection program of the electric system in September 2006. Prior to this date accurate records were not kept. In 2007 approximately 30 % (1794 poles) of the distribution system had been inspected and repairs made. The entire system will be inspected and repairs made in 5 years.

- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.
  - There were no transmission pole or structure failures in 2007. Two square concrete
    poles were found to have a vertical hairline crack at the base. An outside contractor
    inspected the poles and determined that the cracks were not due to wind or load stress
    but possibly from lightning. The poles are not in immediate danger but need to be
    watched for any change. Plans are to repair or replace the poles in the 2008 2009
    budget year.
  - 1794 distribution poles were inspected with 34 failures or 1.9 %. Twenty-nine of the failures were from ground rot and one from a rotten top, and one hit by a vehicle. There were three poles replaced by BellSouth due to ground rot.
- d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.
  - There were no transmission poles or structure failures in 2007.
  - The distribution system had one 50-3 wood pole fail because of ground line rot. It was replaced with a 50-IV steel pole. Three 45-3 wood poles failed from ground line rot and were replaced with 40-IIIA concrete poles. Twenty-four 40-4 wood poles failed from ground line rot. One was replaced with a 40-IIIA concrete pole and the other twenty-three were replaced with 40-4 wood poles. Five 30-5 wood service poles failed from ground line rot and were replaced with a 30-5 wood poles. One 40-IIIA concrete poles was hit by a vehicle and replaced with a 40-IIIA concrete pole. Once a pole fails inspection it is replaced with a steel or concrete pole if it can easily be reached by a bucket truck from the road or a parking lot. If it is in a back lot line and cannot be reached easily by a bucket truck a wood pole is used.

#### 5. Vegetation Management

- a) The City of Vero Beach has always attempted to maintain a three-year vegetation management cycle. In December 2004 the City adopted the Tree Line USA approach to trimming trees. Now when tree limbs get within 3 feet of the neutral or 5 feet of the primary it is cut back to the trunk or main limb. This usually leaves about a 10 feet clearance after initial trimming. The City has also started topping trees that are in the right-of-way at the customer's request in an effort to help them remove the trees. With this trimming policy the City has been able to maintain proper clearance with two 3-man crews, however a third crew was added in December as a precaution. Plans are to use the temporary crew for about three months. In 2007 the dispatch center received approximately 10 calls per month from customer requesting tree trimming.
- b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.
  - The City of Vero Beach has approximately 50 square miles of service territory. This territory is broken down into a grid system of 60 blocks of equal size. The tree crews are given one block to trim at a time and this block is mark off as it is completed. The goal is to complete all 60 blocks every three years. If this goal is not met a temporary tree crew is added to catch up. We also hired a clearing contractor to clear the right-of-way of approximately 10 miles of transmission lines. We currently are in the process of hiring a mowing contractor to keep this right-of-way clear.

#### 6. Storm Hardening Research

The City of Vero Beach is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or

POLE OLD	DATE REPLACED POLE NEW	REASON FOR REPLACEMENT	ADDRESS OF POLE BIRTH MARK	CVB/BST
40/4 WOOD	1/17/2007 40/4 WOOD	ROTTEN- GROUND LEVEL	5995 24TH ST.	CVB
40/4 WOOD	1/13/2007 40/4 WOOD	ROTTEN- GROUND LEVEL	5875 23 ST.	CVB
40/4 WOOD	2/7/2007 40/4 WOOD	ROTTEN- GROUND LEVEL	4425 20TH ST.	CVB
40/4 WOOD	1/2/2007 40/IIIA CONC.		2266 14TH AVE.	CVB
40/4 WOOD	3/13/2007 40/4 WOOD	ROTTEN - GROUND LEVEL	1120 17TH ST.	CVB
50/3 WOOD	3/14/2007 50/4 STEEL	ROTTEN- GROUND LEVEL	1394 33RD ST.	CVB
40/4 WOOD	3/15/2007 40/3A CONC.	ROTTEN- GROUND LEVEL	3256 US-1	CVB
30/5 WOOD	3/20/2007 30/5 WOOD	ROTTEN - GROUND LEVEL	4229 25 AVE.	CVB
45/4 WOOD	4/2/2007 45IIIA CONC.	ROTTEN- GROUND LEVEL	1526 OLD DIXIE	CVB
45/4 WOOD	3/29/2007 45IIIA CONC.	ROTTEN - GROUND LEVEL	1402 OLD DIXIE	CVB
45/4 WOOD	3/30/2007 45IIIA CONC.	ROTTEN - GROUND LEVEL	1500 OLD DIXIE	CVB
40/4 WOOD	4/14/2007 40/4 WOOD	ROTTEN - GROUND LEVEL	1365 US-1	CVB
30/5 WOOD	4/12/2007 30/5 WOOD	ROTTEN - GROUND LEVEL	1534 21 ST.	CVB
30/5 WOOD	4/26/2007 30/5 WOOD	ROTTEN - GROUND LEVEL	1865 18 AVE.	CVB
30/5 WOOD	4/27/2007 30/5 WOOD	ROTTEN - GROUND LEVEL	616 9 PL.	CVB
40/4 WOOD	4/24/2007 40/4 WOOD	ROTTEN-TOP	1730 24 ST.	CVB
40/4 WOOD	4/25/2007 40/4 WOOD	OLD POLE REMOVED	4612 16 ST.	CVB
40/4 WOOD	5/2/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	810 8 ST.	CVB
40/4 WOOD	5/8/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	696 11 CT.	CVB
40/4 WOOD	5/9/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	625 11 CT.	CVB
40/4 WOOD	5/10/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	636 11 CT.	CVB
40/4 WOOD	5/21/2007 40/4 WOOD	BELL SOUTH TRANSFER	1310 4 CT.	BST
40/4 WOOD	5/22/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	1170 10 PL.	CVB
40/4 WOOD	5/23/2007 40/4 WOOD	BELL SOUTH TRANSFER	4776 OLD DIXIE	BST
40/4 WOOD	6/1/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	25 AVE. & 19 ST.	CVB
40/4 WOOD	6/1/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	1914 25 ST.	CVB
40/4 WOOD	6/4/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	2806 CARDINAL DR.	CVB
40/4 WOOD	6/7/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	643 5 PL. SW.	CVB
30/5 WOOD	6/12/2007 30/5 WOOD	ROTTEN-GROUND LEVEL	6000 37 ST	CVB
40/4 WOOD	6/25/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	1601 E. CAMINO DEL RIO	CVB
40/4 WOOD	7/11/2007 40/4 WOOD	BELL SOUTH TRANSFER	5315 16 ST.	BST
40/4 WOOD	7/12/2007 40/4 WOOD	ROTTEN-GROUND LEVEL	3400 ATLANTICBLVD.	CVB
40111A CON	IC. 9/12/2007 40111A CON	C POLE BROKEN-VEHICLE ACC.	21 ST. & 14 AVE.	CVB
40/4 WOOD	11/15/2007 40/4 WOOD	ROTTEN - GROUND LEVEL	2105 19TH AVE.	BST
40/4 WOOD	12/12/2007 40/4 WOOD	ROTTEN - GROUND LEVEL	1805 38TH ST.	CVB
30/5 WOOD	12/14/2007 30/5 WOOD	NEW LOCATION	2602 19TH PL.	CVB

# City of Wauchula Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

2 3

- a) City of Wauchula
- b) 126 S. 7<sup>th</sup> Avenue, Wauchula, FL 33873
- c) Contact information: Ray McClellan, Superintendent of Public Works, 863-773-3535, ray@cityofwauchula.com

#### 2) Number of customers served in calendar year 2007

The count is 2,800 customers.

#### 3) Standards of Construction

a) National Electric Safety Code Compliance

The City of Wauchula does have standards, policies, guidelines, practices, and procedures in place 2007.

b) Extreme Wind Loading Standards

The City of Wauchula follows the NESC standards for extreme wind loading.

c) Flooding and Storm Surges

The City of Wauchula is approximately 60 miles from the Atlantic and Gulf coasts, and therefore is not affected by flooding or storm surges.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

The City of Wauchula has the ability for crews to be able to access distribution facilities on or behind customer's property if work needs to be done.

#### e) Attachments by Others

The City of Wauchula does not have any standards in place at this time but will examine this issue in 2008.

#### 4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

The City of Wauchula does a sound and bore inspection.

b) Number and percentage of transmission and distribution inspections planned and completed for 2007.

One –third was completed in 2007 and we will continue to do one-third every year.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

The City of Wauchula has less than 1% failure (out of 1,800 poles). Failure is due to poles rotting at the ground line.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

One of our five transmission poles was replaced in 2007.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Wauchula's policy on vegetation management consists of tree trimming and herbicide for vines on a schedule of one-third per year.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

The City of Wauchula's policy on vegetation management consists of tree trimming and herbicide for vines on a schedule of one-third per year.

#### 6. Storm Hardening Research

The City of Wauchula is a member of the Florida Municipal Electric Association (FMEA) which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or bmoline@publicpower.com.

# City of Williston

Storm Hardening Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

# 1) Introduction

- a) City of Williston
- b) P. O. Drawer 160, Williston, FL 32696
- c) Contact information: James Arrington, Utilities Director

Phone: (352) 528-3060: Fax: (352) 528-0390

E-mail: butlerjr@ci.williston.fl.us

2) Number of customers served in Calendar year 2007

1510

# 3) Standards of Construction

a. National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the City of Williston comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b. Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the City of Williston, meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after January 1, 2007; and 3) targeted critical infrastructure facilities and major thoroughfares.

The City of Williston is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.

c. Flooding and Storm Surges

NOT applicable, the City of Williston is an inland community located 45 miles from a coastal area.

d. Safe and Efficient Access of New and Replacement Distribution Facilities.

All New Electrical Construction and Replacement Distribution Facilities within the City of Williston are constructed along Road Right of Ways or on accessible easements. No construction is allowed on rear lot lines within Residential Subdivisions.

e. Attachments by Others

We are examining this issue in 2008 to establish pole loading rates by others.

# 4) Facility Inspections

a. Policies, guidelines, practices, and procedures for inspecting distribution lines, poles, and structures.

All distribution poles are inspected by a visual and sound inspection on a three (3) year cycle by the City of Williston employees. Since 2007 the City of Williston uses both the bore method and the visual and sound method to inspect the poles.

b. Number and percentage of distribution inspections planned and completed for 2007.

33% of the City of Williston's 1100 poles were inspected in 2006 and another 33% of the poles were inspected in 2007. This is the three (3) year inspection cycle.

c. Number and percentage of distribution poles failing inspection and the reason for the failure.

In 2007 33% of the 1100 poles were inspected and it was found that 1.75% or 5 poles were defective.

5 poles were found to have wood decay at or below ground level.

d. Number and percentage of distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

1% or 3 poles that failed inspection – Class 5 – 40' wood poles replaced

.75% or 2 poles that failed inspection – Class 5 – 35' wood pole replaced

# 5. Vegetation Management

a. Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-way or easements, and an explanation as to why the City of Williston believes its vegetation management practices are sufficient.

The City of Williston trims all distribution lines on a three (3) year cycle and attention is given to problem trees during the same cycle. Any problem tree not located within the right-of-way is addressed with the property owner and a solution is agreed upon before corrective actions are taken.

b. Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

One third (1/3) of the distribution facilities are trimmed every year to obtain a three year cycle.

### 6. Storm Hardening Research

The City of Williston is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities.

# The City of Winter Park Electric Utility Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

# 1) Introduction

- a) City of Winter Park
- b) 401 Park Avenue South, 32789
- c) Mark Brown, Electric Utility Engineer/ Analyst Phone: 407-599-3457 Fax: 407-599-3505

mbrown@cityofwinterpark.org

# mbiowin(a)cityotwinterpark.org

# 2) Number of meters served in calendar year 2007

The City of Winter Park serves 15,027 meters as of December 2007

# 3) Standards of Construction

# a) National Electric Safety Code Compliance

Construction standards, guidelines, practices, and procedures at the City of Winter Park comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed after February 1 2007 comply with the 2007 NESC. The electrical facilities constructed prior to February 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

# b) Extreme Wind Loading Standards

In January 2008, The City of Winter Park has begun an ambitious initiative to put its entire distribution system underground. Phase 1 is funded by \$18 million in bonds to fund the undergrounding of 9.3 miles of mainline feeder underground and provide \$2.5 million in matching funds for neighborhoods that want to participate in the funding to accelerate the undergrounding within their neighborhood. In January 2008, the City began its first project which will remove 15,900 ft. of overhead feeder and be replaced with 14,800ft. of underground feeder and 19,455ft of underground distribution. Additionally, The City of Winter Park requires that new residential electric service installations be installed underground.

The system was originally designed by Progress Energy. When the system equipment requires replacement, they are replaced item for item and in some instances we will install an improved item or when possible put it underground.

At this time, the City of Winter Park facilities are not designed to be guided by the extreme loading standards on a systemwide basis. The City is Winter Park is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in specific areas.

# c) Flooding and Storm Surges

The City of Winter Park is not a coastal community and storm surges are not a major concern. Flooding was not a significant problem during the hurricanes of 2004. The City of Winter Park is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association.

# d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the City of Winter Park provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that City's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. The City of Winter Park decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available. One of the goals of the undergrounding projects is to improve accessibility by moving the back-lot line equipment out to the front of the property so that facilities are accessible from the street.

# e. Attachments by Others

The City of Winter Park is currently negotiating with a number of other utilities on a joint use agreement.

# 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

The City of Winter Park does not own transmission poles or lines and hired an outside contractor to complete an inventory of poles owned by the City. This has been completed in

2007. Wood pole inspections vary, three basic methods are used and usually in combination in order to assess the condition of a wood pole. Employees would use a visual inspection and an assessment prior to climbing poles in conjunction with field work, and sounding a pole with a hammer to determine the soundness of a pole. The length of the inspection cycle is being evaluated to determine what is appropriate but it is presently planned not to exceed eight years or 12.5% per year.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.

The City of Winter Park does not own transmission poles or lines. No systemwide sound and bore testing has been completed to date however the City does have plans to begin sound and bore testing of its wooden distribution poles in 2008.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

The City of Winter Park has not done a formal inspection of all its distribution poles in 2007, any poles or structures that have needed replacement were found during routine maintenance, upgrades or field observation.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

The City of Winter Park has not done a formal sound and bore inspection of all its distribution poles in 2007, any poles or structures that have needed replacement were found during routine maintenance, upgrades or through field observation.

# 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-ofways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

The City of Winter Park's has employed an outside contractor managed by our distribution services provider. The City's program is based on a three (3) year trim cycle, which is augmented as needed to maintain clearance between cycles. Dead and hazard trees located outside of right-of-way on private property, which present an imminent threat to power lines or equipment, are reported to the City's Code Enforcement Arborist who has the authority to order the tree trimmed or removed. The City's contract language specifies that all routine trimming shall adhere to the National Arbor Day Foundation standards for Line Clearance and comply with ANSI A300

standards for tree trimming. This program of tree trimming, hazard tree and vine removals, combined with good pruning practices that direct future growth away from lines allows Winter Park Electric Utility to provide safe and reliable electrical service to customers on a day to day basis and reduces the potential for damage during storms.

# b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

The City of Winter Park will maintain the current level of vegetation management on its distribution lines however, The Public Utility Research Center held a vegetation management conference March 5-6, 2007. Through FMEA, the City of Winter Park has a copy of the report and will use the information to continually improve vegetation management practices.

# 6. Storm Hardening Research

The City of Winter Park Electric Utility is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext.1, or <a href="mailto:bmoline@publicpower.com">bmoline@publicpower.com</a>.



# CENTRAL FLORIDA ELECTRIC COOPERATIVE, INC.

P.O. Box 9 Chiefland, Florida 32644 Phone (352) 493.2511

February 29, 2008

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: Report to the FPSC Pursuant to Rule 25-6.0343, F.A.C

Mr. Devlin,

Central Florida Electric Cooperative, Inc. has attached with this letter the report to the Florida Public Service Commission pursuant to Rule 25-6.0340, F.A.C. If there is any questions please contact me at your convenience.

Sincerely,

Benjamin R. Dawson Director of Engineering ECONOMIC REGULATION

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UniBA PUBLIC SERVICE

# Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C.

## Calendar Year 2007

- 1) Introduction
  - a) Central Florida Electric Cooperative, Inc.
  - b) 1124 N Young Blvd. Chiefland, Florida 32644
  - c) Contact information: Ben Dawson Director of Engineering (352) 493-2511 Ext. 228
  - d) Central Florida Electric Cooperative, Inc., is an electric distribution cooperative in north central Florida, serving approximately 35,559 meters as of year-end, 2007. The Cooperative maintains 4,155 miles of overhead distribution line, 230 miles of underground distribution line, and 12 miles of transmission line. Central Florida Electric Cooperative, Inc. serves consumers in Alachua, Dixie, Gilchrist, and Levy Counties. The Cooperative operates 15 distribution substations, purchasing power at 69 kV from Seminole Electric Cooperative, Inc., a statewide cooperative power supplier.

The Cooperative's service territory, located in the "Big Bend" area of Florida, is flanked by the Gulf of Mexico on the west; Tri-County and Clay ECI's to the north and northeast; and Sumter and Withlacoochee ECI's to the south and southeast. The majority of the area is rural, where small farms, multiple dairies, and timberlands are the predominant land usage. There are several relatively urban areas within the service area, along with some "pockets" of residential development.

The service area is bisected by U.S. Highway 19 & 98, which runs from the northwest to the southeast, and by U.S. Highway 27A, which runs west to east.

2) Number of meters served in calendar year 2007:

35,559 connected meters.

### 3) Standards of Construction:

# a) National Electric Safety Code Compliance:

Construction standards, policies, guidelines, practices, and procedures at Central Florida Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

# b) Extreme Wind Loading Standards:

The wind standard for the Central Florida Electric Cooperative, Inc. facilities is between 100 mph inland and 130 mph at the coast. At this time, Central Florida Electric Cooperative, Inc. facilities are not designed to be guided by the extreme loading standards on a system wide basis. Central Florida Electric Cooperative, Inc. is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment.

# c) Flooding and Storm Surges:

Central Florida Electric Cooperative, Inc. is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Central Florida Electric Cooperative, Inc. is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research.

# d) Safe and Efficient Access of New and Replacement Distribution Facilities:

Electrical construction standards, policies, guidelines, practices, and procedures at Central Florida Electric Cooperative, Inc. provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front or side of property), all facilities are installed so that Central Florida Electric Cooperative, Inc.'s facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Central Florida Electric Cooperative, Inc. does not install facilities in the rear of property. Central Florida

Electric Cooperative, Inc. decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

# e) Attachments by Others:

Electrical construction standards, policies, guidelines, practices, and procedures at the Central Florida Electric Cooperative, Inc. include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. By pole attachment agreement, we ensure attachments to our poles comply with the above before we approve pole attachment permits.

# 4. Facility Inspections

- a) It is the policy of Central Florida Electric Cooperative, Inc. to inspect all of its transmission facilities, above and at the ground level, with its crews on a yearly basis. These inspections are coordinated to be performed as crews become available when higher priority work is complete. All distribution poles are inspected or repaired at the ground line by contractors within a planned 8-year program. Poles are replaced by Central Florida Electric Cooperative, Inc. crews if found deteriorated beyond repair. Above ground line inspection is performed by Central Florida Electric Cooperative, Inc. crews on a daily basis at they do routine work.
- b) Central Florida Electric Cooperative, Inc. planned and inspected all twelve miles of transmission owned in 2007. Central Florida Electric Cooperative, Inc. contracted a ground line inspection and treatment of approximately 11,800 distribution poles in 2007. This was approximately 14.3 % of all distribution poles in the system. Approximately 8,500 poles will be inspected in 2008.
- c) The approximately 11,800 distribution poles inspected, 47 were found to be deteriorated beyond repair.

# 5. Vegetation Management

a) Central Florida Electric Cooperative, Inc. is currently 3 years into a 5-year right-of-way vegetation clearance plan. Trees are trimmed or removed within 10 feet of all main lines, taps, and guys. Dead trees, which could fall on the line from outside of our easements, are downed with owner's permission. Vines are removed from poles, guys and lines. In 2007 477 miles of the approximately 2934 miles of line in the system were cleared.

# Central Florida Electric Cooperative, Inc. RUS Reliability Data

PREVIOUS 5 YEARS	POWER SUPPLIER	MAJOR STORM	SCHEDULED	ALL OTHER	TOTAL
(Year)	a.	b.	c.	d.	e.
2007	0.25	0.14	0.10	2.88	3.37
2006	0.27	0.29	0.01	2.39	2.96
2005	0.17	0.55	0.13	3.57	4.42
2004	0.33	18.24	0.04	2.86	21.47
2003	0.56	0.00	0.02	2.34	2.92

Note: Values are in hours



February 19, 2008

Mr. Stephen Garl, Division of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Re: Report for Rule 25-6.0343, F.A.C.

Attached is Choctawhatchee Electric Cooperative, Inc's (CHELCO) report for Rule 25-6.0343, F.A.C. due March 1, 2008. If you have any questions regarding the information provided in this report, please contact me at (850) 892-5069 Ext. 312.

Regards,

J. Matthew Avery

Manager of Engineering

J Matthew-Avery

Cc; Leigh Grantham, Chief Operating Officer, CHELCO

Cc; Michelle Hershel, FECA

CHOCTAWHATCHEE ELECTRIC COOPERATIVE, INC.

Post Office Box 512 Gefuniak Springs, Florida 32435

Hone 850,892,2111 Tali Pari - 800,342,0990 fizir 500,892,9243 Web www.chelco.com



# Choctawhatchee Electric Cooperative, Inc. Report to Florida PSC Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007 Submitted March 1, 2008

- 1. Introduction
  - CHELCO Choctawhatchee Electric Cooperative
  - P.O. Box 512
     1350 West Baldwin Avenue
     DeFuniak Springs, FL 32435
  - Contact: J. Matthew Avery
     Manager of Engineering
     850-892-5069 Ext. 312
     mavery@chelco.com
- 2. Number of Meters Served in 2007: 45746
- 3. Standards of Construction
  - a) National Electrical Safety Code Compliance -Construction standards, policies, guidelines, practices, and procedures at CHELCO comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.
  - b) **Extreme Wind Loading Standards -** Construction standards, policies, guidelines, practices, and procedures at CHELCO are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC. This statement applies to new construction and maintenance work orders.
  - c) Electrical construction standards, policies, guidelines, practices, and procedures at CHELCO address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities. CHELCO reviews each project on a case by case basis to determine the effects of flooding and storm surge. We make recommendations to the counties that ultimately approve the developments.
  - d) Electrical construction standards, policies, guidelines, practices, and procedures at CHELCO provide for placement of new and replacement distribution facilities to facilitate safe and efficient access for installation and

- maintenance. New facilities are placed in front or side of the property and all facilities are installed to allow access by CHELCO crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. CHELCO decides on a case-by-case basis whether existing facilities need to be relocated. In 2007, to further harden our system along a coastal area, we replaced 3.5 miles of galvanized pole hardware with stainless steel hardware. We also replaced three critical wood pole structures with concrete pole structures.
- e) The pole attachment agreements between CHELCO and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. CHELCO performs follow-up audits to ensure the attachment is properly installed and maintained. We also inspect and physically count every attachment on a 3year cycle.

# 4. Facility Inspections

- a) We inspect new construction of power lines on a monthly basis. Each month work orders are closed and routed to the inspector. Work orders are selected at random and represent all types of construction and an accounting of the total dollars spent. We inspect poles, conductor, equipment, and any attachments made on the poles for NESC requirements and specifications.
- CHELCO also uses an outside contractor for pole inspections. We are on an eight-year cycle to cover all the poles on our system, and have been conducting pole inspections since the 1960's. Currently, our contractor inspects between 5000 and 7500 poles per year.
- b) During 2007, we inspected 538 different work orders. This inspection ranged from one span single phase primary lines to two-or-three mile long three phase lines. Our contractor inspected 6,162 poles or 10.4% out of a system total pole count of 59,370.
- c) During 2007 there were 42 poles or 0.007%, of the poles inspected, that failed inspection.
- d) During 2007 all 42 of the poles mentioned above were replaced.

# 5. Vegetation Management

- a) CHELCO has no Board policy that directly relates to the Right of Way Program. See below for an overview of CHELCO's current program and practices.
- b) CHELCO's current right of way program is designed to cut, mow, or otherwise manage one fifth of its right of way on an annual basis. Our standard of cutting is ten feet on either side of the primary line from ground to sky. In 2007, we performed 510.1 miles of maintenance cutting on primary line. We work to remove any existing problem trees under the primary line(s); this helps to reduce hot-spotting requirements between cycles. We do not require cutting around service conductors, but only the removal of limbs that are directly touching that may cause a problem before the next cutting cycle. We patrol all non-scheduled areas continually for danger trees that could affect a primary line through our service department, construction crews, right of way contractors, right of way supervisor and calls from consumers. To improve our current plan, in early 2008 we will start a program, mowing our rights of way, on a two-year cycle. This will help to minimize the required base clearing during the current five-year cutting cycle, provide a better access for construction/maintenance/restoration of the primary lines, and keep them more aesthetically pleasing to our membership. We began the "Trade a Tree Program" in 2007, which offers the selection of a new tree from a provided list for written approval to remove a problem tree under or near our primary lines.

# **Distribution Reliability Report 2007**

Choctawhatchee Electric Cooperative

# SAIDI = System Average Interruption Duration Index

Sum of All Customer Hours Interrupted (CHI)	88552	2.14	
Total Number of Customers Served (C)	41458		
CAIDI = Customer Average Interruption Duration Index			
Sum of All Customer Hours Interrupted (CHI)	88552	1.81	
Total Number of Customer Interruptions (CI)	48856		

Reliability Indices Data					
С	CHI	CI			
41458	88552	48856			

<sup>\*</sup> Excludes Power Supplier Outages on 3/30/07 and 11/22/07



February 21, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Dear Mr. Devlin:

Enclosed is Clay Electric Cooperative, Inc.'s report to the Florida Public Service Commission as required by Rule 25-6.0343, F.A.C. for the calendar year 2007.

Also enclosed is Clay Electric Cooperative, Inc.'s reliability data for the calendar year 2007. This is a voluntary filing Clay agreed to provide using readily available data. As Clay has stated before we do not have sufficient data to calculate MAIFIe therefore this indices is not furnished.

Should you have any questions about these filings please do not hesitate to contact me.

Sincerely

⊮erman Dyal

Director of Engineering

HD/ra

Cc: Bill Willingham, FECA

# Clay Electric Cooperative, Inc. Outage Data for 2007

# 1. Table of Outage Events by Cause

Cause Code	Number
Unknown Cause	1822
Tree/Limb-Green	964
Tree/Limb-Dead	1112
Animal	339
Defective Equipment	505
Consumer Problem	333
Damaged By Man	315
Bad Transformer	376
Bad R/W	80
Wire Down	86
Car Hit Pole	74
Bad Secondary	63
Bad Primary URD	31
Overloaded Equipment	28
Tree/Limb Sec./Service	30
Consumer Caused	4

# 2. Tables of Actual and Adjusted Outage Indices

The tables do not include the MAIFIe indice because Clay does not collect momentary data on its over 2,200 down line reclosures.

# a.) Adjusted Outage Indices

Adjusted Outage Indices

	2007
Category	Adjusted
SAIDI (Minutes)	164.06
CAIDI (Minutes)	68.66
SAIFI (Events)	2.39
L-bar (Minutes/Outage)	92.05
CEM15 (Cust>5 Events)	15225

<sup>\*</sup>adjusted for events defined by FPSC.

# b.) Actual Outage Indices

Category	2007 Actual
SAIDI (Minutes)	198
CAIDI (Minutes)	59.96
SAIFI (Events)	3.3
L-bar (Minutes/Outage)	91.51
CEM15 (Cust>5 Events)	28032

# Clay Electric Cooperative, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

### 1. Introduction

Utility: Clay Electric Cooperative, Inc.

PO Box 308

Keystone Heights, FL 32656

Contact: Herman Dyal, Director of Engineering

Phone: (352) 473-8000 ext. 8220

Fax: (352) 473-1407

Email: hdyal@clayelectric.com

### 2. Number of meters served:

Approximately 171,000

### 3. Standards of Construction:

# a.) National Electric Safety Code Compliance

Clay's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed on or after February 1, 2007 will be in compliance with the 2007 NESC. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

### b.) Extreme Wind Loading Standards

Clay's construction standards, policies, guidelines, practices, and procedures for transmission facilities are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for transmission lines built after adoption of the 2002 NESC. Any transmission lines rebuilt or relocated since adoption of 2002 NESC has also been designed to the extreme wind loading standards.

Clay's construction standards, policies, guidelines, practices, and procedures for distribution facilities are not designed to be guided by the extreme wind loading standards specified by Figure 250-2(d) except as required by rule 250-C. Clay's experiences in the 2004 hurricanes did not indicate a need to go to the extreme wind loading standards. However, Clay is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association (FECA). Though Clay

intends to continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas, Clay will consider the results of the PURC research before making any final commitments. At this time Clay does not have sufficient evidence or data to support the cost and effort required to increase our design standards to comply with the extreme wind loading.

# c.) Flooding and Storm Surges

Clay is a non-coastal utility; therefore, storm surge is not an issue. Clay does experience minor localized flooding on underground and supporting overhead facilities. Clay continuously evaluates these flood prone areas for possible solutions. Clay is participating through the FECA in the PURC studies on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing flood damage and outages. Clay will consider the results of this study before making final commitments on system hardening for flooding.

d.) Safe and Efficient Access of New and Replacement Distribution Facilities

Clay's practice since the 70s has been to construct our underground and overhead facilities in subdivisions along lot lines adjacent to public/private roadways to facilitate safe and efficient access for installation, operation, and maintenance. In other locations Clay's policies, guidelines, practices, and procedures provide for placement of new and replacement facilities along roadways or areas readily accessible by our crews and vehicles to ensure efficient and safe operation and maintenance.

### e.) Attachments by Others:

The pole attachment agreements between Clay and third-party attaches include language which specifies that the attached, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. Clay periodically performs follow-up audits of attachments to ensure the attachment is properly installed. Clay performed no audits in 2007 but does have plans to inspect all attachments in 2008.

# 4. Facility Inspections:

### Transmission

a.) Clay prior to 2007 was on a ten (10) year ground line pole inspection cycle for all wooden transmission poles. The inspection method used involves the sound and bore technique including excavation at the ground line per RUS guidelines.

In 2007 Clay performed a complete review of its ground visual patrol, climbing inspection and helicopter inspections. Clay's goal was to develop a uniform, consistent program that matched the need for maintenance of our transmission system. Clay concluded it would continue to perform a ground patrol visual inspection every 2 years. In years the ground visual inspection coincides with a scheduled climbing or ground line inspection no separate ground visual inspection will be done. In 2007 Clay did not do a ground visual inspection because Clay did a complete ground-line inspection in 2006 on all wood transmission poles and a complete climbing inspection on all wooden and concrete transmission poles is scheduled for 2008. Clay's next ground visual inspection is planned for 2010.

Clay will perform a climbing inspection of every structure on a four year cycle beginning in 2008. Any problems found will be repaired as soon as possible, but no later than the end of the year in which the inspection was performed. Our last climbing inspection was in 2003.

As a result of Clay's evaluation it was decided to perform helicopter inspections of every structure three times a year. Inspections will typically be done in April, July and November. In 2007 Clay performed three helicopter inspections.

- b.) As stated above no ground-line inspection, visual inspection or climbing inspection was scheduled for 2007. Clay performed three (3) helicopter inspections of its entire transmission system in 2007. They were performed in April, July, and November. They inspected 2,781 poles or 100% of our transmission poles during each helicopter inspection.
- c.) The helicopter inspections found 36 poles or 1.29% of the poles need some type of maintenance. Attached is copy of maintenance log and repair tickets for poles failing inspection.
- d.) In 2007 the helicopter inspections found three (3) 55 foot class 1 wooden southern yellow pine poles treated with creosote that needed to be replaced. One 75 foot class 1 wooden southern yellow pine pole treated with creosote was reported by personnel in our Orange Park District as broken during vehicle accident. This pole was replaced the next day.

Also in 2007, Clay replaced 17 poles that failed the groundline inspection performed in late 2006. These poles were included in last year's report. Attached is maintenance log, and repair tickets for all poles changed out or repaired in 2007.

### **Distribution**

- a.) Clay prior to 2007 was on a ten year ground line inspection cycle for all wooden distribution poles. The inspection program consists of excavation and sound and bore at the ground line according to RUS guidelines as well as a visual inspection of the of the pole for other maintenance items. This inspection cycle covered all distribution poles regardless of treatment type.
  - Going forward in 2007 Clay has revised the inspection cycle to eight (8) years. A copy of the revised inspection cycle is included on the attached CD. This revised cycle uses a phased-in approach so the next few years will still have some cycle times of ten (10) years while Clay compresses the inspection cycle. By 2010 and 2011 Clay will be predominantly on an eight (8) year cycle.
- b.) Clay has an estimated 190,000 wooden distribution poles. In 2007 Clay planned to inspect 25,653 poles or 13.5% of Clay's distribution poles. Clay actually inspected 28,926 poles (15.2%) in 2007.

		Pole Insp	ection Sche	dule 2007		
Substation	<u>Feeder</u>	Estimated	Year Last	Scheduled Treat	Actual Complete	
		Number of Poles	Treated	Date	Date	Actual Number
Alachua (AL)	3	2501			<u> </u>	of Poles
Alachua (AL)	4	2591	1996	2007	04-Jun-07	46
Alachua (AL	5	800	1996	2007	06-Aug-07	3409
Alachua (AL) old 2	6	1563	1997	2007	04-Sep-07	1690
Astor (AS)	1	2868	1996	2007	24-Sep-07	3253
Astor (AS)	2	1096 1097	1997	2007	06-Nov-07	1232
Astor (AS)	3	333	1997	2007	02-Dec-07	2059
Fleming Island (FI)	3	242	1997	2007	10-Dec-07	364
Fleming Island (FI)	5	327	1996	2007	22-Apr-07	656
Francis (FR)	1		1996	2007	30-Apr-07	526
Francis (FR)	2	1673 907	1997	2007	22-Oct-07	1689
Francis (FR)	3	1018	1997	2007	29-Oct-07	966
Francis (FR)	4		1997	2007	05-Nov-07	470
Ft. McCoy (FM)	3	1376	1997	2007	03-Dec-07	2026
Ft. McCoy (FM)	4	3189	1998	2007	29-Jan-07	1119
Mannville (MN)	<del></del>	<del> </del>	1996	2007	09-Apr-07	3753
Proctor (PR)	1	1162 418	1997	2007	24-Sep-07	1393
Proctor (PR)	$\frac{1}{2}$	1492	1996	2007	07-May-07	454
Spring Garden (SG)	1	644	1996	2007	04-Jun-07	1526
Spring Garden (SG)	2	1630	1997	2007	01-Oct-07	1507
2007 Estimated T		25,653	1997	2007	07-Nov-07	506
Mannville (MN)	2	2698	1000			
(2.22.1)		2098	1998	2008	24-Sep-07	282
			2(	007 Actual Total =		28,926.00

c. Clay inspected 28,926 distribution poles in 2007. A summary of the rejects and reason for failure is listed below.

	2007 Pole Inspection				
Reject Cause Summary					
Description	Quantity	% Total			
Ground-line Decay	68	31.34%			
Woodpecker Damage	71	32.72%			
Internal Decay	11	5.07%			
Split Top	25	11.52%			
Top Decay	42	19.35%			
Total	217	100.00%			

d.) On the attached CD the complete inspection report for each rejection is included. All rejections will be replaced by end of 2<sup>nd</sup> quarter 2008. Summary grouping by height and class is:

Height	Class	Quantity	Remediation	% Total
30	6	40	Replaced	.14%
35	4	2	Replaced	.01%
35	5	6	Replaced	.02%
35	6	58	Replaced	.20%
40	3	1	Replaced	.00%
40	4	17	Replaced	.06%
40	5	49	Replaced	.17%
40	6	8	Replaced	.03%
45	2	7	Replaced	.02%
45	3	6	Replaced	.02%
45	4	16	Replaced	.06%
45	5	1	Replaced	.00%
50	3	1	Replaced	.00%
50	4	1	Replaced	.00%
55	1	3	Replaced	.01%
60	2	1	Replaced	.00%

# 5. Vegetation Management

# Transmission

a.) Clay's vegetation management program for the transmission rights-of-way consists of mowing, herbicide spraying, and systematic recutting. Clay performs all three methods on its entire transmission system. While Clay is doing systematic recutting on our transmission corridor they attempt to remove any danger trees off right-of-way.

Clay's vegetation program has been very effective in keeping Clay's transmission system safe and reliable. During the hurricanes of 2004 Clay sustained no damage to its transmission system from vegetation.

Clay's systematic program for mowing and spraying is on a 3 year cycle while Clay's systematic recutting program is on a 3, 4, or 5 year cycle as needed.

On the attached CD the complete transmission systematic mowing, spraying and recutting schedule is listed under file "Vegetation: Work Plan Schedule Transmission 2007-2011.xls."

b.) In 2007 Clay exceeded its scheduled mowing, spraying and systematic recutting on the transmission system. Clay moved 99.27 miles of transmission right-of-way in 2007. This exceeded Clay's goal for 2007 by 33%. Clay sprayed 78.79 miles of transmission right of way in 2007, exceeding the goal for 2007 by 5%. In 2007 Clay recut 51.53 miles of transmission right-of-way, exceeding the goal for 2007 by 12%. On the attached CD are files describing in detail Clay's mowing, spraying, and recutting program for 2007.

### Distribution

a.) Clay owns and operates over 8,900 miles of overhead primary distribution lines. All of our primary lines are under our vegetation management program.

Clay's vegetation management program has been developed taking into account the widely different service areas Clay serves. Presently Clay's vegetation management program consists of a three-year cycle (city), a four-year cycle (urban) and a five-year cycle (rural) for all its distribution primary circuits. The average time for the three cycles is 3.9 years. The reason for the difference in cycle times is simply the difference between re-growth speed and trimming clearance. In the city areas Clay often can not get the full 10' – 12' clearance Clay desires, plus these areas often have more water and fertilizers due to residential sprinkling and fertilizing. At the other extreme in rural areas Clay can often get the full 10' – 12' clearance plus much of the trees in these areas get only rain and not fertilizer. Every distribution primary feeder Clay has is assigned to one of these cycles and a schedule is developed to ensure completion of the cycle. On the attached CD is the complete right-of-way systematic recut plan. Annually after a feeder is recut, Clay's arborist evaluates the clearance obtained and the expected re-growth speed to establish the cycle for the next recut. The next recut could be 3, 4, or 5 years. Therefore, each year Clay's arborist evaluates a feeder's cycle and adjusts the cycle as needed to ensure safe and reliable operation of Clay's feeders.

Clay's Vegetation Management Program is a clear cut right-of-way maintenance program combined with mowing and spraying to provide a safe and reliable distribution system. Clay has approximately 25% of its feeder miles under a

three-year cycle, 40% under a four-year cycle, and the remaining 35% is under a five-year cycle.

Clay has a Pre-Cycle Vegetation Maintenance Cycle consisting of annual inspections of 25% of the distribution feeders in the last year of their cycle for areas that may have the potential to cause an outage before the next cycle year. If Clay finds areas that need to be trimmed to carry the feeder to the next year these areas will be "hot spot" trimmed.

Clay administers a Dead/Danger Tree Removal Program with annual inspections of distribution circuits from the substation to the first down line recloser. Clay also receives requests from members throughout the year for removal of dangerous trees. All of these are field inspected by Clay and action taken as required.

Before Clay begins recutting a feeder, Clay places a bill insert announcing the beginning of recutting in those accounts affected. A copy of the insert is attached.

Clay also has several publications it produces to educate the public on Clay's right-of-way clearing program. These consist of a Tree Maintenance Notification door hanger as well as a brochure titled Keeping the Lines Clear. These are given to members when ever a member asks or when Clay needs to cut danger trees or vegetation that is not on an easement of Clay's. A copy of each is attached.

Clay also produces a guide titled "Landscape Planning" which describes ways to landscape within or near the right-of-way that would be compatible with the right-of-way but yet still provide a safe and beautiful landscape. A copy of the guide is attached.

Clay also has a systematic mowing and herbicide spraying program of three year cycles each.

Attached is a CD that shows our distribution feeder systematic recut, mowing, and spraying program.

Clay's vegetation management program addresses all areas of vegetation from landscape planting to danger tree removal. Clay has been following this program diligently for many years now. While tree limbs are still one of Clay's largest outage causes, Clay is confident its vegetation management program is an effective way to provide for a safe and reliable distribution system. Clay strongly feels the 3, 4, or 5 year cycle they have developed and follow is a realistic program to implement. Reducing the cycle times in Clay's opinion without regard to clearance and re-growth would not result in a significantly safer or reliable distribution system.

b.) In 2007 Clay's mowing program covered 3,014.6 miles of its distribution circuits. This exceeded Clay's goal of 2,984.78 miles. Clay's spraying program covered 4,225.52 miles of its distribution circuits. This exceeded Clay's goal of 2,984.78 miles. Clay's systematic recut program covered 2,321.4 miles of its distribution circuits. This exceeded Clay's goal of 2,218.28 miles. There was no carryover from 2006 nor will there be any carry over from 2007 into 2008. Clay's systematic recut, mowing, and spraying programs for 2007 is recorded in detail on the attached CD.

W:/Engineering/OSERV/DOC/Report to Florida PSC

Clay William Confronting, Tree.

# System Maintenance

SystemInspections

LineSection

Structure Type

Structure#

Groundline

Astor Switching to Sub

Single Pole

58

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

**RWMaintenance** 

**ProblemIdenified** 

11/3/2006

DateCompleted

CO-60-1

3/14/2007

Inspector PMC

County Volusia

*DateEntered* 3/21/2007

AdditionalNotes

Wednesday, March 21, 2007

Page 1 of 1

SystemInspections 5 1 2 1

Groundline

LineSection

Astor Switching to Sub

StructureType

Single Pole

Structure#

57

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

**ProblemIdenified** 11/3/2006

DateCompleted

CO-60-1

1/31/2007

Inspector PMC

County
Volusia

DateEntered

3/21/2007

AdditionalNotes

Wednesday, March 21, 2007

Page 1 of 1

3HOT mederale

SystemInspections

LineSection

StructureType

Structure#

Groundline

TP8ToKeystoneHeights

Tangent

44gs

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

40-4

**ProblemIdenified** 

DateCompleted
3/12/2007

Inspector
PMC

County Bradford

DateEntered

3/21/2007

# AdditionalNotes

Pole was retired due to lack of structure angle, Guy strands were very slack crossing the road

Wednesday, March 21, 2007

Page 1 of 1

TO MY KNOWLEDGE NO CODE VIOLATIONS EXIST

DATE

SIGNATURE

**SystemInspections** 

HelicopterPatrol

LineSection

BrookerToWorhtington

Structure Type

Tangent

Structure#

10

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

RWMaintenance

DeadTree

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector Jeff Hall

County Bradford

**DateEntered** 

4/16/2007

AdditionalNotes

Completed 4-6-07 Odferule

**SystemInspections** 

HelicopterPatrol

LineSection

BrookerToWorhtington

Structure Type

Tangent

Structure#

15

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

DeadTree

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector Jeff Hall

County Bradford

**DateEntered** 

4/16/2007

AdditionalNotes

Completed 4-6-07 Od tende

**SystemInspections** 

HelicopterPatrol

LineSection

BrookerToWorhtington

Structure Type

Tangent

Structure#

36

ArmMaintenance

**PoleMaintenance** 

**InsulatorMaintenance** 

**RWMaintenance** 

Rot

**ProblemIdenified** 

4/2/2007

Inspector

Jeff Hall

County

Bradford

**DateEntered** 4/16/2007

AdditionalNotes

C/D 22 ARM 21/2 Rot Glenn Ritch

# Clay Electric Cooperative Inc. Transmission System Matinenance

SystemInspections  HelicopterPatrol  LineSection  TP8ToBrooker		<i>Struci</i> Ta	Structure#	
ArmMaintenance	PoleMaintenance	InsulatorM	<i><b>Naintenance</b></i>	<b>RWMaintenance</b> DeadTree
ProblemIdenified 4/2/2007	DateCompleted	<b>Inspector</b> Jeff Hall	<i>County</i> Union	<b>DateEntered</b> 5/31/2007
AdditionalNotes  Pines between pole 68 and 69 have been burned last year and are dead.		Completed By for Date Completed Work  Performed To Track  Character Track	2) dead pine)  or Killed his  ca are Still eng  it flor area out	

**SystemInspections** 

LineSection

Structure Type

Structure#

HelicopterPatrol

PomonaParkToFruitland

Tangent

32

ArmMaintenance

**PoleMaintenance** 

InsulatorMaintenance

**RWMaintenance** 

iintenanceNextCy

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

**DateEntered** 

4/2/2007

Jeff Hall

Putnam

4/16/2007

AdditionalNotes

Pine tree growing under the line next to pole. Pine tooks to be around 15' from line

PINETREE WAS REMOVED. 4-20-07 - RUS.
COMPLETED GO WED

Monday, April 16, 2007

SystemInspections

LineSection

Structure Type

Structure#

HelicopterPatrol

FruitlandToSaltSprings

4pole

74

ArmMaintenance

Bet 26'

**PoleMaintenance** 

InsulatorMaintenance

**RWMaintenance** 

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector

Jeff Hall

County
Putnam

**DateEntered** 

4/16/2007

AdditionalNotes

Idler arm needs to be checked

Change outm.). competed 5/3/07

Monday, April 10, 2007

Page 1 of 1

**SystemInspections** 

HelicopterPatrol

LineSection

FruitlandToSaltSprings

Structure Type

3pole

Structure#

75A

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

**RWMaintenance** 

TopBad

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector

Jeff Hall

County
Putnam

**DateEntered** 

4/16/2007

AdditionalNotes

Completed 5/31/07

Monday, April 16, 2007 Page 1 of 1

**SystemInspections** 

LineSection

StructureType

Structure#

HelicopterPatrol

«rtMcCoyO.C.BToFortMcC

Tangent

66

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

Install Bird Wrap

**ProblemIdenified** 

4/2/2007

DateCompleted
4 · 25 · 07

Inspector

Jeff Hall

County

Marion

DateEntered

4/16/2007

#### AdditionalNotes

Woodpecker nesting hole below arm.

INSTALLED FLASHING UNDER EXISTING PLASTIC BIRD WRAP OVER NESTING HOLE.
CAPPED AND WRAPPED ADJACENT POLE.

J.D. That

**SystemInspections** 

HelicopterPatrol

LineSection

rtMcCoyO.C.BToFortMcC

StructureType

Tangent

Structure#

76

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

TopBad

**ProblemIdenified** 

4/2/2007

 ${\it Date Completed}$ 

4 25-07

Inspector

Jeff Hall

County

Marion

DateEntered

4/16/2007

AdditionalNotes

Nesting hole at top of pole.

CAPPED AND WEAPDOW BOTH POLES ON H" STRUCTURE.

Monday, April 16, 2007

J.D. Nace

**SystemInspections** 

LineSection

Structure Type

Structure#

HelicopterPatrol

rtMcCoyO.C.BToFortMcC

Tangent

78

ArmMaintenance

**PoleMaintenance** 

InsulatorMaintenance

**RWMaintenance** 

TopBad

**ProblemIdenified** 

4/2/2007

**DateCompleted** 4-25-07

Inspector Jeff Hall

County

**DateEntered** 

Marion

4/16/2007

AdditionalNotes

Nesting hole at top of pole.

CAPPED AND WEAPPED BOTH POLES ON "H" STRUCTURE.

Monday, April 16, 2007

**SystemInspections** 

HelicopterPatrol

LineSection

rtMcCoyO.C.BToFortMcC

Structure Type

Tangent

Structure#

134

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

Install Bird Wrap

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

4-25-07

Inspector

Jeff Hall

County Marion

**DateEntered** 4/16/2007

Additional Notes

NESTING HULE CAPPED AND WRAPPED BOTH POLES ON H STRUCTURE

Monday, April 16, 2007

Completed

# System Maintenance

**SystemInspections** 

LineSection

StructureType

Structure#

HelicopterPatrol

BlandToTustenugee

Single Pole

2

ArmMaintenance

**PoleMaintenance** 

InsulatorMaintenance

**RWMaintenance** 

PaintFlashedBells

Completed 5-10-07

ProblemIdenified

4/2/2007

DateCompleted

Inspector

Jeff Hall

County
Columbia

DateEntered
4/16/2007

AdditionalNotes

FLASHED STRINGER OF BELLS MIDDLE PHASE

NECD TO CHANGE OUT STRINGER

(8 Beccs)

MARKED WITH BLUE RIBBON.

J.O. Hall

**SystemInspections** 

HelicopterPatrol

LineSection

BlandToTustenugee

Structure Type

Single Pole

Structure#

40

ArmMaintenance

**PoleMaintenance** 

Insulator Maintenance

**RWMaintenance** 

PaintFlashedBells

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector Jeff Hall

County

**DateEntered** 

Columbia

4/16/2007

AdditionalNotes

BOTTOM STRINGER OF BELES NEED TO BE CHANGED OUT

8 Beccs Total

MARRIED WITH BEUG RIBBON

5 23/07

Page 1 of 1

Monday, April 16, 2007

LineSection **SystemInspections** Structure Type Structure# BlandToTustenugee **HelicopterPatrol** 42 Single Pole ArmMaintenance PoleMaintenance **InsulatorMaintenance RWMaintenance PaintFlashedBells ProblemIdenified DateCompleted** Inspector County **DateEntered** 4/2/2007 Jeff Hall Columbia 4/16/2007 AdditionalNotes TOP STRINGER OF BULLS NEED TO BE CHANGED OUT.
(8 BELLS TOTAL) GET TO LINE OFF C.R. 245 #40 + #42 MARKED WITH BLUE RIBBON Monday, April 16, 2007

SystemInspections 5 4 1

HelicopterPatrol

LineSection

BlandToTustenugee

Structure Type

Single Pole

Structure#

49

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

**RWMaintenance** 

PaintFlashedBells

**ProblemIdenified** 

4/2/2007

DateCompleted

Inspector

Jeff Hall

County
Columbia

**DateEntered** 4/16/2007

AdditionalNotes

BOTTOM AND MIDDLE STRINGER NEED TO BE CHANGED OUT.

(16 Beccs TOTAL)

WHEN LINE CROSSES 238 FIRST STRUCTURE IN PEANUT FEILD MARKED WITH BLUE RIBBON

f.O. Vall

Monday, April 16, 2007

**SystemInspections** 

HelicopterPatrol

LineSection

VorthingtonSpringsToBlan-

**Structure Type** 

Tangent

Structure#

53

ArmMaintenance

**PoleMaintenance** Install Bird Wrap

*InsulatorMaintenance* 

**RWMaintenance** 

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

4/26/07

Inspector

Jeff Hall

County Union

**DateEntered** 

4/16/2007

AdditionalNotes

Large peck out

surged and capied Hem Ritch (peckouts)

SystemInspections 5 contractions 5 c

LineSection

Structure Type

Structure#

HelicopterPatrol

Lake Asbury To Green Cove

Single Pole

75

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

iintenanceNextCy-

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

DateEntered

4/2/2007

iric Crawford

Clay

4/16/2007

#### AdditionalNotes

Trees under the line could not determine how close - BRUSH WILL BE SPRAYED DURING 2007 SPRAY CYCLE.

RUS 4-19-07

RUS 4-19-07.

**SystemInspections** 

LineSection

Structure Type

Structure#

HelicopterPatrol

BelairWestToOPN

Single Pole

25

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

intenanceNextCy

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

**DateEntered** 

4/2/2007

:ric Crawford

Clay

4/16/2007

#### AdditionalNotes

Trees under line between 25 and 26. Could not determine how close.

ORNAMENTAL TREES UNDER LINE PROPER CLEARANCE UNTIL NEXT LEVAULATE NEXT L' MONTH

MAINTENANCE LY CLE . H-19-07 RUS.

COMPLETED G WLOD

Monday, April 16, 2007

SPECTION.)

SystemInspections Groundline	LineSection NewRiverToTP8		<i>tureType</i> pole	<i>Structure</i> # 8b
ArmMaintenance	PoleMaintenance CO-50-1	InsulatorN	<i><b>Iaintenance</b></i>	RWMaintenance
ProblemIdenified 11/16/2006	DateCompleted 4/11/2007	<i>Inspector</i> PMC	<b>County</b> Bradford	<b>DateEntered</b> 5/8/2007
AdditionalNotes		Completed By Date Completed Work Performed D	MAZINA 4-11-8, mgd ad	lotten

SystemInspections Groundline	LineSection Wesconnett to OPN		<i>tureType</i> gle Pole	Structure# 20
ArmMaintenance	<b>PoleMaintenance</b> CO-65-1	InsulatorN	<i><b>Iaintenance</b></i>	RWMaintenance
ProblemIdenified 10/24/2006	DateCompleted 5 <b>B</b> /2007	<i>Inspector</i> PMC	<i>County</i> Clay	DateEntered 5/3/2007
AdditionalNotes		Completed By	S-3-0 Sangel aco	165-1 and
			- Jesus	

**SystemInspections** 

LineSection

StructureType

Structure#

Groundline

Wesconnett to OPN

Single Pole

25

ArmMaintenance

PoleMaintenance

InsulatorMaintenance

RWMaintenance

**ProblemIdenified** 

10/24/2006

DateCompleted
3/20/2007

CO-65-1

*Inspector* PMC County

DateEntered

Clay

3/21/2007

#### AdditionalNotes

old antena pole was used for this location that was replaced at sub by a 110' pole

Wednesday, March 21, 2007

Page 1 of 1

TO MY KNOWLEDGE NO CODE VIOLATIONS EXIST

DATE

IGNATURE

coleMaintenance	InsulatorM	aintenance	RWMaintenance	
nteCompleted	<i>Inspector</i> PMC	<i>County</i> Clay	<b>DateEntered</b> 5/8/2007	
	Comp!eted By Date Completed	12 O I		
	Work Performed	having o	ut pole ?	J \$
	ateCompleted	PMC  Comp!eted By  Date Completed  Work	Completed By 17 2er  Date Completed S 2) C  Work	Completed By Date Completed S 2) C Work

SystemInspections Groundline	<b>LineSection</b> OldFarmsTap		tureType lle Pole	Structure# 241
ArmMaintenance	PoleMaintenance CO-55-1	InsulatorN	<i><b>Iaintenance</b></i>	RWMaintenance
ProblemIdenified 10/30/2006	DateCompleted 4/17/2007	<i>Inspector</i> PMC	<i>County</i> Clay	DateEntered 4/18/2007
AdditionalNotes Off739B		Completed By  Date Completed  Work Performed  Manual Completed		2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

SystemInspections Groundline	<b>LineSection</b> OldFarmsTap	Structure Type Single Pole		Structure# 242
ArmMaintenance	PoleMaintenance CO-60-1	InsulatorN	<i>laintenance</i>	RWMaintenance
ProblemIdenified 10/30/2006	DateCompleted 4/17/2007	<i>Inspector</i> PMC	<b>County</b> Clay	<b>DateEntered</b> 4/18/2007
AdditionalNotes		Completed By	Male 2 4-17-07	gung.
		Performed To	estalled l	EXISHNES

SystemInspections Groundline	LineSection OPNToOldJEATie		<i>'ureType</i> lle Pole	Structure# 26
ArmMaintenance	PoleMaintenance	Insulator <i>N</i> .	<b>l</b> aintenance	RWMaintenance
ProblemIdenified 10/26/2006	DateCompleted	<i>Inspector</i> PMC	<b>County</b> Clay	DateEntered 5/8/2007
AdditionalNotes  BehindCCUAoffWellsRD>		Completed By Date Completed Work Performed Po	M Jen 5 22 0 le change	aut

SystemInspections	<b>LineSection</b> TP-8 to Brooker	Structure Type  Tangent  Insulator Maintenance		Structure# 13B
ArmMaintenance	<b>PoleMaintenance</b> CO-55-1			RWMaintenance
ProblemIdenified 12/21/2006	DateCompleted 4/18/2007	<b>Inspector</b> Crew	<i>County</i> Bradford	<b>DateEntered</b> 4/18/2007
AdditionalNotes A pole		Completed By Date Completed Work Performed Del Canal	Stalled 11 Yearles	Classon States

SystemInspections

LineSection

Structure Type

Structure#

HelicopterPatrol

Wesconnett to OPN

Single Pole

13

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

iintenanceNextCy-

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

**DateEntered** 

Eric Crawford

Clay

4/16/2007

#### AdditionalNotes

Trees under the line.

NO DANCER WILL BE RECUT ON NEXT ROUTINE MAINTENANCE CYCLE, EVAULATE ON

NEXT 6 MONTE 4-19-07. RUS.
INSPECTION. COMPLETED G WS.

SystemInspections

HelicopterPatrol

LineSection

Wesconnett to OPN

Structure Type

Single Pole

Structure#

25

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

iintenanceNextCy-

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector Eric Crawford County Clay

**DateEntered** 

4/16/2007

AdditionalNotes

Trees under line between 25 and 26.

NO DANGER WILL BE RECUT ON NEXT ROUTINE MAINTENANCE CYCLE. EVAULATE

NEXT GMONTH INSPECTION. 449-07 RUS.
COMPLETED CY WAR

**SystemInspections** 

LineSection

Structure Type

Structure#

HelicopterPatrol

BelairToWesconnett

Single Pole

21

ArmMaintenance

**PoleMaintenance** 

**InsulatorMaintenance** 

**RWMaintenance** 

iintenanceNextCv

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

**DateEntered** 

4/2/2007

:ric Crawford

Clay

4/16/2007

#### AdditionalNotes

Trees under line between 21-25. Could not determine how close to line.

NO DANGER WILL BE RECUT TO SPECIFICATIONS ON NEXT (EVAULATE NEXT 6 MONTH INSPECTION MAINTENANCE CYCLE, 4+9-07 RUS.

NI / \_

CYCLE

COMPLETED CY WOD

**SystemInspections** HelicopterPatrol

LineSection

BlackCreekToMiddleburg

**Structure Type** 

Single Pole

Structure#

369

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

intenanceNextCy

**ProblemIdenified** 

4/2/2007

**DateCompleted** 

Inspector Eric Crawford County Clay

**DateEntered** 

4/16/2007

AdditionalNotes

Trees under the line.

SEMINOLE MAINTAINS VELETATION ON THIS TRANSMISSION LINES Jimmy Merrett per. Bob Remley

**SystemInspections** 

LineSection

Structure Type

Structure#

HelicopterPatrol

BlackCreekToMiddleburg

Single Pole

371

ArmMaintenance

**PoleMaintenance** 

*InsulatorMaintenance* 

**RWMaintenance** 

intenanceNextCy-

**ProblemIdenified** 

**DateCompleted** 

Inspector

County

**DateEntered** 

4/2/2007

:ric Crawford

Clay

4/16/2007

AdditionalNotes

Trees under line.

SEMINOLE MAINTAINS VELETATION ONTHIS TRANSMISSION LINE.

Monday, April 16, 2007

SystemInspections HelicopterPatrol	LineSection  √orthingtonSpringsTo		<i>tureType</i>	Structure# 35A
ArmMaintenance CO-22	PoleMaintenance CO-55-1	InsulatorM	1aintenance	RWMaintenance
ProblemIdenified 4/16/2007	DateCompleted	Inspector Jeff Hall	<i>County</i> Union	<b>DateEntered</b> 5/29/2007
AdditionalNotes		Completed By	M Feri 5/30/0 ranged out	Pole +

Ent. 7-30-01

SystemInspections HelicopterPatrol	<b>LineSection</b> BrookerToWorhtingt		<i>tureType</i> ingent	<b>Structure#</b> 7
ArmMaintenance	PoleMaintenance	InsulatorN	<b>Saintenance</b>	RWMaintenance
<b>ProblemIdenified</b> 7/9/2007	DateCompleted	<i>Inspector</i> Bruce Sapp	<i>County</i> Union	<b>DateEntered</b> 7/11/2007
AdditionalNotes		Completed By	Glenn	Ritch
SURPACE ROT, AIM Till in good condicti	والمسين	Date Completed_ Work Performed Changed d	7/26 heckal	/ 07 XArm-

SystemInspections HelicopterPatrol	LineSection NewRiverToTP8	Structure Type Tangent		Structure# 49	
ArmMaintenance CO-22	PoleMaintenance	InsulatorM	laintenance	RWMaintenance	
<b>ProblemIdenified</b> 7/9/2007	DateCompleted	<i>Inspector</i> Bruce Sapp	<b>County</b> Bradford	<b>DateEntered</b> 7/11/2007	
AdditionalNotes		Completed By	M Zeris 7/9/07 honge on	A X Arm	<i>1</i> 2

SystemInspections	LineSection	, , , , , , , , , , , , , , , , , , ,		Structure#
HelicopterPatrol	LakeAsburyToGreenCo			100
ArmMaintenance	PoleMaintenance	InsulatorN	<i><b>Iaintenance</b></i>	RWMaintenance DeadTree
<b>ProblemIdenified</b> 7/9/2007	DateCompleted	Inspector Bruce Sapp	<b>County</b> Clay	<b>DateEntered</b> 7/11/2007
AdditionalNotes		Completed By K.	15 LOTT	
		Date Completed_	7-18-200	7
		Work Performed <u>Cor</u> DEAD PINE:	STRACT RYW S	CREN REMOVED

SystemInspections Groundline	LineSection Hawthorne to FPL Tie		StructureType 3pole	
ArmMaintenance	PoleMaintenance CO-65-1	InsulatorN	<i><b>Naintenance</b></i>	RWMaintenance
ProblemIdenified 11/13/2006	DateCompleted 5/24/07	Inspector PMC	<i>County</i> Putnam	DateEntered 5/8/2007
AdditionalNotes Need4wheeldrive		Completed By  Date Completed_  Work  Performed2	11) Zero 5/24/ hanged or	ot outsi

SystemInspections Groundline	<b>LineSection</b> TP8ToKeystoneHeigh		StructureType 3pole	
ArmMaintenance	PoleMaintenance CO-60-1	InsulatorN	<i><b>Iaintenance</b></i>	RWMaintenance
ProblemIdenified 11/28/2006	DateCompleted 4/16/2007	<i>Inspector</i> PMC	<b>County</b> Bradford	<b>DateEntered</b> 4/18/2007
Additional Notes Bradford Dump		Completed By Z Date Completed Work Performed ANA Completed	Med Col	f 60-1 pile

**SystemInspections** 

Structure Type

Structure#

Groundline

LineSection
Keystone to TP-8

Tangent

77A

ArmMaintenance

PoleMaintenance

**InsulatorMaintenance** 

**RWMaintenance** 

CO-60-1

**ProblemIdenified** 

11/28/2006

DateCompleted

3/12/2007

Inspector PMC

County

Bradford

DateEntered

3/21/2007

#### AdditionalNotes

se 45st and meng dariy rd, has ditribution beside it.

Wednesday, March 21, 2007

Page 1 of 1

3-21-07 Made Tank

**SystemInspections** 

Groundline

LineSection

NewRiverToWaterOak

StructureType

Tangent

Structure#

14A

ArmMaintenance

PoleMaintenance

*InsulatorMaintenance* 

**RWMaintenance** 

**ProblemIdenified** 

11/1/2006

DateCompleted

CO-60-1

2/20/2007

Inspector PMC

County Bradford DateEntered

3/21/2007

AdditionalNotes

CompletedByCentralConstruction

Wednesday, March 21, 2007

Page 1 of 1

MY ANOWER OF THE STATE OF THE S

**SystemInspections** 

Groundline

LineSection

NewRiverToWaterOak

StructureType

Tangent

Structure#

37A

ArmMaintenance

**PoleMaintenance** 

InsulatorMaintenance

RWMaintenance

**ProblemIdenified** 

11/1/2006

**DateCompleted** 

CO-65-1

2/20/2007

Inspector **PMC** 

County Bradford

**DateEntered** 

3/21/2007

AdditionalNotes

CompletedByCentralConstruction

Page 1 of 1

Wednesday, March 21, 2007

SystemInspections HelicopterPatrol	LineSection  VorthingtonSpringsToBlan		<i>ureType</i> ngent	Structure# 54	
ArmMaintenance  _Bot/	PoleMaintenance	InsulatorM	<i>laintenance</i>	RWMaintenance	
<b>ProblemIdenified</b> 7/9/2007	DateCompleted	Inspector Bruce Sapp	<b>County</b> Union	<b>DateEntered</b> 7/11/2007	
AdditionalNotes	1	Date Completed_		t x Armi	22

SystemInspections HelicopterPatrol	LineSection TP8ToBrooker		tureType	Structure#
ArmMaintenance	PoleMaintenance CO-55-1	InsulatorM	<i>laintenance</i>	RWMaintenance
<b>ProblemIdenified</b> 7/11/2007	DateCompleted 8/2/2007	<i>Inspector</i> Marco Ferri	<i>County</i> Bradford	<b>DateEntered</b> 8/6/2007
Additional Notes  Was identified while checking	on other work.	Completed By // Date Completed _ Work Performed Pol	Naw 7 8/1/0, e change	Zen') nut 55-/

SystemInspections  HelicopterPatrol	LineSection TP8ToBrooker		t <b>ureType</b> ngent	Structure#
ArmMaintenance	PoleMaintenance CO-55-1	InsulatorN	<b>I</b> aintenance	RWMaintenance
ProblemIdenified 7/11/2007	DateCompleted 8/2/2007	Inspector  Marco Ferri	<b>County</b> Bradford	<b>DateEntered</b> 8/6/2007
AdditionalNotes  Problem was identified while i	inspecting another location.	Completed By_\begin{aligned} \text{Date Completed} \text{Work} \text{Performed} \text{Pol}	a 15 16	Zen' 5) cut 55-1

SystemInspections	LineSection	StructureType	Structure#
HelicopterPatrol	TP8ToBrooker	4pole	4
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
DateCompleted 11/20/2007	<i>Inspector</i> Jeff Hall	<i>County</i> Bradford	<b>DateEntered</b> 11/28/2007
		`	11/26/2007
	Completed By V  Date  Completed NOV  Work  Performed ON	n change out -	Re worked 22
	OH 6 49 F	ole - copped poles	

SystemInspections	LineSection	StructureType	Structure#
District	DoctorsInletToBrickyard	Single Pole	62
ArmMaintenance	PoleMaintenance CO-75-1	InsulatorMaintenance	RWMaintenance
DateCompleted	Inspector	County	DateEntered
12/13/2007	Marco Ferri	Clay	2/7/2008
	Completed By Completed By Completed 12 Work Performed Broker	13/0) Tell hall chan	geout

SystemInspections	LineSection	StructureType	Structure#
HelicopterPatrol	MiddleurgToKingslyLake	Tangent	16
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenanc
DateCompleted	Inspector	County	DateEntered
12/3/2007	Eric Crawford	Clay	2/11/2008
	Completed By 7. Date Completed 12- Work Performed 26	_	

SystemInspections	LineSection	StructureType	Structure#
HelicopterPatrol	NewRiverToTP8	Tangent	2
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
DateCompleted	Inspector	County	DateEntered
11/20/2007	Eric Crawford	Bradford	2/11/2008
	Date	M Jenn 20 07 22" XAM	

SystemInspections HelicopterPatrol	LineSection TP8ToBrooker	Structure Type Tangent	<b>Structure</b> #
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
DateCompleted 7/19/2007	<i>Inspector</i> Eric Crawford	<i>County</i> Bradford	<b>DateEntered</b> 2/11/2008
	7	7em 9 0) 22 + Avm	

SystemInspections	LineSection	StructureType	Structure#
HelicopterPatrol	FruitlandToSaltSprings	Tangent	119
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
DateCompleted	Inspector	County	DateEntered
12-3-07	Jeff Hall	Marion	2/11/2008
	Completed By	eff Hall 3 07 28 XAIM	

SystemInspections HelicopterPatrol	LineSection FruitlandToSaltSprings	<b>Structure Type</b> Tangent	Structure#
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
DateCompleted 12/3/2007	<b>Inspector</b> Jeff Hall	<i>County</i> Marion	<b>DateEntered</b> 2/11/2008
	Completed By De Date  Completed 12 3  Work  Performed	Holl 307 26 Am	

SystemInspections HelicopterPatrol	LineSection AstorO.C.BToAstor	Structure Type Single Pole	Structure#
ArmMaintenance	PoleMaintenance	InsulatorMaintenance InstallPostPol	RWMaintenance
DateCompleted 12/17/2007	<b>Inspector</b> Jeff Hall	<i>County</i> Volusia	<b>DateEntered</b> 2/11/2008
	Completed By M Date Completed [2 Work Performed MSL	Jen 17 07 alled 3 post pole,	mes 115 Kv

SystemInspections	LineSection	StructureType	Structure#
Groundline	TP8ToBrooker	Tangent	13A
ArmMaintenance	PoleMaintenance	InsulatorMaintenance	RWMaintenance
	CO-55-1		
<b>DateCompleted</b>	Inspector	County	DateEntered
4/19/2007	Магсо Геггі	Bradford	2/13/2008
	Completed By M/Date Completed \( \frac{1}{2} \) Work Performed \( \frac{1}{2} \)	1 Few. 19/07 A was Found whe	n Bives yo

LineSection	Structure#	ArmMaintenance	SystemInspections	PoleMaintenance	Insulat
Astor Switching to Sub	58		Groundline	CO-60-1	
Astor Switching to Sub	57		Groundline	CO-60-1	
TP8ToKeystoneHeights	44gs		Groundline	40-4	
BrookerToWorhtington	10		HelicopterPatrol		
BrookerToWorhtington	15		HelicopterPatrol		
BrookerToWorhtington	36	CO-22	HelicopterPatrol		
TP-8 to Brooker	68		HelicopterPatrol		
PomonaParkToFruitland	32		HelicopterPatrol		
FruitlandToSaltSprings	74	CO-26	HelicopterPatrol		
FruitlandToSaltSprings	75A		HelicopterPatrol	TopBad	
FortMcCoyO.C.BToFortMcCo	66		HelicopterPatrol	Install Bird Wrap	
FortMcCoyO.C.BToFortMcCo	76		HelicopterPatrol	TopBad	
FortMcCoyO.C.BToFortMcCo	78		HelicopterPatrol	TopBad	
FortMcCoyO.C.BToFortMcCo	134		HelicopterPatrol	Install Bird Wrap	
BlandToTustenugee	2		HelicopterPatrol		PaintFl
BlandToTustenugee	40		HelicopterPatrol		PaintFl
BlandToTustenugee	42		HelicopterPatrol		PaintFl
BlandToTustenugee	49		HelicopterPatrol		PaintFl
LakeAsburyToGreenCove	75		HelicopterPatrol		
BelairWestToOPN	25		HelicopterPatrol		
NewRiverToTP8	8b		Groundline	CO-50-1	
Wesconnett to OPN	20		Groundline	CO-65-1	
Wesconnett to OPN	25		Groundline	CO-65-1	
OldFarmsTap	234		Groundline	CO-60-1	
OldFarmsTap	241		Groundline	CO-55-1	
OldFarmsTap	242		Groundline	CO-60-1	
OPNToOldJEATie	26		Groundline	CO-65-1	
TP-8 to Brooker	13B		Groundline	CO-55-1	
Wesconnett to OPN	13		HelicopterPatrol		T
Wesconnett to OPN	25		HelicopterPatrol		
BelairToWesconnett	21		HelicopterPatrol		
BlackCreekToMiddleburg	369		HelicopterPatrol		
BlackCreekToMiddleburg	371		HelicopterPatrol		

LineSection	Structure#	ArmMaintenance	SystemInspections	PoleMaintenance	InsulatorM
WorthingtonSpringsToBland	35A	CO-22		CO-55-1	
BrookerToWorhtington	7	CO-22	HelicopterPatrol		
NewRiverToTP8	49	CO-22	HelicopterPatrol		
LakeAsburyToGreenCove	100		HelicopterPatrol		
Hawthorne to FPL Tie	29A		Groundline	CO-65-1	
TP8ToKeystoneHeights	29A		Groundline	CO-60-1	
TP8ToKeystoneHeights	77A		Groundline	CO-60-1	
NewRiverToWaterOak	14A		Groundline	CO-60-1	<b> </b>
NewRiverToWaterOak	37A		Groundline	CO-65-1	
WorthingtonSpringsToBland	54	CO-22	HelicopterPatrol		
TP8ToBrooker	15		HelicopterPatrol	CO-55-1	† — — — — — — — — — — — — — — — — — — —
TP8ToBrooker	18		HelicopterPatrol	CO-55-1	
TP8ToBrooker	4	CO-22	HelicopterPatrol		
DoctorsInletToBrickyard	62		District	CO-75-1	
MiddleurgToKingslyLake	16	CO-26	HelicopterPatrol		
NewRiverToTP8	2	CO-22	HelicopterPatrol		
TP8ToBrooker	1	CO-22	HelicopterPatrol		
FruitlandToSaltSprings	119	CO-26	HelicopterPatrol		
FruitlandToSaltSprings	122	CO-26	HelicopterPatrol		
AstorO.C.BToAstor	13		HelicopterPatrol		InstaliPos
TP8ToBrooker	13A		Groundline	CO-55-1	



Electric Cooperative, Inc. • Rural Services, Inc.



Clay R. Campbell General Manager / CEO

#### Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

Escambia River Electric Cooperative is located in Santa Rosa County and serves the Northern parts of Escambia and Santa Rosa Counties. EREC serves approximately 10,147 meters with approximately 1,600 miles of distribution line and no transmission lines or structures. EREC owns all of the distribution, which operates at 12,470 V, and our generation and transmission partner owns all of the transmission and substations that are used to serve our customers.

#### Contact Information

For additional information contact: Clay Campbell GM/CEO P.O. Box 428 Jay, FL 32565

Phone: 850-675-4521 Email: clay@erec.com

#### 2) Number of meters served in the calendar year 2007

Escambia River Electric Cooperative served 10,147 meters in 2006.

#### 3) Standards of Construction

#### a. National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2008, are governed by the edition of NESC in effect at the time of the facility's initial construction.

#### b. Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.

#### c. Flooding and Storm Surges

Escambia River Electric Cooperative is a non-coastal utility, therefore, storm surge is not an issue.

# d. Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at Escambia River Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Escambia River Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Escambia River Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e. Attachments by Others

The pole attachment agreements between Escambia River Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety, as set forth in the NESC, before they attach to the pole. Escambia River Electric Cooperative performs follow-up audits of attachments to ensure the attachment is properly installed, maintained, and meet NESC requirements for pole attachments.

#### 4) Facility Inspections

a. Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including but not limited to, pole inspection cycles and pole selection process.

Escambia River Electric Cooperative inspects each distribution pole on an 8 year cycle using visual, sound and boring techniques in accordance with RUS standards. Additionally, Escambia River Electric Cooperative uses data gathered during outages to proactively identify troubled lines, poles, equipment, and right-of-way. All of the data feeds back to our pole selection process, which provides a method to determine which poles not to purchase.

b. Describe the number and percentage of transmission and distribution inspections planned and completed.

We planned for 3,740 (12.5%) of distribution poles to be inspected but 4,063 (13.0%) were inspected for the 2007 year. Escambia River Electric Cooperative does not own any transmission poles.

c. Describe the number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

We found 5 (0.12%) of the poles inspected failed due to ground level decay. Escambia River Electric Cooperative does not own any transmission poles.

d. Describe the number and percentage of transmission poles and structures and distribution poles, by type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

All 5 distribution poles were replaced after pole inspection was completed.

				Pole
Number	Height	Class	Problem	Treatment
1	35	6	Ground Level Decay	Unrecorded
2	35	6	Ground Level Decay	Unrecorded
3	30	5	Ground Level Decay	Unrecorded
4	35	6	Ground Level Decay	Unrecorded
5	40	4	Ground Level Decay	Unrecorded

#### 5) Vegetation Management

a. Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Escambia River Electric Cooperative uses a 5-year vegetation management cycle for all distribution lines. The primary reason for this is that the right-of-way is cleared 10 feet on both sides of the lines making a total clearance of 20 feet. While the crews are managing vegetation on a line they look for foreseeable future problems and take care of them at that time. If at anytime there is a problem tree or landscaping, Escambia River Electric Cooperative works with the home owner toward trimming, if possible, or removal, if necessary, while providing restitution if necessary for trees or landscaping that is outside the easement or right-of-ways. In all cases our current policy is providing the necessary vegetation management needed to reduce outages due to vegetation.

b. Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

Escambia River Electric Cooperative planned clearing roughly 320 (20%) miles of vegetation in the 2007 year using the procedure described above in paragraph 5-A with right-of-way crews and line crews where needed. At the end of the year, we cleared approximately 327 miles of right-of-way for distribution facilities. Escambia River Electric Cooperative does not own any transmission facilities.

#### Reliability Data for the 2007 Year

For the 2007 year, Escambia River Electric Cooperative collected the following reliability data as required and reported to Rural Utility Service. The data pertains to only distribution services since we do not own any transmission facilities.

PART G. SERVICE INTERRUPTIONS					
ITEM	AVERAGE HOURS PER CONSUMER BY CAUSE			TOTAL	
	POWER SUPPLIER (a)	EXTREME STORM (b)	PREARRANGED (c)	ALL OTHER (d)	(e)
1. PRESENT YEAR	0.16	1.63	0.29	0.52	2.60
2. FIVE-YEAR AVERAGE	17.11	72.59	0.15	0.64	90.49

#### Reliability Data for the 2007 Year

For the 2007 year, Escambia River Electric Cooperative collected the following reliability data as required and reported to Rural Utility Service. The data pertains to only distribution services since we do not own any transmission facilities.

	PART (	G. SERVICE INTERI	RUPTIONS		
ITEM	AVERAGE HOURS PER CONSUMER BY CAUSE			TOTAL	
	POWER SUPPLIER (a)	EXTREME STORM (b)	PREARRANGED (c)	ALL OTHER (d)	(c)
1. PRESENT YEAR	0.16	1.63	0.29	0.52	2.60
2. FIVE-YEAR AVERAGE	17.11	72.59	0.15	0.64	90.49



P.O. BOX 428 • 3425 HWY. 4 WEST JAY, FLORIDA 32565

BRENT STUBSTAD ELECTRICAL ENGINEER brent@erec.com (850) 675-4521 1 (800) 235-3848 FAX (850) 675-8415 CELL (850) 791-5157 Florida Public Service Commission Report Pursuant to Rule 25-6.0343 Florida Keys Electric Cooperative Association, Inc. Page 1 of 4

# Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Florida Keys Electric Cooperative Association, Inc.
- b) 91605 Overseas Highway Tavernier, Florida 22070
- c) Scott Newberry
  Chief Executive Officer
  Phone (305) 852-2431
  Fax (305) 852-4794
  Email scott.newberry@fkec.com

#### 2) Number of meters served in calendar year 2007

31,205

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Florida Keys Electric Cooperative Association, Inc., comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facilities initial construction.

#### b) Extreme Wind Loading Standards

At this time, Florida Keys Electric Association, Inc., facilities are not designed to be guided by the extreme loading standards on a system wide basis. However, Florida Keys Electric Cooperative Association, Inc., is guided by extreme wind loading standard for:

- a) New construction
- b) Major planned work, including expansion, reconstruction or relocation of existing facilities assigned on or after April 24, 2007.

#### c) Flooding or Storm Surges

Florida Public Service Commission Report Pursuant to Rule 25-6.0343 Florida Keys Electric Cooperative Association, Inc. Page 2 of 4

Florida Keys Electric Cooperative Association, Inc., is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. FKEC is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association.

#### d) Safe and Efficient Access of New and Replacement Distribution Poles

Electrical construction standards, policies, practices and procedures at Florida Keys Electric Cooperative Association, Inc., provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed, all facilities are installed so that FKEC facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. FKEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices and procedures at Florida Keys Electric Cooperative Association, Inc., include written safety, pole reliability, pole loading capacity and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. FKEC inspects these attachments on a five year cycle that began in 2007.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Florida Keys Electric Cooperative Association Inc., inspects all transmission structures annually by helicopter. Distribution poles are inspected on a five-year cycle. FKEC began a formal distribution pole inspection and treatment program in 2007. All distribution poles serving out of our Marathon substation were inspected and treated in 2007 by Osmose Utilities Services, Inc. This inspection represented approximately 20% of our distribution poles.

b) <u>Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.</u>

One hundred percent of FKEC's transmission poles were inspected by helicopter and visually in 2007. Three thousand and twenty (3020) distribution poles were

Florida Public Service Commission Report Pursuant to Rule 25-6.0343 Florida Keys Electric Cooperative Association, Inc. Page 3 of 4

inspected in 2007, which represents approximately 20% of FKEC's distribution poles.

- c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure. No transmission poles or structures failed inspection in 2007. All transmission poles or structures are either steel or concrete. Two hundred and sixty-six (266) wood distribution poles failed inspection in 2007. This represents approximately 8.8% of distribution poles tested in 2007. The primary reason for failure was age.
- d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

No transmission poles or structures were replaced in 2007. One hundred and seventy-one (170) wood primary distribution poles were replaced in 2007. The remaining reject poles (96) are secondary, streetlight, and service poles and are currently being replaced.

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Florida Keys Electric Cooperative Association, Inc., inspects and trims, where necessary, the entire transmission system on an annual basis. Substations are inspected annually and trimmed when vegetation encroaches. The remainder of FKEC's distribution system is trimmed on a three-year cycle. A formal trade-a-tree program was implemented in 2007 to help with the removal of problem trees located within the right of way.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2007.

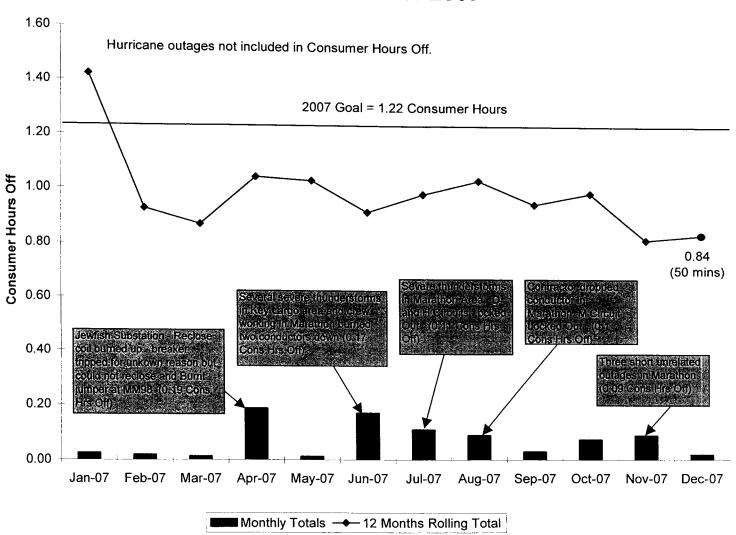
Annual transmission line right-of-way clearing from mile marker 106 on County Road 905 to the Dade/Monroe County line was completed in the first quarter of 2007. The remainder of the transmission system was spot-trimmed as necessary. Vegetation surrounding all substations was trimmed prior to June 1, 2007. Approximately 200 circuit miles of distribution lines were trimmed in 2007. Additional distribution spot-trimming was conducted as necessary. A tree growth regulator pilot program was completed in 2006 with positive results. Our formal tree growth regulator program was cancelled in 2007 due to public opposition.

Florida Public Service Commission Report Pursuant to Rule 25-6.0343 Florida Keys Electric Cooperative Association, Inc. Page 4 of 4

#### 6. SAIDI

FKEC's SAIDI for 2007 was 50 minutes per consumer.

# FKEC Outage Summary December 2007



08 MAR | | PH | 12: 1, 1

# Florida Public Service Commission Report Continue Street Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2006

The following information is submitted pursuant to the Florida Public Service Commission rule 25-6.0343, F.A.C. for the calendar year of 2007.

#### 1. Reporting Utility

Glades Electric Cooperative, Inc. P.O. Box 519
1190 U.S. Hwy 27 East
Moore Haven, FL 33471

#### Submitted by:

Jody DotsonJohn EisingerPower Supply ManagerEngineering Services Manager863-946-6280863-946-6244863-946-6265863-946-6265jdotson@gladesec.comjeisinger@gladesec.com

- 2. Number of meters served in calendar year 2007: 16,929
- 3. Standards of Construction Glades Electric Cooperative (GEC) utilizes a Construction Standards Committee that meets on a monthly basis to evaluate construction and material standards currently in place and to make recommendation of change. This committee consists of the Manager of Engineering Services, the Power Supply Manager, Line Superintendents, Purchasing Agent, Supervisor of Staking Engineers, one Lead Lineman, and one Journeyman Lineman.

#### a) National Electric Safety Code Compliance:

Construction standards, policies, guidelines, practices, and procedures at Glades Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC] as set forth by RUS Regulations. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are

governed by the edition of the NESC in effect at the time of the facility's initial construction. RUS regulation is as follows:

RUS Regulation 7 CFR Ch. XVII (1-1-06 Edition), Subpart E – Electric System Design § 1724.50 Compliance with National Electrical Safety Code (NESC).

The provisions of this section apply to all borrower electric system facilities regardless of the source of financing.

- (a) A borrower shall ensure that its electric system, including all electric distribution, transmission, and generating facilities, is designed, constructed, operated, and maintained in accordance with all applicable provisions of the most current and accepted criteria of the National Electrical Safety Code (NESC) and all applicable and current electrical and safety requirements of any State or local governmental entity. Copies of the NESC may be obtained from the Institute of Electrical and Electronic Engineers, Inc., 445 Hoes Lane, Piscataway, NJ 08855. This requirement applies to the borrower's electric system regardless of the source of financing.
- (b) Any electrical standard requirements established by RUS are in addition to, and not in substitution for or a modification of, the most current and accepted criteria of the NESC and any applicable electrical or safety requirements of any State or local governmental entity.
- (c) Overhead distribution circuits shall be constructed with not less than the Grade C strength requirements as described in Section 26, Strength Requirements, of the NESC when subjected to the loads specified in NESC Section 25, Loadings for Grades B and C. Overhead transmission circuits shall be constructed with not less than the Grade B strength requirements as described in NESC Section 26.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at Glades Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for:

- 1. New Construction
- 2. Major planned work, including expansion, rebuilds, or relocation of existing facilities assigned on or after the effective date of the 2007 NESC edition.
- 3. Targeted critical infrastructure facilities and major thoroughfares.

#### c) Flooding and Storm Surges

Glades Electric Cooperative is a non-coastal utility but recognizes the potential for flooding should a catastrophic failure of the Herbert Hoover dike along the Lake Okeechobee southwestern shoreline occur. GEC participated in a workshop series hosted by Florida Catastrophic Planning with such a scenario evaluated standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. GEC continues to participate in the

Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Glades Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that GEC's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. GEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

The Glades Electric Cooperative Board of Trustees adopted Right of Way Policy 411 on December 19, 1996 as follows:

#### POLICY NO. 411

#### RIGHTS-OF-WAY

#### I. OBJECTIVE:

To establish policy for procurement of rights-of-way by applicable for service and to provide for the clearing, re-clearing, and maintenance of rights-of-way by the Cooperative.

#### II. CONTENT:

Rights-of-way are required of landowners for the purpose of providing location of and access to electric distribution lines and other necessary appurtenances for construction, operation, and maintenance.

#### A. Procurement by Applicants

1. Applicants for service may be required to secure to, and for, the Cooperative all necessary and convenient rights-of-way and to pay the costs of securing same.

2. Applicants for service shall also be responsible for initial clearing of rights-of-way necessary for line extensions for provision of service unless the Cooperative determines that it is in the best interests of the Cooperative to provide said initial clearing.

#### B. Delays

- 1. Applications for service for an extension to be constructed where right- of-way is not owned by the Cooperative will only be accepted subject to delays incident to obtaining satisfactory right-of-way, highway and railroad crossing permits, or other permits which may be required.
- 2. Satisfactory right-of-way clearance for electric lines to the point of delivery of a new service must be accomplished before the service connection will be made.
- C. Clearing, Re-clearing, and Maintenance of Rights-of-Way
  - 1. A minimum 20 foot right-of-way is required. Exceptions from this normal range will be made only by special arrangement in consideration of the Cooperative's requirements and conditions affecting the landowner's property.
  - 2. The Cooperative shall have the rights of ingress and egress from the rights of way at reasonable times and as required. The Cooperative shall have the right to cut, trim, chemically treat with herbicide, trees and shrubbery to the extent necessary to keep them clear of the electric lines and meter bases and to cut all dead, weak, and dangerous trees which may endanger the line by falling.
  - 3. The member shall allow the Cooperative to clear and trim trees which will endanger the lines of the Cooperative and imperil service to that member or other members.
  - 4. The member shall refrain from:
    - a. Planting trees, shrubs, et cetera, in the Cooperative's right-of-way which may at some time in the future endanger the lines.
    - b. Placing structures on the right-of-way. If the member does place vegetation or structures within the right-of-way, the Cooperative will not be responsible for damages done to same. Members shall gain the approval of the Cooperative before placing fences on the right-of-way. Members may be required to install gates at locations designated by the Cooperative to ensure that access to Cooperative facilities is not inhibited.

- c. Planting trees, shrubs, et cetera, around underground transformers.
- 5. The Cooperative shall use reasonable care and diligence in the clearing, reclearing, and maintenance of rights-of-way. The Cooperative shall make reasonable attempt to give notice to the landowners of scheduled or planned clearing and re-clearing and alterations within the existing right-of-way.

#### III. APPLICABILITY:

This policy applies to all members and applicants for service of the Cooperative.

#### IV. RESPONSIBILITY:

It shall be the responsibility of the General Manager or his/her designee to carry out the provisions of this policy.

Original Pol	icy Dated:	12-19-96
Revised:	,	· · · · · · · · · · · · · · · · · · ·
Attest:		
	Secretary	

#### e) Attachments by Others

The pole attachment agreements between Glades Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. GEC performs system wide attachment inspections on a two year cycle. It has been a growing concern of GEC that existing pole attachment agreements are weakened by telecommunication/cable television mergers and buyouts. In addition to the terms of pole attachment agreements, Glades Electric Cooperative is currently adopting a new company policy that places the burden of assessing pole strength and safety to all third party attachers. It is the intent of this policy to ensure all third party attachment agreements are uniform in responsibility assignments.

#### 4. Facility Inspections

a) Glades Electric Cooperative policies, guidelines, practices and procedures for inspections and maintenance - Glades Electric Cooperative effectively inspects and maintains its transmission and distribution lines, poles, and structures through a number of regulations,

procedures, and guidelines. These practices have proven to be invaluable during the storm season of 2004 and 2005. Inspection and maintenance work is completed by utilizing GEC's System Restoration Plan, wood pole inspection cycle as established in RUS bulletin 1730B-121, and GEC's annual Strategic Work Plan. Details of these regulations, procedures, and guidelines are as follows:

i. Glades Electric Cooperative System Restoration Plan (SRP) - Glades Electric Cooperative adopted a System Restoration Plan in 1998 to execute effective maintenance and inspection programs on the GEC system. The System Restoration Plan was later developed into procedure during 2005 to ensure that these practices continue. GEC completed System Restoration on all its distribution circuits at the end of the 2007 calendar year. System Restoration will continue in 2008 just as it began in 1998. The SRP procedure is as follows:

#### PROCEDURE BULLETIN NO. 407.2 SYSTEM RESTORATION PLAN

#### I. OBJECTIVE

To provide a systematic approach for conducting system restoration on the GEC system.

#### II. CONTENT

#### A. Scope:

The System Restoration Program (SRP) at Glades Electric Cooperative, Inc. (GEC) is utilized to maintain our Distribution and Transmission Systems as well as Substations. This program includes all elements of system maintenance. The program specifically addresses poles and structures, conductors, grounding, guying and inspection. Additionally the SRP includes testing, maintenance and inspection of substations.

GEC's system is designed to meet or exceed the National Electric Safety Code (NESC).

Safety is our number 1 priority at GEC.

#### B. Restoration Plan:

The SRP has been developed to ensure that each and every mainline section undergoes system restoration within approximately an 8 year period. Work is divided such that approximately 1/8 of the circuits are worked each year. Phase 1 restoration (Mainline) focuses on 3 Ø line sections that are connected directly to the supplying substation.

Sections of those circuits that are downstream of three Ø or single Ø line breakers, are considered part of the mainline. Sections of the circuit that are fused, regardless of the number of phases, are generally considered to be taps, and are covered in Phase 2 of the SRP. Any exceptions regarding the sections of circuits included in each phase will be handled on an individual basis.

Upon completion of the Phase 1, Phase 2 commences. In Phase 2, all taps, or line sections, that did not undergo system restoration in Phase 1 are completed. Phase 2 is completed within approximately the same time period as Phase 1. During system restoration, any inactive services are handled per established procedures.

#### C. Distribution System Restoration Program:

Each year, distribution circuits, or portions of circuits, are earmarked for the SRP. The project is budgeted, manpower is allocated and schedules are established for timely completion.

The program specifically addresses the following:

#### Poles/structures:

Deterioration
Woodpecker holes
Proper grounding
Groundline inspection

#### Guys:

Condition
Guy guards
Grounding
Link sticks
Attachments

#### Cross Arms:

Clearance
Deterioration
Braces
Framing
Bird protection

#### Insulators:

Damage

Correct voltage
Deterioration/arcing

#### Switches/Fused switches:

Damage

Deterioration/arcing

Proper operation

Fuse barrel

Correct fuse size

Tagging/numbering

#### Surge Arrestors

Damage

Deterioration/arcing

Proper grounding

#### Transformers:

Leaks

PCB's

Deterioration/rusting

Connections

#### Capacitors:

Leaks

Deterioration/rusting/bulging cans

Blown fuses

Controller Operation

#### Right of Way:

Encroachments

Accessibility

Vegetation

Note: Accessibility is addressed annually with major land owners on the system.

#### Line Breakers (OCB's):

Leaks

Deterioration/rusting

Tagging/numbering

Note: Line breakers are addressed in the Oil Circuit Breaker Change-Out Program. Under this program, each OCR is replaced with a new/rebuilt Oil Circuit Breaker

every five (5) years.

Line Regulators:

Leaks
Deterioration/rusting
Grounding
Operation

Note: Line regulators are addressed in the Regulator Maintenance Program. Under this program, each regulator is maintained and tested every four (4) years. These tests are identical to the station regulator program. Additionally, each line regulator is inspected and operationally checked every quarter.

#### Code Violations:

Any code violations are corrected under the SRP

#### General Inspection:

During SRP, the selected portions undergoing restoration are given an overall inspection to ensure that the entire system is built utilizing generally accepted utility practices and that no hazards exist.

If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

#### D. Transmission System Program:

The transmission system program addresses all elements of the transmission system, and is similar to the Distribution System Restoration Program.

#### Aerial Inspection:

Each transmission line is aerially inspected annually. Items that are identified during this inspection are classified into two categories. Category 1 consists of those items that must be addressed prior to the next inspection. These items are recorded on the inspection form and assigned to work crews.

Category 2 items are less critical and are recorded on the inspection form for future reference. Items in this category are given special attention during subsequent inspections and are corrected as required.

The Transmission System Restoration Program addresses the following:

Poles/structures:

Deterioration
Ground line inspection
Woodpecker holes
Grounding
Numbering

#### Guys:

Condition
Guards
Grounding
Attachments

#### Cross Arms:

Deterioration
Braces
Bird protection

#### Insulators:

Damage
Deterioration/arcing
Right of Way:
Encroachments
Accessibility
Vegetation

#### Code Violations:

Any code violations are corrected under the SRP

#### General Inspection:

During SRP, the transmission lines are given an overall inspection to ensure that the entire system is built utilizing generally accepted utility practices and that no hazards exist.

If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

#### E. Substation Program:

Substations are inspected two (2) times per month. One inspection is a visual inspection of the overall facility; the other inspection includes operational checks of certain equipment. Problems encountered or observed in any of these inspections are

budgeted, scheduled and corrected. Problems that are deemed critical are corrected immediately.

#### The program addresses the following:

Pull-off structures:

Deterioration/rust

Connections

Grounding

#### Insulators:

Damage

Deterioration/arcing

Grounding

#### Surge arresters:

Damage

Deterioration/arcing

Grounding

#### High side switches:

Damage

Deterioration/arcing

Operation

Grounding

Tagging/numbering

#### Circuit switchers:

Damage

Deterioration/arcing

Operation

Voltage drop-open/close

Grounding

Tagging/numbering

#### Transformers:

Leaks/PCB

Deterioration/rusting

Connections

**Temperature** 

Oil level

Cooling

Tank pressure

Nitrogen pressure (cylinder)

# Grounding

#### Station breakers:

Leaks

Deterioration/rusting

Connections

Oil level

Grounding

Targets

Tagging/numbering

Emergency trip

Operation

Ammeter readings

# Metering devices:

Condition

Accuracy

# Station Regulators:

Leaks

Deterioration/rusting

Grounding

Operation

Drag hands

Note: Station regulators are addressed in the Substation Maintenance Program. Under this program, each station regulator is maintained and tested every four (4) years. Additionally, each station regulator is inspected twice each month and operationally checked once every month.

Battery/battery charger:

Electrolyte level

Temperature/voltage/current

Condition

In addition to the above, batteries undergo a quarterly maintenance. The following is addressed during this maintenance:

*Temperature* 

Individual cell voltage/electrolyte level

Bank voltage

Ground integrity

Charger operation (float/equalize)

Visual

# Relay panels:

**Targets** 

Condition

Alarms

#### Additional checks include:

Safety concerns

Fire extinguisher

Air Conditioner

Control building lights

Switch numbers

Switch stick

Grounding

Conduit/cable

Station integrity

Eyewash station

Fence

Rock cover

Vegetation

Signage

# Code Violations:

Any code violations are corrected under the SRP

General Inspection:

During SRP, substations are given an overall inspection to ensure that the entire station is in good condition and that no hazards exist.

# F. Substation-Major Maintenance & Testing Program:

This program is performed on each station every four (4) years and includes the following:

#### Circuit Switcher:

Power Factor (Doble) test Clean & re-torque connections Operational Check Voltage drop-open/close Visual Inspection

# Transformer:

Power Factor (Doble) test

Clean & re-torque connections
Turns Ratio Test (TTR)
Dielectric Test Oil
Dissolved Gas Analysis (DGA)\*
\*Performed annually
Current Transformer (CT) test
Visual Inspection

# Surge Arrestors:

Power Factor (Doble) test Clean & re-torque connections Visual Inspection

# Bus & Bus Insulators:

Visual Inspection

#### Circuit Breakers:

Power Factor (Doble) test Clean & re-torque connections Current Transformer (CT) test Timing test Contact Resistance test (Ductor) Dielectric Oil test

### Circuit Breakers:

Hi-pot test Operational check Visual Inspection

# Regulators:

Power Factor (Doble) test Clean & re-torque connections Dielectric Oil test Operational check Visual Inspection

### Relays:

Check settings Test

Clean

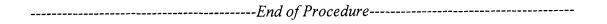
If any hazards or code violations are found on any part of the system, they are addressed. GEC has established a procedure for addressing hazards to ensure they are eliminated.

#### III. APPLICABILITY

This procedure applies to all GEC employees involved with the System Restoration Plan.

#### IV. RESPONSIBILITY

The General Manager shall be responsible for carrying out the provisions of these procedures through sub-delegation to appropriate GEC personnel.



ii. Wood Pole Inspection Cycle – Glades Electric Cooperative utilizes a ten (10) year sound/bore with excavation inspection cycle for all wood poles on the GEC system. This procedure is in compliance with RUS bulletin 1730B-121 which recommends an eight (8) year cycle but allows a three (3) year deviation as set forth in Section 3.4 of the bulletin. These inspections are done in addition to GEC's System Restoration Plan inspections as outlined in the section above. Inspection details are as follows from the RUS bulletin 1730B-121.

**Bulletin 1730B-121**Page 3

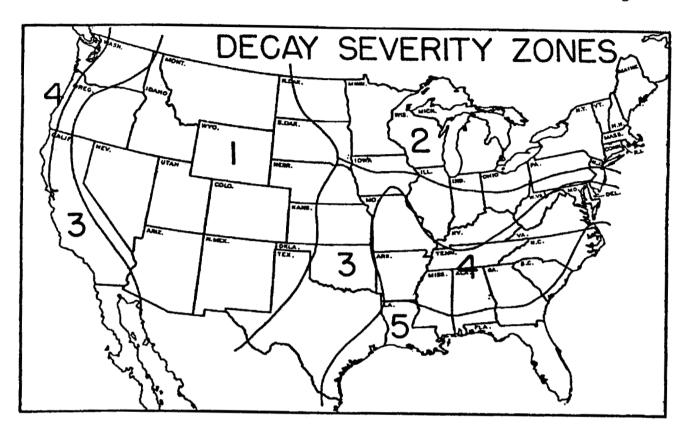
- 1. PURPOSE: The purpose of this guide bulletin is to furnish information and guidance to Rural Utilities Service (RUS) electric borrowers in establishing or sustaining a continuing program of effective, ongoing pole maintenance. Discussed are methods and procedures for inspecting and maintenance of standing poles and for determining the minimum required groundline circumferences for distribution and transmission poles.
- 2. GENERAL DISCUSSION OF POLE DECAY: Decay of a treated pole is usually a gradual deterioration caused by fungi and other low forms of plant life. Damage by insect attack (termites, ants and wood borers) is usually considered jointly with decay because preservative treatment of wood protects against both fungi and insects. In most cases, the decay of creosote and pentachlorophenol treated poles occurs just below the groundline where conditions of moisture, temperature and air are most favorable for growth of fungi. Decay factors affecting pole life are discussed below.
- 2.1 Pole Species: Of the millions of poles installed on RUS

2.2 Preservative Treatments: There are two general classes of preservative treatment, oilborne (creosote, pentachlorophenol (penta) in petroleum, and Copper Naphthenate) and waterborne (arsenates of copper). Creosote was the only preservative used on rural system poles until 1947, when post-war chemical shortages prompted the introduction of penta and Copper Naphthenate. Both of these preservatives were dissolved in fuel oils from petroleum or mixed with creosote. Today these preservatives are blended with petroleum distillates.

Penta is now the most widely used pole preservative. Where decay problems have occurred, they have not been attributed to any deficiencies of the preservative, but to one or more of the following: (1) loss of solvent carrier due to gravitation and bleeding, (2) poor conditioning of the poles, and (3) loss of dissolved penta to retentions below the effective threshold. To overcome these deficiencies, treatments and quality control have been improved.

Wood preservatives used in waterborne solutions include ammoniacal copper zinc arsenate (ACZA), and chromated copper arsenate (CCA) (types A, B, and C). These preservatives are often employed when cleanliness and paintability of the treated wood are required. Several formulations involving combinations of copper, chromium, and arsenic have shown high resistance to leaching and very good performance in service. Both ACZA and CCA are included in many product specifications for wood building foundations, building poles, utility poles, marine piles, and piles for land and fresh water use. Treatment usually takes place at ambient temperature. During treatment of Douglas-fir, experience has shown that care needs to be taken to ensure that the pole is sterilized.

2.3 <u>Decay Zones</u>: The map on the following page details the five Decay Severity Zones of the United States. These zones were originally based on summer humidity and temperature information and later on a pole performance study conducted by the Rural Electrification Administration (REA). Decay severity ranges from least severe in Zone 1 to most severe in Zone 5. Service life records, individual experience, and/or a planned sample inspection should indicate if the decay hazard for a particular system is typical of the zone in which the system is located.



2.4 Types of Decay: After installation, decay organisms may invade the heartwood of poles through the poorly treated sapwood zones, checks, or woodpecker holes. Internal decay may occur in pole tops cut after treatment and in holes bored in the field where supplementary treatment has been neglected. Insufficient amount of preservative or migration of oil-type preservatives are the principal causes of external decay in southern pine poles. Poles in storage can decay because being stacked horizontally can encourage migration of the oil to the low side, depleting oil and preservative from the top side. For this reason, it is recommended that poles in storage be rolled annually to eliminate depletion of preservative from the top side.

Internal decay may be found in southern pine poles that were not properly conditioned or in which penetration or the amount (retention) of preservative is lacking entirely or insufficient. Internal decay of the western species usually involves the heartwood which has been improperly seasoned prior to treatment.

External decay above ground, more commonly known as "shellrot", occurs frequently in butt-treated western red cedars after 12-15 years of service.

- 3. PLANNED INSPECTION AND MAINTENANCE PROGRAM: The purpose of a planned inspection program is to reveal and remove danger poles and to identify poles which are in early stages of decay so that corrective action can be taken. The end result of the inspection program is the establishment of a continuing maintenance program for extending the average service life of all poles on the system. The steps in developing a planned pole inspection and maintenance program are outlined below:
- 3.1 Spot Checking: Spot checking is the initial step in developing a planned pole inspection and maintenance program. Spot checking is a method of sampling representative groups of poles on a system to determine the extent of pole decay and to establish priority candidates for the pole maintenance measures of the program. A general recommendation is to inspect a 1,000-pole sample, made up of continuous pole line groupings of 50 to 100 poles in several areas of the system. The sample should be representative of the poles in place. For instance, all the poles on a line circuit or a map section should be inspected as a unit and not just the poles of a certain age The inspection of the sample should be complete, consisting of hammer sounding, boring, and excavation as described in Section 4. Field data should be collected on the sample as to age, supplier, extent of decay, etc.

The data should be analyzed to determine the areas having the most severe decay conditions and to establish priorities for a pole-by-pole inspection of the entire system. It may be desirable to take additional samples on other portions or areas of the system to determine if the severity of decay is significantly different to warrant the establishment of an accelerated pole inspection and maintenance program for that portion of the system. The results of the spot check will aid in scheduling a continuous pole inspection and maintenance program at a rate commensurate with the incidence of decay.

3.2 <u>Scheduling the Inspection and Maintenance Program</u>: If an ongoing maintenance program is not in place, the suggested timing for initial pole-by-pole inspection and subsequent reinspection is shown in Table 3-1. Supplementary treatment is performed where necessary after the initial inspection.

Decay	Initial	Subsequent	Percent of Total Poles Inspected Each Year		
Zone	Inspection	Reinspection			
1	12 - 15 Yrs	12 Yrs	8.3%		
2 & 3	10 - 12 Yrs	10 Yrs	10.0%		
4 & 5	8 - 10 Yrs	8 Yrs	12.5%		

Table 3-1 - Recommended Pole Inspection Schedules

The vulnerability of poles to decay is generally proportionate to the decay zone in which they are installed. As a general recommendation, the initial pole-by-pole inspection program should be inaugurated at a yearly rate of 10 percent of the poles on the entire system when the average age of the poles reaches 10 years. If a spot check indicates that decay is advanced in 1 percent of the pole sample, the inspection and maintenance program should be accelerated so that a higher percentage of poles are inspected and treated sooner than the figures shown in If the decay rate is low for a particular decay zone or area of the system, the pole-by-pole inspection can be adjusted accordingly. Historical inspection data indicates that the ratio between the decaying/serviceable poles to reject poles in the 10-15 year age group is about six or more to one. 30-year age group, the ratio was down to about one to one or In the latter group, the survivors have more than sufficient residual preservative to protect them indefinitely. The poorly treated poles in the 30-year old group usually have already decayed and been replaced.

The greatest economic benefit from regular inspection is in locating the decaying/serviceable group. Treatment of poles in this group can extend pole life, thereby avoiding the cost of emergency replacement. Inspection and proper maintenance can more than pay dividends by extending the serviceable life of the poles. With the costs of replacing poles rising, the economics of extending the service life become more favorable.

3.3 Setting Up the Program: The pole-by-pole inspection and maintenance work may be done by system employees or by contracting with an organization specializing in this type of The choice should be made on the basis of the amount of work to be done, availability, depth of trained people on staff, and a comparison of the costs. Developing the necessary skills in the system's own crews may require considerable time and be contingent upon the availability of an experienced inspector to train system employees. Therefore, qualified contract crews may be preferable for this work in many instances. To be considered qualified, the individual should have inspected, at a minimum, 5,000 poles under a qualified inspector and another 5,000 poles independently, but under close supervision. When the inspection program is underway, the work of the person chosen to inspect should be checked every week or two by the system's representative and the inspector's supervisor. The best way to check an inspector's work is to select at random about 10 poles inspected in the last few weeks, and perform a complete reinspection of the 10 poles. The reinspection should include: re-excavating, removal of paper and treatment, testing for hollow sounds, taking a boring, checking soft surface wood, remeasuring the pole, rechecking the calculations, then retreating and backfilling. If any serious first inspection errors are discovered, all work performed by the inspector between these spot checks should be reinspected.

The pole inspection and maintenance program may result in a large number of replacements. If the reject rate is high, the system's crews may not be able to replace rejected poles in a reasonable time because of other work. The temporary addition of skilled personnel for inspection or pole replacement may be required. It is generally necessary to use at least one crew full time to keep up with the pole inspector. An average pole inspector can check 150-200 poles per week or 800 poles per month. It is desirable to have one person responsible for supervision and coordination.

- 3.4 Reinspections: Information obtained during the first pole-by-pole inspection can serve as the basis for scheduling subsequent inspections. It is recommended that a reinspection be made every 8 to 12 years as mentioned in Paragraph 3.2, according to the decay zone and severity of decay. These recommendations should be modified by personal experience, but the intervals should not be extended by more than 3 years. It is advisable to recheck some poles which have been groundline treated at intervals sooner than recommended in Paragraph 3.2 to assure field applied treatment is working properly and recommended time intervals for reinspection can be trusted.
- 4. INSPECTION METHODS: There are varying types of inspection, each with a different level of accuracy and cost. Inspection methods with low accuracy require more frequent reinspection than methods which are detailed and more accurate.
- 4.1 <u>Visual Inspection</u>: Visual inspection is the easiest and lowest cost method for inspecting poles and has the lowest accuracy. Since most decay is underground or internal, this method will not detect the majority of any existing decay. Obvious data can be collected on each specific structure, such as the above ground relative condition of the pole, crossarm, and hardware. However because this method misses the most crucial part of a true pole inspection and maintenance program, this method is not recommended.
- 4.2 <u>Sound and Bore</u>: This method involves striking a pole with a hammer from groundline to as high as the inspector can reach and detecting voids by a hollow sound. An experienced inspector can tell a great deal about a pole by listening to the sounds and noticing the feel of the hammer. The hammer rebounds more from a solid pole than when hitting a section that has an internal decay pocket. The internal pocket also causes a sound that is dull compared to the crisp sound of a solid pole section.

Some inspection methods require all poles to be bored, while others require boring only when decay is suspected. Boring is usually done with either an incremental borer or power drill with a 3/8" bit. An experienced inspector will notice a change in resistance against the drill when it contacts decayed wood. The

shavings or the borings can be examined to determine the condition of the wood, and the borings can be analyzed for penetration and retention.

When voids are discovered a shell thickness indicator can be used to measure the extent of the voids. This information can be used to estimate the reduction in strength caused by the void, as discussed in Section 8.

The effectiveness of the sound and bore method varies with different species. For southern yellow pine poles, which represent a majority of the poles in North America, decay normally is established first on the outside shell below ground. The decay moves inward and then upward to sections above ground. By the time sound and bore inspection methods can detect internal decay pockets above ground, the pole is likely to have extensive deterioration below ground.

The sound and bore method is more effective with Douglas-fir and western red cedar poles. Decay on these poles is likely to begin internally near the groundline, or in the case of Douglas-fir, above the groundline. Therefore, sounding and boring can identify at least some decay at a stage before the groundline section is severely damaged.

All borings should be plugged with a treated wood plug which is properly sized for the respective hole.

Sound and bore method is recommended for the inspection of Douglas-fir and western red cedar poles but should be used in combination with excavation for southern pine poles.

4.3 Excavation: The effectiveness of the sound and bore inspection is greatly increased when excavation is added to the process. Excavation exposes the most susceptible section of the pole for inspection. For southern yellow pine this is particularly true, since decay begins externally and below ground.

Poles should be excavated to a depth of 18 inches in most locations. Deep excavation may be required in dry climates. After excavation the exposed pole surface should be scraped clean to detect early surface decay. The best results can be obtained by using a triangular scraper.

Shell rot and external decay pockets should be removed from the pole using a specially designed chipper tool. Axes or hatchets should never be used for this application. The remaining pole section should be measured to determine if the pole has sufficient strength with the reduced circumference. Tables 2, 3, and 4 on page 19, assist in determining the effective

After complete inspection and application of preservative treatment, the pole is backfilled by tamping every 6 to 8 inches of dirt at a time until the hole is filled. The backfill should mound up around the pole to allow for future settling and drainage away from the pole.

- 5. ADDITIONAL INSPECTION TOOLS AND METHODS: Additional equipment and methods are available which can be incorporated into the inspection process.
- 5.1 Shigometer: The Shigometer uses electrical resistance to detect incipient decay before it can be detected with the human eye or sensed with a drill. During the decay process, negative ions form in the infected wood and cause the electrical resistance to lower. The Shigometer measures electrical resistance and detects incipient decay when there are sudden drops in resistance readings.

The Shigometer employs test leads consisting of a twisted pair of insulated wires with bare metal tips. Both metal tips are slowly inserted into a 7/64" diameter hole bored in the pole. The instrument delivers an electric current pulse through the probes each second. The resistance of the wood tissue is measured between the contact points of the two tips.

By detecting incipient decay, the inspector can decide what further steps of inspection and preservative treatments to take.

5.2 Poletest: Poletest is a sonic instrument developed through research funded by the Electric Power Research Institute. During the development of this instrument, spectral analyses of sound waves that traveled through cross sections at various locations were compared to the actual breaking strength of poles. The end result of the research is a field test device that provides a statistically reliable direct readout of the strength of a pole at a specific cross section.

The intent of the Poletest instrument is to provide a strength assessment for individual poles as opposed to assuming pole designated fiber stresses of the American National Standards Institute (ANSI) 05.1. However, Poletest is not a substitute for traditional inspection because it does not detect decay, especially below ground. Measured strength values can be used to assist in determining when pole replacement is necessary.

5.3 <u>De-K-Tector</u>: The De-K-Tector and other waveform analysis instruments analyze sound wave patterns as they travel through a cross section of a pole. A calibrated mechanical striker impacts the pole and the sound wave or vibration wave caused by the impact is sensed by an accelerometer on the opposite side of the pole.

impact is sensed by an accelerometer on the opposite side of the pole.

The waveform that is detected by the accelerometer is electronically divided into high and low frequency components. Research has shown high frequencies are absorbed more by decayed wood. Therefore, a reading with a low magnitude, high frequency component would indicate a "questionable" pole because decay absorbed some of the high frequency component before the waveform reaches the opposite side of the pole. That pole would need further inspection by traditional methods.

#### 6. RESULTS OF WOOD POLE INSPECTION

6.1 <u>Inspection Results</u>: Inspection results should be used to update pole plant records, evaluate pole conditions, plan future inspection and maintenance action, and provide information for system map revisions. The inspection process will result in identifying the condition of each individual distribution and transmission pole.

In general ANSI C2, "National Electric Safety Code (NESC)," requires that if structure strength deteriorates to the level of the overload factors required at replacement, the structure shall be replaced or rehabilitated. The inspection results should indicate if a pole is "serviceable" or a "reject".

- **6.1.1** A pole is considered "serviceable" under any of the following conditions:
- a. Large portion of completely sound wood exists.
- b. Early stages of decay which have not reduced the pole strength below NESC requirements.
- c. Pole condition is as stated in (1) or (2) but a defect in equipment may exist, such as a broken ground or loose guy wire. Equipment defects should be subsequently repaired.
- **6.1.2** Any pole that does not meet the above conditions should be classified as a "reject". Any of the following conditions are characteristics of rejects:
- a. Decay, insect or mechanical damage has reduced pole strength at the groundline below NESC requirements.
- b. Severe woodpecker hole damage has weakened the pole such that it is considered below NESC requirements.
- c. Hazardous conditions exist above ground, such as split top.
- **6.1.3** Rejected poles may be classified further depending on the severity of the deterioration and whether they are reinforceable:

- a. A "reinforceable reject" is any reject which is suitable for restoration of the groundline bending capacity with an industry acceptable method of reinforcement.
- b. A "replacement" candidate is a rejected pole which is not suitable for necessary rehabilitation.
- c. A "priority reject" is a reject pole that has such severe decay deterioration, it should be removed as soon as possible.

#### 7. REMEDIAL TREATMENT

- 7.1 The purpose of remedial treatment of a standing pole is to interrupt the degradation by the addition of chemicals, such as pesticides, insecticides and fungicides, thereby extending the useful life of the structure. Treatment may be external groundline treatment or internal treatment.
- 7.2 Regulations and Licensing: Most states require applicators or job supervisors to obtain a pesticide applicator license. Testing for this license includes a "basic skills test" to show knowledge of the rules and regulations governing pesticides. Some states also give a "category test" which is specific to wood poles and wood preservation.

The uses of pesticides are classified by the United States Environmental Protection Agency (EPA) as either "general" or "restricted". A "general use" pesticide is not likely to harm humans or the environment when used as directed on the label. These pesticides may be purchased and applied without a pesticide applicator license. However, a manufacturer may choose not to make a product available for purchase by the general public.

A "restricted use" pesticide could cause human injury or environmental damage unless it is applied by competent personnel (certified applicators) who have shown their ability to use these pesticides safely and effectively. These wood preservatives can only be purchased and applied by someone who has a pesticide applicator license or whose immediate supervisor has a pesticide applicator license.

7.3 Groundline Treatment: All treated poles eventually lose resistance to decay, and groundline treatment provides an economical extension of their useful life. Experience has shown that groundline decay can be postponed almost indefinitely in cases where periodic inspection and maintenance programs are in effect. Groundline treatment is recommended under the following conditions:

- a. Whenever a pole is excavated during an inspection, and the pole is sound or decay is not so far advanced that the pole has to be replaced or repaired,
- b. Whenever a pole over 5 years old is reset, or
- c. Whenever a used pole is installed as a replacement.

The two general types of external preservatives used for groundline treatment are either waterborne or oilborne. The fungitoxic components of waterborne preservatives are water soluble while the oilborne preservatives carry oil soluble fungicides. There are formulations that contain both waterborne and oilborne solutions.

Sodium fluoride is the most commonly used water soluble active ingredient in remedial treatments. Historically, oilborne preservatives have included creosote and pentachlorophenol. However, use of penta in supplemental preservatives appears to be declining. In recent years, Copper Naphthenate has been used in external preservative pastes. Boron has also been introduced as an ingredient in a groundline paste.

Before application of external preservatives, decayed wood should be stripped from the pole and removed from the excavation. The preservative paste or grease is most commonly brushed onto the pole. A polyethylene backed paper is then wrapped around the treatment and stapled to the pole. The paper helps to facilitate the migration of the preservative into the critical outer shell.

- 7.4 <u>Internal Treatment</u>: The three basic types of preservatives used for internal treatment are liquids, fumigants, and solids.
- 7.4.1 Liquid Internal Preservative: Liquid internal preservatives should be applied by pressurized injection through a series of borings that lead to internal decay pockets or voids. Adequately saturating the pocket and surrounding wood should arrest existing decay or insect attack and prevent further degradation for an extended time.

Liquid internal preservatives contain water soluble or oil soluble active ingredients. Sodium fluoride is the principle active ingredient in the water based formulations. Moisture that is present in the pole will help facilitate diffusion of the active ingredients into the wood beyond a decay pocket.

Oil based internal preservatives most often incorporate Copper Naphthenate as an active ingredient with fuel oil or mineral spirits as the solvents. Since Copper Naphthenate is not soluble in water, it is likely to migrate into the surrounding wood only as far as the oil will travel.

7.4.2 Fumigants: Most of the fumigants in use for wood poles today were originally developed for agricultural purposes. Applying fumigants to soil will effectively sterilize the ground. Due to high levels of microorganisms and chemical activity in soil, the fumigants will degrade fairly rapidly and dissipate so that new crops can be planted in a short time.

These same fumigants do not degrade rapidly in wood and will remain affixed to sound wood cell structure for many years. Fumigants have also been found to migrate longitudinally in wood, several feet away from the point of application. This helps control decay in a large section of the pole. When the vapors migrate into a decay void, however, they may dissipate through associated checks and cracks. This reduces the long term effectiveness and requires more frequent application.

Registered pole fumigants include Sodium N-methyldithiocarbamate (NaMDC), Methylisothiocyanate (MITC), Chloropicrin and Vorlex. Vorlex has not yet been commercially used for utility poles, since it requires a closed application system. Chloropicrin is a very effective wood fumigant. However, the liquid has to be applied from pressurized cylinders, and the applicator has to wear a full-face air respirator.

NaMDC and MITC are the most widely used wood pole fumigants. NaMDC is soluble in water to a maximum amount of 32.7 percent. Treatment holes drilled in a wood pole are filled with the aqueous solution so the appropriate dosage is applied. Recommended dosages vary according to pole size. The NaMDC solution decomposes and generates MITC as the main fungitoxic ingredient. The maximum theoretical amount of resultant MITC at ideal conditions is 18.5 percent by weight. The MITC vapors then migrate up and down the pole to help control decay.

Pure MITC is a solid below 94°F and contains 97 percent active ingredient. Solid MITC sublimes directly into fumigant vapors. Avoiding the liquid stage helps to minimize loss of fumigant during application through checks and cracks. MITC is packaged in vials to facilitate installation. Just before placing the vial into a treatment hole, the cap is removed. As with any fumigant, application holes should be plugged with pressure treated plugs.

7.4.3 Solids: Currently, one solid preservative, a boron rod, is available in North America as a supplemental preservative treatment for wood poles. However, the American Wood Preservers' Association (AWPA) Standards do not include borates for ground contact applications like utility poles. Research and development continues in evaluating formulations of borates with other compounds.

7.5 <u>Woodpecker Damage</u>: Woodpecker damage is another problem that requires attention. Many methods have been used in attempts to prevent such damage, but nothing has been entirely successful.

It appears that a woodpecker selects a pole only by chance, and that the first hole invites further attack by other woodpeckers. For these reasons, it is good maintenance practice to seal up the smaller holes. Various materials are available for plugging the holes, and a wire mesh can be used to cover the plugged hole as well as large areas of a pole.

#### 8. DETERMINING THE SERVICEABILITY OF DECAYED POLES

- 8.1 The decision to treat or replace a decayed pole depends upon the remaining strength or serviceability of the pole. The permissible reduced circumference of a pole is a good measure of serviceability. The following procedure may be used to assist in determining if a pole should be replaced or reinforced.
- **8.2** <u>Decay Classifications</u>. Decay at the groundline should be classified as:
- a. General external decay,
- b. External pocket,
- c. Hollow heart, or
- d. Enclosed pocket.
- 8.3 Permissible Reduced Circumference Safety Factors. Wood pole lines are designed using designated fiber strengths and loads multiplied by an overload capacity factor (OCF). For tangent structures the NESC prescribes an OCF "when installed" (new) for Grade B construction (transmission lines) of 4.0 and requires replacement or rehabilitation if the OCF reaches below 2.67. For Grade C construction (usual distribution line grade of construction) the "when installed" OCF is 2.67 and replacement or rehabilitated OCF is 1.33.

Using Tables 1 through 4, on pages 17 and 19 of this bulletin, will give assistance in determining when replacement or rehabilitation is necessary. If the reduced circumference indicates a pole at or below the "at replacement" OCF, the pole should be replaced, splinted, stubbed immediately, or otherwise rehabilitated. Appendix A, of this bulletin, shows the typical pole stubbing detail for distribution poles. Poles are successfully rehabilitated using steel channels, fiberglass reinforcing and epoxy.

# 8.4 General Procedures For Using Tables 1, 2, 3 and 4:

8.4.1 General External Decay. After removing all decayed wood, measure the circumference above and below the decayed section to determine the original circumference. Then measure the reduced circumference at the decayed section. If the line is built to Grade B construction (transmission), enter the original circumference in the OCF 4.0 column of Table 1. Move right across from the original circumference column of Table 1 until you find the reduced circumference. Once you find the reduced circumference, read the OCF at the top of the column in which your reduced circumference ended. If this OCF meets or exceeds the 2.67 OCF column, replacement is not necessary. However, poles with values close to the minimum should be monitored frequently to ensure that the pole's OCF does not fall below the minimum.

For Grade C construction (usually distribution) enter Table 1 using the original circumference in column 4, OCF 2.67. These poles have to stay above the values of the OCF 1.33 column.

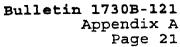
- 8.4.2 External Pockets. Remove decayed wood and make measurements of the depth and width of the pocket. Measure the pole for the original circumference. Refer to Table 2 to determine the circumference reduction. Enter Table 1 with the original circumference and the reduced circumference to determine the current OCF.
- 8.4.3 Hollow Heart (Heart Rot). If hollow heart is found, determine the shell thickness and measure the original circumference of the pole. Refer to Table 3 to determine the circumference reduction. Enter Table 1 with the original circumference and the reduced circumference to determine the current OCF.

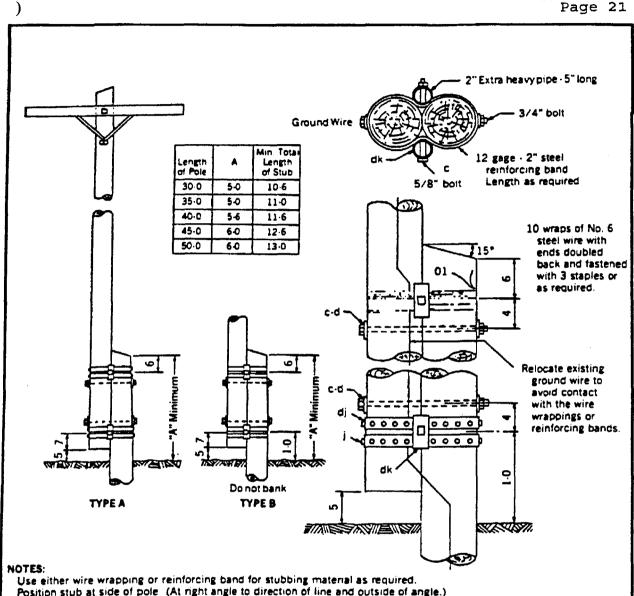
To determine the shell thickness, bore three holes (preferably of 1/4- or 3/8-inch diameter), 120° apart; measure the shell thickness at each hole, and average the measurements. After shell thickness is determined, treat and plug holes with tightly fitting cylindrical wood plugs that have been treated with preservative. No transmission pole should remain in service with a shell thickness less than 3 inches.

8.4.4 Enclosed Pocket. An enclosed pocket is an off-center void as shown in Table 4, and its diameter should be measured by boring holes as described in section 8.4.3. Using the minimum thickness of the shell, refer to Table 4 for the reduction in circumference. Measure the original circumference. Enter Table 1 with the original circumference and the reduced circumference and determine the current OCF.

Table 1
Pole Circumference Overload Capacity Factors (OCF)

							<del></del>						
Original			Dad										
circumference	1	Reduced circumference											
(inches)	<del> </del>		(inches)		T		T						
OCF 4.0	OCF 3.5	OCF 3.0	OCF 2.67	OCF 2.5	OCF 2.0	OCF 1.5	OCF 1.33						
30.0	28.7	27.3	26.1	25.6	23.8	21.6	20.7						
31.0	29.7	28.2	27.0	26.5	24.6	22.3	21.4						
32.0	30.6	29.1	27.8	27.4	25.4	23.0	22.1						
33.0	31.6	30.0	28.7	28.3	26.2	23.8	22.8						
34.0	32.5	30.9	29.6	29.1	27.0	24.5	23.5						
35.0	33.5	31.8	30.5	29.9	27.8	25.2	24.2						
36.0	34.4	32.7	31.4	30.8	28.6	25.9	24.9						
37.0	35.4	33.6	32.3	31.6	29.4	26.6	25.6						
38.0	36.3	34.5	33.1	32.5	30.2	27.4	26.3						
39.0	37.3	35.4	34.0	33.3	31.0	28.1	27.0						
40.0	38.3	36.3	34.9	34.2	31.8	28.8	27.7						
41.0	39.2	37.3	35.8	35.1	32.5	29.5	28.4						
42.0	40.2	38.2	36.7	35.9	33.3	30.2	29.0						
43.0	41.1	39.1	37.5	36.8	34.1	31.0	29.7						
44.0	42.1	40.0	38.4	37.6	34.9	31.7	30.4						
45.0	43.0	40.9	39.3	38.5	35.7	32.4	31.1						
46.0	44.0	41.8	40.2	39.3	36.5	33.1	31.8						
47.0	45.0	42.7	41.0	40.2	37.3	33.8	32.5						
48.0	45.9	43.6	41.9	41.0	38.1	34.6	33.2						
49.0	46.9	44.5	42.8	41.9	38.9	35.3	33.9						
50.0	47.8	45.4	43.6	42.7	39.7	36.0	34.6						
51.0	48.8	46.3	44.5	43.6	40.5	36.7	35.3						
52.0	49.7	47.2	<b>45.4</b>	44.5	41.3	37.4	36.0						
53.0	50.7	48.2	46.3	45.3	42.1	38.2	36.7						
54.0	51.6	49.1	47.1	46.2	42.9	38.9	37.4						
55.0	52.6	50.0	48.0	47.0	43.7	39.6	38.1						
56.0	53.6	50.9	48.9	47.9	44.4	40.3	38.7						
57.0	54.5	51.8	49.8	48.7	45.2	41.0	39.4						
58.0	55.5	52.7	50.6	49.6	46.0	41.8	40.1						
59.0	56.4	53.6	51.5	50.4	46.8	42.5	40.8						
60.0	57.4	54.5	52.4	51.3	47.6	43.2	41.5						





Position stub at side of pole. (At right angle to direction of line and outside of angle.)

ITEM	NO REQ'D	MATERIAL	ITE	NO REQT	MATERIAL	
C	2	Bolt, machine, 3/4" x required length			Wire, No. 6 gaivanized steel as required	
C	2	Bolt, machine, 5/8" x required length	aı		Staples, as required	
٥	4	Washer, 2 1/4" x 2 1/4" x 3/16", 13/16" hole				
,	4	Screw. lag. 1/2" x 4"				
Ø;	4	Band, reinforcing, 12 gage x 2" x reo'd length		1		
øk	4	Pipe spacer, 2" extra heavy x 5" long		1		

STUB	REINFORCING	OF	DISTRIBUTION
	LINE P	OLE	S

SCALE: NTS DATE:02/20/95

iii. GEC's Annual Strategic Work Plan – Glades Electric Cooperative utilizes an annual strategic work plan that is formulated from input from GEC's management staff, employees, and Board of Trustees. Strengths, Weaknesses, Opportunities, and Threats (SWOT analysis) are identified and evaluated on an annual basis as part of the strategic planning process. Goals and specific action steps are created as a result of the SWOT analysis and a work plan is devised. The work plan utilizes the Harvard Business School's "Balanced Scorecard" system to assure our Board of Trustees of our performance in all areas of the Strategic Work Plan. Pole inspection cycles, maintenance schedules, and system upgrades are included in the strategic work plan.

\*Note: Glades Electric Cooperative is still in the process of migrating to GIS mapping of all its facilities. This new mapping system will enable GEC to efficiently maintain accurate accounting of all facilities on the system. The mapping system is expected to be fully operational by 2009.

- b) Transmission and distribution inspections planned and completed in 2006 Glades Electric Cooperative planned and completed 100% of its 2007 maintenance and inspection goals. This work consisted of the following:
  - i. Distribution Inspections GEC completed pole inspections on approximately 3,756 distribution poles in 2007 representing approximately 9.4% of GEC's distribution system. In addition to pole inspections, GEC line superintendents visually inspected all 2,168 miles of GEC distribution lines for NESC code violations and hazardous conditions. GEC line crews conducted inspections on 28.85 miles of underground distribution representing 100% of GEC's URD.
  - ii. Transmission Inspections GEC visually inspected 100% of its 87 miles of transmission line through aerial inspections. Ground line and climbing inspections were completed on approximately 90 structures representing 10.6% of the GEC transmission system.
- c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.
  - i. Distribution Pole Rejects GEC had approximately 194 reject poles representing 5.2% of the poles inspected during 2007. Ninety two (92) of the reject poles, representing 2.4% of poles inspected during 2007, were restored using the reinforced truss method and did not require pole replacement. One hundred sixty (160) poles were rejected for decay representing 4.3% of poles inspected in 2007. Thirty four (34) poles were rejected due to visual observations representing 17.5% of the rejected poles and .09% of the poles inspected in 2007.
  - ii. Transmission Pole Rejects GEC had approximately three (3) transmission pole rejects representing 3.3% of the transmission poles inspected during 2007. All three (3) transmission poles failed due to ground line decay.

- d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.
  - i. Distribution Poles One hundred percent 100% of the reject poles identified in the 2007 pole inspection were replaced or repaired during 2007. Approximately ninety two (92) of the one hundred ninety four (194) reject poles were repaired using an approved banded truss method for reinforcement. One hundred two (102) poles were replaced. All reject poles were typically thirty five foot (35') class six (6) and forty foot (40') class five (5) pentachlorophenol treated wood poles. Replacement poles consisted of Chromated Copper Arsenate (CCA) wood poles. Thirty five foot (35') reject poles were replaced with forty foot (40') class four (4) CCA wood poles. Forty foot (40') reject poles were replaced with like size and class CCA wood poles.
  - ii. Transmission Poles One hundred percent (100%) of the rejected transmission poles identified in the 2007 inspection cycle were replaced during 2007. All three (3) reject transmission poles were sixty foot (60') class two (2) pentachlorophenol wood poles with wood cross arm and suspension insulator construction. Replacement poles consisted of sixty foot (60') class one (1) pentachlorophenol wood poles with standoff poly insulators attached in a delta configuration.

# 5. Vegetation Management

- a) Glades Electric Cooperative's policies, guidelines, practices, and procedures for vegetation management
  - i. Distribution Right of Way Glades Electric Cooperative began a system wide circuit by circuit right of way trimming program in 1999. This initial trimming by circuit took four years to complete as GEC had never trimmed right of way in this manner. The trim cycle started over in 2003 and GEC was able to reduce and maintain the system wide circuit by circuit trimming to a three (3) year cycle. Trimming guidelines are established in RUS Bulletin 1728F-803 (D-803) Specification Unit M1.30G which states the following:

#### RIGHT-OF-WAY CLEARING SPECIFICATIONS

The right-of-way shall be prepared by removing trees, clearing underbrush, and trimming trees so that the right-of-way is cleared close to the ground and to the width specified. However, low growing shrubs, which will not interfere with the operation or maintenance of the line, shall be left undisturbed if so directed by the owner. Slash may be chipped and blown on the right-of-way if so specified. The landowner's written permission shall be received prior to cutting trees outside of the right-of-way. Trees fronting each side of the right-of-way shall be trimmed symmetrically unless otherwise specified. Dead trees beyond the right-of-way which would strike the line in falling shall be removed. Leaning trees beyond the right-of-way which would strike the line in falling and which would require topping if not removed, shall either be removed or topped, except that shade, fruit,

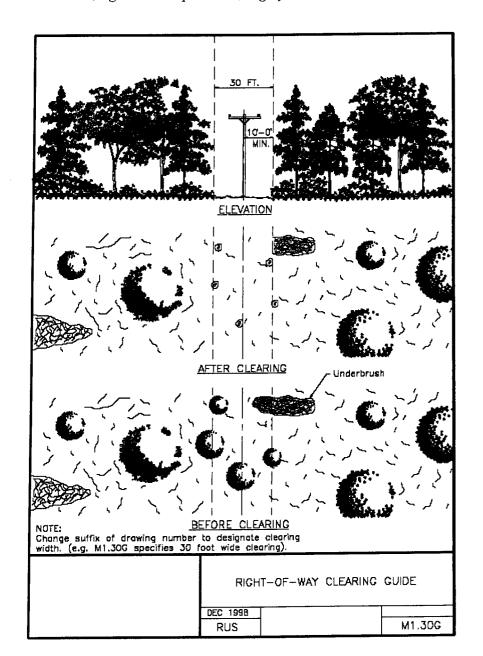
or ornamental trees shall be trimmed and not removed, unless otherwise authorized.

Additional right of way management practices are included in Glades Electric Cooperative's Right of Way Policy 411 as previously published in Section 3, subsection d) of this report. GEC's current Right of Way contract utilizes GEC's ROW guidelines, practices and procedures as follows:

Provide Supervision, labor and equipment to clear Glades Electric Cooperative Inc. distribution right of way as per the following specifications. Provide all necessary supervision, labor, tools, equipment and materials for the proper application of herbicides along Glades Electric Cooperative, Inc. right of ways. The State of Florida Utility Accommodations Manual (attached) shall have precedence over all herbicide applications.

- 1. All distribution lines shall be trimmed to obtain ten feet of clearance or three years clearance for slow growing species, from primary phase wire.
- 2. All open wire secondary shall be trimmed to obtain five feet of clearance from each side of line.
- 3. All service lines shall be trimmed to obtain three feet of clearance on all sides
- 4. If proper clearance cannot be obtained due to property owner objection, contractor shall secure a reasonable minimum amount of temporary clearance and review with Glades Electric.
- 5. Vines growing on pole shall be cut at a height of ten feet above grade level and at ground line then treated with approved herbicide.
- 6. Remove all danger trees to a height below Glades Electric facilities.
- 7. Remove 15% to 20% of trees within Glades Electric right of way that are four inches in diameter or less and have a mature growing height of over twenty feet.
- 8. All debris resulting from clearing and trimming shall be chipped with brush chipper or shredded on site with mower.
- 9. All stumps greater than two inches in diameter shall be treated with approved herbicide to prevent re-sprouting.
- 10. Dead and open distribution lines shall not be cleared.
- 11. Attempt to remove Palm Trees, directly under utility lines, that are within one frons lengths from conductor.
- 12. Provide a minimum of three-foot clearance around all poles, structures & guy wires.
- 13. Apply herbicide via foliar and basal treatment to selective vegetation within primary right-of way. See Herbicide specification.
- 14. Chemical selection, application rates as well as any customer notification, complaints or damage due to services rendered.

- 15. Obtaining any licenses and/or permits necessary to perform herbicide applications.
- 16. Supply Glades Electric with all labels, material safety data sheets and application rates for all chemical selections.
- 17. Providing herbicide application records to Glades Electric on a weekly basis
- 18. Guarantee a 90% control rate, based upon stem count. Any areas that do not meet the specification will be retreated at no additional cost.
- 19. The Crew Leader shall hold a valid State of Florida Pesticide Applicators License for right-of-way vegetation control.
- 20. Herbicide applications shall consist of both foliage and basal bark applications.
- 21. The decision not to apply herbicides, due to the presence or proximity of live stock, agricultural products, highly visible and sensitive areas.



ii. Transmission Right of Way - Glades Electric Cooperative follows RUS guidelines set forth in RUS Bulletin 1724E-200 Chapter 5 as follows:

# 5. HORIZONTAL CLEARANCES FROM LINE CONDUCTORS TO OBJECTS AND RIGHT-OF-WAY WIDTH

- 5.1 General: The preliminary comments and assumptions in Chapter 4 of this bulletin also apply to this chapter.
- 5.2 <u>Minimum Horizontal Clearance of Conductor to Objects</u>: Recommended design horizontal clearances of conductors to various objects are provided in Table 5-1. The clearances apply only for lines that are capable of automatically clearing line-to-ground faults.

Clearance values provided in Table 5-1 are recommended design values. In order to provide an additional cushion of safety, the recommended design values exceed the minimum clearances in the 2002 NESC.

#### 5.2.1 Conditions Under Which Horizontal Clearances Apply:

Conductors at Rest (No Wind Displacement): When conductors are at rest the clearances apply for the following conditions: (a) 167°F but not less than 120°F, final sag, (b) the maximum operating temperature the line is designed to operate, final sag, (c) 32°F, final sag with radial thickness of ice for the loading district (0 in., ½ in., or ½ in.).

Conductor's Displaced by Wind: The clearances apply when the conductor is displaced by 6 lbs. per sq. ft. at final sag at 60°F. See Figure 5-1.

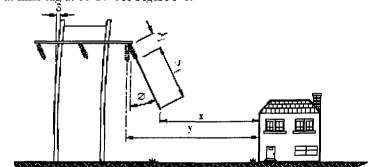


FIGURE 5-1: HORIZONTAL CLEARANCE REQUIREMENT

where:

φ = conductor swing out angle in degrees under 6 psf. of wind

 $S_f = conductor final sag at 60°F with 6 psf. of wind.$ 

 x = horizontal clearance required per Table 5-1 and conductors displaced by wind (include altitude correction if necessary)

 $\ell_1$  = insulator string length ( $\ell_1 = 0$  for post insulators or restrained suspension insulators).

y = total horizontal distance from insulator suspension point (conductor attachment point for post insulators) to structure with conductors at rest

 $\delta$  = structure deflection with a 6 psf. Wind

# TABLE 5-1 RUS RECOMMENDED DESIGN HORIZONTAL CLEARANCES FROM OTHER SUPPORTING STRUCTURES, BUILDINGS AND OTHER INSTALLATIONS (in feet) (NESC Rules 234B, 234C, 234D, 234E, 234F, 234I, Tables 234-1, 234-2, 234-3)

#### Conditions under which clearances apply:

No wind. When the conductor is at rest the clearances apply at the following conditions: (a) 120°F, final sag. (b) the maximum operating temperature the line is designed to operate, final sag. (c) 32°F, final sag with radial thickness of ice for the loading district (1/4 in for Medium or 1/2 in, Heavy).

**Displaced by Wind.** Horizontal clearances are to be applied with the conductor displaced from rest by a 8 psf wind at final sag at 60°F. The displacement of the conductor is to include deflection of suspension insulators and deflection of flexible structures.

The clearances shown are for the displaced conductors and do not provide for the horizontal distance required to account for blowout of the conductor and the insulator string. This distance is to be added to the required clearance. See Equation 5-3.

#### Clearances are based on the Maximum Operating Voltage

Nominal voltage, Phase to Phase, kV <sub>L-L</sub>	34.5 & 46	69	115	138	161	230
Max. Operating Voltage, Phase to Phase, kV <sub>L-L</sub>				144.9		
Max. Operating Voltage, Phase to Ground, kV <sub>L</sub> .		41.8	69.7	83.7	97.6	139.4

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<u>e</u>								i
		<u>NESC</u>						
Horizontal Clearance	<u>s - (Notes 1,2,3)</u>	<u>Basic</u>		•	Clearand	es in fee	e 1	
		<u>Clear</u>						
1.0 From a lighting suppo	ort, traffic signal support							
or supporting structur	e of another line							
At rest	(NESC Rule 234B1a)	5.0	đ.5	8.5	7.2	7.6	8.1	9.5
Displaced by wind	(NESC Rule 234B1b)	4.5	6.2	8.7	7.6	8.1	8.5	9,6
2.0 From buildings, walls.	, projections, guarded							
windows, windows no	t designed to open,							
balconies, and areas	accessible to pedestrians							
At rest	(NESC Rule 234C1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind	(NESC Rule 234C1b)	4.5	6.2	6.7	7.6	8.1	8.5	9.8
3.0 From signs, chimneys	s, billboards, radio, & TV							
antennas, tanks & oth	er installations not							
dassified as buildings								
At rest	(NESC Rule 234C1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind	(NESC Rule 234C1b)	4.5	6.2	6.7	7.6	5.1	8.5	9.9
4.0 From portions of bridg	ies which are readily							
accessible and suppo	rting structures are not							
attached	•							
At rest	(NESC Rule 234D1a)	7.5	9.2	9.7	10.6	11.1	11.5	12.9
Displaced by wind	(NESC Rule 234D1b)	4.5	6.2	6.7	7.6	ô.1	8.5	9.8
5.0 From portions of bridg	•	<u>-</u>		= **				
	orting structures are not							
attached								
At rest	(NESC Rule 234D1a)	8. <i>5</i>	8.2	8.7	9.6	10.1	10.5	112
Displaced by wind	(NESC Rule 234D1b)	4.5	6.2	6.7	7.6	5.1	8.5	9.9

# TABLE 5-1 (continued) RUS RECOMMENDED DESIGN HORIZONTAL CLEARANCES FROM OTHER SUPPORTING STRUCTURES, BUILDINGS AND OTHER INSTALLATIONS (in feet) ONES CRUTER 234B 234C 234B 234E 234E 234L Tables 234.1 234.2 234.3)

(NESC Rules 234B, 234C, 234D, 23-	4E, 234F	, 234I,	Tables	234-1,	234-2, 2	(34-3)	
Conditions under which clearances apply -Se			age and	section :	5.2.1 of	this bulk	etin
Clearances are based on the Maximum Opera Nominal voltage, Phase to Phase, kV <sub>L+</sub>	ting Volt	age 34.5 & 46	69	115	138	161	230
Max. Operating Voltage, Phase to Phase, kV <sub>L-L</sub> Max. Operating Voltage, Phase to Ground, kV <sub>L</sub> .			72.5 41.8	120.8 69.7	144.9 83.7	169.1 97.6	241.5 139.4
6							
Horizontal Clearances - (Notes 1,2,3)	<u>NESC</u> <u>Basic</u> Clear		-	Searanc	es in fee	it.	
6.0 Swimming pools – see section 4.4.3 of Chapter 4 and item 9 of Table 4–2. (NESC Rule 234E)							•
Clearance in any direction from swimming pool edge (Clearance A, Figure 4-2 of this bulletin)	25.0	27.2	27.7	28.6	29.1	29.5	30.9
Clearance in any direction from diving structures (Clearance 8, Figure 4-2 of this pulletin)	17.0	19.2	19.7	20.6	21.1	21.5	22.9
7.0 From grain bins loaded with permanently attached conveyor							
At rest (NESC Rule 234F1b)	15.0	17.2	17.7	18.6	19.1	19.5	20.9
Displaced by wind (NESC Rule 234C1b)	4.5	<b>5.</b> 7	7.2	8.1	8.6	9.0	10.4
8.0 From grain bins loaded with a portable conveyor. Height "V" of highest filling or probing port on bin must be added to clearance shown. Clearances for 'at rest' and not displaced by the wind. See NESC Figure 234-4 for other requirements. Horizontal clearance envelope (includes area of sloped clearance per NESC Figure 234-4b)	f highest filling or probing port on bin ded to clearance shown. Clearances and not displaced by the wind. See re 234-4 for other requirements. clearance envelope (includes area						
9.0 From rail cars. (Applies only to lines parallel to tracks). See Figure 234-5, and section 234i (Eye) of the NESC.							
Clearance measured to the nearest rail		14.1	14.1	§5.1	15.6	16.0	17.5
ALTITUDE CORRECTION TO BE ADDED TO VALUE: Additional feet of clearance per 1000 feet of altitude above 3300 feet	S ABOVE	.02	.02	.05	.07	.08	.12
Notes:  (A) Clearances for categories 1-5 in the table are appro (B) Clearances for categories 6-9 in the table are appro (C) "V" is the height of the highest filling or probing port 230 kV.	ximately 2	2.0 feet g	reater th	an NESC	olearand	es.	

5.2.2 Clearances to Grain Bins: The NESC has defined clearances from grain bins based on grain bins that are loaded by permanent or by portable augers, conveyers, or elevator systems.

In NESC Figure 234-4(a), the horizontal clearance envelop for permanent loading equipment is graphically displayed and shown Figure 5-2.

P = probe clearance, item 7, Table 4-2

H = horizontal clearance, item 7, Table 5-1

T = transition clearance

V<sub>1</sub> = vertical clearance, item 2&3, Table 4-2

V<sub>2</sub>= vertical clearance, Table 4-1

FIGURE 5-2: CLEARANCE TO GRAIN BINS NESC FIGURE 234-4a

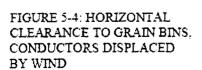
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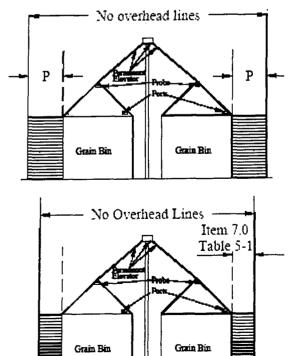
Because the vertical distance from the probe in Table 4-2, item 7.0, is greater than the horizontal distance, (see Table 5-1, item 7.0), the user may want to simplify design and use this distance as the horizontal clearance distance as shown below:

Grain Bin

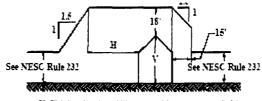
Grain Bin

FIGURE 5-3: HORIZONTAL CLEARANCE TO GRAIN BINS, CONDUCTORS AT REST P = clearance from item 7, Table 4-2





The clearance envelope for portable loading equipment from NESC Figure 234(b), is shown in Figure 5-5.



V=Height of highest filling or probing port on grain bin H=V-  $18^{\circ}$ 

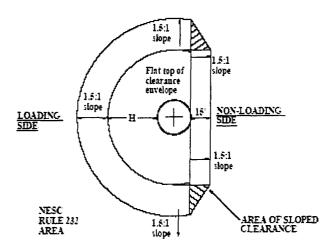


FIGURE 5-5: NESC CLEARANCE TO GRAIN BINS WITH PORTABLE LOADING EQUIPMENT

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RUS has a simplified the clearance envelope. The horizontal clearances in category 8 of Table 5-1 are shown as 'H' in the drawing below:

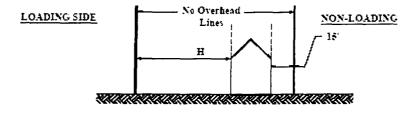


FIGURE 5-6: RUS SIMPLIFIED RECOMMENDATIONS FOR CLEARANCES TO GRAIN BINS WITH PORTABLE LOADING EQUIPMENT

5.2.3 <u>Altitude Greater Than 3300 Feet</u>: If the altitude of the transmission line or portion thereof is greater than 3300 feet, an additional clearance as indicated in Table 5-1 has to be added to the base clearance given.

5.2.4 Total Horizontal Clearance to Point of Insulator Suspension to Object: As can be seen from Figure 5-1, the total horizontal clearance (y) is:

$$y = (\ell_x + S_x)\sin\phi + x + S$$
 Eq. 5-1

Symbols are defined in Section 5.2.1 and figure 5-1.

The factor "5" indicates that structure deflection should be taken into account. Generally, for single pole wood structures, it can be assumed that the deflection under 6 psf of wind will not exceed 5 percent of the structure height above the groundline. For unbraced wood H-frame structures the same assumption can be made. For braced H-frame structures, the deflection under 6 psf of wind will be considerably less than that for a single pole structure, and is often assumed to be insignificant.

For the sake of simplicity when determining horizontal clearances, the insulator string should be assumed to have the same swing angle as the conductor. This assumption should be made only in this chapter as its use in calculations elsewhere may not be appropriate.

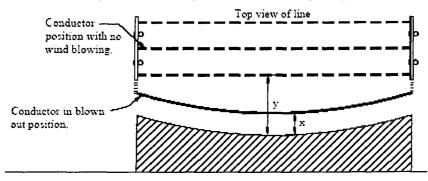
The conductor swing angle  $(\phi)$  under 6 psf of wind can be determined from the formula.

$$\phi = \tan^{-1} \left( \frac{(d_c)(F)}{12 \text{ w}} \right)$$
 Eq. 5-2

where:

 $d_C = \text{conductor diameter in inches}$   $w_C = \text{weight of conductor in lbs./ft.}$ F = wind force; use 6 psf in this case

The total horizontal distance (y) at a particular point in the span depends upon the conductor sag at that point. The value of (y) for a structure adjacent to the maximum sag point will be greater than the value of (y) for a structure placed elsewhere along the span. See Figure 5-8.



x = clearance required per Table 5-1 y = total horizontal clearance

FIGURE 5-7: A TOP VIEW OF A LINE SHOWING TOTAL HORIZONTAL CLEARANCE REQUIREMENTS

**5.2.5** Examples of Horizontal Clearance Calculations: The following examples demonstrate the derivation of the horizontal clearance in Table 5-1 of this bulletin.

To determine the horizontal clearance of a 115 kV line to a building (category 2.0 of RUS Table 5-1), the clearance is based on NESC Table 234-1 and NESC Rule 234.

#### At rest:

NESC Horizontal Clear. = NESC Basic Clearance(Table 234-1) + .4(kVL-g - 22)/12 = 7.5 feet + .4(69.7-22)/12 feet = 7.5 feet + 1.59 feet NESC Horizontal Clear. = 9.09 feet

RUS Recommended Clearance = NESC Horizontal Clearance + RUS Adder = 9.09 feet + 1.5 feet = 10.59 feet (10.60 feet in RUS Table 5-1)

Conductors displaced by wind:

NESC Horizontal Clear. = NESC Basic Clearance (Table 234-1) +  $.4(kV_{L-G} - 22)/12$ = 4.5 feet + .4(69.7-22)/12 feet = 4.5 feet + 1.59 feet NESC Horizontal Clear. = 6.09 feet

RUS Recommended Clearance = NESC Horizontal Clearance + RUS Adder = 6.09 feet + 1.5 feet = 7.59 feet (7.6 feet in RUS Table 5-1)

5.3 <u>Right-of-Way (ROW) Width:</u> For transmission lines, a right-of-way provides an environment allows the line to be operated and maintained safely and reliably. Determination of the right-of-way width is a task that requires the consideration of a variety of judgmental, technical, and economic factors.

Typical right-of-way widths (predominantly H-frames) that have been used by RUS borrowers in the past are shown in Table 5-2. In many cases a range of widths is provided. The actual width used will depend upon the particulars of the line design.

TABLE 5-2
TYPICAL RIGHT-OF-WAY WIDTHS

	Nominal Line-to-Line Voltage in kV										
	69 115 138 161 2										
ROW Width, ft.	75-100	100	100-150	100-150	125-200						

5.4 Calculation of Right-of-Way Width for a Single Line of Structures on a Right-of-Way: Instead of using typical right-of-way width provided in Table 5-2, widths can be calculated using either of the two methods below. They yield values that are more directly related to the particular parameters of the line design.

**5.4.1 First Method:** This method provides sufficient width to meet clearance requirements to buildings of undetermined height located directly on the edge of the right-of-way. See Figure 5-7.

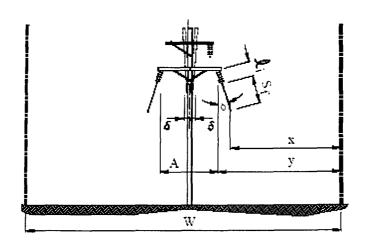


FIGURE 5-8: ROW WIDTH FOR SINGLE LINE OF STRUCTURES (FIRST METHOD)

$$W = A + 2(\ell_i + S_f)\sin\phi + 2\delta + 2x$$
 Eq. 5-3

where:

W = total right-of-way width required

A = separation between points of suspension of insulator strings for outer two phases

x = clearance required per Table 5-1 of this bulletin (include altitude correction if necessary)

Other symbols are as previously defined.

There are two ways of choosing the length (and thus the sag) on which the right-of-way width is based. One is to use a width based on the maximum span length in the line. The other way is to base the width on a relatively long span, (the ruling span, for instance), but not the longest span. For those spans that exceed this base span, additional width is added as appropriate.

5.4.2 Second Method: The right-of-way width can be based on allowing the phase conductor to blow out to the edge of the right-of-way under extreme wind conditions (such as the 50 or 100-year mean wind). See Figure 5-9. This method is used when there is an extremely low probability of structures being built near the line.

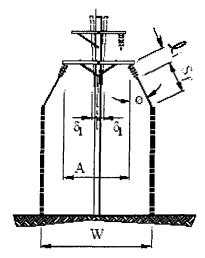


FIGURE 5-9: ROW WIDTH FOR SINGLE LINE OF STRUCTURES (SECOND METHOD)

From Figure 5-9 it can be seen that the formula for the width is:

$$W = A + 2(\ell_1 + S_y) \sin \phi + 2S_1$$
 Eq. 5-4

where:

 $\phi$  = conductor swing out angle in degrees at extreme wind conditions.  $\phi$  can be determined using Equation 5-2 with a wind force value F for the extreme wind condition (see Appendix E for conversion of wind velocity to wind pressure).

 $S_f$  = conductor final sag at extreme wind conditions at the temperature at which the wind is expected to occur  $S_1$  = structure deflection under extreme wind conditions

Other symbols are as previously defined.

As with the previous method, the sags in the calculations can be based on either the maximum span or the ruling span, with special consideration given to spans longer than the ruling span.

5.5 <u>Right-of-Way Width for a Line Directly Next to a Road</u>: The right-of-way width for a line next to a road can be calculated based on the two previous sections with one exception. No ROW is needed on the road side of the line as long as the appropriate clearances to existing or possible future structures on the road side of the line are met.

If a line is to be placed next to a roadway, consideration should be given to the possibility that the road may be widened. If the line is on the road right-of-way, the borrower would generally be expected to pay for moving the line. If the right-of-way is on private land, the highway department should pay. Considerations involved in placing a line on a road right-of-way should also include evaluation of local ordinances and requirements.

5.6 Right-of-Way Width for Two or More Lines of Structures on a Single Right-of-Way: To determine the right-of-way width when the right ROW contains two parallel lines, start by calculating the distance from the outside phases of the lines to the ROW edge (see Section 5.4). The distance between the two lines is governed by the two criteria provided in section 5.6.1. If one of the lines involved is an EHV line (345 kV and above), the National Electrical Safety Code should be referred to for additional applicable clearance rules not covered in this bulletin.

5.6.1 Separation Between Lines as Dictated by Minimum Clearance Between Conductors Carried on Different Supports: The horizontal clearance between a phase conductor of one line to a phase conductor of another line shall meet the larger of C<sub>1</sub>, or C<sub>2</sub> below, under the following conditions: (a) both phase conductors displaced by a 6 psf wind at 60°F, final sag; (b) if insulators are free to swing, one should be assumed to be displaced by a 6 lbs/sq. ft. wind while the other should be assumed to be unaffected by the wind (see Figure 5-10). The assumed wind direction should be that which results in the greatest separation requirement. It should be noted that in the Equations 5-5, and 5-6, the '81-82' term, (the differential structure deflection between the two lines of structures involved), is to be taken into account. An additional 1.5 feet have been added to the NESC clearance to obtain design clearances 'C<sub>1</sub>' and 'C<sub>2</sub>'.

$$C_1 = 6.5 + (\delta_1 - \delta_2)$$
 (NESC Rule 233B1) Eq. 5-5

$$C_2 = 6.5 + \frac{.4}{12} [(kV_{101} + kV_{102}) - 129] + (\delta_1 - \delta_2)$$
 (NESC Rule 233B1) Eq. 5-6

where:

 $C_1, C_2$  = clearance requirements between conductors on different lines in feet (largest value governs)  $kV_{LG_2}$  = maximum line-to-ground voltage in kV of line 1  $kV_{LG_2}$  = maximum line-to-ground voltage in kV of line 2  $S_2$  = deflection of the unwind structure in feet

 $\delta_l$  = deflection of the upwind structure in feet  $\delta_2$  = deflection of the downwind structure in feet

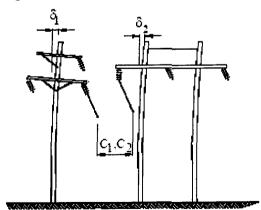


FIGURE 5-10: CLEARANCE BETWEEN CONDUCTORS OF ONE LINE TO CONDUCTOR OF ANOTHER LINE

5.6.2 Separation Between Lines as Dictated by Minimum Clearance of Conductors From One Line to the Supporting Structure of Another: The horizontal clearance of a phase conductor of one line to the supporting structure of another when the conductor and insulator are displaced by a 6 psf wind at 60°F final sag should meet Equation 5-7.

$$C_3 = 6! + \frac{.4}{12} (kV_{LG} - 22) + (\delta_1 - \delta_2)$$
 Eq. 5-7

where:

 $kV_{LG}$  = the maximum line-to-ground voltage in kV  $C_j$  = the clearance of conductors of one line to structure of another in feet

Other symbols are defined in Figure 5-1.

Additional 1.5 feet have been added to the NESC clearance and included in equation 5-7 to obtain the design clearance  ${}^{\circ}C_3{}^{\circ}$ .

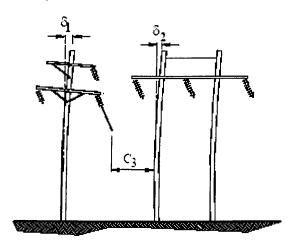


FIGURE 5-11: CLEARANCE BETWEEN CONDUCTORS OF ONE LINE AND STRUCTURE OF ANOTHER

The separation between lines will depend upon the spans and sags of the lines as well as how structures of one line match up with structures of another. In order to avoid the unreasonable task of determining separation of structures span-by-span, a standard separation value should be used, based on a worst case analysis. Thus if structures of one line do not always line up with those of the other, the separation determined in section 5.6.2 should be based on the assumption that the structure of one line is located next to the mid-span point of the line that has the most sag.

**5.6.3** Other Factors: Galloping should be taken into account in determining line separation. In fact, it may be the determining factor in line separation. See Chapter 6 for a discussion of galloping.

b) Quantity, Level, and Scope of vegetation management planned and completed in 2007 - Glades Electric Cooperative completed all planned right of way trimming in 2007 consisting of approximately 422 miles of distribution line. This work involved seven (7) distribution circuits from four (4) GEC substations. All completed vegetation management work was done in accordance with the guidelines published in Section 5, subsection a) of this report.

GEC's transmission rights of ways were inspected during 2007 and trimming was completed on approximately 2.5 miles of transmission line as required. Transmission rights of ways are inspected annually and trimmed if necessary. Most of GEC's transmission lines are located on cultivated land and vegetation growth is not an issue.

GEC believes that its right of way program is a valuable asset to its members and feels that the current program is effective.



Mr. Devlin,

Please accept the attached documents for the year 2007 facility hardening efforts, pole inspections data and vegetation management data. Gulf Coast Electric Cooperative, Inc. is moving in a positive direction to be in a setting of compliance regarding system hardening. Our pole inspection program is, as of this physical year 2008, on an 8-year cycle. Our vegetation management program is evolving from a 5-year cycle to 4-year cycle.

Loyce (Eudon) Baxley

Manager of Engineering & Operations

# Gulf Coast Electric Cooperative, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### **↓** Introduction:

➢ Gulf Coast Electric Cooperative, Inc. main office is located within the city limits of Wewahitchka in Gulf County, Florida approximately seventeen miles inland from the Gulf of Mexico. The district office is located within the community of Southport in Bay County, Florida approximately thirteen miles inland from the Gulf of Mexico. The Cooperative serves electricity to 20,396 customers in Gulf, Calhoun, Bay, Walton, Jackson and Washington counties. The Cooperative's distribution system is composed of power distribution lines operating at 14.4/24.94kv with one substation still operating at 7.2/12.47kv, both aerial and underground. All generation and transmission needs are supplied by PowerSouth Energy Cooperative (formerly known as Alabama Electric Cooperative) located in Andalusia, Alabama. The transmission voltage is rated at 115kv at the 14.4/24.94kv substations and 46kv at the 7.2/12.47kv substation.

#### ♣ Address:

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#### 

> The number of meters served in 2007 was 20,671

#### ♣ Standards of Construction

- National Electrical Safety Code Compliance: Grade C construction. Construction standards, policies, guidelines, practices, and procedures at Gulf Coast Electric Cooperative, Inc. comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 01, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction. As a RUS borrower, we must "ensure that all our electric distribution system is designed, constructed, operated, and maintained in accordance with all applicable provisions of the most current and accepted criteria of the NESC and all applicable and current electrical and safety requirements of any State and local governmental entity."
- Extreme Wind Loading Standards: At this time, Gulf Coast Electric Cooperative, Inc. facilities are not bound by the extreme loading standards as our system is 99.9% under the 60 foot "extreme wind loading" requirements. The method of construction used by GCEC does, however, meet the "design to withstand, without conductors, extreme wind loading in Rule 250C applied in any direction on the structure." We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time, we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of the PURC research before making such commitment. "RUS electrical standard requirements are in addition to, and not in substitution for or a modification of, the most current and accepted criteria of the NESC and any applicable electrical or safety requirements of any State or local governmental entity."
- Flooding and Storm Surges: Gulf Coast Electric Cooperative is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. GCEC is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.
- Safe and Efficient Access of New and Replacement Distribution Facilities: Electrical construction standards, polices, guidelines, practices, and procedures at Gulf Coast Electric Cooperative provide for placement of new and replacement distribution facilities to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e.

front, back or side of property), all facilities are installed so that the Cooperative facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. GCEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

Attachments by Others: Electrical construction standards, policies, guidelines, practices, and procedures at Gulf Coast Electric Cooperative include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the Cooperative's distribution poles. Quarterly pole line inspections of "workorders" are performed by a consulting Engineer for RUS purposes and for newly constructed jobs. The inspections encompass all pole line construction criteria. General inspections are currently done on an eight year cycle.

#### **★** Facility Inspections

- Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.
  - Gulf Coast Electric Cooperative has no transmission lines.
  - ➤ Gulf Electric Cooperative conforms to RUS Bulletin 1730B-12 for Pole Inspection and Maintenance, and performs general pole inspections on its distribution lines on an eight year cycle. Poles that do not pass inspection are changed out to satisfy service and safety reliability and to meet the requirements of the National Electrical Safety Code in effect at the current time. The pole selection process is by substation and by distribution feeder.
  - ➤ The Cooperative also inspects with the PSC, a percentage of new completed pole line construction called for by the PSC. This selection process is done by the PSC.
  - The Cooperative inspects a percentage of new pole line construction chosen quarterly on its own. The selection process is done by random choice.
- Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.
  - Gulf Coast Electric Cooperative has no transmission lines.
  - The general pole inspection for 2006 was not completed, and carries over into year 2007. Of the 45,560 poles on the system, 3,443 poles were inspected, which is 7.5% of system poles inspected in 2006. In 2007, the Cooperative inspected 10,275 poles which was 22.5% of the system poles.

- > The number of poles inspected in 2004 was 9,904 poles which was 21.7% of the system poles.
- ➤ The number of poles inspected in 2002 was 9,061 poles which was 19.8% of the system poles.
- GCEC has contracted with an independent firm to inspect approximately 10,490 poles in 2008. With the completion of the 2008 contract, GCEC will be on an eight year pole inspection cycle.
- ➤ Gulf Coast Electric Cooperative quarterly pole line inspections were completed in 2004. The Cooperative's quarterly pole line inspections encompass a minimum of 15% of new pole line construction for each quarter of the year.
- Describe the number and percentage of distribution poles failing inspection and the reason for the failure.
  - ➤ Of the 3,443 poles inspected in 2006 there was 130 poles rejected, which is a 3.7% rejection rate. In 2007, the Cooperative inspected 10,275 poles with 241 poles being rejected for a 2.3% rejection rate.
  - ➤ The Cooperative inspected 9,904 poles in 2004 with 195 of the poles failing inspection. The percentage of failed poles to the number of poles inspected was 1.97%.
  - The number of poles inspected in 2002 was 9,061 poles with 62 poles being below minimum strength requirements and were rejected (51 were rejected poles with below ground line decay and 11 for other reasons), which is a 0.6% rejection rate. The reason for failure was rotten tops, holes at the tops, broken pole, pole split and pole leaning.

#### Vegetation Management

- The Cooperative owns and operates approximately 1,632 miles of overhead and underground primary power lines. We strive to cut all the right-of-ways on a 5-year cycle. We are at the present time on a definitive 5-year program. According to the particular line construction specifications, we cut between 20 feet and 30 feet width, ground to sky. Our right-of-way program is managed by certified arborist. The Cooperative also utilizes right-of-way contractors for our clear-cut maintenance program.
- Estimated right-of-way clearing costs are approximately \$750,000 annually to cut 100% on a five year program. At this time, it is cost prohibitive to manage our program by cutting 100% on a three year cycle. GCEC cuts on a geographic and substation selective basis to maintain a respectful and systematic program. In 2006, the Cooperative cut approximately 400 miles of right-of-way. In 2007, approximately 400 additional miles of right-of-way

was cut. The Cooperative has another 400 miles planned to be cut in 2008 and a contract to cut 400 miles per year over the next three years. This 400 mile per year cut will establish a four year program for ground to sky cut program for the Cooperative.

- GCEC is working progressively into a systematic herbicide-spraying program. Our plans are to spray 12 to 18 months behind our clearing and mowing program to ensure we are eradicating vegetation that is unwanted and problematic.
- The Cooperative works closely with the Florida DOT and the various county governments' accommodation guidelines for our vegetation management. GCEC also works closely with property owners for problem tree removal and in selective cases, planting and landscaping.
- Cooperative personnel attended the vegetation conference in March, 2007 that the PURC research group is holding. GCEC will utilize any useful information that may result from this conference, and this will be referenced in our report next year.

## **Gulf Coast Electric Cooperative Inc**

Outage Data Actual		Outage Data Adjusted	
Total No Consumer Hours out times 60 minutes 1921320 divided by no Service interruption: equal 2153.946	CAIDI	Total No Consumer Hours out times 60 minutes divided by no Service interruptions equal	32014 1920840 891 <u>2155.824</u> <b>CAIDI</b>
Total Customer min. interruption 1921320 divide total customers served 20396 average minutes of service interruption duration 94.2	SAIDI	Total Customer min. interruption divide total customers served average minutes of service interruption duration	1920840 20396 <u>94.177</u> <b>SAIDI</b>
Year 2007 total service interruptions Number customers served System Average Interruption	892 20396 <u>0.043</u> <b>SAIFI</b>	Year 2007 total service interruptions Number customers served System Average Interruption	891 20396 <u>0.043</u> <b>SAIFI</b>
Year 2007 Outage Event Duration for all Outage Events Divide by Number of outage Events	1460.67 892 <u>1.637</u> <b>L-Bar</b>	Year 2007 Outage Event Duration for all Outage Events Divide by Number of outage Events	1459.67 891 <u>1.638</u> L-Bar

		OUTAGE REPORT								
	Ì	GULF COAST ELECTRIC	COOPERATI	VE, INC.						
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		0,0,100	Donna Broci							
		SUMMARY OF WEWA & S	OUTHPORT			n	STORM	EQMT	ALL	
			ROW	POWER	PRE- ARRANGED	HURR/			OTHERS	TOTAL
			KOW	SUPPLIER	ANNANGED	TORTADO	2,0,1,1,1,1,0			
NUMBER OF OUTAGE	8		7	0	0	0	20	5	30	62
I'' -	····		2	0	0	0	1	7	29	39
This month last year			151	0	0	1	266	60	414	892
This year to date			72	1	0	1	278	47	443	842
Last year to correspond			/2		- 0	·	270	7,		
CONSUMERS HOURS	OUTAGE		70.55	0.0000	0.0000	0.0000	1555.10	8.50	119.35	1753.50
This month			70.55	0.0000		0.0000	20.00	96.00	17701.00	17827.00
This month last year			10.00	0.0000	<del></del>				11324.62	32022.12
This year to date			6135.90	0.0000			9554.95			
Last year to correspond			1431.20	1265.00	0.0000	16.00	11226.14	4155.25	30393.71	48487.30
AVERAGE * OUTAGE I	HOURS P	ER CONSUMER								
This month			0.0035	0.0000	<del></del>			0.0004	0.0059	0.0860
This month last year			0.0005	0.0000			0.0010	0.0048	0.8789	0.885
This year to date			0.3008	0.0000	0.0000	0.0004	0.4684	0.2451	0.5552	1.5699
Last year to correspond	ing date		0.0715	0.0632	0.0000	0.0008	0.5608	0.2076	1.5184	2.422
RECAPITULATION FO										
Avg. • Outage Hrs. Per	Consume	Per Yr.								
This year			0.3008	0.0000			0.4684	0.2451	0.5552	1.569
Last year		<u> </u>	0.0715	0.0632	0.0000	0.0008	0.5608	0.2076	1.5184	2.422
		OUTAGE HRS. PER CONS								
Number of consumer			20,396		1					
	ber of con-	sumers served. This year to			ided by 12=	20398				
OVERTIME HOURS		SCHEDULE STAND-BY:		ABOVE STA	ND-BY				TOTAL OV	ERTIME
This month		100		125.00					225.00	
This month last year		100		156.25					256.25	
This year to date		992		2510.25					3502.25	
Last year to correspond	ling date	994		1795.75					2789.75	
*Average outage hours	per consu	imer are based on total cons	sumers serve	ed on the syst	om not just th	nee offected	hy outenes			<del></del>

## **Outage Report**

Time covered in this report is from: 01/01/2007 to 12/31/2007

printed: 02/26/2008

893 Outages in this report.

Page 1 of 5

#### Please note legend below:

Num out = Number of consumers out Hrs\_off = Hours power was off Hrs\_out = Consumer hours off

Employ\_wkd = Number of employees worked

Man\_hrs = Man hours worked Hrsreg = Hours regular time Hrsot = Hours overtime

Outage F	Report c	ontinue	d
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printed: 02/26/2008

Page 2 of 5

Time covered in this report is from: 01	1/01/2007 to	12/31/2007
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#### Information for Southport Office

#### **REGULAR TIME OUTAGES**

#### REGULAR TIME OUTAGES

	110		
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EQUIP FAIL		
Total consumers out for EQUIP FAIL:	2050	
Total hours off for EQUIP FAIL:	24.50	
Total consumer hours for EQUIP FAIL:	4076.00	
Total employees worked for EQUIP FAIL:	30	14 Reports for EQUIP FAIL
Total man hours for EQUIP FAIL:	49.00	Trioporto for Egon 1742
Total hours Reg for EQUIP FAIL:	45.00	
Total hours OT for EQUIP FAIL :	4.00	
IGHTN/STORM		
Total consumers out for LIGHTN/STORM:	2329	
Total hours off for LIGHTN/STORM:	48.00	
Total consumer hours for LIGHTN/STORM:	3210.50	
Total employees worked for LIGHTN/STORM:	51	32 Reports for LIGHTN/STORM
Total man hours for LIGHTN/STORM :	69.50	OZ Neporto for Electrica Com
Total hours Reg for LIGHTN/STORM:	68.50	
Total hours OT for LIGHTN/STORM :	1.00	
THER		
Total consumers out for OTHER:	607	
Total hours off for OTHER :	110.75	
Total consumer hours for OTHER :	908.25	
Total employees worked for OTHER:	135	90 Reports for OTHER
Total man hours for OTHER :	195.50	TO REPORTS FOR OTHER
Total hours Reg for OTHER :	189.50	
Total hours OT for OTHER :	9.00	
OW		
Total consumers out for ROW:	1341	
Total hours off for ROW :	41.00	
Total consumer hours for ROW:	1311.00	
Total employees worked for ROW:	50	31 Reports for ROW
Total man hours for ROW:	72.75	31 Reports for NOVV
Total hours Reg for ROW :	66.75	
Total hours OT for ROW:	0.00	
Total consumers out for REG:	6327	
Total hours off for REG :	224.25	167 REGULAR TIME OUTAGES
Total consumer hours for REG :	9505.75	
Total employees worked for REG:	266	
Total man hours for REG :	386.75	
Total hours Reg for REG :	369.75	
Total hours OT for REG :	14.00	

Outage Report continued		printed: 02/26/2008
Outage Report continued		Page 5 of 5
Time covered in this report is from:	01/01/2007 to 12/31/2007	
nformation for Wewa Office	OVER TIME OUTAGES	
OVER TIME OUTAGES		
EQUIP FAIL		
Total consumers out for EQUIP FAIL	: 26	
Total hours off for EQUIP FAIL		
Total consumer hours for EQUIP FAIL		
Total employees worked for EQUIP FAIL		15 Reports for EQUIP FAIL
Total man hours for EQUIP FAIL		15 Nepolis for Egolir I AIL
Total hours Reg for EQUIP FAIL	: 3.50	
Total hours OT for EQUIP FAIL	<i>:</i> 58.25	
LIGHTN/STORM		
Total consumers out for LIGHTN/STORM	: 1507	
Total hours off for LIGHTN/STORM	: 121.58	
Total consumer hours for LIGHTN/STORM		
Total employees worked for LIGHTN/STORM		81 Reports for LIGHTN/STORM
Total man hours for LIGHTN/STORM		•
Total hours Reg for LIGHTN/STORM		
Total hours OT for LIGHTN/STORM:	303.50	
OTHER		
Total consumers out for OTHER:		
Total hours off for OTHER:		
Total consumer hours for OTHER:		
Total employees worked for OTHER:		78 Reports for OTHER
Total man hours for OTHER:		
Total hours Reg for OTHER : Total hours OT for OTHER :		
ROW	251.70	
Total consumers out for ROW:	1046	
Total hours off for ROW:		
Total consumer hours for ROW :	2081.90	
Total employees worked for ROW:	71	47 Reports for ROW
Total man hours for ROW:	165.26	47 Reports for ROW
Total hours Reg for ROW:	3.50	
Total hours OT for ROW:	158.75	
Total consumers out for OT:	3945	204 OVER TIME OUT AGE
Total hours off for OT :	353.00	221 OVER TIME OUTAGES
Total consumer hours for OT:	6910.55	
Total employees worked for OT:	339	
Total man hours for OT :	815.46	
Total hours Reg for OT:	13.00	
Total hours OT for OT :	772.20	
Total consumers out for WEWA	5639	
Total hours off for WEWA	403.25	265 OUTAGES WEWA OFFICE
Total consumer hours for WEWA:	7690.80	
Total employees worked for WEWA:	430	
Total man hours for WEWA :	932.71	
Total hours Reg for WEWA:	122.00 770.45	
Total hours OT for WEWA :	779.45	
Total consumers out :	19402	
Total consumer hours	1460.67	
Total consumer hours :	32027.12	
Total employees worked : Total man hours :	1392 3036.06	
i otal man nours :	3026.96	
Total hours Reg :	<i>506.05</i>	

#### GULF COAST ELECTRIC COOPERATIVE, INC. POLE LINE INSPECTION AND MAINTENANCE LOG SHEET

INE OR SECTION NO.	MAP NO.
NSPECTOR	DATE
NSPECTOR	DATE

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	BORROWER DESIGNATION	N	DATE PREPARED	)
	MAP NO. SEC	CTION NO.	LINE SAMPLE NO	·.
GULF COAST ELECTRIC COOPERATIVE, INC.	NAME OF INSPECTOR			· · · · · · · · · · · · · · · · · · ·
UNDERGROUND DISTRIBUTION SYSTEM INSPECTION SUMMARY	INDICATE THE CORRECT ONE WITH AN "X"		1-PHASE V-PHASE	
			3-PHASE	OUTOK WY
!TEM				YES NO
1. PAD-MOUNTED EQUIPMENT			NO.DEFICIENT	
a. DOORS EQUIPPED WITH ACCEPTABLE METHODS FOR SECURING (padlock a.	nd penta-head bolt properly i	nstalled)		
b. ENCLOSURES FREE FROM BREAKS, PUNCTURES, OR RUST				
c. SIDES OF ENCLOSURES FREE OF EARTH				
d. PADS LEVEL, UNBROKEN, WITHOUT SETTLEMENT HOLES UNDERNEATH				
e. ALL ENERGIZED PARTS INSULATED OR COVERED BY BARRIERS				
2. ABOVEGROUND PEDESTALS				
a. PROPERLY LOCKED (padlock and penta-head bolt)				
b. ALL ENERGIZED CONNECTORS SUITABLY INSULATED				
c. PLUMB				
3. BELOW-GRADE EQUIPMENT				
a. TRANSFORMER OR OTHER EQUIPMENT TANKS FREE FORM CORROSION				
b. ENCLOSURE FREE OF EXCESSIVE MUD, LEAVES, OR OTHER DEBRIS				
c. MEASUREMENT INDICATES SACRIFICIAL ANODE ADEQUATE UNTIL NEXT SCI	HEDULED INSPECTION			
d. CABLES CLEAR OF TANK WALLS OR COVER EXCEPT AT GROUNDING LUGS .				
e. COVER OR GRATING UNBROKEN AND FLUSH WITH SURROUNDING EARTH (e	except for intentionally buried	l enclosures)		
FT, OF BACKFILL INSPECTED FT. DEFICIENT 4. RIGHT-OF-WAY	MARKERS & SIGNS REG	QUIRED	NO. FOUND	
a. BACKFILL OF TRENCH LEVEL WITH SURROUNDING EARTH				
b. CABLE ROUTE MARKERS AND SIGNS, IF USED, IN PROPER PLACE AND IN GO	OOD CONDITION			
5. RISER POLES				
a. CABLE RISER GUARDS COVERING CABLE TO AT LEAST 8 FEET ABOVE GROU	JND LEVEL			
b. CABLE CLEAR OF ANY POLE SURFACE COVERED WITH BLEEDING PRESERV.				
c. CABLE RISER TENSION SUPPORTED BY CABLE GRIP RATHER THAN BY TERM		PMENT		
6. BONDING	· · · · · · · · · · · · · · · · · · ·		METAL	
a. CABLE NEUTRAL GROUNDED AND PROPERLY BONDED TO ALL OUTDOOR TE EQUIPMENT, ENCLOSURES, AND OTHER EQUIPMENT AS REQUIRED BY CONS	STRUCTION SPECIFICATION	DNS		
REMARKS			, a	· · · · · · · · · · · · · · · · ·

# GULF COAST ELECTRIC COOPERATIVE, INC. INSPECTION & MAINTENANCE FORM FOR PAD-MOUNTED EQUIPMENT

LOCATION:		MANUFACTU	JRER:	
MAP ID:		SERIAL NUM	ABER:	
TYPE OF EQUIPMENT:	TRANSFORMER  JUNCTION CABINET  SWITCHGEAR  OTHER - SPECIFY:	KVA 1 PHASE MODEL DESCRIPTION:	1 PHASE 3 PHASE 3 PHASE	
EXTERIOR MAR	KING "WARNING" DECAL:	NEED TO REPLACE OR ADD	REPLACED OR ADDED	Пок
	LOCATION NUMBER:	NEED TO REPLACE OR ADD		ОК
OTHER SPECIFY:	· [	NEED TO REPLACE OR ADD	REPLACED OR ADDED	<b>ок</b>
FOUNDATION TYPE:	<u></u>	FLAT POLY PAD	CONCRETE PAD	
CONDITION:	NEED TO REPAIR OR REPLACE	REPAIRED	REPLACED	Ок
GRADE:	NEED TO RAISE OR LEVEL	RAISED	LEVELED	Ок
EXTERIOR FINISH:	FADING-NO CORROSION	NEEDS PAINTING	PAINTED	Ож
	CORRODING	NEEDS REPAIR	REPAIRED	
	CORRODING-BEYOND REPAIR	NEEDS REPLACING	REPLACED	
OIL FILLED EQUIPMENT:	MINOR LEAK MAJOR LEAK - NEEDS 1	NEEDS REPAIR  TO BE REPAIRED OR REPLACE	REPAIRED REPLACE	ED_OK
EQUIPMENT SECURITY:	ITEMS NOT CHECKED A	S "YES" NEED TO BE REPAIRE	D OR REPLACED IMMEDIATELY	1
	SECURED TO FOUNDATION:		REPLACED	YES
	LT PRESENT AND SECURED: OR OTHER LOCK INSTALLED:		REPLACED REPLACED	YES YES
INTERIOR MAR	CABLE LABELS:	NEED TO REPLACE OR ADD	REPLACED OR ADDED	ок ок
INTERIOR FINISH:	FADING-NO CORROSION	NEEDS PAINTING	PAINTED	Ок
	CORRODING	NEEDS REPAIR	REPAIRED	<del></del>
	CORRODING-BEYOND REPAIR	NEEDS REPLACING	REPLACED	
TERMINATIONS: ENTER Q	JANTITIES			
	ELBOWS:	NEEDS REPLACING	REPLACED	_ OK
	SECONDARY:	NEEDS REPLACING NEEDS REPLACING	REPLACED	_
GROUNDS:				·
ROD-MEASURED OHM		NEED TO REPLACE OR ADD	REPLACED OR ADDED	<b>□</b> ок
	CONNECTIONS:	NEED TO REPAIR	REPAIRED	С
SURGE ARRESTERS:	EXISTING: CONNECTIONS:	NEED TO REPLACE OR ADD NEEDS REPAIR	REPLACED OR ADDED	OK NONE
FAULT INDICATORS:	TESTED	NEED TO REPLACE OR ADD	REPLACED OR ADDED	OK NONE
ANIMAL/INSECT NESTS:	NEEDS TREATING	TREATED/REMOVED-DO NOT	REMOVE FIREANT NESTS	NONE
LIST ANY OBSTRUCTIONS	<b>3</b> :			
PLEASE NOTE ANY OTHER F	PROBLEMS, ACTION TAKEN (	(FENCES, TREES, SHRUBS, BUILDIN OR NEEDED:	NGS, ETC.)	
	(ATTACH ADDIT	IONAL PAGE IF MORE SPACE IS NEED	)EO)	
INSPECTED BY:		DATE:		
ANVUATA	DOOLIG CITUATION	IS SAFETY VIOLAT	TONC OD MA IOD O	U L TAKO

ANY HAZARDOUS SITUATIONS, SAFETY VIOLATIONS, OR MAJOR OIL LEAKS
NEED TO BE REPORTED AND REPAIRED IMMEDIATELY!



Post Office Box 3455

North Fort Myers, FL 33918-3455

(239) 995-2121 • FAX (239) 995-7904

www.lcec.net

February 29, 2008

Mr. Tim Devlin, Director Division of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Dear Mr. Devlin,

Enclosed is Lee County Electric Cooperative, Inc.'s (LCEC) Annual Report on Standards of Construction, Facility Inspections, and Vegetation Management for calendar year 2007. We are making this filing pursuant to Rule 25-6.0343 F.A.C.

If you have any questions please do not hesitate to call me (239) 656-2401.

Sincerely,

Donald E. Schleicher

Director, Finance & Accounting and Chief Financial Officer

Lee County Electric Cooperative, Inc. (LCEC)

anald E. Schleicher

CH/td

# Annual Report on Lee County Electric Cooperative, Inc.'s (LCEC) Standards of Construction, Facility Inspections, and Vegetation Management for calendar year 2007

#### **Standards of Construction:**

- a) LCEC's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed through December 31, 2007 comply with the edition of the code in effect at the time of the facility's initial construction.
- b) LCEC has construction standards, for required facilities, that meet the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC.
- c) Although not waterproof, LCEC's equipment and constructed facilities are designed to be water resistant. The majority of our underground facilities (excluding conduits and cables) are at or above existing/surrounding grade. Even with these design and installation considerations, LCEC experienced some significant damage to our underground facilities as the result of flooding and storm surges. On the other hand, it has been LCEC's experience that flooding and storm surges have little effect on overhead facilities whether part of an underground or overhead system.
- d) Although often at odds with the desires of customers and governmental entities, LCEC's current practice is to place the majority of new and replacement distribution facilities in the front of lots. This does provide in most cases the safest and most efficient access for installation and maintenance. If necessary, easements for placement of distribution faculties are requested from customers.
- e) LCEC's standards for joint use provide clearances (distances) for conductors, equipment, and risers. The joint use agreements that are entered into with pole attachment parties detail the process for evaluating pole loading capacity. Additionally, the agreements define the responsibilities for pole reliability and upgrading. Currently, LCEC does not permit attachments to transmission poles.

#### **Facility Inspections:**

a) Transmission inspection annual (230 kV) and 2-year cycle (138 kV): Inspect all poles and structures by either climbing or with the use of a bucket truck. Inspect poles, structures, guys, anchors, insulators, crossarms, conductors, shield wires, right-of-way, for any structural deficiency or any situation that may impact the structural integrity of the facility. Inspections are conducted by either climbing the pole/structure or with the use of a bucket truck.

<u>Distribution inspection 10-year cycle</u>: Inspect all poles for splitting, cracking, visual decay, twisting, and bird damage. Patch minor woodpecker holes. When

digging around ground line of poles for ground rod checks, check pole for ground rot. Sounding and assessing each pole for deteriorating by probing with a screwdriver. Examine concrete poles for evidence of cracks and physical damage. Plumb poles if they are (1+) pole top out of plumb.

- b) In 2007, LCEC inspected 1520 out of a total of 2642 transmission poles and structures. This included 100% of the 230 kV facilities and 47% of the 138 kV facilities. This was 100% of scheduled.
  - In 2007, LCEC completed inspections of 24,796 distribution poles and structures. This was 141% of scheduled; 23.6% of the total number of poles and structures.
- c) During the 2007 inspection of the transmission facilities, 224 poles (14.7% of inspected, 8.5% of total) failed inspection criteria. Of these, 168 failed due to woodpecker damage and 56 failed due to rot.
  - During the 2007 inspection of the distribution facilities, 1688 poles (6.8% of inspected, 1.6% of total) failed inspection criteria. Of these, 101 failed due to rot, 1413 failed due to out of plumb, and 174 failed due to woodpecker damage.
- d) In 2007, LCEC repaired through patching 150 (67% that failed inspection) transmission poles. The remaining 74 (33% that failed inspection) transmission poles will be replaced during 2008 (currently in progress). The majority of these poles are 65-foot Class 2 in tangent and angle structures. The majority of the replacement poles will be concrete with a few replacement wood poles ranging in height from 60-foot to 85-foot and will be either Class 2 or Class 1.

In 2007, LCEC repaired through re-plumbing 1413 (83.7% that failed inspection) and repaired through patching 174 (10.3% that failed inspection) distribution poles. The remaining 101 (6.0% that failed inspection) distribution poles were replaced in 2007. The replaced poles consisted of: six (6) 30-foot Class 6, thirteen (13) 35-foot Class 5, two (2) 40-foot Class 3, fifteen (15) 40-foot Class 4, thirty-eight (38) 40-foot Class 5, one (1) 45-foot Class 2, one (1) 45-foot Class 3, one (1) 45-foot Class 5, one (1) 50-foot Class 1, one (1) 50-foot Class 2, and twenty-two (22) undocumented poles.

#### **Vegetation Management:**

- (a) LCEC has developed the following Vegetation Management Program for the control of vegetation on its distribution facilities. This Program covers the maintenance of vegetation for the 3,915 miles of single, double and three-phase distribution lines. Goals and strategies of the program are:
  - 1) Maintain reliability of the distribution lines by controlling vegetation to meet the requirements of NESC and ANSI.
  - 2) Strategies for control include cultural, mechanical, manual, and chemical treatments.

- 3) LCEC's practices planned circuit trimming on a six year cycle for single phase and a three year cycle for double and three phase distribution.
- 4) Approved procedures include directional trim techniques per ANSI A300 standard. Maintain side clearance of 8-10 feet or employ the use of directional trim technique of taking the cut to the next lateral beyond the standard clearance point. Standard ground/horizontal clearance is one foot below the lower most cable attachment or 12 feet from the primary, which ever is greater. Palm trees are tipped back so fronds will not make contact with the primary when they drop. Overhang less than 15 feet above the primary is removed. All vines are cut and sprayed.

LCEC's <u>TREES</u> (<u>To Respect Electricity</u> and the <u>Environment Safely</u>) communication program focuses on planting and landscaping. Key messages are incorporated into the customer newsletter at least twice a year. Door hangers with brochures containing detailed information about planting the right tree in the right place are distributed throughout neighborhoods prior to circuit trimming. Through LCEC's Public Relations Department, presentations are used to promote smart landscaping to city government, builders and local agencies

LCEC maintains a bi-annual ground inspection of ROW Restriction Vegetation with trim/maintenance done as required.

(b) 2007's Planned Vegetation Management for transmission and distribution was completed as scheduled.

2007 Veg	etation Manageme	nt Schedule	
	YE Actual	YE Goal	% YE
Transmission trimming*	145	145	100.0%
Three-phase trimming*	153	153	100.0%
Single-phase trimming*	735	735	100.0%
Transmission mowing*	102	102	100.0%
230 kV Inspection	Feb & Aug	Bi-annual	100.0%
138 kV inspection	Jan thru Sep	Annual	100.0%
ROW Restriction Inspection/Maintenance	Feb & Aug	Bi-annual	100.0%

Summary of Lee County Electric Cooperative, Inc. (LCEC) Report Pursuant to Rule 25-6.0343, F.A.C Calendar Year 2007													
	The extent to which Standards of Construction address:							Transmission & Distribution Facility Inspections:				Vegetation Management:	
		Guided by Extreme Wind Loading per Figure 250-2(d)									Description of		
Utility	Comply with the 2007 NESC on or after 2/1/2007	New Const.	Major Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares	Effects of flooding & storm surges on UG & OH distribution facilities	Placement of distribution facilities to facilitates safe and efficient access	Written safety, pole reliability, pole loading capacity, and engineering stds for Attachments	guidelines, practices, procedures, cycles and pole	No. & Pct. of poles & structures planned & completed		No. & Pct. of poles & structures, by class, replaced or remediated w/ description	policies, guidelines, practices, procedures, tree removals, w/ sufficiency	Quantify, level, & scope planned and completed for transmission and distribution.
								T: 138KV 2-Yr cycle	(16.7% of Total); Completed - 24,796		of Failed, 0.4% of Insp., 0.1% of Total), Replumb - 1413 (83.7% of Failed, 5.7% of Insp., 1.3% of Total), Patched - 174 (10.3% of Failed,	T: 230KV Bi- Annual; 138KV Annual D: 3-Yr (2 & 3 Phase	
Lee County Electric Cooperative Inc. (LCEC)	Yes.	guie	ded by 2002 Fig	ure 250-2(d).	Yes.	Yes.	Yes.	230KV 1-Yr cycle. D: 10-Yr cycle.	(141% of Planned, 23.6% of Total).	(6.0%), Plumb (83.7%), Woodpecker (10.3%).	0.7% of Insp., 0.2% of Total).	Yr (1 Phase Circuits)	100% of Planned



### Okefenoke Rural Electric Membership Corporation

POST OFFICE BOX 602 NAHUNTA, GA 31553-0602 912-462-5131 912-462-6100 FAX 800-262-5131 POST OFFICE BOX 2530 KINGSLAND, GA 31548 912-882-1362 912-882-1624 FAX POST OFFICE BOX 1229 HILLIARD, FL 32046-1229 904-845-7477 904-845-7510 FAX

"Owned By Those We Serve"

February 27, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

RE: Final 2007 Report, for Rule 25-9.0343, F.A.C.

Mr. Devlin,

Please find enclosed our final report pursuant to Rule 25-6.0343, F.A.C. for the year 2007.

Sincerely,

Ernie Thomas

Manager of Engineering Services

Okefenoke Rural Electric Membership Corporation



#### Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

Okefenoke Rural Electric Membership Corporation P.O. Box 602 147 East Cleveland Street Nahunta, Georgia 31553

Contact Information:

Ernie Thomas Manager of Engineering 800-262-5131 Ext. 1138 912-462-6100 Fax ernie thomas@oremc.com

#### 2) Members Served

As of December 31<sup>st</sup> 2007, Okefenoke Rural Electric Membership Corporation serves 24,153 meters in the state of Georgia, and 9,918 meters in the state of Florida. The total number of meters served system-wide is 34,071.

#### 3) Standards of Construction

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Okefenoke Rural Electric Membership Corporation comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

#### b) Extreme Wind Loading Standards

At this time, the design of Okefenoke Rural Electric Membership Corporation's facilities are not guided by the extreme loading standards on a system wide basis. Okefenoke Rural Electric Membership Corporation is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas, at this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system.

Through contracting with the University of Florida's Department of Civil & Coastal Engineering Department, the PURC is working to establish a granular wind observation network. This network will collect high quality meteorological information during tropical storms and hurricanes. 21 operational stations are currently installed and reporting data, and it is estimated that there will be a total 50 functional stations online by the 2008 hurricane season. The measurement of the overland ground level wind behavior during landfall should provide useful information to utilities considering hardening their infrastructure against hurricane wind loads.

#### c) Flooding and Storm Surges

Okefenoke Rural Electric Membership Corporation is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Okefenoke Rural Electric Membership Corporation is participating through the Florida Electric Cooperative Association in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground (Under-grounding) and the effectiveness of under-grounding facilities in preventing storm damage and outages. Phases I and II of this study are complete.

Phase I concluded that the conversion of overhead electric distribution systems to underground is costly and that these costs are in excess of quantifiable benefits, except in rare cases where the facilities provide particularly high reliability gains or otherwise have a higher than average impact on community goals. No prior cost benefit study recommends broad-based undergrounding, but several recommend targeted under-grounding to achieve specific community goals.

Phase II was completed in August 2007, and examined four specific project case studies in Florida. Some observations reported from the case study are:

- 1. Cost per circuit mile varies widely based on a variety of factors.
- 2. Cost per consumer varies widely based on both the cost per circuit mile and the amount of high-density housing.

- 3. Little data is available from the case studies on the impacts of under-grounding on non-storm reliability and hurricane performance, but the evidence suggests that the under-grounding had little impact on non-storm reliability and that hurricane reliability of underground systems is not perfect due to storm surge damage.
- 4. There is very limited data on cost and benefits of under-grounding for these projects, whereas information is available about project description and project cost.

Phase III is scheduled for completion in 2008. This phase of the study will develop and test an ex ante methodology and computer model to identify and evaluate the costs and benefits of undergrounding specific facilities in Florida. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Okefenoke Rural Electric Membership Corporation provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Okefenoke Rural Electric Membership Corporation's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Okefenoke Rural Electric Membership Corporation decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

The pole attachment agreements between Okefenoke Rural Electric Membership Corporation and third-party attaching companies, with the exception of BellSouth of Florida and BellSouth of Georgia, include language which specifies that the attaching company, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. A registered professional engineer licensed in the state in which the attachment is made, is required to certify that new permitted attachments fully comply with the latest edition of the National Electrical Safety Code. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

The AT&T (formerly Bell South of Georgia) Joint Use Agreement requires each party to at all times, maintain all of its attachments in accordance with the specifications of the agreement. This includes as a minimum, the requirements of the National Electrical Safety Code (NESC) and subsequent revisions thereof. As a part of the permitting process for new attachments, the attaching company is required to submit all technical information necessary for verification by the pole owner of compliance with the NESC. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

Okefenoke Rural Electric Membership Corporation 2007 Report

Okefenoke Rural Electric Membership Corporation is currently negotiating a new agreement with AT&T (formerly Bell South) of Florida. It is anticipated that the agreement will be similar in scope to the Georgia agreement, thereby including as a minimum, the requirements of the National Electrical Safety Code for attachments. Okefenoke Rural Electric Membership Corporation performs follow-up audits of attachments to ensure the attachment is properly installed and maintained.

#### 4. Facility Inspections

#### a) Guidelines, Practices, and Procedures

Okefenoke Rural Electric Membership Corporation inspects its distribution lines, poles, and structures in accordance with RUS Bulletin 1730B-121, entitled "Pole Inspection and Maintenance". The cooperative owns no transmission facilities. The cooperative utilizes a contractor to administer the inspection and maintenance program. This procedure includes visual inspection from ground-line to the top of the pole, sound and bore with excavation, and chemical treatment of the poles.

Okefenoke Rural Electric Membership Corporation made the decision in 2006 to move to an 8-year pole inspection cycle. The cooperative had traditionally utilized a 10-year pole inspection cycle, and had seen very low rejection rates using the 10-year pole inspection cycle. But, the decision was made to accelerate the cycle to an 8-year inspection cycle, since the IOU's and most cooperatives in the state of Florida are on the 8-year cycle.

#### b) 2007 Inspections

Okefenoke Rural Electric Membership Corporation inspected 7,463 distribution poles for the year 2007. This represents approximately 13.5% of the 55,414 poles on the system as of December 2007. This coincides with the 8-year inspection cycle.

#### c) Rejections

During the 2007 pole inspections, 33 distribution poles were rejected. This represents a rejection rate of approximately 0.44% of the 7,463 poles inspected in the year 2007. The primary reason for the rejection of each of these poles was excessive pole decay.

#### d) Replacement and Remediation

Of the 33 rejected wooden distribution poles found during the 2007 inspections, 10 poles were replaced and remediation for 23 poles is scheduled for Spring 2008. The remediation method will consist of reinforcement of these 23 deficient poles. The metal C-Truss method will be used, providing restoration of ground-line bending capacity with this industry acceptable method. The following table summarizes: the pole length and class, the number of poles replaced, and the number of poles to be restored using the remediation method described above.

Summary of OREMC 2007 Pole Inspection Rejections and Actions Taken

Pole Length - Class	Number Replaced	Number to be Restored
30-7	1	
30-6	1	1
30-5	2	1
35-7		1
35-6	1	9
35-5	2	9
40-5	2	2
40-4	1	
Totals	10	23

#### 5. Vegetation Management

#### a) Guidelines, Practices, and Procedures

Okefenoke Rural Electric Membership Corporation utilizes contractors for its vegetation management programs, with supervision from the cooperative's staff. Vegetation control practices consist of complete clearing to the ground-line, trimming, and herbicide application. The herbicide is generally applied to the sections of line cleared the previous year, thereby extending the clearing cycle beyond what would normally be needed. The cooperative is also

widening right of ways from twenty to thirty feet wide, wherever practical. These practices have allowed the cooperative to move to a five-year trim cycle, rather than a three-year cycle.

Problem trees outside the road right of way or easement are handled on a case-by-case basis. Often a landowner will contact the cooperative, requesting danger tree removal. The cooperative's right of way foreman will investigate and facilitate the tree removal if it is feasible to do so. In other instances, problem trees are reported by cooperative employees or other persons, and the right of way foreman will attempt to obtain landowner permission to remove the problem tree. If permission is granted, the process is essentially the same as if the landowner reported the problem tree. The majority of the cooperative's system is rural, and the rural consumers are generally very supportive of the effort to remove the problem trees to help avoid power interruptions.

#### b) 2007 Vegetation Management

Okefenoke Rural Electric Membership Corporation planned to address 500 miles of right of way trimming and clearing for the year 2007. 500 miles per year has been the benchmark, which the cooperative has targeted for several years. For the year 2007, the cooperative actually cut and trimmed 535 miles of right of way. This equates to approximately 21.5 % of the cooperative's 2,484 miles of overhead distribution. Herbicide was also applied to 475 miles of the distribution line right of way in the year 2007. The herbicide is typically applied to circuits that were cut and trimmed in the previous twelve months. This method of herbicide application helps to address the re-growth of vegetation in its early growth stages. These numbers are on track for the cooperative's five-year trim cycle.

The PURC research group facilitated a vegetation management conference in March 2007. Okefenoke Rural Electric Membership sent representatives to this workshop. A few important points were taken away from the conference.

- 1. It is impractical to eliminate all tree-related outages during high-wind events such as hurricanes.
- 2. Communication with and education for the public on all aspects of vegetation management as it relates to reliable utility operations is crucial.
- 3. Adequate and consistent financial resources must be available for vegetation management programs to be successful.
- 4. There is a need for training, recruiting, and retaining highly qualified, skilled tree crews.
- 5. Utilities should continue to monitor and patrol critical distribution facilities such as major feeders and feeders that serve critical infrastructure.
- 6. Storm preparation and restoration logistics are critical to timely and effective storm recovery.
- 7. Cooperation between utilities and government at multiple levels is also important.

Okefenoke REMC will continue to consider these and other areas for improvement in its vegetation management processes and will participate in any future conferences or discussions concerning utility best practices.

#### 6. Reliability Data

Okefenoke Rural Electric Membership Corporation abides by the Rural Utilities Service (RUS) guidelines with respect to reliability and service interruption data. Reliability and service interruption data is reported to RUS on an average hours per consumer basis. A copy of the RUS Form 7 for 2007 for Okefenoke REMC is attached to and made a part of this report. See Part G of the attached Form 7 for the 2007 data for Okefenoke REMC.

As can be seen from the Form 7 data, Okefenoke REMC customers experienced an average of 5.37 hours per consumer of interruptions for the year 2007. 2.57 hours of the total was due to extreme storms, representing the results of heavy thunderstorm activity during the summer of 2007.

USDA - RUS BORROWER DESIGNATION GA0092 FINANCIAL AND STATISTICAL REPORT PERIOD ENDED December, 2007 INSTRUCTIONS - See RUS Bulletin 1717B-2 PART E. CHANGES IN UTILITY PLANT ADJUSTMENTS BALANCE END BALANCE RETIREMENTS ADDITIONS BEGINNING AND TRANSFER OF YEAR OF YEAR PLANT ITEM (d)(e) (a)1. Distribution Plant 112,670,793 12,262,207 1,435,881 0 123,497,119 2. General Plant 8,362,931 958,178 89,334 9,231,775 5,000,668 3. Headquarters Plant 5,000,668 4. Intangibles 209 209 5. Transmission Plant 0 6. All Other Utility Plant 27,838 27,838 7. Total Utility Plant in Service (1 thru 6) 126,062,439 13,220,385 1,525,215 137,757,609 2,039,472 991,441 3,030,913 8. Construction Work in Progress 9. TOTAL UTILITY PLANT (7 + 8) 128,101,911 14,211,826 1,525,215 0 140,788,522 PART F. MATERIALS AND SUPPLIES BALANCE BALANCE ADJUSTMENT SOLD END OF YEAR TTEM BEGINNING OF **PURCHASED** SALVAGED USED (NET) YEAR (e) (a) (g) 1,868,809 1. Electric 3,026,324 1,556,171 68,158 3,332,670 60,660 (13,790)107,207 296,594 288,974 2,024 116,851 2. Other PART G. SERVICE INTERRUPTIONS AVERAGE HOURS PER CONSUMER BY CAUSE TOTAL ITEM ALL OTHER POWER SUPPLIER PREARRANGED EXTREME STORM (c) (a) (b) 1. Present Year .06 2.73 01 2.57 5.37 . 58 2. Five-Year Average 4.95 .08 2.86 8.47 PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS 1. Number of Full Time Employees 104 4. Payroll - Expensed 3,723,827 2. Employee - Hours Worked - Regular Time 5. Payroll - Capitalized 222,916 1,409,633 16,896 6. Payroll - Other 3. Employee - Hours Worked - Overtime 887,485 PART I. PATRONAGE CAPITAL THIS YEAR CUMULATIVE ITEM DESCRIPTION (a)1. Capital Credits a. General Retirements 475,705 11,134,427 Distributions b. Special Retirements 298,888 1,547,425 c. Total Retirements (a + b) 774,593 12,681,852 2. Capital Credits a. Cash Received From Retirement of Patronage Capital by Suppliers Received of Electric Power 15,287 b. Cash Received From Retirement of Patronage Capital by Lenders for Credit Extended to the Electric System 93,885 c. Total Cash Received (a + b) 109,172 PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE I. AMOUNT DUE OVER 60 DAYS \$\square\$ 2. AMOUNT WRITTEN OFF DURING YEAR 48,010 169,731



A Touchstone Energy' Cooperative

\* Engineering Fax: 863.767.4662

February 21, 2008

Florida Public Service Commission c/o Tim Devlin, Director of Economic Regulation 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

Re: 2007 Service Reliability- Staff Data Requests

Dear Mr. Devlin:

In accordance with the understanding with Florida Electric Cooperative Association, Inc. (FECA), Peace River Electric Cooperative, Inc. hereby responds and provides on a voluntary basis our reliability number for 2007. Please find attached a copy of our excel spreadsheet data that is incorporated into our 2007 Year Ending Form 7 report to Rural Development Utilities Program (formerly known as Rural Utilities Service-RUS).

2007 Year End Report Service Interruptions SAIDI 2007 5-year Ave. 3.98 32.25 SAIFI 2007 5-year Ave. 5.47 3.25 CAIDI 2006 5-year Ave. 

Note: In the calendar 2007, the cooperative was not impacted by any hurricanes.

Note: Of the 32.25 SAIDI, the 5-year average hurricanes accounted for 27.30 hours. (85% of total hours)

Note: All of the numbers above are average hours per consumer with approximately 32,969 billing customers.

Note: Service Interruption numbers include all customers as reported on RDUP (formerly known as

RUS) Form 7 year ending report.

V.P. of Engineering

Peace River Electric Cooperative



A Touchstone Energy' Cooperative 🗱

★ Engineering Fax: 863.767.4662

February 21, 2008

Florida Public Service Commission c/o Tim Devlin, Director of Economic Regulation 2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Rule 25-60343, F.A.C.- Storm Hardening/Construction Standard Report

- 1) Introduction
  - a) Peace River Electric Cooperative
  - b) 1499 North Hwy 17, Wauchula, Florida, 33873
  - c) Jerry Twiggs, V.P. Engineering, 1-863-767-4602 jerry.twiggs@preco.coop
- 2) Number of meters: 32,969
- 3) Standards of Construction

Peace River Electric Cooperative is an RDUP (Rural Development Utility Program) borrower and as such our standards, practices and procedures are in compliance with construction regulations of the Federal government. One of the requirements of RDUP is that Peace River Electric Cooperative has construction standards in compliance with applicable rules in the National Electric Code.

a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at Peace River Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

At this time, Peace River Electric Cooperative facilities are not designed to be guided by the extreme loading standards on a system wide basis. Peace River Electric Cooperative is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. We continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment and seeking approval from RDUP.

#### c) Flooding and Storm Surges

Peace River Electric Cooperative is in the process of evaluating our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Peace River Electric Cooperative is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Peace River Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Peace River Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Peace River Electric Cooperative decides, on a case-by-case basis, whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

The pole attachment agreements between Peace River Electric Cooperative and third-party attachers include language which specifies that the attacher, not the Cooperative, has the burden of assessing pole strength and safety before they attach to the pole. However, Peace River Electric Cooperative notifies attachers of non-compliance and when joint-use counts are performed by representatives of both parties also verify the attachments are properly installed and maintained.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Peace River Electric Cooperative uses its best efforts to follow the guidelines including, but not limited to, planned inspection and maintenance programs outlined in RDUP bulletin 1730B-121. Peace River Electric Cooperative each calendar year monitors the process, guidelines and procedures to determine if changes are needed to improve our current program and to evaluate the results of our current inspection/treatment program. Under Bulletin 1730B-121, Peace River Electric Cooperative is located in Decay Zone 5 with a guideline of an initial inspection of 8-10 years and subsequent inspection of 8 years. Also, contained in the guidelines that if inspections indicate a low decay rate in certain areas of the system, the inspection can be adjusted accordingly; likewise, if the inspections in a certain area have a high decay rate, then the inspections would be adjusted accordingly in that area of our system.

Peace River Electric Cooperative, at the current time, has adopted a more aggressive inspection on transmission poles by having all 292 transmission poles inspection every two (2) years. However, as with distribution poles Peace River Electric Cooperative reviews, monitors and evaluates the current program on an annual basis.

b) Describe the number and percentage of transmission and distribution inspections planned and completed.

The Cooperative has eighty-seven (87) concrete transmission poles, two (2) steel transmission poles and two hundred eighteen (218) wooden transmission poles. On a percentage basis, Peace River Electric Cooperative inspected the transmission poles in accordance with the two-year program outlined above.

Peace River Electric Cooperative, under the formal inspection program, inspected 2561 wooden distribution poles, replaced 84 poles as a result of the formal pole inspection program and replaced 123 poles identified outside the formal inspection program. In calendar year 2007, the Cooperative had approximately 53,717 wooden distribution poles.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Under RUS Bulletin 1730B-121, a pole is "serviceable" under the following conditions:

- 1. Large portion of completely sound wood exists
- 2. Early stages of decay which have not reduced the pole strengths below NESC requirements.
- 3. Pole condition is as stated in (1) or (2) but a defect in equipment may exist, such as a broken ground or loose guy wire. Equipment defects should be subsequently repaired.

If the pole does not meet the above conditions, the pole has failed the inspection and is classified as a reject.

Under the formal inspection program approximately 2,561 distribution poles were inspected and 84 poles were classified as rejects. The percentage of inspected poles requiring replacement under the formal pole inspection program was just above three percent (3.3%) percent.

Peace River Electric Cooperative rejected/replaced one (1) transmission pole that failed either under the formal inspection program or identified outside the inspection program. If you divide the one replaced transmission pole by the total number of transmission poles (292), Peace River Electric Cooperative experienced a less than one percent (1) failure rate during the calendar year of 2007.

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2006, including a description of the remediation taken.

The number and percentage of poles rejected was provided in the previous answer.

The number of "serviceable poles" (number of poles inspected under the formal program and identified to have some decay) that did receive remediation as provided in RUS Bulletin 1730B-121. Under the formal inspection program 925 poles were classified as serviceable. Listed below is a breakdown of the size and class of poles receiving remediation on a percentage basis.

Height-Class	Percentage
30-6	14%
30-7	7%
35-3	5%
35-5	14%
35-6	5%
40-4	4%
40-5	19%
40-6	1%
45-3	15%
45-4	4%
50-3	10%
60-3	1%

#### 5. Vegetation Management

a) Describe the utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Peace River Electric Cooperative, during the calendar year of 2007, performed right of way maintenance on 18 percent of our 2,860 miles of overhead distribution. The right of way maintenance utilized guidelines suggested in either RUS bulletins or other materials available from RUS.

As in prior years, Peace River Electric Cooperative will be working through the PURC research group and a conference to be held in March, 2008. Any useful information that may result from the conference will be referenced in our report next year.

# Sumter Electric Cooperative, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Sumter Electric Cooperative, Inc. (SECO)
- b) 330 South US Highway 301 (PO BOX 301), Sumterville, FL 33585-0301
- c) John LaSelva, Director of Reliability & Operations 352-793-3801, x 1288

Ben Brickhouse, Director of Engineer & IT 352-793-3801, x 1257

- 2) Number of meters served in calendar year 2007 = 163,631 as of December 31, 2007.
- 3) Standards of Construction
  - a) National Electric Safety Code Compliance Sumter Electric Cooperative's design and construction standards follow RUS guidelines which are in compliance with the NESC.

Construction standards, policies, guidelines, practices, and procedures at SECO comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

At this time, SECO transmission facilities are designed to be guided by the extreme loading standards on a system-wide basis. Our distribution facilities are designed to withstand 100 mph according to the 2002 NESC. SECO is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment.

#### c) Flooding and Storm Surges

SECO is a non-coastal utility. Storm surge is not a consideration. While we serve a coastal county (Citrus), the closest SECO facility is 14 miles from the coast.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the SECO provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that SECO's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. It is the policy of SECO to install electrical facilities on the front of lots except those cases that are prohibited by land covenants. SECO decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at SECO include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. SECO inspects all new attachments. In 2007 all attachments were inspected and field verified and subsequently SECO will inspect all attachments every six years.

#### 4. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

It is the policy and practice of SECO to inspect its facilities to increase reliability to our members. SECO inspects its transmission facilities, substation facilities, and distribution facilities.

Since the transmission system is the most critical because it serves the most number of members per line, SECO has instituted a policy of completing a climbing inspection every five years, with the last inspection being completed in 2006. A ground inspection on these transmission structures will be completed once every eight years. The ground inspection includes sound and boring tests,

and excavation of all poles for treatment per RUS Bulletin 1730B-121. All transmission poles replaced are being replaced with concrete poles.

The next most critical items in the electrical system are the substations. SECO does a visual inspection every month at every substation. Also it is the policy and practice to conduct an infrared inspection bi-monthly on every substation to reveal hot spots that could cause substation outages. This has been very effective, and is one reason our substation reliability has been extremely good in recent years.

It has been the policy and practice to perform a ground inspection on 100% of its distribution poles every nine years. The ground inspection includes sound and boring tests, and excavation of all poles for treatment per RUS Bulletin 1730B-121. This was modified in 2007, and now 100% of our distribution poles will be inspected every eight years. Also SECO will perform a security inspection on 100% of its underground equipment every eight years.

- b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2007.
  - a. Transmission System
     We did not complete a transmission inspection in 2007.
  - b. Distribution System
    We completed 100% of our distribution pole inspection and 27% of our voluntary distribution underground equipment inspection.

Year	# of Structures – Planned Inspections	% of Total Structures	# of Structures – Actual Inspected	% Complete vs. Planned
2007 (UG)	5,200	13%	1,400	27%
2007 (OH)	18,357	14%	18,357	100%

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2007 and the reason for the failure.

Transmission and Distribution System

We did not complete a transmission pole inspection in 2007.

Year	System	# Failed	% Failed	Cause
2007	Distribution	94	0.5%	Ground Rot
2007	Distribution	67	0.4%	Top Deterioration
2007	Distribution	19	0.1%	Reinforceable

d) Describe the number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection in 2007, including a description of the remediation taken.

The following numbers for SECO represent the remediation by pole type for distribution poles. The remediation is either replacement or reinforcement with a steel reinforcing member. SECO will complete all distribution pole remediation by 3/1/08.

Pole Type and	# Failed	% Remediation
Class		complete (as of
		3/1/08)
25/7	2	100%
30/5	1	100%
30/6	72	100%
35/4	1	100%
35/5	10	100%
35/6	60	100%
35/7	3	100%
40/5	21	100%
40/6	2	100%
45/4	2	100%
45/5	5	100%
55/3	1	100%
Total	180	100%

5. Vegetation Management

Sumter Electric Cooperative -Vegetation Management Policies, Guidelines, and Practices:

#### 2007 Overview:

During 2007, SECO continued its practice of having a fully integrated vegetation management program. SECO continued to utilize the services of ACRT, Inc. for all of its forestry planning, audit and member contact activities. This focused effort resulted in a record number of tree removals for the year with a negligible amount of member dissatisfaction issues. This continued easement reclamation strategy is expected to contribute to future reliability gains as well as cost savings through the use of selective herbicides which was also fully implemented as part of the overall program in 2007.

Although SECO was able to trim approximately 1,173 circuit miles in 2007, this is short of the amount required to remain on a three-year, total-circuit (feeder and lateral tap) cycle. Based on early to mid-2007 issues with both manpower and expenditures, it was clear that existing mileage goals would be difficult at best to achieve. At that time, SECO conducted an extensive analysis of its existing cycle methodology taking into account all aspects of the program and the scope of its impact on other areas of the Cooperative's operation. Changes to the program were proposed which would limit both the short and long-tern negative impact to reliability and cost. All of these changes, some of which were partially implemented in 2007, are described in this summary report. SECO continues to monitor results on a frequent basis and remains open and willing to adjust practices and procedures in order to maximize the overall effectiveness of the program.

#### **Specifications:**

The following are significant changes to SECO's vegetation management policies, guidelines, and practices that were used as the standard in 2007:

- Trimming Clearances: Clearances are based on species growth rates to maintain a three-year trim cycle. Slow growth species are trimmed at 10 feet; medium growth species are trimmed at 12 feet; fast growth species are trimmed at 15 feet.
- Vegetation Removal: SECO continued to utilize ACRT arborists to contact customers and plan work. They concentrate on gaining permission to remove trees that mainly fall in the 4"-10" diameter at breast height (dbh) range.
- **Brush Removal**: SECO removes all brush from under its conductors. This prevents future tree growth.
- Herbicide Program: All brush areas are treated the following season with an approved selective herbicide to prevent re-growth of woody species and encourage native grasses.
- Pruning Practices: SECO now requires all its vegetation management contractors to follow "SHIGO" industry standards and utilize directional pruning practices as often as practical. Adherence to these standards allows trees to remain healthy after pruning and to direct future growth away from overhead conductors while minimizing "water-sprouts".
- Unit Price Contracting: SECO utilized the services of two vegetation line clearance contractors in 2007. Lewis Tree Service, Inc. and Nelson Tree Service, Inc. performed all overhead line clearance work on the SECO system and were paid on a per-unit basis. This allowed SECO to accurately track work performed by type trim, removal, etc.

- Circuit Prioritization: SECO is attempting to remain on a three-year, total-circuit cycle. Circuits are currently prioritized based on reliability indices and actual field patrols. Those circuits that have experienced the most tree related outages are trimmed first.
- Tree Replacement Program: In 2007, SECO continued to offer a "Tree Replacement Program". In certain instances, SECO offered customers either low-growing or slow-growing trees when customers allowed the removal of danger trees or tree lines in close proximity to conductors. During 2007, SECO purchased approximately fifty (50) trees for customers in exchange for strategic removals.

#### **Vegetation Management Procedures:**

#### Maintenance Trimming:

In 2007, ACRT continued to perform all work planning and customer notification. ACRT provided their work plans to SECO and in turn SECO provided them to the actual crews to do the trimming. This three party approach to permission and planning has resulted in a huge increase in tree removals from 2005 to 2007. *In 2007 SECO removed 29,623 trees* during the maintenance trimming process. Compared to 12,877 removals in 2006, this represents a 130% increase in the number of removals over the past year. Prior to 2006 this number was negligible. SECO also implemented an herbicide application program in 2007 to treat all brush units cut in 2006. All feeders were treated in 2007 with the exception of three circuits in Marion County due to special permitting concerns and scenic roadway issues raised by the County. The issues have been resolved and these remaining three circuits will be incorporated into the treatment plan for 2008 as well as all circuits trimmed in 2007. SECO received highly competitive rates for herbicide application and will continue to utilize this aspect of the integrated program to control costs and eliminate future growth of woody species from reclaimed easement areas.

#### **New Construction / System Upgrade Trimming:**

In 2007, SECO continued with its "Ground to Sky" trimming practice for all circuits that are newly constructed or are being significantly upgraded (re-conductored). These circuits are being clear-trimmed at 15 foot clearance. In addition, all underbrush is being removed.

#### 2007 Results:

In 2007 SECO trimmed 1173 circuit miles and removed 29,623 trees. The following table is a summary:

DESCRIPTION	MEASUREMENT
Miles cut "Ground-to Sky" with 15 foot clearance on circuits for system improvement projects	47 miles
Miles "Maintenance Trimmed" per species growth rate (10 ft, 12 ft, or 15 ft)	1126 miles
Total miles trimmed in 2007	1173 miles
Total trees removed in maintenance trimming process	29,623

SECO's goal was to remain on a three-year, total-circuit trim cycle, and complete approximately 1540 circuit miles in the year 2006, 2007, and 2008, respectively. Through the end of 2007, SECO was only able to complete 1,919 miles, or about 59% of the original goal. There are four major reasons for the current deficit:

- SECO revised its entire vegetation management program and awarded a new contract in April, 2006. This was approximately one quarter into 2006.
- The successful unit priced bidder, Lewis Tree Service, Inc. (LTS) was not able to trim 1500 miles in 2006. They cited manpower issues as the cause. SECO had to add a second contractor in the 4<sup>th</sup> quarter of 2006 (Nelson Tree Service, Inc.) to perform maintenance trimming.
- Prioritization of circuits on a reliability basis has resulted in SECO addressing the worst-performing and therefore densest circuits on its system. This has resulted in extremely high unit per mile counts and a much larger than anticipated cost per mile. This has had a major impact to SECO's vegetation management budget and overall capability to meet established trim goals.
- Tree removals continue to far exceed projections. SECO customers are extremely willing to have trees either trimmed or removed. Since removals are so high, actual circuit miles trimmed has been reduced. Although this is expected to contribute to future improvements in overall reliability, it continues to inhibit the amount of miles currently being completed.

#### **Obstacles Ahead:**

There are two major obstacles that SECO's vegetation management program faces. These are: available contracting resources and cost to maintain a three-year, total-circuit trim cycle. Both obstacles are intertwined.

Since the Florida Public Service Commission (FPSC) has mandated revised tree trimming requirements for Investor Owned Utilities (IOUs) in Florida, the demand for tree trimming labor continues to remain strong while the available labor pool has remained relatively constant. This labor shortage was cited as a primary reason that LTS could not trim SECO's 1500 circuit miles in 2006 and again in 2007. Also, Nelson Tree Service, Inc (NTS), SECO's secondary trimming contractor can only supply out-of-state labor that is unstable and very costly. These labor shortages continue to make it difficult, if not impossible to reach trim goals.

In addition to not meeting trim targets, the labor shortage has translated into price increases. Since labor is tight or not available in Florida; contractors must either pay higher wages to in-state employees or bring personnel from other states. Out-of-state workers require per-diem and expenses that are directly passed to SECO and its customers. In 2005, SECO spent approximately \$3 million dollars to trim 1500 circuit miles. SECO estimates that to perform 1500 miles of circuit trimming in 2008 the cost would be approximately \$7.8 million dollars. This represents a 160% increase in price in just three years. If this expense were equally shared among SECO's approximately 163,600 customers, it would represent an annual bill of approximately \$48 to each customer. That cost is not possible to absorb or pass on. Even if SECO and is members could bear the huge cost increase, the

contractors would not likely be able to muster the manpower to complete the work. This is truly a problem that SECO and utilities across the state will continue to face for the foreseeable future.

#### 2008 Plan:

Since SECO was not able to complete its entire planned circuit trimming in 2007, the remaining circuits as well as the 2008 scheduled circuits were prioritized based on tree related outages, field patrols and customers impacted. The worst performing circuits will be trimmed first and the best performing will be trimmed last.

Under the current scenario to maintain a three-year, total-circuit trim cycle, SECO would need to trim approximately 2,700 circuit miles in 2008 to complete the cycle. This is a monumental goal given the obstacles described above and essentially an unrealistic objective given current industry labor constraints and cost escalations. In light of this, SECO undertook an analysis during the first half of 2007 to assess the effectiveness of the current plan. The analysis included:

- Projecting the circuit miles that would be completed in 2007 with present production rates, available manpower, and units planned per mile.
- Closely analyzing the units cut per mile and determining if this is going up or down. This is the principle driver in ascertaining how many miles a contractor could trim.
- Projecting the cost to trim all 2007 circuit miles and comparing it to the 2007 budget.

Based on this analysis, it was discovered that due to escalating unit counts and circuit density, SECO had two options. Continue with the current plan or make philosophical adjustments. It was decided to make some targeted philosophical adjustments to the program beginning in 2008 in order to ensure future improvements in reliability and continued short and long-term cost effectiveness. Some potential areas of the program in which to make adjustments were developed and scrutinized as follows:

- Increase the total-circuit trim cycle from three years to some higher interval.
- Trim major feeder circuit backbone on a three year cycle and increase the cycle on laterals.
- Review the pricing structure of the contractors and determine if there is a more cost effective alternative.

Each of the above adjustments was evaluated based on both its short and long-term impact to the overall program as it related to service reliability and cost effectiveness. It was found that increasing the total-circuit trim cycle would not only have an unfavorable impact to reliability, but would also be the most costly option for the long term through 2015. Therefore, SECO revised its trim cycle methodology using a combination of the remaining two adjustments. Effective July 1, 2007, a change order was executed by SECO to the existing line clearance contract with Nelson Tree Service, Inc. which lowered several existing prices for units commonly used on our system. This reduction immediately resulted in essential cost savings. Also negotiated was a three-year extension to the Nelson Tree service, Inc. unit contract. This resulted in lower-than-average unit pricing compared to previous bidders (from 17% to 81% less) and will help stabilize trimming costs through 2010.

A second adjustment which will be implemented in 2008 is the modification of SECO's trim cycle timing based on the type of facility. In order to allow for the most favorable impact to reliability while still containing costs for the short and long term, all feeder backbone circuits will now be trimmed on a three-year cycle and laterals will now be trimmed on a six-year cycle. This will allow for continued improvements in vegetation-related reliability issues affecting large groups of customers.

Based on this philosophical adjustment, SECO then evaluated the appropriate mileage breakdown of feeder circuits versus lateral circuits for 2008. Based on available reliability data, field patrols and funding, SECO's goal for 2008 is to trim approximately 500 miles of feeder circuit backbone and 550 miles of laterals and other circuits (including work order-related trimming). This will leave approximately 460 miles of feeder backbone to be trimmed in 2009, thus completing the feeder trim cycle. Beginning in 2010, SECO will then commit to trimming all feeder backbone circuits on a three-year cycle by completing approximately 420 miles per year with remaining budget dollars allocated to lateral cycle trimming. Laterals will continue to be prioritized and trimmed at the rate of 1/6<sup>th</sup> of their total system mileage per year, or as much as resource and funding constraints will allow.

SECO recognizes the importance of an integrated vegetation management program. It is an essential component of providing safe and reliable electric service. Although there are obstacles to maintaining a cycle which provides the greatest level of reliability for the expenses incurred, SECO will continue to analyze its policies and procedures to determine the best course of action. To date, SECO has clearly demonstrated its commitment to vegetation management by maintaining a three-year trim cycle from 1996 to 2006, completely revising the procedures to address the concerns raised in 2004, and seeking improvement opportunities moving forward.

#### **Program Segments:**

#### Planning and Auditing Activities

SECO utilizes the services of ACRT, Inc. to plan and audit 100% of all trimming activities. They are responsible for all member contact and permission activities as well as the quality of work completed.

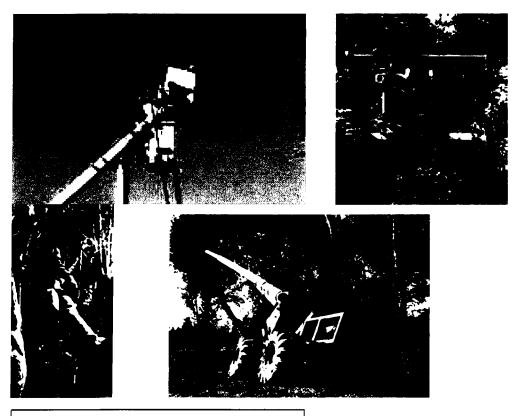






#### **Trimming Activities**

All SECO trimming work is performed by Nelson Tree Service, Inc. based on plans developed by ACRT. Nelson utilizes state-of-the-art equipment to ensure maximum effectiveness with minimal impact to our members.

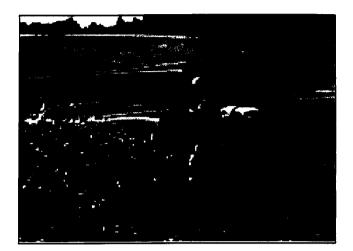


SECO trimming contractors utilize pre-planned manifests generated by ACRT to ensure consistent application of SECO specifications and accuracy of billing. This has led to marked improvements in cost-effectiveness, resource allocation, and record-keeping. Utilizing all available types of equipment has also greatly helped SECO reduce its cost per mile.

#### Herbicide Activities

As part of SECO's fully integrated program, a systematic herbicide application program was implemented in 2007.





As shown above, SECO herbicide application contractors utilize both low-volume backpack sprayers and larger scale vehicle-mounted equipment to apply selective herbicides within our easements and rights-of-way.

				Sun	nmary of Rural E	lectric Cooperati	ive Utility Reports	Pursuant to Rule 25-6.0343,	F.A.C. – Calendar Y	ear 2006			
	The extent to which Standards of Construction address:							Tran		Vegetation Ma	magement:		
		Guided	Figure 250	ind Loading per 2(d)								Description of	
Utility	Comply with the 2007 NESC on or after 2/1/2007	New Const.	Major Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares	Effects of flooding & storm surges on UG & OH distribution facilities	Placement of distribution facilities to facilitates safe and efficient access	Written safety, pole reliability, pole loading capacity, and engineering stds for Attachments	Description of policies, guidelines, practices, procedures, cycles and pole selection.	No. & Pct. of poles & structures planned & completed	No. & Pct. of poles & structures failing inspection w/ reasons	No. & Pct. of poles & structures, by class, replaced or remediated w/ description	policies, guidelines, practices, procedures, tree removals, w/ sufficiency explanation.	Quantify, level, & scope planned and completed for transmission and distribution
Central Florida Electric Cooperative, Inc.	Yes.	mph wind		sis. Using 100-130 cases. Waiting for research results.	Under review.	Yes. Does not install in rear of property.	Yes.	T: 1-Yr D: 8-Yr	1163 (13%) T: 63 D: 11,000	171 (14.7%) Decay- T: 29 D: 111 Woodpecker- T: 15 Cross-arm- T: 16	Replaced- T: 29 D: 111 Resin Fill- T: 15 Cross-arm- T: 16	4-Yr cycle	18.4% of system
Choctawhatchee Electric Cooperative, Inc.	Yes.	guie	ded by 2002 Fig	gure 250-2(d)	Yes	Yes.	Yes.	D: 8-Yr cycle (5,000 -7,000 poles annually)	D: 5,604	D: 90 (1.6%) Decay	D: Replaced 90	D: 5-Yr cycle (350-450 miles)	104% of plan
Clay Electric Cooperative, Inc.	Yes.	guio	ded by 2002 Fig	sure 250-2(d)	Not applicable	Yes.	Yes.	T: 10-Yr full, Visual (1-Yr), climbing (6-Yr) D: 10-Yr cycle in 2006 2007-10-Yr programs going to 8-Yr cycle.	T: 2,281 (100%) D: 14,856 planned	T: 21 decay (0.9%) D: 391 decay (1.9%)	T: 21 replaced D: 391 replaced	T: 3-Yr cycle D: avg 4-Yr cycle (City 3- Yr, Urban 4-Yr, Rural 5-Yr)	100% of plan
Escambia River Electric Cooperative	Yes.	guided b	y 2002 Figure 2 12/10/20	.50-2(d) on or after 06.	Not applicable	Yes.	Yes.	Distribution only D: Planned 3,740 (12.5%)	Planned 3,740 (12.5%) Completed 2,666 (8.9%)	Decay 7 (0.3%)	Replaced 7	5-Yr cycle all circuits	100% of plan
Florida Keys Electric Cooperative Association, Inc.	Yes.	guidec	i by EWL on or	after 4/24/2006.	Under review.	Yes.	Yes.	T: Visual (1-Yr) D: 5-Yr cycle.	T: number not reported (100%) D: planned 20% D: 782 (7%) completed	T: 0 D: 71 (0.7%) age	T: 0 D: 71 replaced	T: 1-Yr cycle D: 3-Yr cycle	100% of plan
Glades Electric Cooperative, Inc.	Yes.	gui	ded by 2002 Fi	gure 250-2(d)	Under review.	Yes.	Yes.	10-Yr cycle for all wooden poles.	T: 100 (11.7%) D: 4,241 (10.6%)	T: 5 (5%) decay D: 192 (4.5%) D: Decay 99 (2.3%) D: Other 93 (2.2%)	T: 5 Replaced D: Replaced 148 D: Banded 44	3-Yr cycle all circuits	100% of plan
Gulf Coast Electric Cooperative, Inc.	Yes.	N	IESC Grade C.	(Not EWL)	Not applicable	Under review.	Yes.	Distribution Only Company. D: RUS Bulletin 1730B-121 (avg 8-Yr Cycle)	Planned 14,297 Completed 3,443	130 (4%) various reasons no statistics filed	Not reported.	5-Yr cycle	122% of plan
Lee County Electric Cooperative Inc.	Yes	gui	ded by 2002 Fig	gure 250-2(d).	Yes.	Yes.	Yes.	T: 2-Yr full D: 10-Yr	T: 1,359 D: 6 three-phase and 6 single-phase circuits (number of poles not stated)	T: 32 decay; 88 woodpecker D: 26 (1%) rot; 564 (25%) plumb; 151 (7%) woodpecker	T: 58 replace in '07- '08; patched 62 D: 26 replaced; 564 replumb; 151 patched	T: 230KV bi-annual 138KV Annual D: 3-Yr (2&3 Phase circuits); 6-Yr (1 Phase circuits)	100% of plan

				Sun	nmary of Rural E	lectric Cooperati	ve Utility Reports	Pursuant to Rule 25-6.0343,	F.A.C. – Calendar Y	ear 2006			
			The extent	to which Standard	ls of Construction	address:		Tran		Vegetation Management:			
	Comply	Guided	Figure 250- Major		Effects of	Placement of	Written safety,					Description of policies, guidelines,	
Utility	with the 2007 NESC on or after 2/1/2007	New Const.	Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares	flooding & storm surges on UG & OH distribution facilities	distribution facilities to facilitates safe and efficient access	pole reliability, pole loading capacity, and engineering stds for Attachments	Description of policies, guidelines, practices, procedures, cycles and pole selection.	No. & Pct. of poles & structures planned & completed	No. & Pct. of poles & structures failing inspection w/ reasons	No. & Pct. of poles & structures, by class, replaced or remediated w/ description	practices, procedures, tree removals, w/ sufficiency explanation.	Quantify, level, & scope planned and completed for transmission and distribution.
Okefenokee Rural Electric Membership Corporation	Yes.		No.		Under review	Yes.	Yes.	Distribution Only Company. D: RUS Bulletin 1730B-121 (avg 10-Yr Cycle; migrating to 8-Yr)	Planned: 5,500 (10%) Completed: 6,535 (12.2%)	D: 38 (0.6%) decay	D: 19 replaced D: 19 remediation in '07 & '08	D: 5-Yr cycle all circuits.	100% of plan
Peace River Electric Cooperative, Inc.	Yes.		No.		Under review	Yes.	Yes.	For wood: T: 2-Yr D: 8-Yr	T: 292 (100%) D: 3,604 (7%)	T: 6 (Decay 4) D: 140 4% Exceeded stds	T: 6 D: 140 replaced	4-Yr cycle	68% of avg cycle
Seminole Electric Cooperative, Inc.	Yes.		Yes.		Not applicable	Not applicable	Not applicable	Transmission Only Company. T: 1-Yr	No details	Cross-arm, rot, & insulator. No other details.	No details	NERC Reliability Stds - annual visuals, with scheduled trimming 3-5 Yrs	100% of plan
Sumter Electric Cooperative, Inc.	Yes.	T. Yes; I	D: 100 mph wind NESC.	speeds using 2002	Yes.	Yes.	Yes.	T: Climb 5-Yr; visual 1- Yr. D: Every 8-Yrs.	T: 0 (100%) D: 18,357 (11%)	D: Ground Rot 73 (0.4%) D: Top Deter. 67 (0.4%)	D: 161 Replaced or reinforced (no details)	D: 3-Yr cycle all	Planned: 1540 circuit miles Completed: 1173, 76% of plan
Suwannee Valley Electric Cooperative, Inc.	Yes.		No.		Not applicable	Yes.	Yes.	8-Yr program	T: 5 (100%) D: 6,702 (8.3%)	T: 0 D: 182 (2.7%) excessive splitting	T: 0 D: 182 (assumed replaced)	4-Yr cycle all circuits	: 100% of plan
Talquin Electric Cooperative, Inc.	Yes.	guided t	by 2002 Figure 2 12/10/20	.50-2(d) on or after 06.	Under review	Yes.	Yes. Agreements under renewal	T: 1-Yr D: 8-Yr	T:247 D: 8,950 (% not reported)	T: 1 Reason not stated. D: 56 (0.6%) decay	T: 1 (assume replaced) D: At least 14 replaced. No breakdown.	3-Yr Cycle	43% of annual plan avg.
Tri-County Electric	Yes.			ruction Grades C & ed use of Grade B.	Under review	Yes.	Yes.	T: Visual 1-Yr, D: 8-Yr	T: 2 of 3 circuits D: 5,900 (No statistics)	T: 1.91% D: 1.46% (No cause statistics)	(No specific statistics)	6-Yr cycle all circuits	(No statistics)
West Florida Electric Cooperative Association, Inc.	Yes.			ruction Grades C &	Yes. 45.7% UG.	Yes.	Yes.	Distribution Only Company. D: RUS Bulletin 1730B-121 (avg 5-Yr Cycle)	100% of system '06,'05,'04	5% required maintenance or replacement. No details provided.		4-Yr cycle all circuits	s (No statistics)

				Sur	nmary of Rural E	lectric Cooperati	ve Utility Reports	Pursuant to Rule 25-6.0343,	, F.A.C. – Calendar Y	ear 2006			
			The extent	to which Standard	ls of Construction	address:	·	Trai	nsmission & Distribu	tion Facility Inspections:		Vegetation Ma	anagement:
		Guided	by Extreme Wi Figure 250-	ind Loading per 2(d)								Description of	
Utility	Comply with the 2007 NESC on or after 2/1/2007	New Const.	Major Planned Work, Expansion, Rebuild, or Relocation	Targeted Critical Infrastructure and major thoroughfares	Effects of flooding & storm surges on UG & OH distribution facilities	Placement of distribution facilities to facilitates safe and efficient access	Written safety, pole reliability, pole loading capacity, and engineering stds for Attachments	Description of policies, guidelines, practices, procedures, cycles and pole selection.	No. & Pct. of poles & structures planned & completed		No. & Pct. of poles & structures, by class, replaced or remediated w/ description		Quantify, level, & scope planned and completed for transmission and distribution.
Withlachoochee River		considered	71 21	rent standards meet				T: Line Patrol - 100% (1-Yr cycle) D: Line Patrol - (7% 15-Yr	'04 - pole inspection program	06 T: 18 decayed poles replaced. No other '06	replaced. No other '06	T: 1-Yr cycle	100% of płan
Electric Cooperative, Inc.	Yes.	or	exceed local wi	nd loading.	Yes.	Yes.	Yes.	cycle)	discontinued.	details.	details.	D: 5-6 Yr cycle	(No statistics)

#### **Merry Waybright**

From:

Kenny Rodrigue

Sent:

Friday, February 29, 2008 4:56 PM

To: Subject:

Merry Waybright FPSC annual Report.

Merry,

See if you can find a cover letter for the Annual report to the FPSC written to:

Mr. Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Thanks.

Kenny J. Rodrigue, P.E.
Sumter Electric Cooperative, Inc.
Manager of Substation Design and Protection & Control
(w) 352.793.3801 x1316
(c) 352.303.1081

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POST OFFICE BOX 160 · LIVE OAK, FLORIDA 32064 · (386) 362-2226

March 21, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: Construction Standards Report

Dear Mr. Devlin:

Enclosed please find our final Construction Standards Report as required per Rule 25-6.0343, F.A.C. for calendar year 2007.

Should you have any questions or concerns, please feel free to contact me directly at (386)362-2226 ext. 5639.

Sincerely.

Kurt Miller

Director of Engineering

Enclosure

xc: Michelle Hershel

KM:pk

# Outline for Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

#### 1) Introduction

- a) Suwannee Valley Electric Cooperative Inc.
- b) 11340 100<sup>th</sup> St. Live Oak, FL 32060
- c) Contact information: Kurt Miller, 386-362-2226(ext.140), kurtm@svec-cop.com

#### 2) Number of meters served in calendar year 2007

24,393

#### 3) Standards of Construction

SVEC adheres to the U.S. Department of Agriculture Rural Utility Service construction standards.

#### a) National Electric Safety Code Compliance

Construction standards, policies, guidelines, practices, and procedures at the Suwannee Valley Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

At this time, Suwannee Valley Electric Cooperative facilities are not designed to be guided by the extreme loading standards on a system wide basis. Suwannee Valley Electric Cooperative is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association. Though we continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas. At this time we do not have sufficient data to substantiate the effort and cost of making major upgrades to our system. We feel that it is important to wait for the results of this research before making such a commitment.

#### c) Flooding and Storm Surges

Suwannee Valley Electric Cooperative is a non-coastal utility; therefore, storm surge is not an issue.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Suwannee Valley Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Suwannee Valley Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Suwannee Valley Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available.

#### e) Attachments by Others

The pole attachment agreements between Suwannee Valley Electric Cooperative and third-party attachers include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. Suwannee Valley Electric Cooperative performs follow-up audits of attachments to ensure the attachment is properly installed and maintained per NESC and RUS standards.

#### 4. Facility Inspections

 a) Description of policies, guidelines, practices and procedures for inspection transmission and distribution lines, poles and structures including pole inspection cycles and pole selection process

Suwannee Valley Electric Cooperative inspects all structures every eight years. Inspection is followed up with the following as needed; treatment, repair, replacement.

This work is performed in accordance with RUS standards and procedures.

#### b) Transmission and distribution inspections planned and completed

Inspection is two step process, visual evaluation of pole and all attached hardware and sound and bore. 2007; 8,311 inspections were completed representing 9.9% of system total distribution structures, 5 inspections were completed representing 100% of the system total of transmission structures. 2008 10,500 inspections are planned representing 12.6% of system total

distribution structures, 5 inspections are planned representing 100% of transmission structures.

c) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

2007 218 inspections of distribution structures failed representing 2.8% of inspections. 14% of these failures were due to groundline decay, 14% due to woodpecker damage, and 72% from excessive splitting, 0 inspections of transmission structures failed.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

2007 1,563 poles were remediated by ground line treatment representing 20% of total inspected distribution structures, 0 transmission structures were remediated. Ground line treatment is dig/excavate and/or bore/inject pole with RUS approved wood treating products.

#### 5. Vegetation Management

b) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

Suwannee Valley Electric Cooperative inspects, cuts, and sprays all right-of-away every 4 years. Danger trees outside right-of-way are located and cut when permission is obtained from the land owner.

c) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

2007: 757 miles of right-of-away were cut representing 25% system right-of-away and 701 miles of right-of-away was sprayed. 2008: 898 miles of right-of-away are planned to be cut representing 25% system right-of-away and 701 miles of right-of-away are to be sprayed.

# Talquin Electric Cooperative Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007 Submitted to Tim Devlin at TDevlin@psc.state.fl.us

#### 1) Introduction

- 1) Name of cooperative Talquin Electric Cooperative, Inc.
- 2) Address, street, city, zip 1640 W. Jefferson Street, Quincy, Florida 32351-5679
- 3) Contact information: Bobby Kimbro, P. E.

Director of Engineering & Operations Services

Phone # 850-627-7651 Fax # 850-627-2553

Email: bkimbro@talquinelectric.com

- 2) Number of meters served in calendar year 2007: 53,830
- 3) Standards of Construction
  - a) National Electric Safety Code Compliance & Rural Utilities Services Standards

Construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. Electrical facilities constructed prior to February 1, 2007, are governed by the edition of the NESC in effect at the time of the facility's initial construction.

#### b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for:

- a) New construction.
- b) Major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006.
- c) Targeted critical infrastructure facilities and major thoroughfares.

#### c) Flooding and Storm Surges

Only a very, very small percentage of Talquin Electric Cooperative's service area includes areas subject to storm surge. Talquin evaluated our standards, policies, guidelines, practices and procedures that address the effects of flooding and storm surges on underground facilities and supporting overhead facilities. Talquin Electric Cooperative\_is participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Electric Cooperative Association. We continue to evaluate and address the effects of flooding and storm surge but we feel that it is important to wait for the results of this research to justify the effort and cost of converting overhead to underground. Some measures that have already been made include installation of grounding sleeves to further secure underground switching cabinets. Talquin is investigating the use of anchor systems to further strengthen our padmount transformers. There were no storm surges to test the new anchoring system in 2007. These stronger anchoring systems should reduce the damage and power outages caused by storm surges along the coast.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at the Talquin Electric Cooperative provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. Wherever new facilities are placed (i.e. front, back or side of property), all facilities are installed so that Talquin Electric Cooperative's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. Talquin Electric Cooperative decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available, based on Talquin's ability to secure easements from associated property owners.

#### e) Attachments by Others

Talquin Electric is in the process of updating our pole attachment agreements between Talquin Electric and third-party attachers to include language which specifies that the attacher, not the cooperative, has the burden of assessing pole strength and NESC compliance and be certified by an engineer before they attach to the pole. After the attachment has been made, the third-party's engineer will certify that the work has been inspected and built according to the NESC standards. Talquin Electric and the third-party attacher will jointly inspect these attachments on a regular basis within a five (5) year cycle.

#### 4) Facility Inspections

a) Talquin Electric Cooperative inspects the transmission lines annually checking the pole, hardware and conductors. An outside pole-treating contractor inspects distribution &

transmission poles each year. For year 2007 and beyond, poles will be inspected on an eight-year rotation.

- b) Talquin Electric Cooperative inspected 10,824 poles in 2007, which included 199 transmission poles. All the poles that were scheduled to be inspected in 2007 were inspected in 2007.
- c) There were one hundred and twenty one (121) distribution poles rejected for a total of 1.14% of the distribution poles inspected. Fifteen (15) of the rejected poles were rejected for decay. In 2007 Talquin Electric Cooperative had zero (0) transmission pole rejected out of 186 poles that were inspected. Of the 10,625 distribution poles inspected 121 were rejected including 63 rejected poles and 58 priority poles. The percentage of rejected poles in 2007 was 1.12%. The priority poles were replaced with new poles and the rejected poles were inspected and repaired if possible or replaced if not.
- d) When replacing 30 class 7 poles in the future, Talquin is installing stronger 35 class 6 poles.
- e) Talquin has an independent engineering consulting firm to perform inspections on its new and existing line construction on a quarterly basis.
- f) Talquin performs monthly inspections on its substation facilities to insure that any needed maintenance is performed. Talquin has contracted for infrared inspections to be performed at its substations and lines to insure that any weak connections are detected and repaired before outages occur.
- g) In the past, Talquin has hired a helicopter contractor to ride its transmission lines to detect any problems that could not be detected from the ground. This contractor is available on an as need basis for future inspections and storm restoration.

#### 5) Vegetation Management

- a) Talquin Electric Cooperative maintains its right of ways by mechanical cutting, herbicide applications and mowing. Talquin utilizes a variety of contractors and some in-house crews to maintain its rights of way. Talquin continues to increase the miles of right of way that is trimmed as we strive to achieve a three (3) year inspection & trimming cycle. The Cooperative uses the RUS bulletin for right of way maintenance and local governmental rules to perform this clearance. Talquin Electric Cooperative has substantially increased its right of way budget for 2007. The budget was increased from \$2,132,000 in year 2006 to \$3,820,000 in year 2007 which was an increase of 79.17% with the goal of accomplishing its trimming cycles goals to minimize outages to our members and harden our system from storms.
- b) Talquin Electric Cooperative performed right of way maintenance on 837.0 miles of line in 2007, which represents 23.22% of Talquin's overhead lines and an increase of 63.1% increase in miles of right of way trimmed in 2007 as compared to year 2006 (513.7 miles were trimmed in 2006).

The routine maintenance was in addition to responding to approximately 1009 member request for tree maintenance.

The PURC research group held a vegetation management conference in March 2007. Talquin Electric Cooperative gained useful information from this conference as experiences and lessons learned were shared by all participants. Talquin sent a team of employees to the conference to learn new vegetation management techniques for implementation.

Talquin is making a significant investment in mapping technology to improve power reliability. Talquin is taking the necessary measures to strengthen our system in preparation for the high winds that are associated with hurricanes and tropical storms.

# Tri-County Electrical Cooperative, Inc. Utility Reliability 2008

#### 1. Introduction

- a. Tri-County Electric Cooperative, Inc.
- b. Post Office Box 208Madison, Florida 32341-0208
- c. 2862 West U.S. 90Madison, Florida 32340
- d. 1. Ronald Bass

General Manager

Office: 850-973-2285 Ext. 201

Cell: 850-973-0100
Fax: 850-973-1209
Email: rbass@tcec.com

2. Wayne Bass

Manager of Engineering and Operations

Office: 850-973-2285 Ext. 232

Cell: 850-973-0058

Fax: 850-973-6884 Email wbass@tcec.com

3. George Webb

Manager of Finance and Administration

Office: 850-973-2285 Ext. 217

Cell: 850-973-0416 Fax: 850-973-1209

Email: gwebb@tcec.com

4. Darrell Tuten

**Operations Supervisor** 

Office: 850-973-2285 Ext. 219

Cell: 850-973-0578
Fax: 850-973-6884
Email dtuten@tcec.com

e. Tri-County Electric Cooperative currently serves <u>17,700</u> active meters and has 2963.82 miles of overhead lines and 186.18 miles of underground facilities. In addition, Tri-County has approximately 15 miles of 115 kV transmission line and maintains 34.1 miles of 69 kV transmission line owned by Seminole Electric Cooperative.

#### 2. Pole Information

- a. Tri-County has approximately 41,500 distribution poles.
- b. Tri-County Electric Cooperative has 303 transmission poles (115 kV) and maintains 412 transmission poles (69 kV) which are actually owned by Seminole Electric Cooperative, but are maintained by Tri-County Electrical Cooperative, Inc.
- c. In the year 2007, Tri-County Electric Cooperative employed Omose Utilities Services, Inc. to inspect all of the transmission poles which Tri-County Electric Cooperative is responsible for the maintenance of as well as inspect the distribution poles on five of Tri-County Electric's substations.

#### 1. Transmission poles

- a. Three transmission lines with 668 poles were inspected in 2007.
- b. Of the 668 poles inspected; 11 transmission poles rejected. The rejection rate for these transmission pole inspections was 1.6%.
- c. To date, 5 poles have been replaced. The remaining poles are scheduled to be replaced this spring.

#### 2. Distribution poles

- a. Five substations were inspected in 2007, with a total of 18,170 poles inspected.
- b. Of the 18170 inspected; 886 poles were rejected. The rejection rate for the distribution pole inspection was 4.9%.
- c. Currently, we changed approximately 350 of these rejected poles and are in the process of changing out the remaining poles.

#### 3. Vegetation Management

- a. During the period of 2003, 2004, and 2005, Tri-County Electric Cooperative trimmed approximately 68% of our system. We have tried using a 3-year cycle to cover the system, but would like get to the point we could cover the entire system in a 5-year cycle. Utilizing a 5-year trimming system would require that we cut and trim approximately 600 miles of right-of-way per year.
- b. In 2007, Tri-County Electric Cooperative cut and trimmed approximately 470 miles of right- of-way using contractors. Our in house right of way crew cut and mowed approximately 200 miles. Tri-County Electric Cooperative's right-of-way crew also cut, trimmed and mowed for new construction. We had approximately 670 miles of right-of-way cut and trimmed last year or about 23%.
- c. All transmission lines, approximately 49.1 miles, were mowed and trimmed in 2006 and 2007.

#### 4. Construction Strengthen

- a. In 2007, Tri-County Electric Cooperative started looking at our line construction to become a strong system. The following plans were adopted and we began to utilize them.
  - 1. We have decided to standardize on ACSR wire using the size only #2, #1/0 and 336 MCM for our Primary wire size and type.
  - 2. We found that with wooden cross arm construction provided a weak point. In the future when possible, we will use narrow profile construction with steel and fiberglass arms.
  - 3. Tri-County Electric constructed and converted approximately 5.5 miles of three-phase line changing from cross arm to narrow profile construction this past year.

#### 5. Best Practices

- a. We completed our ERP plan and with the staff we completed a tabletop exercise in 2006. In 2007, we again had a tabletop exercise and included the top staff and mid-supervisors in the exercise. We have dedicated an entire safety and training meeting to the ERP plan and did a short tabletop exercise with all of our employees.
- b. We believe we have a very good plan and can deal with what may come our way. Our plan includes the follow guidelines:
  - 1. Have a good plan.
  - 2. Have enough material on hand.
  - 3. Have contacts which can get help to you quickly.
  - 4. Anticipate the worst and plan for it.
  - 5. Have your employees ready and let them know what will be required of them.
  - 6. Assign storm duties to your employees before the storm.
  - 7. Train your employees in advance.
  - 8. Think your storm plan through carefully.
  - 9. Have a Plan B in mind if Plan A has problems.
  - 10. In training sessions, identify where food, water, ice, fuel and sleeping arrangements can be made.
- c. We have learned through our preparing of the ERP plan, there are a lot of problem which could effect Tri-County Electric which some ways are as bad if not worst than storms. We have to be prepared for all of them.

### 6. Tri-County Electric Cooperative's Record

a. The following is taken from Tri-County Electric's report (RUS form 7, Section G) for the years of 2003 through 2007.

	Avg. Hours per Consumer by Cause	Avg. Hours per Consumer by Cause	Avg. Hours per Consumer by Cause	Avg. Hours per Consumer by Cause	TOTAL
	Power Supplier (a)	Extreme Storm (b)	Prearranged (c)	All Other (b)	
2003					
1. Present year	0.01	0.00	0.01	2.86	2.88
2. Five Year Average	0.48	0.15	0.01	2.42	3.06
2004					
1. Present year	0.00	48.23	0.01	1.94	50.18
2. Five Year Average	0.27	9.80	0.01	2.43	12.51
2005					
1. Present year	.047	0.06	0.01	1.51	2.05
2. Five Year Average	0.23	9.70	0.01	2.34	12.28
2006					
1. Present year	1.09	0.07	0.01	1.60	3.64
2. Five Year Average	0.60	9.68	0.01	2.15	12.44
2007					
Present year	0.52	0.07	0.09	1.55	2.23
2. Five Year Average	0.58	9.09	0.03	1.90	12.20

## West Florida Electric Cooperative Association, Inc.

A Touchstone Energy® Cooperative



P.O. Box 127 Graceville, FL 32440-0127 (850) 263-3231 Florida Toll Free: 1-800-342-7400 Web Address: www.wfeca.net P.O. Box 37 Bonifay, FL 32425-0037 (850) 547-9325 P.O. Box 1100 Sneads, FL 32460-1100 (850) 593-6491

February 27, 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, Florida 32399-0850

Mr. Devlin,

Please find enclosed WFEC's 2007 Storm Hardening/Construction Standard Report. Enclosed also is our reliability data.

Sincerely:

Vina Procide

Vice President Engineering & Operations

West Florida Electric Cooperative

5282 Peanut Road

Graceville, Florida 32440

# West Florida Electric Cooperative Association, Inc. Report to the Florida Public Service Commission Pursuant to Rule 25-6.0343, F.A.C. Calendar Year 2007

1) West Florida Electric Cooperative Association, Inc. (WFEC) is a non-profit, Touchstone Energy® Cooperative owned by its members and locally operated. WFEC serves approximately 28,000 meters, providing dependable electricity and other services at competitive prices in Calhoun, Holmes, Jackson and Washington Counties in Northwest Florida.

Established in 1937, WFEC is headquartered at 5282 Peanut Road in Graceville, Florida and maintains district offices in Bonifay and Sneads. WFEC's service area is divided into nine (9) districts, each represented by a member-elected trustee.

WFEC receives wholesale power from PowerSouth Energy Cooperative, a generation and transmission cooperative, based in Andalusia, Alabama. PowerSouth is wholly owned by WFEC and the 19 other distribution cooperatives and municipalities it serves in Alabama and Northwest Florida. Two (2) WFEC delegates, along with representatives from PowerSouth's other member-systems, participate in the management of PowerSouth's policies, rules, and regulations and the establishment of rates, terms and conditions affecting the wholesale power supply.

West Florida Electric Cooperative Association, Inc. 5282 Peanut Road P.O. Box 127 Graceville, Florida 32440

#### Contacts:

Ty Peel, Vice President, Engineering & Operations 5282 Peanut Road Graceville, Florida 32440 850-263-3231, ext 1105 Cell 850-415-0901

Keith Varnum, Mgr., Engineering 5282 Peanut Road Graceville, Florida 32440 850-263-3231, ext 1194 Cell 850-326-0661 e-mail: kvarnum@westflorida.coop

2) The number of meters served in calendar year 2007 was 28,022

#### 3) Standards of Construction

e-mail: tpeel@westflorida.coop

a) National Electric Safety Code Compliance: Construction standards, policies, guidelines, practices, and procedures at WFEC comply with the National Electrical Safety Code (ANSI C-2) current edition, USDA RUS Bulletin 1728F-803 Specifications and Drawings for 24.9/14.4 Line Construction and USDA RUS Bulletin 1728-806 Specifications and Drawings for Underground Electric Distribution. Ten (10) percent of all construction is randomly sampled and inspected by a third party engineering consulting firm. Results of inspections are reported to the USDA Rural Utilities Service and to WFEC's Staff Engineer. Also, FPSC staff randomly samples and inspects a portion of construction. In both cases, corrections, if any, are made and the Staff Engineer provides feedback to construction crews and staking technicians to ensure compliance.

#### b) Extreme Wind Loading Standards

WFEC complies with the current edition of the NESC particularly 250c Extreme Wind Loading (with Figure 252-2(d) and 250d Extreme Ice with Concurrent Wind Loading.

#### c) Flooding and Storm Surges

WFEC's service territory is approximately 50 miles from the coast. Therefore, storm surges do not affect our system. Some areas in WFEC's territory are subject to flooding, however, past flooding had little effect on the system. In these areas, line design is modified to compensate for known flooding conditions.

d) Safe and Efficient Access of New and Replacement Distribution Facilities: Electrical construction standards, polices, guidelines, practices, and procedures at WFEC provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance. All new facilities are installed so WFEC's facilities are accessible by its crews and vehicles to ensure proper maintenance/repair is performed as expeditiously and safely as possible. WFEC decides on a case-by-case basis whether existing facilities need to be relocated. If it is determined that facilities need to be relocated, they will be placed in the safest, most accessible area available. For example, WFEC builds new and replacement facilities along established transportation corridors when practical. All underground facilities are designed with

#### e) Attachments by Others

New attachments by other users are required to comply with 3a to 3d and provide certification of compliance. WFEC also periodically inspects to ensure compliance on new and existing facilities.

loop feeds. Safety is determined by NESC (current edition) guidelines and common

#### 4) Facility Inspections

sense.

a) WFEC utilizes RUS Bulletin 1730B-121 as its guideline for a continuing program of pole maintenance and inspection. During the 2007 year WFEC inspected 14% of its system. Of the 14% inspected, 6% required maintenance or replacement.

#### 5) Vegetation Management

a) WFEC has a very aggressive vegetation management program which encompasses ground to sky side trimming along with mechanical mowing and tree removal. WFEC intends to mow and side trim one-fourth of its distribution system each year. Of that number, approximately 18% is three-phase distribution circuits with the remainder being single-phase circuits.

### West Florida Electric Cooperative 2007 Outage Data

### Outage Data Actual

Total Number Consumer Hours Out Times 60 Minutes Divided By Number Service Interruptions CAIDI	125,143.08 7,524,78480 1,879 4,004.68
Total Customer Minutes Interruption Divided By Total Customers Served AVG Minutes of Service Interruption Duration (SAIDI)	7,524,784.80 27,858 270.12
Year 2007 Total Service Interruptions Number of Customers Served System Average Interruption (SAIFI)	1,879 27,858 0.067
Year 2007 Outage Event Duration for All Outage Events Divided By Number of Outage Events L-Bar	3,531.60 1,879 1.347
Outage Data Adjusted	e e e e e e e e e e e e e e e e e e e
Total Number Consumer Hours Out Times 60 Minutes Divided By Number Service Interruptions	99,869.75 5,992,185.00 3,290.6
Total Customer Minutes Interruption Divided By Total Customers Served AVG Minutes of Service Interruption Duration (SAIDI)	5,992,185.00 27,858 2 <b>15.09</b>
Year 2007 Total Service Interruptions Number of Customers Served System Average Interruption (SAIFI)	1,821 27,858 0.065
Year 2007 Outage Event Duration for All Outage Events Divided By Number of Outage Events L-Bar	3,392.83 1,821 1.863

26 February 2008

Tim Devlin, Director of Economic Regulation Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850



Mr. Devlin:

Attached here is our "Storm Hardening/Construction Standard Report" for 2007. You will not find detailed data on percentages of failure. That is most certainly not an indication that we systematically disregard the significance. What you will find here is evidence of our overall commitment to "harden" and seriously upgrade our facilities. We are very aggressive with upgrades to our system. Facility inspections are important and conducted on a daily basis by our employees. However, based on a previous "pilot" inspection program (utilizing Osmose) we have decided to simply replace those wood poles that are treated with processes other than CCA. The CCA poles that we have examined just do not show any ground-line decay.

Our efforts at removing older lines from rear lot lines continue, and, in fact, 14 miles were relocated in one area of Hernando County alone. Our underground system is another area that we have spent a considerable amount of time and money on. All cabinets and transformers are now required to be stainless steel, all cable is in conduit (including secondary, services, and street lights), and we have treated hundreds of thousands of feet of older primary cable through the services of CableCure over the last few years to preserve the life and prevent outages due to cable failure.

We are also attaching the requested SAIDI/CAIDI/SAIFI reports on reliability. Hopefully, this information will be self-explanatory and give you some overall insight into our efforts to maintain our system. As always, please contact me if you have questions or concerns that were not fully explained here.

Sincerely,

Duane Vann



#### PSC Data Request to Florida Municipal Electric Utilities and Rural Electric Cooperative Utilities

(Subject: 2007 Electric Distribution and Transmission Service Reliability)

#### Withlacoochee River Electric Cooperative, Inc.

For the data requests appearing below, please use the following definitions for the measure of reliability performance at the distribution system or the transmission system level. If your company uses a different definition, please specify.

- (a) Service Interruptions (CI) the loss of service to retail customers that lasts one minute or greater due to unplanned events within the distribution system or the transmission system.
- (b) Customers (C) The total number of retail customers (meters) served by the utility at the end of the reporting period (2007).
- (c) Customer Minutes of Interruption (CMI) The total number of minutes of interruption of retail customers within the total system.
- (d) CAIDI (Customer Average Interruption Duration Index) The average time to restore the service interruptions to interrupted retail customers within a system for 2007. CAIDI is calculated by dividing the customer minutes of interruption by the number of interrupted customers.
- (e) SAIFI (System Average Interruption Frequency Index) The average number of service interruptions per retail customer within a system for 2007. It is calculated by dividing the Service Interruptions (CI) by Customers (C).
- (f) SAIDI (System Average Interruption Duration Index) The average minutes of service interruption duration per retail customer served within a system for 2007. Mathematically, SAIDI is CMI divided by C.
- (g) CEMI (Customers Experiencing Multiple Interruptions) The percentage of customers (C) that have experienced more than a specified number of interruptions. For example, CEMI5 reports the percentage of customers experiencing more than 5 interruptions.
- (h) MAIFIe (Momentary Average Interruption Event Frequency Index) The average number of Momentary Interruption events (loss of continuity of less than one minute) recorded at substation breakers. A momentary interruption event is one or more momentary interruptions recorded within a five-minute period.
- I. Data Requests Regarding Distribution Reliability (1 through 6) For utilities which do not own distribution infrastructure, please respond "Not Applicable" or "N/A".
  - 1. Please provide C, CAIDI, SAIDI, and SAIFI for your company's distribution system in 2007.

C = 200,511

CAIDI = 72.24

SAIDI = 155.57

SAIFI = 2.15

2. Please provide CAIDI, SAIDI, and SAIFI for each named storm that was excluded from the calculation of the system reliability indices provided in response to Question 1.

BARRY

CAIDI = 101.36 SAIDI = 6.65 SAIFI = 0.06

3. Please provide CAIDI, SAIDI, and SAIFI for those events other than named storms that were excluded from the calculation of the system reliability indices provided in response to Question 1. Please describe the types of events and reasons for exclusion.

POWER SUPPLIER – Outages caused by Progress Energy & WREC transmission are excluded.

CAIDI = 30.69

SAIDI = 8.36

SAIFI = 0.27

SCHEDULED MAINTENANCE & CONSTRUCTION – Planned outages are excluded.

CAIDI = 56.63

SAIDI = 2.51

SAIFI = 0.04

EXTREME STORM – Tornado on 12/16/2007 was excluded.

CAIDI = 268.54

SAIDI = 9.39

SAIFI = .06

4. Please provide MAIFIe for your company's distribution system in 2007.

Not Available, WREC does not track MAIFIe.

5. Please provide MAIFIe for all events that were excluded from the calculation of the MAIFIe provided in response to Question 4. Please describe the types of events and reasons for exclusion.

Not Available, WREC does not track MAIFIe.

6. Please provide any other measures that your company uses in tracking outage trends and system reliability goals, including any type of CEMI (such as CEMI5) for 2007.

Not Available, WREC does not track other outage trends beyond those described above.

- II. Data Requests Regarding Transmission Reliability (7 through 9) For utilities which do not own transmission infrastructure, please respond "Not Applicable" or "N/A".
  - 7. Please provide SAIDI, SAIFI, and CAIDI for your company's transmission system in 2007.

CAIDI = 30.57

SAIDI = 1.68

SAIFI = .06

8. Please provide SAIDI, SAIFI, and CAIDI for each named storm that was excluded from the calculation of the system reliability indices provided in response to question 7.

NO WREC transmission outages were experienced during BARRY.

9. Please provide SAIDI, SAIFI, and CAIDI for those events other than named storms that were excluded from the calculation of the system reliability indices provided in response to question 7. Please describe the types of events and reasons for exclusion.

NO planned outages were experienced on WREC's transmission in 2007. Power supplier (Progress Energy & WREC Transmission) outages are spread across the distribution circuits affected.

- II. Overhead (OH) vs. Underground (UG) Questions (10 through 12)
  - 10. Please provide the number of Overhead (OH) and Underground (UG) retail customers for your company at year-end 2007. How does your company determine whether a retail customer is served by OH or UG system?

Not Available, WREC does not categorize retail customers by OH or UG.

11. Please provide an estimate of the number of customer interruptions for OH and UG systems in 2007 and, if available, show the breakout of such data for named storms event periods (combined) and non-named storm periods.

Not Available.

12. Please provide an estimate of the minutes of customer interruptions for OH and UG systems in 2007 and, if available, show the breakout of such data for named storms event periods (in sum for all such periods) and non-named storm periods.

Not Available.

**END** 

### Your Touchstone Energy® Partner





Thursday, February 21, 2008

#### PSC 25 - 6.0343

### Municipal Electric Utility and Rural Electric Cooperative Reporting Requirements

- 1) Introduction
  - a) Withlacoochee River Electric Cooperative, Inc
  - b) PO Box 278, Dade City, FL 33-526-0278
  - c) Billy E. Brown, Executive Vice President & General Manager 352-567-5133, extension 6100 bbrown@wrec.net 352-521-5971 (fax)
- 2) Number of meters served in calendar year 2007

213,362

- 3) Standards of Construction
  - a) National Electric Safety Code Compliance

All electrical facilities constructed by Withlacoochee River Electric Cooperative, Inc. on or after February 1, 2007, comply with the 2007 edition of the NESC; facilities constructed prior to this date comply with the edition in effect at the time of the initial construction.

b) Extreme Wind Loading Standards

See comments in a) above.

New construction, major planned work assigned on or after December 10, 2006 and targeted critical infrastructure meets design criterion that comply with standards of construction for the wind loading projections in our service area. The NESC extreme wind loading standards are being considered for major distribution feeders.

#### c) Flooding and Storm Surges

For several years all pad mounted equipment, transformers, switchgear, etc., is specified with stainless steel construction. This requirement helps mitigate the need for premature replacement due to coastal erosion and high surge salt water intrusion.

All underground system designs include conduit installation for all primary and secondary cables, to both lengthen the life of the cable and shorten replacement times.

EPR (Ethylene-Propylene-Rubber) insulated cable is used exclusively for all underground primary distribution installations. Compared to standard cross-linked polyethylene insulation, EPR has a proven superior life span. All primary cables are also fully jacketed and strand-filled for additional long term reliability. The primary cable existing before the transition to EPR cable has been evaluated through engineering studies and much of it was either replaced or injected with chemical solutions to prolong the life and decrease outages due to normal failures.

#### d) Safe and Efficient Access of New and Replacement Distribution Facilities

In 2007 WREC relocated 73,200 feet of overhead primary lines from rear lot lines to the street, changing out hundreds of older poles and facilities. This practice will continue until all of the older areas (construction dates from the late 60's and early 70's) have been upgraded.

#### e) Attachments by Others

All joint use attachment requests are evaluated on a case by case basis. Joint use companies send a written request to attach to WREC's poles. Each request is evaluated as to loading and clearance requirements per the NESC and PoleForeman software (referenced in 3(a) above). WREC has extensive written and signed joint use agreements on file with each joint use company that specify compliance with the NESC and Rural Utilities Services (RUS) requirements, specifications and drawings. Such items as placing, transferring, or rearranging attachments, erecting, replacing, or relocating poles are specifically addressed to meet all requirements as per the NESC and RUS.

#### 4. Facility Inspections

a) Description of policies, guidelines, practices and procedures for inspection transmission and distribution lines, poles and structures including pole inspection cycles and pole selection process.

Annually, thousands of Service Orders are completed, processed, and the appropriate corrective action is taken as a result of scheduled inspections and routine line patrol during the normal course of work by all operations and engineering employees. These scheduled inspections are usually the result of a detailed analysis of available reports and records that are available to the Superintendent of System Reliability. A full-time employee utilizes an infra-red system to further analyze weak switches, connections, lightning arrestors, transformers and other equipment.

With approximately 6,400 miles of overhead primary distribution lines, a considerable portion of WREC's system is physically checked annually according to the following methods:

Line Patrol 2,000 Miles Voltage Conversion 350 Miles Right-of-Way 1,250 Miles S.T.A.R. 1 600 Miles

Total 4,200 Miles (Approximate numbers)

b) Transmission and distribution inspections planned and completed

WREC owns and maintains fifty-three miles of transmission line with voltages of 69KV and 115KV.

All of the transmission feeders are patrolled annually by walking, riding or aerial patrol.

Distribution lines inclusive of lateral taps and services are annually inspected according to procedures described in the response to question (4. a) above.

c.) Number and percentage of transmission poles and structures and distribution poles failing inspection and the reason for the failure.

<sup>&</sup>lt;sup>1</sup> Strategic Targeted Action and Repair. Selected areas of our system are targeted for intense line maintenance and repair according to information obtained by various methods including customer service issues, service interruption data, etc.

Distribution poles are visually inspected at the time line inspections are performed. Additionally, poles are visually inspected, including sounding and checking below ground level, during voltage conversion and maintenance programs and changed out as necessary.

WREC utilized a contractor (OSMOSE) for pole inspection and treatment during 2003-2004. They found 6.2% pole rot and 1.0% pole rejection. A decision was made at that time to discontinue that type of inspection/treatment plan, due to the fact that the majority of our wooden poles are CCA, having a life expectancy well in excess of 20 years. The poles with older treatments ("penta" and "creosote") are being systematically changed out.

Data is unavailable on exact failure rates. WREC is systematically changing out all of the poles treated with anything other than CCA through an aggressive voltage conversion program, relocation of rear lot line facilities, and routine system maintenance.

d) Number and percentage of transmission poles and structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Attached is a summary of size/class of distribution/transmission poles installed and removed in 2007. Detailed data on failure rates not available. WREC is systematically replacing wooden poles that are not treated with CCA, through an aggressive voltage conversion program, relocation of rear lot line facilities, and routine maintenance projects.

#### 5. Vegetation Management

a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.

A very aggressive Vegetation Management Program (VMP) has been adopted over the last couple of years that is inclusive of problem tree removal, increased horizontal and vertical clearances and under-brushing to ground level (See attached pictures). The overall goal is to eventually have

the entire system on a well documented trim cycle with problem circuits/areas clearly identified enabling a proactive right of way program.

WREC fully understands the objectives of the PSC with respect to a three year trim cycle, but WREC has in fact implemented measures to extend trim cycles; not shorten trim cycles. The ultimate objective is to control vegetation growth before it causes line related problems. WREC feels this will be accomplished through the VMP and by well documenting vegetation growth/trim cycles for every transmission and distribution line segment. The thought process is by extending clearances, trim periods are extended. Certainly, desired clearances are not always obtainable, but these problem areas are being identified, monitored and addressed as needed. The VMP was implemented in early 2004 as a five-six year program with respect to addressing the entire system, but provides reduced right of way related line problems as each circuit is addressed. Toward the end of 2007 four additional tree trimming crews were added to the system, as the next logical step in a more aggressive right-of-way program.

WREC maintains over 150 overhead feeder circuits (over 6,000 miles of line). The current trim cycle is between four and five years. A few feeders, due to the type of soil conditions, have been cut more often because of a faster growth rate in those particular areas. Specific areas, according to customer service issues, outage reports and other statistics are trimmed in spots (Hot Spotted).

Data relevant to right of way issues is extracted from our outage management system (OMS) for prioritizing circuit trimming. When circuit trimming is performed all lateral taps and services are trimmed. Additional right of way issues are identified by line patrols, employees, contractors and consumers. Whenever the company is notified of any right of way issue a "service order" is initiated. During 2007 WREC addressed ~ 3500 right of way service orders ranging from trimming a single account to trimming an entire subdivision/area. Detailed listing by month is attached.

b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

All transmission lines are inspected annually and associated right of way issues are considered top priority and addressed immediately, but WREC did not find any transmission right of way issues during 2007.

C.I.A.M. Totals Initiated in 2007

Date and File	Trim Right-of-way	Trim Service Drop
2007 - CIAMFLE	609	72
2007 - CIAMHST	1213	860
02/04/08 Imaging	79	77
01/03/08 Imaging	78	42
12/04/07 Imaging	64	36
11/02/07 Imaging	36	43
10/02/07 Imaging	43	42
09/05/07 Imaging	39	54
08/02/07 Imaging	27	43
07/03/07 Imaging	12	11
06/04/07 Imaging	21	31
05/02/07 Imaging	2	11
04/03/07 Imaging	0	0
03/02/07 Imaging	0	0
02/02/07 Imaging	0	0
01/03/07 Imaging	0	0

Grand Totals:

Distibution Poles added and retired 2007

RU		Added	Retired
F080	POLES,WOOD,55 FT.	1	0
F085	POLES,CONCRETE 60'	2	0
F112	POLES,CONCRETE,70'	0	1
F135	POLES,CONCRETE,80 FT.	0	29
F155	POLES,CONCRETE, 90 FT.	0	0
F165	POLES,CONCRETE,95'	2	2
1066	POLES, FIBERGLASS 50 FT	10	
1070	POLES,WOOD,35'& UNDER	1240	1710
1080	POLES,WOOD,40'& 45'	2699	1510
	POLES,WOOD,50'& OVER	1426	175
1100	POLES,CEMENT,35'& UNDER	88	6
1110	POLES,CEMENT,40'& 45'	4	18
1120	POLES,CEMENT 50FT.	10	0
	POLES,WOOD 60FT	4	4
1124	POLES,WOOD 65 FT	8	3
1127	POLES,CONCRETE 80 FT	0	1
	POLES,STEEL,35'& UNDER	0	0
8085	POLES, FIBERGLASS	109	84
	POLES,WOOD,35'& UNDER	279	127
	POLES,CONCRETE,35'& UNDER	482	52
	POLES,CONCRETE,35' & UNDER (B)	89	0
	POLES, ALUMINUM, 12' DOUBLE	5	0
	POLES, ALUMINUM, 14'	150	0
	POLES, ALUMINUM 12'	834	21
	POLES,ALUMINUM, 15'	110	0
	POLES,STEEL,35'& UNDER	3	0
	POLES,WOOD,40'& 45'	5	4
8135	POLES,CEMENT,40'& 45'	77	0

Total 7637 3747

Date: 13/19/02 Inspected by: John w 1hlls Sub: Hammock

Circuit:

MAP AREA	STRUCTURE	EQUIPMENT	CLEARANCE COMMENTS	
LOCATION			Rating Criteria 0)Good Condition 1)Good Condition but Aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4)Urgent Maintenance Required  COMMENTS	Work Order#
# 1	000010000	000000	WOOD Pole	
# 2	0000100	<del>             </del>	11 (1)	
#3	000010000	<del>                                     </del>	" "	
#4	<del></del>	000000	11 1,	
#5	00001000		11 11	
# 6	0000100		11 4	
# つ	0000100		11 (1	
#8	0000100		11 4	
# 9	0000/00		11 4	
#10	0000100		86 01	
#11	000010 0		11 4	
#/2	000010 6	0000000	15 41	
# 13		000000	11 11	
# 14	000010	0000000	11 11	
#15	000010 0	200000	B & INSUlation TILTED Check Pole	571.000
#16		0000000	wood Pole	
#17	000010	000000	11	
#18		0000000	11 11	
#19		0000000	11 4	
#20		0000000	11 11	

Circuit:

MAP AREA	STRUCTURE EQUIPMENT CLEARANCE COMMENTS	
LOCATION	Rating Criteria 0)Good Condition 1)Good Condition but Aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4)Urgent Maintenance Required	Work Order
# 2/		#Job Order
#22	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
#33 423		
#24		
#25	7	
#26		
	CONCRETE POLE	
#27	10000000000000000000000000000000000000	
428	130000100000000000000000000000000000000	
H29		
#30		
	000010 00000000000000000000000000000000	
#32	000010 00000000 11 11	
#33		
#34		
# 35	9990/0	
#3G		
#32	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
# 38	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
#39		
#40	ODD O O CONCRETE POLA	
	10000000 Concres Pole	

Date: 12/19/07 Inspected by: John W 110665 Sub: 1/ Ammocic

Circuit:\_\_\_\_

MAP AREA	STRUCTURE EQUIPMENT CLEARANCE COMMENTS	
LOCATION	Rating Criteria 0) Good Condition 1) Good Condition but Aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4) Urgent Maintenance Required COMMENTS	Work Order#
	\\[ \( \ell \) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	#Job Order #
<u>H #42</u>	00001010000000 WOOD POF	
443		
# 44		
# 45	000010000000000000000000000000000000000	
#46		<del></del>
#47		
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#49		
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# 53		
<u> </u>	000020 000000 PATEH WP Hole & WRAP	571.000
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#5G		
#s7_	000000000000000000000000000000000000000	
#58	000000000000000000000000000000000000000	
#59	000000000000000000000000000000000000000	
H60		
461		
	Prepared by WREC	

Date: 12/18/67 Inspected by: John W HALLS Sub: HAMMOCK

A MANAGA MAN

Circuit:\_

MAP AREA	STRUCTURE	EQUIPMENT	CLEARANCE COMMENTS	
LOCATION			Rating Criteria 0)Good Condition 1)Good Condition but Aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4)Urgent Maintenance Required  COMMENTS	Work Order
NGZ				#Job Order
#c3		<del>                                     </del>		
#64			WOOD POR	
		000000		
#65		<del> </del>		
#C6 #C7	000010000	0000000	11 11	
		000000	4	
村68	0000100	0000000	11 (1	
#C4	0000100	0000000	11 4	
#70	00001000	000000	11 4	
月7/	000010 0	000000	11 11	
<b>#72</b>		0000000 0		
473	000010000			
#74		000000	11 11	
#25	0000100	<del>             -</del>		
#76	000010 0			
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#79	<del></del>	<del>                                     </del>	11 11	
#80			li ij	
H81			11 4	
mo!	199010000	0000000	11 10	

TRANSMISSION LINE INSPECTION FORM

Date: 12/19/02 Inspected by: John w Hold Sub: HAmmook

Circuit:\_\_\_\_

MAP AREA	STRUCTURE	EQUIPMENT	CLEARANCE COMMENTS	
LOCATION			Rating Criteria 0)Good Condition 1)Good Condition but Aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4)Urgent Maintenance Required  COMMENTS	Work Order
# 82	0000/0 2	000000	BIRD WRAP LOOSE WOOD POLE	571,000
# 83		00000000		
#84	0000100		11 11	
#85	000010000		11 11	
#86		0000000	11 11	
#82	0000100	0000000	11 11	
#88	000010	0000000	11 11	
#87	000010	0000000	11 /1	
# 90	6600/020:	10000000	BIRO WARR LOSSE GLY LINKS RUPHOCE	571,000
pt 91	000010	0000000	te te	
#92	000010	0000000	9+ 1,	
#93	000010	0000000	11 11	
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498	0000010	0000000	(1)	
× 99	000010	00000000	0 9	
#10Q	00001000		3 // "	
#101	00001000	00000000	Prepared by WREC	

Date: 12/19/02 Inspected by: John w Hold Sub: HAmmoore

Circuit:\_\_\_\_

MAP AREA	STRUCTURE	EQUIPMENT	CLEARANCE COMMENTS	T
LOCATION			······································	Work Order
# 82	0000/0 2	\$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	COMMENTS	#Job Order #
4 83 	1010101/101 10/1	000000	BIRD WRAP LOOSE WOOD Pole	571,000
# 84			// //	
# 85		000000	11 11	
#86		0000000	le er	
#82	<del>-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1</del>	000000	11 11	
#88		000000	11 11	
#87		000000	11 11	
# 90	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000000	11 11	
		0000000	BIRD WARP LOOSE Guy LINKS REPLOCE	571,000
pt 91		000000	11 11	377,000
#92	) )	000000		
H 93		000000	11 11	
#94	000010000	0000000		
H95	000010002	0000000	BIRD C. RAB C. SS.	
# 96	000/0	000000	mar endit	
× 97	000010000		11 11	
# 98	00000000	000000	11 11	
N 99		900000	11 (1	
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			Prepared by WREC	