State of Florida

ORIGINAL

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

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

DATE: August 22, 2006

TO: Commission Clerk and Administrative Services

FROM: Tony Swearingen, Engineering Specialist I, Division of Economic Regulation

RE: Docket No. 060531

Please file these documents in Docket No. 060531.

Thanks,
Tony Swearingen

CMP _____
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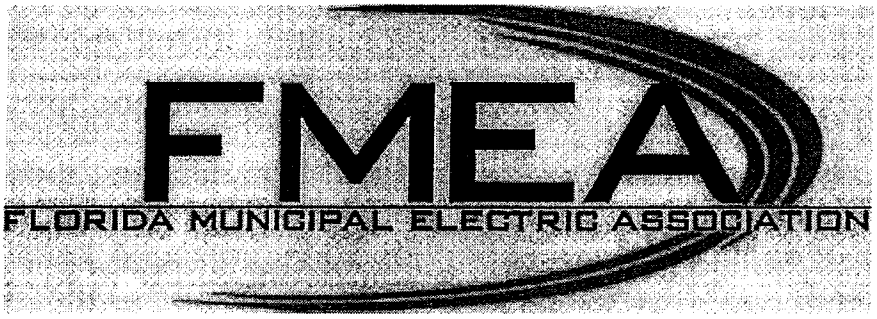

Pole Inspection Programs of Florida Municipal Electric Utilities

May 1, 2006

Florida Municipal Electric Utilities
Pole Inspections

May 1, 2006

Introduction

The Florida Municipal Electric Association submits this report to the Florida Public Service Commission on the subject of the status of pole inspections conducted by municipal electric utilities and their plans for such programs. The results of an extensive survey of all 34 municipal electric utilities is included in this report.

For further information about the report contact:

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Organization of this Report

This report is organized into four sections:

1. Utility Contact Information
2. Pole Data
3. Current Inspections
4. Inspection Results and Plans

FMEA, as the state trade association for the municipal electric utilities, conducted a survey of utilities requesting specific information about pole inspection programs. The survey closely tracks the information the Florida Public Service Commission requested from the investor-owned utilities regarding their pole inspection efforts. That information is presented in an organized fashion in the four spreadsheets.

Below is a summary of the information collected.

Summary

1. All municipal electric utilities either currently operate a pole inspection program, or are initiating/considering a pole inspection program with a cycle of 8-years or less.

2. **Pole inspection programs vary by type:**
    a. Sound & Bore: 8 utilities
        i. Ft. Pierce Utilities Authority
        ii. Gainesville Regional Utilities
        iii. JEA
        iv. City of Leesburg
        v. Orlando Utilities Commission/St. Cloud (operated by OUC)
        vi. City of Quincy
        vii. City of Tallahassee
        viii. City of Winter Park

    b. Sound & Spike: 10 utilities
        i. City of Alachua
        ii. City of Bartow
        iii. City of Chattahoochee
        iv. City of Ft. Meade
        v. Kissimmee Utility Authority
        vi. City of Moore Haven
        vii. New Smyrna Beach Utilities Commission
        viii. City of Newberry
        ix. City of Vero Beach
        x. City of Wauchula

    c. Sound: 6 utilities
        i. Keys Energy Services
        ii. City of Lake Worth
        iii. City of Starke
        iv. City of Clewiston
        v. City of Williston
        vi. City of Jacksonville Beach

    d. Visual: 9 utilities
        i. City of Blountstown
        ii. City of Green Cove Springs
        iii. Town of Havana
        iv. City of Homestead
        v. City of Bushnell
        vi. City of Lakeland
        vii. City of Mt. Dora
        viii. City of Ocala
        ix. Reedy Creek Improvement District: have only 5 wooden poles (inspected monthly)

3. **Pole Failures.** No municipal electric utility reported that they had experienced a problem with pole failure, even through two significant hurricane seasons. All

problems with poles falling were the result of two causes: a) trees and other debris falling on conductors causing one or multiple poles to fall, and 2) vehicles hitting poles (outside of hurricane season).

4. **Strength Testing.** Only a few municipal electric utilities conduct strength testing as an ongoing program. All utilities report that their facilities were designed to the National Electrical Safety Code when installed.

5. **Geographic Information System (GIS).** Nearly all municipal electric utilities have some form of GIS (either manual or computerized database). Those that do not indicated that they are committed to create one or are in the process of examining a GIS system.

6. **Follow up.** FMEA is committed to assisting municipal electric utilities initiate and expand their pole inspection efforts. We are examining ways to do so, including joint training of utility employees and joint issuance of requests for proposals for contracted labor. FMEA is also working with the Florida Municipal Power Agency to accomplish these tasks.

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 1: Contact Information

Utility/City	# of Customers	First Name	Last Name	Address	Phone	Fax	E-Mail
Alachua, City of	3,515	Mike	New	P.O. Box 9, Alachua, FL 32616	386-418-4079	386-418-4084	mnew@cityofalachua.com
Bartow Electric Department	10,073	Alan	Hutto	450 N Wilson Ave, Bartow, FL 33831	(863) 534-0142	(863) 534-7196	ahutto.electric@cityofbartow.net
Blountstown, City of	1,330	Marc	Tomlinson	20591 Central Ave West, Blountstown, FL 32424	(850)674-5488	(850)674-8289	mtomlinson@blountstown.org
Bushnell, City of	1,132	Bruce	Hickle	P.O. Box 115, Bushnell, FL 33513	352-793-8012	352-793-8036	bhickle@yahoo.com
Chattahoochee, City of	1,298	Jimmy	Cain	115 Lincoln Dr, Chattahoochee, FL 32324	850-663-4475	850-663-4233	citymgr@gtcom.net
Clewiston, City of	4,126	Kevin	McCarthy	141 Central Ave, Clewiston, FL 33440	863-983-1454	863-983-3406	kevin.mccarthy@clewiston-fl.gov
Fort Meade, City of	2,585	Katrina	Powell	8 W Broadway, Ft. Meade, FL 33841	863.285.1100	863.285.1124	ktpowell68@aol.com
Fort Pierce Utilities Authority	26,250	Craig	Brewer	1701 S 37th St, Ft. Pierce, FL 34948	(772) 466-1600	(772) 461-1938	cbrewer@fpua.com
Gainesville Regional Utilities	87,260	David	Beaulieu	301 SE 4th Ave;P.O. Box 147117, Station A126; Gainesville, FL 32614-7117	352-393-1513	352-334-2784	beaulieude@gru.com
Green Cove Springs Electric Utility	3,594	Gregg	Griffin	1289 Harbor Rd, Green Cove Springs, FL 32043	904-529-2249	904-529-2232	ggriffin@greencovesprings.com
Havana, Town of	1,308	Susan	Freiden	P.O. Box 1068, Havana, FL 32333	850-539-2820	850-539-2830	townmgr-havana@mchsi.com
Homestead, City of /Homestead Energy Services	18,460	Manuel	Cid	675 N Flagler Ave, Homestead, FL 33030	305-224-4721	305-224-4769	mcid@homesteadenergy.org
Jacksonville Beach/Beaches Energy Services	32,400	John	Bowerfind	1460 Shetter Ave, Jacksonville Beach, FL 32250	904-247-6280	904-247-6120	jbowerfind@beachesenergy.com
JEA	385,000	Ted	Hobson	21 W Church St, Jacksonville, FL 32202-3139	904-665-7126	904-665-7950	hobste@jea.com
Keys Energy Services	27,802	Dale	Finigan	1001 James St, Key West, FL 33040	305 295 1042	305 295 1044	dale.finigan@keysenergy.com
Kissimmee Utility Authority	55,436	Kenneth	Davis	1701 W Carroll St, Kissimmee, FL 34741	407-933-7777 Ext 1210	407-933-4178	kdavis@kua.com
Lake Worth Utilities, City of	27,396	Robert	Srednicki	1900 2nd Ave. North, Lake Worth, FL 33461	(561) 586-1665	(561) 586-1672	rsrednicki@lakeworth.org

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Utility/City	# of Customers	First Name	Last Name	Address	Phone	Fax	E-Mail
Lakeland Electric / City of Lakeland	120,000	Alan	Shaffer	501 E Lemon St, Lakeland, FL 33801	863-834-6505	863-834-6373	alan.shaffer@lakelandelectric.com
Leesburg, City of	21,373	Paul	Kalv	2010 Griffin Rd, Leesburg, FL 34748	352-728-9834	352-728-9809	Paul.Kalv@leesburgflorida.gov
Moore Haven, City of	973	Harold	Watson	P.O. Box 399, Moore Haven, FL 33471	863-946-0909	863-946-2185	mjones@moorehaven.net
Mount Dora, City of	5,812	Charles	Revell	1250 North Highland St, Mount Dora, FL 32757	(352) 735-7155	(352) 735-1539	revellc@cityofmountdora.com
New Smyrna Beach, Utilities Commission	23,691	Ray	Mitchum	P.O. Box 100, New Smyrna Beach, FL 32170	386-424-3162	386-423-7103	rmitchum@ucnsb.org
Newberry, City of	1,266	Blaine	Suggs	P.O. Box 369, Newberry, FL 32669	(352) 472-1537	(352) 472-1799	blaine.suggs@ci.newberry.fl.us
Ocala Electric Utility	50,000	David	Anderson	2100 NE 30th Ave, Ocala, FL 34470	352-351-6620	352-401-6961	danderson@ocalafl.org
Orlando Utilities Commission, City of Orlando	192,194	Steve	Langley	6003 Pershing Ave, Orlando, FL 32801	407-423-9100 ext. 5527	407-384-4124	slangley@ouc.com
Quincy, City of	4,728	Rohan	Berry	423 W Washington St, Quincy, FL 32351	850-627-7681	850-875-7375	rberry@myquincy.net
Reedy Creek Improvement District	1,300	Steve	Tucker	P.O. Box 10000, Lk. Buena Vista, FL 32830	(407)824-4026	(407) 824-7393	steve.tucker@disney.com
Starke, City of	2,689	Ricky	Thompson	P.O. Box Drawer C, Starke, FL 32091	904-964-2011	904-964-5202	Rthompson@cityof starke.org
Tallahassee Electric Utility	107,019	Gary	Oberschlake	2602 Jackson Bluff Rd, Tallahassee, FL 32304	(850)89105003	(850)891-5033	oberschg@talgov.com
Vero Beach, City of	32,930	Randall	McCamish	3455 Airport West Dr, Vero Beach, FL 32960	772-978-5431	772-770-2230	rmccamiah@covb.org
Wauchula, City of	2,515	Ray	McClellan	126 S 7th Ave, Wauchula, FL	863-773-3535	863-773-0773	ray@cityofwauchula.com
Williston, City of	1,387	John	Forrest	50 NW Main St, Williston, FL 32696	352-528-3060	352-528-0390	butlerjr@ci.williston.fl.us
Winter Park Electric Utility	14,000	Donald	McBride	401 Park Ave South, Winter Park, FL 32789	407-599-3491	407-599-3417	dmcbride@cityofwinterpark.org

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 2: Pole Data

	Distribution System						Transmission System (69 kV and above)						
Utility/City	Wooden	Concrete Static Cast	Concrete Spun	Steel	Other	Total	Wooden	Concrete Static Cast	Concrete Spun	Steel	Other	Not applicable	Total
Alachua, City of	3,500	200	0	0	0	3,700	0	0	0	0	0	X	0
Bartow Electric Department	8,833	1,159	25	0	0	10,017	0	0	0	0	0	X	0
Blountstown, City of	1,693	0	0	0	0	1,693	0	0	0	0	0	X	0
Bushnell, City of	950	152	0	0	34	1,136	0	0	0	0	0	X	0
Chattahoochee, City of	1,899	24	0	34	0	1,957	0	0	0	0	0	X	0
Clewiston, City of	1,000	50	0	0	0	1,050	0	50	0	0	0		50
Fort Meade, City of	1,793	25	0	0	0	1,818	0	0	0	0	0	X	0
Fort Pierce Utilities Authority	15,998	2,036	0	0	0	18,034	235	0	131	96	0		462
Gainesville Regional Utilities	46,844	4,494	0	6	0	51,344	164	165	0	463	0		792
Green Cove Springs Electric Utility	2,975	90	0	0	0	3,065	0	0	0	0	0	X	0
Havana, Town of	1,066	1	0	0	0	1,067	0	0	0	0	0	X	0
Homestead, City of /Homestead Energy Services	6,364	526	0	0	0	6,890	0	0	66	0	0		66
Jacksonville Beach/Beaches Energy Services	4,000	250	25	0	0	4,275	0	300	40	4	0		344
JEA	180,000	30,000	0	0	0	210,000	1,432	1,206	755	1,393	263		5,049
Keys Energy Services	11,700	3,500	0	0	0	15,200	0	661	107	140	0		908
Kissimmee Utility Authority	15,097	162	85	1	0	15,345	352	11	425	179	0		967
Lake Worth Utilities, City of	10,000	1,000	0	0	0	11,000	0	100	0	0	0		100
Lakeland Electric/City of Lakeland	52,882	1,864	640	90	0	55,476	1,137	103	1,209	33	0		2,482
Leesburg, City of	10,657	2,379	200	62	3,520	16,818	0	0	2	2	0		4
Moore Haven, City of	600	0	0	0	0	600	0	0	0	0	0	X	0
Mount Dora, City of	5,000	2,000	0	0	0	7,000	0	0	0	0	0	X	0

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 2: Pole Data

	Distribution System						Transmission System (69 kV and above)						
Utility/City	Wooden	Concrete Static Cast	Concrete Spun	Steel	Other	Total	Wooden	Concrete Static Cast	Concrete Spun	Steel	Other	Not applicable	Total
New Smyrna Beach, Utilities Commission	8,900	91	0	0	0	8,991	248	0	47	2	0		297
Newberry, City of	1,000	75	0	0	0	1,075	0	0	0	0	0	X	0
Ocala Electric Utility	31,946	3,010	210	298	0	35,464	692	200	56	84	0		1,032
Orlando Utilities Commission, City of Orlando	50,316	13,621	0	8	150	64,095	887	0	584	1,017	0		2,488
Quincy, City of	1,050	70	22	0	0	1,142	0	0	22	0	0	X	22
Reedy Creek Improvement District	0	10	0	0	0	10	5	0	211	14	0		230
Starke, City of	2,560	640	0	0	0	3,200	0	0	0	0	0	X	0
Tallahassee Electric Utility	47,000	450	0	0	0	47,450	2,200	100	150	250	0		2,700
Vero Beach, City of	5,400	540	400	20	0	6,360	65	700	125	65	5		960
Wauchula, City of	2,500	0	0	0	0	2,500	0	0	0	0	0	X	0
Williston, City of	3,000	40	0	0	0	3,040	0	0	0	0	0	X	0
Winter Park Electric Utility	7,200	300	0	0	0	7,500	0	0	0	0	0	X	0
Total				**Distribution Poles**		**618,312**					**Transmission Poles**		**18,953**

Notes:

1. Bushnell: Other -- 34 fiberglass poles
2. JEA: Other -- Steel Lattice

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 3: Current Inspections

Utility/City	1) For distribution, type of pole inspections the city/utility conducts	2) For transmission (69kV and above) type of pole inspections the city/utility conducts	3) Pole inspections performed every __ number of years	4) Does the utility conduct strength impact testing to determine compliance with the National Electric Safety Code?
Alachua, City of	Sound & Spike; Visual	N/A	3 years	No Original construction designed to NESC code.
Bartow Electric Department	Sound & Spike; Visual -- Hammer & Screwdriver and Shovel	N/A	8 years -- visual; considering changing to different type of inspection.	No Original construction designed to NESC code.
Blountstown, City of	Visual	N/A	2 years	No Original construction designed to NESC code.
Bushnell, City of	Annual visual inspection of all poles. Sound and spike on selected poles identified as problems.	N/A	6 years In addition to regularly scheduled inspections, poles are visually monitored during monthly meter reading conducted by linemen.	No Original construction designed to NESC code.
Chattahoochee, City of	Sound & Spike; Visual. Excavate around base and probe with steel rod. If top is suspect will note on reprot and come back with bucket truck to inspect more thoroughly.	Other (Explain in 2a below)	3 years	No Original construction designed to NESC code.
Clewiston, City of	Sound & Visual; Linemen conduct a visual and sound inspection on poles they are working on for any type of work order.	Visual. All transmission poles are concrete.	8 years We perform continuing pole inspections with our own personell and have funded a contracted inspection for this year and will conduct contracted inspections on an eight year cycle.	No Original construction designed to NESC code.
Fort Meade, City of	Sound & Spike; Visual	None	6 years In addition to regularly scheduled inspections, poles are visually monitored during monthly meter reading conducted by linemen.	Yes
Fort Pierce Utilities Authority	Combination: Wood: Sound & Bore Concrete & Steel: Visual	Combination of the above (Explain) Combination of the above; Wood: Sound & Bore Concrete & Steel: Visual	Other Other; Transmission- Annually Distribution- Entire system every 8 years	No Original construction designed to NESC code.

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 3: Current Inspections

Utility/City	1) For distribution, type of pole inspections the city/utility conducts	2) For transmission (69kV and above) type of pole inspections the city/utility conducts	3) Pole inspections performed every __ number of years	4) Does the utility conduct strength impact testing to determine compliance with the National Electric Safety Code?
Gainesville Regional Utilities	Sound & Bore; Visual Visually inspect and sound and bore poles with a birth mark of over 10 years old	Sound & Bore; Visual	8 years	No Original construction designed to NESC code.
Green Cove Springs Electric Utility	Visual. We plan on implementing a formal pole inpspection program in Q3 of 2006	N/A	8 years	No Original construction designed to NESC code.
Havana, Town of	Visual	Other (Explain in 2a below) N/A	1 year	No Original construction designed to NESC code.
Homestead, City of /Homestead Energy Services	Visual	N/A	Currently considering 8-year, sound & bore program	No Original construction designed to NESC code.
Jacksonville Beach/Beaches Energy Services	Sound & Visual	Visual All transmission poles are concete or steel	8 years, initiating now	No Original construction designed to NESC code.
JEA	Sound & Bore; JEA uses the Sound and Bore method except CCA which is all very new and visual inspection is used	Sound and Bore method except CCA which is all very new and visual inspection is used	8 years	As part of the "Sound and Bore" process, the "shell thickness" and "remaining core" parameters are measured. These measurements are then used to calculate the actual strength of the pole. Based on this result, the pole is deemed acceptable, braced to become acceptable, or scheduled for replacement. Additionally, all poles are re-treated at the ground line.
Keys Energy Services	Sound; Visual	We have no wood transmission. Only Concrete and steel	8 years	No Original construction designed to NESC code.

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 3: Current Inspections

Utility/City	1) For distribution, type of pole inspections the city/utility conducts	2) For transmission (69kV and above) type of pole inspections the city/utility conducts	3) Pole inspections performed every __ number of years	4) Does the utility conduct strength impact testing to determine compliance with the National Electric Safety Code?
Kissimmee Utility Authority	Sound & Spike; Visual. We have included funding in the upcoming budget year for more formalized (likely outsourced) inspection program. This program calls for an 8 year inspection cycle.	Sound & Spike Visual We outsourced a complete sound and bore inspection of all wood transmission poles in 1996. We have included funding in the upcoming budget year for a more formalized (likely outsorced) sound and bore inspection program. This program call for inspecting all wood transmission poles on an annual basis.	8 years	No Loading calculations are performed when deemed necessary by experience and the number and type of foreign attachments being proposed for distribution poles.
Lake Worth Utilities, City of	Sound & Visual. These inspections are performed regularly, during the performance of daily work tickets.	Visual. The transmission line is comprised of static cast concrete poles.	8 years	No Original construction designed to NESC code.
Lakeland Electric / City of Lakeland	Visual	Visual	Formal 8 year inspection program stopped 5 years ago	No Original construction designed to NESC code.
Leesburg, City of	Sound & Bore; Visual	Visual. The 4 transmission poles owned by the City are concrete.	8 years	No Original construction designed to NESC code.
Moore Haven, City of	Sound & Spike; Visual.	None City has no transmission lines	Other Pole inspections are performed daily. All poles are probably inspected within a year.	No Original construction designed to NESC code.
Mount Dora, City of	Visual	Other (Explain in 2a below)	5 years	No Original construction designed to NESC code.
New Smyrna Beach, Utilities Commission	Sound & Spike; Visual	Sound & Spike Visual	8 years	No Original construction designed to NESC code.
Newberry, City of	Sound & Spike; Visual	N/A	2 years	No Original construction designed to NESC code.
Ocala Electric Utility	Visual Currently, OEU does not have a pole inspection progam, OEU is in negotiations with Osmose to implement a program soon.	Visual	Currently initiating a program; 8 years or less	No Original construction designed to NESC code.

Pole Inspection Report of Florida's Municipal Electric Utilities
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Part 3: Current Inspections

Utility/City	1) For distribution, type of pole inspections the city/utility conducts	2) For transmission (69kV and above) type of pole inspections the city/utility conducts	3) Pole inspections performed every __ number of years	4) Does the utility conduct strength impact testing to determine compliance with the National Electric Safety Code?
Orlando Utilities Commission, City of Orlando	Sound & Bore	Sound & Spike	8 years	No Original construction designed to NESC code.
Quincy, City of	Sound & Bore	Visual. They are concrete poles.	5 years	No Original construction designed to NESC code.
Reedy Creek Improvement District	None The distribution system is underground.	Visual With the exception of 5 wood poles, the transmission structures are steel or concrete	Other Once per month	No Original construction designed to NESC code.
Starke, City of	Sound	N/A	2 years	No Original construction designed to NESC code.
Tallahassee Electric Utility	Sound & Bore; Visual. During pole inspection and treatment the contractor also re-installs any missing down guy markers, computerizes the data collected for input to GIS, documents any visually observed defective hardware and identifies/documents any poles that needs re-enforment or replacement.	Sound & Bore Visual During pole inspection and treatment the contractor also re-installs any missing down guy markers, computerizes the data collected for input to GIS, documents any visually observed defective hardware and identifies/documents any poles that needs re-enforment or replacement.	8 years	The contractor calculates for each pole its strength to ensure that it complies with the requirements of the NESC for pole strength. This must be done to determine whther a pole requires treatment, re-enforcement or replacement.
Vero Beach, City of	Sound & Spike Visual	Visual	5 years	No Original construction designed to NESC code.
Wauchula, City of	Sound & Spike; Visual	N/A	5 years	No Original construction designed to NESC code.
Williston, City of	Sound & Visual	N/A	1 year	No Original construction designed to NESC code.
Winter Park Electric Utility	Sound & Bore; Sound & Visual. City crews use visual and sound. Contractor uses sound and bore.	N/A	8 years	No Original construction designed to NESC code.

N/A = No transmission

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 4: Inspection Results and Plans

Utility/City	5) How the utility selects wood poles for inspection	6) Summarize the utility's wood pole inspections for the previous year addressing strength structural integrity and loading.	7) Reasons for any wood pole failures the utility experienced in the previous year, if known. To the extent failures are known, describe corrective actions the utility will take or has taken.	8) To the extent applicable to the utility, summarize the plan for pole-specific data gathering pole inspection program enforcement and inspection of poles shared with other entities.	9) If your pole inspection program is different than the 8-year requirement, describe the pole inspection program that gives the utility an understanding of the quality and reliability of the utility's poles.
Alachua, City of	We currently inspect all wooden poles when we perform visual inspections. When sound and spike inspections are performed, we test poles by age and visual condition.	In January, 2006 we surveyed each pole in our electric system and performed a visual inspection. Poles exhibiting characteristics for potential failure were replaced. We have performed sporadic sound and spike testing on wood poles in the past year.	In past five years, the City has experienced only 2 broken wooden poles. The poles were broken as a result of trees falling into power lines as a result of tropical storm and hurricane force winds. The City began to trim trees more agressively and remove trees that appear to be candidates to fall into our power lines. The City also increase the frequency of visual inspection and started sound and spike testing.	We currently are field surveying our poles for GIS mapping. We will then use GIS mapping capabilities to contract pole inspections with direction from the PSC.	The City of Alachua's wood pole inspection program is informal. Our system is small enough that we generally see all circuits as frequently as once per month. Once every three years we renew our pole count, count pole attachments, and visually inspect every pole in our distribution system. We ride out circuits at least bi-annually for visual inspection purposes. We are currently inventorying our system into a GIS database to facilitate our inspections.
Bartow Electric Department	When we do new job surveys we inspect the section of the existing system we are tying into. We also investigate customer call-ins on bad poles.	Last year, of the poles inspected, we found approx 2-3% needed to be replaced. The replacement structures were installed in accordance with the current NESC.	The only failures we had last year were due to vehicle accidents and natural causes (ie. fallen trees/limbs and lightning). We are not aware of any poles that failed due to high winds or stress alone.	We have no plans at the present time. We are in the process of developing a program but are still in the early stages of evaluation. We have already gathered available data as to the age of our poles. Our plan may use this data to establish priorities for the order in which the poles may be inspected. We are also considering an outside vendor.	In summary: We do not presently have a plan to inspect every pole. Pole failures due to age, high winds, or normal line stresses have not been a problem. Our present process appears to be working well enough to maintain reliable service, but we are considering a plan to broaden the number of poles inspected each year.
Blountstown, City of	Every 2 years we look at each pole going road by road until all 1693 poles are inspected	The City of Blountstown only means is by visual testing.	None.	The only way the City of Blountstown is able to gather the information is by the entire electric department going pole to pole to get a visual and if one is questionable, they then probe the pole to ensure that the pole is structurely safe.	Every two years we look at each pole to determine what condition it may be in.

Pole Inspection Report of Florida's Municipal Electric Utilities
Report to the Florida Public Service Commission
Part 4: Inspection Results and Plans

Utility/City	5) How the utility selects wood poles for inspection	6) Summarize the utility's wood pole inspections for the previous year addressing strength structural integrity and loading.	7) Reasons for any wood pole failures the utility experienced in the previous year, if known. To the extent failures are known, describe corrective actions the utility will take or has taken.	8) To the extent applicable to the utility, summarize the plan for pole-specific data gathering pole inspection program enforcement and inspection of poles shared with other entities.	9) If your pole inspection program is different than the 8-year requirement, describe the pole inspection program that gives the utility an understanding of the quality and reliability of the utility's poles.
Bushnell, City of	Every pole is visually inspected at 6 year intervals. Poles showing significant degredation are sounded and spiked.	All wood poles were last inspected in 2004. Of 1136 poles inspected, 5 were found in poor condition. Two were primary poles and were replaced. None were found to have an imminent structural integrity problem.	No wood pole failures occured in the previoius year.	All poles are inspected every 6 years and condition is noted in a GIS database, including: pole age, condition (good, fair or poor), and any specific information. Pole inspections are scheduled through the utility master schedule and enforced by management to ensure accuracy and comopletion. Work orders are generated to document pole replacements and repairs.	All poles are inspected every 6 years and condition is visually monitored during meter reading.
Chattahoochee, City of	Every three years a complete inspection is performed on the entire electric utility system.	Beginning at substation, every feeder is worked out completely to last pole, primary and secondary. Each pole is excavated around base, probed with steel rod, sounded with hammer, and visual is performed. If top is suspect of decay, will note on report to return with bucket truck to inspect throughly.	Within the last three years have only experienced about seven. One from Hurricane Frances, one from a severe thunderstorm taking down a tree, the others were from automobile accidents. Sighting the amount of damage from the 2004-2005 season, in 2006 we decided to change inspection from every 5 years to every 3 years.	Not applicable. Complete inspection is performed every three years. Repair work is conducted afterward in a timely manner.	A complete inspection is performed every three years.
Clewiston, City of	Poles are selected for inspection based on any work order at a pole, whether it is a line, transformer or other problem. Being a small system when a contractor is used we inspect all of our poles.	Due to impacts from Hurricanes Francis, Jeanne and Wilma we have replaced 45 poles in the last two years. We visually inspect poles as part of our work orders and replace poles as necessary. We budgeted for a complete system inspection this year. In addition we have an infrared inspection done on the substations and feeders every two years.	Pole failures in the last year have been almost entirely to trees falling into the lines due to Hurricane Wilma. Clewiston Utilities began an agressive in-house tree trimming program 3 years ago to remove any trees in the easements but we have no ability to remove trees outside the easement. If a property owner will allow us to remove a tree we will pay for the removal. We have not experienced any failures due to loading. We had several failures due to building materials and roofs wrapping in the lines including a concrete pole.	In the past two years we have completed the conversion of our utility maps from paper to digital. We are beginning a 5 year program to implement a full GIS system including size, age, condition, attachments and transformers including make, model and size. We will include the results of our contracted pole inspections and infrared thermography scans. None of our system is installed on another entities poles. Telephone and cable providers have to notify us of any attachments and we conduct an audit every 5 years.	We are funded to conduct pole inspections every 8 years via a contractor. This is to supplement our ongoing pole inspections by our lineman as part of thier everyday duties.
Fort Meade, City of	The City is divided into sections, NE/NW SE/SW, and we inspect all the poles in those sections annually.	During the course of repairing hurricane damage, carried over from 2004, poles were inspected for strength and structural integrity.	No wood pole failures reported for 2005.	n/a	We conduct inspections all year during routine operations and maintenance.

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Fort Pierce Utilities Authority	All Transmission poles are inspected annually; the entire distribution system is inspected in its entirety every eight years.	Transmission Poles: No problems found.Distribution: status this year, will complete by 11/06, will be repeated every eight years.	Twenty-two (22) wood poles were broken during Hurricane Wilma. We upgraded our design for wood pole classes to class 2 for all wood poles supporting overhead primary conductors. We are also working with the City to encourage undergrounding, especially for overhead services.	FPUA has implemented an inspection and inventory of all transmission, distribution facilities. This data are being added to update our GIS system, and provide input for work needing done. The inventory is to be completed by November 2006. Our plans are to repeat this survey every 8 years. In the interim years, engineers and field personnel report deficiencies as they design and build/rebuild our system.	FPUA started this year a program to inventory the entire distribution system. This includes sound & bore pole inspections on wood poles and visual inspection of concrete and steel. Survey will be repeated every eight years. Transmission poles are inspected annually; wood-sound & bore and concrete/steel-visual. Every 3rd year all bolts and hardware are inspected.
Gainesville Regional Utilities	Poles with a birth mark of equal to or greater than 10 years are selected for visual inspection and sound and bore.	We had identified 6 priority rejected poles, which because of loss of structural integrity; shell of one inch of sound wood or 50% of the original circumference; are replaced immediately. There were 129 poles identified as rejected (0.25%); those showing a shell of two inches of sound wood or 33% or greater loss in circumference, which should be replaced within the next 12 months. All poles are judged as being having maximum load.	All pole replacements due to failures were caused by "being struck by vehicles."	We have divided our system into 8 treatment zones, each with approx. 12-13% of the total poles. We contract the pole inspection and treatment and complete one zone annually. We conduct a quality control check using in-house personnel. Poles identified as priority are called in that day and scheduled for immediate replacement. Poles identified as rejected are turned in at the completion of the inspection and scheduled for replacement within the next 12 months.	GRU's program is the same as the PSC is requiring of the IOUs.
Green Cove Springs Electric Utility	Currently poles are identified visually by crews working on or near the vicinity and then tagged for removal and replacment.	Not Applicable ..Currently we do not have proactive pole inpection program in place. Will begin one in Q3 of 2006 in parallel with a grid location system initiative. We will utilized sound and bore technique.	Other than "Act of God", other weather event or car hit pole, etc., our failure rate is almost non-existant. All new construction is underground, and when poles are found which need attention we address the change out as quickly as possible.	We are attempting to verify our asset data base, and renumber our entire overhead system by inspecting each pole over the next 8 years. Depending on contract bid award, we may accelerate the initiative to accomplish sooner.	We plan on maintaining an 8 year cycle using contract resources, and sound and bore technique.

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Part 4: Inspection Results and Plans

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Havana, Town of	Our system is small and very compact. 75% of our poles are 12 years or newer. We have a yearly change-out process. We budget and perform pole replacement on the older poles in our system, consequently, our system is very sound.	We work closely with those utilites that attach to our poles (their engineers) to make sure there is no overloading. The electric department identifies poles, on a yearly basis, that are in line to be replaced. We have a crew that has been with us for over 20 years and are very familar with the system.	We have not had any pole failures.	Our entire distribution system is maped. We also track maintenance on the system by work order. This upcoming budget year we plan to start developing a data base for age, height, sound and spike testing results and other pertinent data.	The Havana system is small and compact. We inspect our poles on a far more regular bases that larger utilities. We trim 1/3 of our system every year. All our crews are trained to observe and report and problems with any of our utlities. Monthly meter reading offers the opportunity to inspect service drops as well. When you're small you have more opportunities to be familar with you distribution system and be on top of maintenance.
Homestead, City of /Homestead Energy Services	No selection guideline.	None	Hurricanes. Pole replacement.	Pole data gathering will be done by field surveying and automatic data entry on the GIS Utility System.	No pole inspection program for indication of potential problems is in place. Poles are inspected for loading only when communication companies (FO,TV, Cable,etc) submitt projects to install new or overlashing cables on the existing utility poles. Currently considering implementing a pole inspection program.
Jacksonville Beach/Beaches Energy Services	Visual inspections are performed by crews and supervisors while traveling to job sites, or while working on projects.	When visual inspections indicate issues with structual integrity, a pole sounding is performed. Poles are replaced as necessary. Critical wood poles are being replaced with concrete poles.	Traffic Accidents. New poles are immediately installed.	We are in the process of implementing a GIS system. Inspection dates and pole condition will be attached to each pole location.	We plan to comply with the 8 year inspection cycle.

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JEA	All wooden poles are visually inspected. All penta and creosote poles are tested using the Sound and Bore method. JEA's CCA poles are very new and do not yet merit Sound and Bore testing.	The complete system inspection by Sound and Bore was completed in 2000 & 2001 by OSMOSE. In 2004, a pole by pole inspection was completed by sounding only, after the post storm by engineering assessment teams. In 2005 on circuits having reliability problems, a pole by pole inspection was accomplished by sounding method only. Bad poles were replaced. JEA's current overhead distribution standards are mostly designed to Grade B construction per the National Electric Safety Code (NESC). Grade C is usually sufficient, so our overhead distribution construction is already designed to a higher standard. Exact correlation between NESC strength requirement grading and Category 3 wind requirements is not known.	The two major reasons for pole failures last year were either a car hitting the pole or a tree falling into the line. Other potential pole failures were rotten cross-arms or pole tops and these were found on inspection and replaced.	JEA does not jointly own poles with others. JEA inspects all poles as indicated in previous response.	JEA has an 8 year pole inspection program
Keys Energy Services	Mainly as Planners or Lineman are at a site. They let engineering know of problems. Every 7-10 years we inspect for the wood poles.	The inspection does not take into account structural integrity	We have not had any pole failures.	Distribution -- N/A Transmission -- different inspection process for ones over the water than transmission poles on land.	7-10 years is our current inspection program. We are reviewing our program and opportunities for improvement.
Kissimmee Utility Authority	Inspections are performed in various manners: Any time a work order is performed, the adjacent wood poles are inspected by visual and sound method. As part of our ongoing distribution system inspection, poles are inspected by visual, sound and spike method. These inspections are performed on a feeder by feeder basis.	A total of 79 wood poles were replaced in 2005 as a result of various inspections. Information is not readily available to address strength, structural integrity and loading.	To the extent data is available, most wood pole replacements were performed due to poles reaching the end of their useful life.	We are formalizing our inspection program for more structure to enhance our data gathering techniques. Our GIS software program has been customized to allow for tracking life-cylce maintenance data on a location/structure basis. We are in the process of developing new pole attachment agreements with all attaching entities that provides more detail and enforcement capabilities in regard to loading analysis.	We will be implementing an 8 year inspection cycle for all wood distribution poles and an annual inspection for all wood transmission poles. Funding for these programs is proposed for the upcoming fiscal year beginning October 1, 2006.

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Lake Worth Utilities, City of	The utility is in the process of a major voltage conversion throughout the distribution. Through the course of the conversion project we will inspect all poles.	Inspected through the course of our daily work orders.	No wood pole failures occured in the previoius year. Hurricanes, with extensive tree damage falling on wires, brought down many poles.	The City is now in the process of an aggressive voltage conversion project. All distribution poles will be inspected over the course of the next 4-5 years. All poles having compromised integrity will be replaced with static cast concrete poles if accessible. Subsequent to that project the utility will maintain a pole inspection program on an 8 year time cycle.	All distribution poles will be inspected over the course of the next 4-5 years. All poles having compromised integrity will be replaced with static cast concrete poles if accessible. Subsequent to that project the City will implement a pole inspection program on an 8 year time cycle.
Lakeland Electric / City of Lakeland	All transmission poles are visually inspected annually. Transmission and distribution poles are visually inspected during associated planned work involving the pole or when system trouble occurs.	Poles were inspected according to the reply for issue 5, however, since this has been only a visual inspection over the last 5 years, no formal analysis has been done.	Natural deterioratation, motor vehicle accidents, woodpecker damage, attached equipment caused fire damage. Poles are generally replaced with like or upgraded poles.	Completed a system-wide pole audit in 2004 for pole locations, type, and attachments. Will maintian database from now on. Have planned 2007 budget to resume a formal pole inspection/treatment/replacement project. Currently we are finalizing new external attachment agreements that will provide for better enforcement of attachment requirements for analysis	All transmission poles are visually inspected annually. Transmission and distribution poles are visually inspected during associated planned work involving the pole or when system trouble occurs. As previously stated we plan to resume sound and bore inspections in 2007.
Leesburg, City of	All wood poles will be inspected.	Previously, only penta and creosote treated wood poles were inspected because CCA treated wood poles were less than 10 years old.	The only causes recorded for wood pole failures during the past several years have been related to vehicular events and trees falling on the lines.	All poles and other utility assets are recorded in the GIS database. At this point, we plan to gather data, inspect and maintain all owned poles without differentiating by location.	Leesburg conducts formal pole inspections and we plan to adopt an 8-year inspection cycle.

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Moore Haven, City of	All are visual. Factors for more frequent inspection are leaning poles, holes, and signs of rotting at ground level.	The City of Moore Haven is one square mile so visual checks are performed daily and as needed spikeing. Pole overloading is not a problem.	There have been no pole failures. The poles down after Hurricane Wilma were because of debris and saturated ground. The City of Moore Haven now has a certified code enforcment officer that is focusing on loose debris in homeowners' lots.	Since the City of Moore Haven is a small utility with limited resources, our inspection program is informal. The daily visual inspections are performed as maintenance to the system is done. Once there is visible evidence, sound and spike inspection is done. If the pole is questionable, the pole is scheduled for replacement. As of now there is no paper trail of inspections. There is a paper work done for replacement of poles, although the documentation is not readily available. The City's goal is to upgrade the software used by the City to track costs of every aspect of the Public Works Department. Now with limited resources it is impossible to have all data entry done into a software system. We have no shared or transmiision lines.	All poles are visually inspected annually.
Mount Dora, City of	Currently, the service territory is divided into three geographic zones. Over a five-year period, all poles in each zone are visually inspected by the line crew.	Last year, all inspections were visual. However, our facilities are examined by knowledgeable field personnel to identify obviously overloaded poles.	There were no pole failures due to overloading last year. Pole failures have been caused by external factors, such as traffic accidents.	Mount Dora is currently completing numbering of all distribution poles. In this process, we are collecting data on facilities on each pole, including attachments by other entities.	Mount Dora has replaced approximately 70% of all wood poles within the last five years. Current policy is to visually inspect each pole on a five-year cycle.
New Smyrna Beach, Utilities Commission	We inspect poles when we perform maintenance on our circuits. Each pole on that circuit is checked from top to bottom. By doing this on a rotating basis, each pole is inspected every 7 to 8 years.	All of our poles are inspected for strength and structural integrity. We are beginning to upgrade our poles for loading of additional circuits or other entities.	All pole failures of the previous year were the result of vehicle accidents.	We are planning for an automated GIS database and mapping system for both transmission and distribution poles. This will include location, pole size, class, when installed, condition of pole when inspected, what material or equipment is on each pole, and what other entities are attached.	We inspect poles when we perform maintenance on our circuits. Each pole on that circuit is checked from top to bottom. By doing this on a rotating basis, each pole is inspected every 7 to 8 years.

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Report to the Florida Public Service Commission
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Newberry, City of	The City of Newberry has a compact service area and we are either driving by or routinely working within the service area on a daily basis. Lineman note any deficient poles and schedule for correction	After suveying our wood pole system it was noted that 35 poles needed to be replaced due to system aging. In 2005 we replaced 14 poles and have budgeted the remaining for current fiscal year	Wood pole failure was only due to vehicular contact	Our current inspection procedure are being updated for more accurate tracking of data gathering, Qualified personel are scheduled to perform these duties bi-annually.	Qualified personel are inspecting the poles bi-annually at this time due to an aging system. Any structure jeapordizing system quality or reliability is scheduled for replacement.
Ocala Electric Utility	Wood poles are selected by class and grade as defined in the NESC	no formal program	Most pole failures have been due to falling trees and auto accidents. OEU has a vegetation management program and pole location is within FDOT guidelines	OEU current pole information is collected and entered in our GIS	OEU's proposed pole inspection program will meet these guildlines
Orlando Utilities Commission, City of Orlando	Our service area is divided into areas where upon poles are inspected in a particular area based on last inspection data.	Wood Pole Inspections in 2005 were conducted in the southwest and northwest quadrant of the Orlando service area. A total of 340 poles were identified due to suspect strength and structural integrity. Twelve priority reject poles identified have already been replaced in the 2005/2006 fiscal year. The remaining poles have either been C-Truss re-enforced or are in a process of replacement in our construction and maintenance area. The progress of replacement is being tracked through an existing work order database.	There have been no known wood pole failures, which resulted from strength or structural integrity.	Orlando Utilities Commission (OUC) has maintained an active pole inspection and replacement program with records dating back to 1990. Our distribution system was initially divided into four quadrants of inspection, which later expanded to six quadrants in 1999, as the St. Cloud Distribution system was added in our service area. We currently uphold an eight-year inspection cycle which is quadrant-based. Shared transmission structures are inspected and maintained by OUC with corresponding inspection based by past inspection date. Distribution and Transmission pole inspection replacements are tracked through an existing maintenance work order database to insure timely replacement.	OUC inspects poles on an eight-year cycle.
Quincy, City of	The supervisor does hazard drive through patrols/inspections where he looks for obvious defects. Suspiciuos poles are further checked below ground surface (6 inches). Apart from that, motor vehicle accidents and other events drives the changing of poles.	Strength - good 90%; Structural Integrity - 95% good; Loading - 95% good. Replacing poles in poor condition.	Only motor vehicle accidents breaks the pole	A detailed inspection/patrol will be done on at least 25% of all utility circuits per year.This will capture info on overhead and below ground structural integrity	Poles are inspected within a 5 year cycle.

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Reedy Creek Improvement District	N/A	The 5 transmission wood poles are inspected monthly during normal line patrols.	No failures	All but 5 Transmission poles are steel or concrete. Distribution system is underground. RCID does not share poles with other entities	All transmission lines are patroled once per month. The structures are inspected during these patrols.
Starke, City of	Ride each circuit check for damage or leaning poles	We have not had any problems due to pole failure.	Damage by vehicle or falling trees	Our poles are visually inspected by circuit every 2 years and if need pole are replaced with new ones.	Every 2 years
Tallahassee Electric Utility	Inspect all wood poles that have been in service eight years or longer during each inspection cycle.	Pole inspection and treatment program is performed over a three fiscal year period with the intial year of each cycle being every eight years. One third of the poles are treated and inspected during each of the fiscal years. The current inspection cycle is being completed during FY06. During FY04 and FY05 approximately 16,000 poles were inspected and treated each fiscal year and in FY06 the remainder will be inspected and treated.	No known pole failures last year. Pole identified for re-enforcement or replacement through the pole inspection and treatment program are routinely handled and scheduled for completion within six months or less of being identified. Critical structures are replaced as soon as they can be scheduled.	COT Electric Utility is currently in the process of merging the current pole inspection and treatment data into its GIS data base. Each pole has been numbered and the data collected associated with that specific pole at a specific location. The City GIS information is public information and anyone desiring can view and obtain the data.	N/A
Vero Beach, City of	Every 5 years we count poles jointly with BellSouth to determine what we owe them for joint use. At that time we visually inspect the poles and drive a spike in the poles that look suspicious.	Crews have been sent to areas that are dense with trees to replace the hardware. At the time the poles in these areas are visually inspected and spiked if necessary. No others tests are done.	We had about 10 poles fail during hurricane Wilma due to trees falling accross the lines and pulling them down. We have changed our tree trimming policy to cut a much wider path away from the lines. We are also cutting trees down below the lines if requested by the customer. We also replace poles that have woodpecker damage and appear to be leaning. About 90% of the poles we replace are due to ground line rot, the remaining are from woodpecker damage.	We have approximately 6000 poles on our system. Just over half of them are owned by BellSouth. We check their poles just like we check ours. If any of their poles require replacing we put in a request to them and they usually respond within about 6 weeks. If the project needs to be done sooner we will replace it and ask for reimbursement or replacement of the pole to our stock.	We do not have a pole inspection program at this time, however starting in June 2006 we will be implementing a plan to inspect all of our poles every 5 years. The inspections will include listing all the hardware on the pole, location, birthdate, type, size and condition of the pole, and any other valid information.
Wauchula, City of	Poles that hold large transformers, 3 transformers, or otherwise loaded heavy are inspected more frquently.	None	Not known	Currently evaulating	Poles are examined every three years
Williston, City of	When we have a job in the area we sound check all the poles.	None are overloaded	No failures last year.	We will continue to check poles as we are working in the area. We will also begin inspecting poles in each quadrant and detailed records will be kept in an electronic database.	Sound and visual checking all utility poles annually and noting ones to be replaced.

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Winter Park Electric Utility	All wood poles will be inspected in 2006 and every 8 years thereafter.	The City purchased the distribution system, as is, from Progress Energy in June, 2005. The pole inspection program is being established.	The only pole failures to date have been the result of trees falling into the lines. The City is undertaking an agressive tree trimming program as well as a long term program to underground power lines throughout the system.	The contractor selected to conduct the pole inspection of the entire system will also perform a GIS based pole inventory, to include foreign contacts.	The City's pole inpection program will meet or exceed the IOUs requirements.

Tony Swearingen

From: Barry Moline [bmoline@publicpower.com]
Sent: Thursday, July 13, 2006 9:20 AM
To: Bill McNulty
Cc: Bob Trapp; Tony Swearingen; Sid Matlock; Fred 2aBryant; Jody Lamar 2 Finklea; Amy 1Zubaly
Subject: Pole inspections -- follow up
Attachments: FMEA table 2.doc

Bill,

Attached is the FMEA table of information on pole inspections, fully updated from your follow-up questions.

Please let me know if you have any questions. I'm in the office today and Friday, then out for 10 days on business. In fact, Chairman Edgar is speaking at our conference next week in Naples, and I would appreciate it if she knew (from staff) that we were in full compliance with the information requests the Commission has made of municipal electric utilities.

Thanks, and give me a call if you have any questions.

Barry

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COMPLIANCE OF FMEA UTILITY POLE INSPECTION PLANS WITH ORDER NO. PSC-06-0144-PAA-EI

UTILITY	INPSECTION METHOD, CYCLE, POLE SELECTION PER PSC ORDER: 1. SOUND AND BORE, 2. 8 YEAR CYCLE, 3. ALL DISTRIBUION AND TRANSMISSION WOOD POLES	EXCAVATION REQUIREMENT PER PSC ORDER: EXCAVATION OF ALL SOUTHERN PINE, OTHER POLE TYPES, PER **RUS** GUIDELINES	ATTACHMENT STRENGTH IMPACT ASSESSMENT PER PSC ORDER: ALL POLES WITH ATTACHMENTS ASSESSED FOR STRENGTH	COLLOCATED FACILITIES POLE INSPECTIONS PER PSC ORDER: PROVIDE PLAN RE: HOW SHARED POLES WILL BE INSPECTED	INSPECTION PROGRAM ENFORCEMENT PER PSC ORDER: PROVIDE PLAN RE: HOW INSPECTION PLAN WILL BE ENFORCED	DATA GATHERING PER PSC ORDER: PROVIDE PLAN RE: HOW POLE SPECIFIC DATA WILL BE RETAINED
Tallahassee Electric Utility	1. Sound & Bore 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	Yes, performed by contractor.	Yes, inspecting some, requesting quality control from owner.	Yes, Contractor reports monthly.	Yes, using GIS data base.
Gainesville Regional Utilities	1. Sound & Bore 2. 8 year cycle 3. Poles with birth mark under 10 years not inspected.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Yes, conducts quality control checks.	Yes, using GIS data base.
JEA	1. Sound & Bore 2. 8 year cycle 3. Visual only on CCA poles.	Yes, if inspection indicates potential problem.	Yes, as part of Sound & Bore process.	Yes, requesting quality control from others.	Yes, conducts quality control checks bi-weekly.	Yes, using GIS data base.
Fort Pierce Utilities Authority	1. Sound & Bore 2. 8 year cycle 3. All poles	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Yes, Contractor reports regularly.	Yes, using GIS data base.
Leesburg, City of	1. Sound & Bore. 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Yes, Contractor reports regularly.	Yes, using GIS data base.
Winter Park Electric Utility	1. Sound & Bore 2. 8 year cycle 3. All poles.	Visual only. Currently evaluating distribution system recently purchased for replacement program.	No, original design to NESC.	Not applicable. No shared poles.	Yes, Contractor reports regularly.	Yes, using GIS data base.

UTILITY	INPSECTION METHOD, CYCLE, POLE SELECTION PER PSC ORDER: 1. SOUND AND BORE, 2. 8 YEAR CYCLE, 3. ALL DISTRIBUION AND TRANSMISSION WOOD POLES	EXCAVATION REQUIREMENT PER PSC ORDER: EXCAVATION OF ALL SOUTHERN PINE, OTHER POLE TYPES, PER **RUS** GUIDELINES	ATTACHMENT STRENGTH IMPACT ASSESSMENT PER PSC ORDER: ALL POLES WITH ATTACHMENTS ASSESSED FOR STRENGTH	COLLOCATED FACILITIES POLE INSPECTIONS PER PSC ORDER: PROVIDE PLAN RE: HOW SHARED POLES WILL BE INSPECTED	INSPECTION PROGRAM ENFORCEMENT PER PSC ORDER: PROVIDE PLAN RE: HOW INSPECTION PLAN WILL BE ENFORCED	DATA GATHERING PER PSC ORDER: PROVIDE PLAN RE: HOW POLE SPECIFIC DATA WILL BE RETAINED
Orlando Utilities Commission,City of Orlando	1. Sound & Bore 2. 8 year cycle 3. Sound & Spike performed on transmission poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles.	Yes, Contractor reports regularly.	Yes, using GIS data base.
Moore Haven, City of	1. Sound & Spike 2. Yearly 3. All poles.	Yes, Contractor reports regularly.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	Yes, using GIS data base.
Newberry, City of	1. Sound & Spike 2. Every 2 years 3. All poles.	Pole replaced if found defective.	No, original design to NESC.	Yes.	Yes, Contractor reports regularly.	Yes, using GIS data base.
Alachua, City of	1. Sound & Spike 2. 3 year cycle 3. All poles	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Inspectors will file regular reports.	Manually.
Chattahoochee, City of	1. Sound & Spike 2. 3 year cycle 3. All poles.	Pole replaced if questionable.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	Manually.
Vero Beach, City of	1. Sound & Spike 2. 5 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Inspectors will file regular reports.	Yes, will be in place by June 2006.
Wauchula, City of	1. Sound & Spike 2. 5 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Inspectors will file regular reports.	Currently manual, moving to GIS
Fort Meade, City of	1. Sound & Spike 2. 6 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	Yes, designed to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	GIS

UTILITY	INPSECTION METHOD, CYCLE, POLE SELECTION PER PSC ORDER: 1. SOUND AND BORE, 2. 8 YEAR CYCLE, 3. ALL DISTRIBUION AND TRANSMISSION WOOD POLES	EXCAVATION REQUIREMENT PER PSC ORDER: EXCAVATION OF ALL SOUTHERN PINE, OTHER POLE TYPES, PER **RUS** GUIDELINES	ATTACHMENT STRENGTH IMPACT ASSESSMENT PER PSC ORDER: ALL POLES WITH ATTACHMENTS ASSESSED FOR STRENGTH	COLLOCATED FACILITIES POLE INSPECTIONS PER PSC ORDER: PROVIDE PLAN RE: HOW SHARED POLES WILL BE INSPECTED	INSPECTION PROGRAM ENFORCEMENT PER PSC ORDER: PROVIDE PLAN RE: HOW INSPECTION PLAN WILL BE ENFORCED	DATA GATHERING PER PSC ORDER: PROVIDE PLAN RE: HOW POLE SPECIFIC DATA WILL BE RETAINED
Bartow Electric Department	1. Sound & Spike 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	No, but is in the process of developing program. Will use GIS
Kissimmee Utility Authority	1. Sound & Spike 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, only performed when deemed necessary for new attachments.	Yes.	Inspectors will file regular reports.	Yes, using GIS data base.
New Smyrna Beach,Utilities Commission	1. Sound & Spike 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes	Inspectors will file regular reports.	Yes, using GIS data base.
Clewiston, City of	1. Sound & Visual 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	Yes, using GIS data base.
Keys Energy Services	1. Sound & Visual 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes, inspecting some, requesting quality control from owner.	Inspectors will file regular reports.	Yes, using GIS data base.
Lake Worth Utilities, City of	1. Sound & Visual 2. 8 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes	Inspectors will file regular reports.	Manually
Bushnell, City of	1. Sound & Spike plus Visual 2. 6 year cycle on Sound & Spike, yearly on visual. 3. On select poles for Sound & Spike.	Pole replaced if questionable.	No, original design to NESC.	Yes	Inspectors will file regular reports.	Yes, using GIS data base.
Williston, City of	1. Sound & Visual 2. Yearly 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	Manually

UTILITY	INPSECTION METHOD, CYCLE, POLE SELECTION PER PSC ORDER: 1. SOUND AND BORE, 2. 8 YEAR CYCLE, 3. ALL DISTRIBUION AND TRANSMISSION WOOD POLES	EXCAVATION REQUIREMENT PER PSC ORDER: EXCAVATION OF ALL SOUTHERN PINE, OTHER POLE TYPES, PER **RUS** GUIDELINES	ATTACHMENT STRENGTH IMPACT ASSESSMENT PER PSC ORDER: ALL POLES WITH ATTACHMENTS ASSESSED FOR STRENGTH	COLLOCATED FACILITIES POLE INSPECTIONS PER PSC ORDER: PROVIDE PLAN RE: HOW SHARED POLES WILL BE INSPECTED	INSPECTION PROGRAM ENFORCEMENT PER PSC ORDER: PROVIDE PLAN RE: HOW INSPECTION PLAN WILL BE ENFORCED	DATA GATHERING PER PSC ORDER: PROVIDE PLAN RE: HOW POLE SPECIFIC DATA WILL BE RETAINED
Starke, City of	1. Sound 2. 2 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles.	Inspectors will file regular reports.	Manually
Havana, Town of	1. Visual 2. Yearly 3. All poles	Yes, if inspection indicates potential problem.	No, original design to NESC.	Not applicable. No shared poles	Inspectors will file regular reports.	Manually
Blountstown, City of	1. Visual 2. 2 year cycle 3. All poles	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes	Inspectors will file regular reports.	Yes, using GIS data base.
Mount Dora, City of	1. Visual 2. 2 year cycle 3. All poles	Pole replaced if questionable.	No, original design to NESC.	Yes	Inspectors will file regular reports.	Manually
Homestead, City of/Homestead Energy Services	1. Visual 2. No data 3. All poles	Yes	No, original design to NESC.	Will coordinate with third-party owners.	Inspectors will file regular reports.	Yes, using GIS data base.
Jacksonville Beach/Beaches Energy Services	1. Initiating Sound & Visual. 2. 8 year cycle 3. All poles	Yes	No, original design to NESC.	Yes	Inspectors will file regular reports.	Manually
Lakeland Electric/City of Lakeland	1. Visual 2. 8 year cycle 3. All poles	Yes	No, original design to NESC.	Yes	Inspectors will file regular reports.	Yes, using GIS data base.
Green Cove Springs Electric	1. Visual 2. 8 year cycle 3. All poles	Yes	No, original design to NESC.	Yes	Inspectors will file weekly reports.	Yes

UTILITY	INPSECTION METHOD, CYCLE, POLE SELECTION PER PSC ORDER: 1. SOUND AND BORE, 2. 8 YEAR CYCLE, 3. ALL DISTRIBUION AND TRANSMISSION WOOD POLES	EXCAVATION REQUIREMENT PER PSC ORDER: EXCAVATION OF ALL SOUTHERN PINE, OTHER POLE TYPES, PER **RUS** GUIDELINES	ATTACHMENT STRENGTH IMPACT ASSESSMENT PER PSC ORDER: ALL POLES WITH ATTACHMENTS ASSESSED FOR STRENGTH	COLLOCATED FACILITIES POLE INSPECTIONS PER PSC ORDER: PROVIDE PLAN RE: HOW SHARED POLES WILL BE INSPECTED	INSPECTION PROGRAM ENFORCEMENT PER PSC ORDER: PROVIDE PLAN RE: HOW INSPECTION PLAN WILL BE ENFORCED	DATA GATHERING PER PSC ORDER: PROVIDE PLAN RE: HOW POLE SPECIFIC DATA WILL BE RETAINED
Ocala Electric Utility	1. Visual (Negotiating with Osmose to implement program.) 2. No data 3. All poles	Yes	No, original design to NESC.	Not applicable. No shared poles	Inspectors will file regular reports.	Yes, using GIS data base.
Reedy Creek Improvement District	1. All distribution underground. Visual on 5 transmission poles. 2. No data 3. All poles	Yes	No, original design to NESC.	Not applicable. No shared poles	Inspectors will file regular reports.	Only 5 poles in system – inspected annually and replaced if necessary.
Quincy, City of	1. Sound & Bore 2. 5 year cycle 3. All poles.	Yes, if inspection indicates potential problem.	No, original design to NESC.	Yes.	Inspectors will file regular reports.	Manually.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

April 28, 2006

Mr. Tim Devlin
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: Pole Inspection Cycles and Hurricane Preparedness for Co-ops

Dear Tim:

The Florida Electric Cooperatives Association, Inc. (FECA) has surveyed its members (Note: Lee County Electric Cooperative, Inc. is not member of FECA) regarding pole inspection cycles and hurricane preparedness for 2006 as directed by staff. In regard to the pole inspection cycles, of our 17 members,8 co-ops are currently on an 8-year or shorter cycle and the rest, with three exceptions, will be on an 8-year cycle within 2 years. Of the three exceptions, one will be on an 8-year cycle within 5 years and the other two are currently on a 10-year cycle and indicated that it is cost-prohibitive to move to an 8-year cycle at this time.

Responses to the hurricane preparedness survey showed that, in general, electric cooperatives throughout the state have completed inspections, sweeps and repairs of their systems to prepare for the 2006 hurricane season. Those co-ops that have not completely inspected and repaired lines at this time have indicated that any problems and repairs will be completed by or before the beginning of hurricane season. Please note that co-ops serve in the more rural areas and obtain easements that are generally much wider than urban easements. The standard co-op easement is 20 feet wide. Because of the wide easements, co-ops are able to trim back much further from the electric facilities and operate under a vegetation management cycle longer than three years.

Attached are the hurricane preparedness survey responses for your review. It should be apparent from these responses that Florida's electric cooperatives are, and

will continue to be, actively preparing for and maintaining their electric facilities to ensure the least amount of power outages during the next storm season. Florida's electric cooperatives strive to provide electric service to their member-owners in the most reliable, safe and efficient manner possible while keeping rates as low and stable as possible. I will give a statewide perspective and representatives from two cooperatives will present at the June 5 Internal Affairs meeting.

Please call me or Michelle if you have questions.

Sincerely,

William B. Willingham
Executive V.P. & General Manager

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850) 656-5485 or by e-mail to mhershel@feca.com. Your responses will be presented to staff on or before May 1 and we would like to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: Clay Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69 kV and above only), poles, and towers (including cross arms) to ensure their structural integrity.

   Clay completes two flying inspections of all transmission lines January thru June. Every two (2) years, a visual ground inspection is completed on all transmission lines which include sounding of poles. If any problems are found, the suspect structure is climbed, inspected, and scheduled for correction. A climbing inspection of all transmission structures is completed on a five (5) year cycle. The climbing inspection includes bolt tightening, guy tightening, etc.

2. Re-inspect and clearance of all transmission (69 kV and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

   All transmission lines are inspected for right-of-way issues and Clay's minimum standards every year between January and June and any discrepancies are corrected during the same timeframe. The distribution system has no formal pre-hurricane inspection. However, Clay's distribution system is on a systematic three (3), four (4), or five (5) year cycle and maintains a Dead/Danger Tree Removal Program all year long. Clay also has a discrepancy program in place where by any employee seeing a hazard to the public or the power system fills out a form that is sent to the appropriate district for correction.

3. Verify that all sweeps and backlogged storm repairs to transmission (69 kV and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

   Staking sheets are the only verification for poles, cross arms, and units corrected during a post storm inspection of the power system and repairs have been completed. Transmission discrepancies are found and corrected on normal flying inspections.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Sumter Electric Cooperative, Inc. (SECO)

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kV and above only), poles and towers (including cross arms) to ensure their structural integrity.

SECO inspects all transmission facilities 2 times per year, once aerially and one ground inspection which includes infrared thermography. Additionally, SECO completed a climbing inspection for every transmission pole in March 2006.

2. Re-inspection and clearance of all transmission (69kV and above only) and primary distribution feeder rights-of-way for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

As noted above SECO performs 2 inspections per year for all transmission lines and a part of this inspection includes denoting any issues associated with trees and vegetation. Additionally, SECO is on a 3 year cycle for vegetation trimming on all transmission and distribution circuits.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kV and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

SECO has completed all repairs of distribution and transmission structures that were damaged in the hurricanes of 2004/05. Additionally, SECO has an on-going program to repair or replace all facilities found to be deficient in the current pole inspection and ground line treatment program. SECO has a state of the art outage management system that further allows us to note and track status of portions of the system requiring repairs.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Tri-County Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

Tri-County Electric is responsible for maintaining approximately 13 miles of 115 KV transmission line (owned by Tri-County Electric) and we are responsible for the maintenance of 34.09 miles of 69 KV transmission line owned by Seminole Electric Cooperative. Tri-County Electric field inspects all transmission lines at least once a year and performs required maintenance. However, our service personnel, inspect these lines every time we are in these areas and if any problems are noted, they are corrected.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

As noted above, our service personnel inspect our lines as they go about their daily travels from one job to another. If any dangerous trees are noted, they are promptly removed. Tri-County Electric utilizes a right-of-way contracting service in addition to our own in-house right-of-way personnel which responds to service tickets made by our member service personnel. These tickets may be from observations of Tri-County Electric's field personnel or those of member/consumers who notice a potential problem.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

Tri-County Electric's record keeping for maintence are our service tickets and service logs. The person and/or construction crew make the necessary corrections and/or repairs to the system and sign the service ticket. The supervisor is then reponsible for inspecting and verifying that the work was properly completed.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Gulf Coast Electric Cooperative

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

   N/A - We do not own any transmission facilities

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

   Our inspection is on an ongoing day to day basis, not in pre-hurricane preparation.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

   Yes, all structually compromised facilities are corrected prior to new storms.

Called Michelle 3/23/06 out until 3/27/06

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Suwannee Valley

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

N/A

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

Suwannee Valley is currently on a 4yr cut cycle for ROW. We are on schedule.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

We have no backlogged storm repairs.

Joe Marty

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Peace River Electric Coop

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

Visual inspection once a year and ground line every eight years

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

The transmission has been completed and the distribution is an on going procedure of yearly maintenance.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

all are presently done on transmission lines

The distribution is about 99% complete with the exception of some leaning poles which are planned to be done in the next 9 months.

4/3/06

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850)656-5485 or by e-mail to mhershel@fcca.com. Your responses will be presented to staff on or before May 1 and we would like the to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: CHELCO

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

N/A

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

CHELCO has conducted a ROW inspection of all distribution feeders. This inspection process focused on identifying dead or dying vegetation (Danger Trees). Action items developed from this inspection will be completed by May 31, 2006

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

COMPLETE.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Alabama Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

Inspection of all transmission lines occur every 4 years.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

The re-inspection and clearance of all transmission lines occur annually to remove dead or dying vegetation, branches, etc.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

Verification of sweeps & repairs to transmission lines have been completed.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: SEMINOLE ELECTRIC

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

ALL LINES ARE INSPECTED ANNUALLY PRIOR TO HURRICANE SEASON

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

ALL RIGHTS OF WAY ARE INSPECTED ANNUALLY WITH PROBLEM VEGETATION AREAS REMEDIED AS SOON AS POSSIBLE. NORMAL VEGETATION MANAGEMENT CYCLE IS 3 YEARS.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

ALL STORM RELATED REPAIRS ARE MADE AS SOON AS PRACTICABLE WITH FOLLOW-UP INSPECTIONS BY COMPANY PERSONNEL.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Withlacoochee River Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

(1) Helicopter inspection that included visual inspection and an infrared look at all insulators, connectors, and switches.

(2) Visual inspection by vehicle patrol to each pole.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

20 miles of Right-of-Way cleared in 2005. The rest of the system was clear.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

Yes.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Glades Electric

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

We fly all transmission lines annually and document the condition of each pole. Those situations deemed as imminent are corrected immediately, other necessary repairs are scheduled over the next few months. Complete maintenance was pulled on all transmission lines between 1998 and 2003 to establish the benchmark.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

The entire system is systematically cut on a 3 year rotation to gain at least minimum clearance. Historically, the cut lasts the full three years. For the few that don't, we have hot spot crews to correct them. During the 2004 and 2005 hurricane seasons, only a small portion of our damage was a result of right of way issues.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

All storm repairs from Wilma have been completed except leaning poles. As of today (3-16-06), a contractor has been here straightening all poles. We expect a completion date of April 15, 2006. Approximately 3,000 poles were affected.

HURRICANE PREPAREDNESS SURVEY

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Cooperative Name: Talquin Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

   Transmission lines are inspected annually and repairs made as needed. In December 2004 an aerial survey of every transmission pole on the system. Any discrepancies were corrected within 30 days of receiving the survey report. The newest transmission line was constructed with concrete poles.

2. Re-inspection and clearance of all transmission (69kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

   Our vegetation management program is currently on a 4 year cycle with an annual herbicide program to control the under story beneath our transmission and distribution lines. We continually patrol our lines looking for dead or danger trees and bad right of way conditions. When this conditions are found crews are assigned to perform the necessary work.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

   All repairs to damaged facilities incurred by 2004 and 2005 hurricanes were repaired within 7 to 10 from the arrival of the storm.

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850)656-5485 or by e-mail to mhershel@feca.com. Your responses will be presented to staff on or before May 1 and we would like the to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: Florida Keys Electric Cooperative

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

Only remaining work is inspection of all transmission guys and Anchors. Inspection and any needed repairs will be completed prior to June 1, 2006.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

Done. Aggressive trimming of lateral taps and trouble Areas continues.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

No backlogged transmission system repairs. Will complete transmission guy + Anchor inspection & repair prior to June 1, 2006. Have increased distribution pole change-out efforts.

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850)656-5485 or by e-mail to mhershel@feca.com. Your responses will be presented to staff on or before May 1 and we would like the to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: ESCAMBIA RIVER ELECTRIC CO-OP.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

— NO TRANSMISSION LINES — (ALL AEC).

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

AFTER HURRICANE A R.O.W. CONTRACTOR PATROLLED DISTRIBUTION SYSTEM AND REMOVED HANGING BRANCHES AND DANGER TREES. EACH SPRING A SPECIAL EMPHASIS IS PLACED ON DEAD TREES.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

AFTER IMMEDIATE STORM REPAIRS WERE COMPLETED - BOTH IVAN AND DENNIS - CONSULTING ENGINEER WAS TASKED TO EVALUATE COMPLETE DISTRIBUTION SYSTEM. A PUNCH LIST WAS PREPARED AND BIDS SOLICITED FOR WORK. CONTRACTOR WAS SELECTED AND ALL REPAIRS MADE.

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850)656-5485 or by e-mail to mhershel@feca.com. Your responses will be presented to staff on or before May 1 and we would like the to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: Central Florida Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

Have inspected all transmission owned, will have all deficient poles and crossarms replaced by end of May.

2. Re-inspection and clearance of all transmission (69 kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

Inspected all transmission right of way and meets adequate clearance. Currently in a 4 year cycle for distribution right-of-way clearance for all primary lines, feeder tie lines and all lateral top lines. Any reported dead or hanging branches by consumer or employees are handled by company crews.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

Completed

LCEC
PEOPLE. POWER. POSSIBILITIES.

Lee County Electric Cooperative, Inc.
Post Office Box 3455
North Fort Myers, FL 33918-3455
(239) 995-2121 • FAX (239) 995-7904
www.lcec.net • www.iline.com

May 25, 2006

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

Dear Mr. Devlin:

Commission Order No. PSC-06-0144-PAA-EI requires investor-owned utilities to submit pole inspection plans. We do not believe this order applies to Cooperatives, however, per your letter dated May 11, 2006, please find the information requested below pertaining to Lee County Electric Cooperative's (LCEC) pole inspection program.

Inspection Method, Cycle, Pole Selection: LCEC presently utilizes a Distribution circuit maintenance program which includes all distribution poles being inspected on a 10 year cycle. The inspection method consists of visually inspecting, sounding, and assessing each pole for deterioration by probing. Furthermore, employee assessments (mainly from Linemen) are completed prior to climbing or working on poles during field work activities.

LCEC's Transmission maintenance program consists of climbing, visually inspecting, sounding and assessing each pole for deterioration by probing on a 2 year cycle. In addition this year we began a three year plan for a contractor to sound, bore, excavate, and treat one third of LCEC's transmission poles, and plan to continue this over the next two years to complete the system.

Excavation Requirements: LCEC does not perform excavation, except for the transmission described above. Any pole found to be deteriorated is replaced.

Attachment Strength Impact Assessment: All entities that attach to LCEC poles provide strength assessments and they are reviewed by LCEC.

Collocated Facilities Pole Inspections: Shared poles are inspected along with non-shared poles by the methods described above.

Inspection Program Inspection Enforcement: Contractors provide enforcement along with audits from LCEC staff.

Data Gathering: Data is gathered in Excel Spreadsheets. LCEC is installing an asset management system to collect this data and track maintenance activities.

LCEC will continue to evaluate the maintenance plans to provide the best possible service to its members.

Richard K. Fuson
Director, Electric Operations

Donald E. Schleicher
Director, Finance/Accounting & CFO

RKF/DES/dd

cc: Pamela May
Donald Schleicher
Dennie Hamilton

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

Central Florida Electric Cooperative

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by May 26th if possible. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) visual and sound & bore
   - Distribution, Transmission or both: Both

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Yes, all poles older than 8 years

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? no

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? inspect all poles with CFEC attachments

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Both, contractor will audit weekly and internal auditor will audit also weekly or bi-weekly.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? yes, electronic database

FECA
Florida Electric Cooperatives Association, Inc.
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

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1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) Visual, sound and bore and excavations
   - Distribution, Transmission or both: Distribution - 8 year cycle, Transmission - inspect visually annually and visual and sound and bore with excavations every 8 years.
2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Poles less than 10 years old will be visually inspected. Pole 10 years of age and older are visually, sound and bored and excavated.

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? TCEC inspects all poles that TCEC owns and will share data with third parties, if requested.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? TCEC pole inspections are performed by contracting crews which are overseen by TCEC employees for quality control of the inspection.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? The contractor supplies the pole inspection sheets and reports. TCEC's engineering personnel prepare the pole change-out and maintenance sheets from the information provided by the contractor. Data is retained.

Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

COVER SHEET

FAX

To:	Michelle Hershel
Company:	FECA
Fax #:	(850) 656-5485
Subject:	**Pole Inspection Program**
Date:	May 30, 2006
Pages:	3 pages, including this cover sheet.
From:	Ken Bachor

If you do not receive all of the pages, please me at (813) 739-1225.

COMMENTS:

Seminole Electric Cooperative, Inc.
P.O. BOX 272000 □ Tampa, Florida 33688-2000 □ (813) 963-0994
□ Fax (813) 264-7906 □

FECA
Florida Electric Cooperatives Association, Inc.
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

MAY 19 2006

MAPP

SEMINOLE ELEC.

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) VISUAL
   - Distribution, Transmission or both: TRANSMISSION

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? N/A

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? NO

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? NO

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? INTERNAL

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? YES
     HARD COPY FILES

Suwannee Valley Electric Cooperative, Inc.

Post Office Box 160 - Live Oak, Florida 32064
(386)362-2226

FAX#: (386) 364-5008

FAX TO # 850-656-5485 DATE: 5-25-06

TO: FECA

ATTN: Michelle Henshel

FROM: J. Mantz

COMMENTS:

PAGES 3

(cover sheet included)

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible.** Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) VISUAL, SOUND, AND BORE EVERY 8 YRS. EXCEPTION SELECTIVE BORING ON CCA
   - Distribution, Transmission or both: DISTRIBUTION

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? EXCAVATION ON ALL NON CCA POLES

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? YES

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? NO, SUEC DOES NOT INSPECT POLES IT DOES NOT OWN.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? INTERNAL AUDITS

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? YES, DATA RETAINED AND POPULATED IN GIS

FLORIDA KEYS ELECTRIC COOPERATIVE
ASSOCIATION, INC. - FKEC
91605 O/S HIGHWAY, P.O. BOX 377, TAVERNIER, FL 33070 PH: (305) 852-2431
3421 O/S HIGHWAY, P.O. BOX 5000066, MARATHON, FL 33050 PH: (305) 743-5344

FAX TRANSMITTAL

This fax is from:	Marathon _____	Tavernier X
	Marathon Operations Office Fax No. - (305) 743-9191	Tavernier Operations Office Fax No. - (305) 852-9129

Complete form, using black or blue pen

DATE: 5/19/06	TIME: 1220
TO: Michelle Hershel	
FAX NO.: 850- [redacted] 656-5485	
MESSAGE: Per your Request.	
FROM: John Stuart 305-822-6974	
Call if checked ___ (305) 743-5344 x____ (Marathon) to confirm receipt of Fax	
Call if checked ___ (305) 852-2431 x____ (Tavernier) to confirm receipt of Fax	
Total number of pages faxed, including this cover sheet: 3	

FECA
Florida Electric Cooperatives Association, Inc.
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection**:
   - Type of inspection (i.e. visual, sound & bore) visual & sound w/ bore when in doubt.
   - Distribution, Transmission or both: Both except transmission is only visual as they are all steel or concrete.

2. **Excavation Requirement**:
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? No. The coral rock does not lend itself to excavations.

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Yes. Owner is responsible for inspections for the most part.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Contractors and utility management oversight.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Paper copy by year to this point. We are transitioning to digital records.

FECA
Florida Electric Cooperatives Association, Inc.
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

5/18/06

John -
Please complete & fax to Stakeware by 5/26/06. Also, please send me a copy for Jim's records.
Thanks -
Chris

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible.** Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) visual, bore if required, sound, excavation on all poles & treat
   - Distribution, Transmission or both: both
     Distribution currently on 8 year cycle & transmission on 5 year cycle.
2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Yes - see above. Also perform internal treatment in addition to surface treatments to cover internal treatment, termite, decay, etc.

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? If we are on the pole then we still inspect & treat. There are very few poles (spans) that are owned by others.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? SECO uses contractor for inspection services that a person who follows up on inspection results, rejections etc. This position also issues service orders for all required work (poles, X-arms, anchors, grounding, reinforcements) & follows up on work completion.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? yes - hard copy & MS Access then merged w GIS data

Gulf Coast Electric Cooperative, Inc.

A Touchstone Energy® Cooperative
The Power of Human Connections

"Customer Satisfaction"

DATE: 5/30

TO: Michelle

FROM: Eudon Baxley

PHONE: 850 265 3631 x 3005

RE: Pole inspections

NO PAGES, INCLUDING COVER: 3

COMMENTS: Sorry this is late —

656 5485

722 W. Highway 22 - P.O. Box 220 Wewahitchka, Florida 32465 (850) 639-2216 FAX (850) 639-5061
9434 Highway 77 - P.O. Box 8370 Southport, Florida 32409 (850) 265-3631 FAX (850) 265-3634

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

Post-it™ Fax Note 7671	Date	# of pages ▶
To Gordon	From	
Co./Dept. Roy	Co.	
Phone #	Phone #	
Fax #	Fax #	

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection**:
   - Type of inspection (i.e. visual, sound & bore) Distribution: visual, sound, bore suspect poles; All non CCA
   - Distribution, Transmission or both: poles and CCA poles over 10 years old. 10 year cycle

2. **Excavation Requirement**:
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Excavate suspect poles only, NON CCA poles only.

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? NO, but will share data

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? yes ; contractor requirement, in house Engineer inspections

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? yes electronic data recording matched to system maps, GIS

Gulf Coast Electric Cooperative
A Touchstone Energy® Cooperative

9434 Hwy. 77
P.O. Box 8370
Southport, FL 32409
www.gcec.com

Eudon Baxley
Manager of Engineering/Operations
Email: eudon@gcec.com

(850) 265-5144 ext. 3005 • Fax (850) 265-3634 • 1-800-568-3667

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: ~~General Managers~~ Michelle Hershel

FROM: ~~Michelle Hershel~~ Herman Dyal, Clay

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) Sound & Bore 8 year cycle
   - Distribution, Transmission or both: Both

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Includes excavations, on all wood poles both distribution and transmission.

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Upon installation attaching companies must certify their attachment meets NESC loading requirements.
4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Yes. Clay inspects all poles it has facilities located on.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Vendor audits and Clay performs random sample. If sample fails all poles since last sample are reinspected at vendors cost.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes, electronic data base.

CHELCO

CHOCTAWHATCHEE ELECTRIC COOPERATIVE, INC.

Post Office Box 512
DeFuniak Springs, FL 32435-0512

Phone 850.892.2111
Toll-Free 800.342.0990
Fax 850.892.9560
Web www.chelco.com

Fax Cover Sheet

To: Michelle Hershel **Date:** 5/24/06

From: Brett Shaw **# of Pages:** (including cover) 3

Notes:

Response to request regarding Pole Inspection program.

FECA
Florida Electric Cooperatives Association, Inc.
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

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1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) See attached Spreadsheet for all answers.
   - Distribution, Transmission or both: _____

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? _____

COMPLIANCE OF ELECTRIC UTILITY POLE INSPECTION PLANS WITH ORDER NO. PSC-06-0144-PAA-EI						
UTILITY	**INSPECTION METHOD CYCLE, POLE, SELECTION** PER PSC ORDER: 1. Sound and Bore 2. 8 Year Cycle 3. All Distribution and Transmission wood Poles	**EXCAVATION REQUIREMENT** PER PSC ORDER: Excavation of all Southern Pine, other Pole Types, per RUS Guidelines	**ATTACHMENT STRENGTH IMPACT ASSESSMENT** PER PSC ORDER: All Poles With Attachments Assessed for Strength	**COLLOCATED FACILITIES POLE INSPECTIONS** PER PSC ORDER: Provide Plan re: How Shared Poles will be Inspected	**INSPECTION PROGRAM ENFORCEMENT** PER PSC ORDER: Provide Plan re: How Inspection Plan will be Enforced	**DATA GATHERING** PER PSC ORDER: Provides Plan re: How Pole Specific Data Will be Retained
CHELCO	Distribution 1. Sound and Bore 2. 8 years 3. All poles except CCA Poles. Selective boring for CCA poles on first cycle.	Distribution Yes - for non-CCA poles No - for CCA poles Plan does not distinguish between Southern Pine and other types of wood.	YES	No. But they will work closely with 3rd parties.	YES. Contractors have this requirement and CHELCO will evaluate contractors' work.	Yes. All future data will populate main GIS.

EREC
ESCAMBIA RIVER
Electric Cooperative – Rural Services
3425 W Hwy 4 • PO Box 428 • Jay, FL 32565
phone (850) 675-4521 • toll free 1-800-235-3848 • fax (850) 675-8415

Fax

To: Michelle Hershel **From:** Brent Stubstad

Fax: **Pages:** 3 incl. cover

Re: Pole Inspection **Date:** 5-31-06

☐ **Urgent** ☐ **Please Reply** ☐ **For Your Information**

• **Comments:**

AUTHORIZED EYES ONLY

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection**:
   - Type of inspection (i.e. visual, sound & bore) We use visual inspection primarily and sound / bore when needed
   - Distribution, Transmission or both: Distribution

2. **Excavation Requirement**:
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? YES

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? YES

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Yes as covered with joint use agreement.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? We randomly sample the inspections preformed by contractors.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? No. Repacts are retained for inspections, but they are not pole specific.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) ALL
   - Distribution, Transmission or both: Transmission

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? yes

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Yes

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Internal Procedures

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes but only briefly.

Larry Avery

Your Touchstone Energy® Partner

INFORMATION REQUEST
POLE INSPECTION PROGRAM

1. **Inspection method and pole selection:**
All of the transmission feeders are patrolled annually by walking, riding, or aerial patrol. An aerial patrol was performed after the transmission feeders were exposed to tropical storm force winds in 2004. The aerial patrol included infrared photography and video taping of the lines. There are 317 wood structures and 350 concrete structures. The 317 wood poles were inspected and treated by OSMOSE in July of 2003.
Distribution poles are visually inspected, sounded and checked below ground level during voltage conversion and maintenance programs as necessary. WREC utilized OSMOSE for pole inspection and treatment during 2003-2004. They found a 6.2 % pole rot and 1.0 % pole rejection. All of those consisted of older creosote and penta treated poles and the decision was made to change out those poles rather than absorb the expense of treating them. WREC has found CCA poles to last in excess of 20 years without problems below ground.
The following represents the current annual pole inspection programs and the approximate number of poles inspected annually:
Number of distribution poles in system ~ 188,000 (WREC Mapping System)

	Inspected annually	
Line Patrols	~	6,000
Rear to Front Relocations	~	1,300
Voltage Conversion	~	6,000
STAR Maintenance Program	~	14,000
TOTAL		27,300

2. **Excavation Requirement:**
All sound and bore inspections include excavation of poles per RUS guidelines.

3. **Attachment Strength Impact Assessment:**
Yes. Poles are evaluated when requests for attachments are received. Make ready costs for change outs when clearance or

strength issues exist are passed along to the telephone or CATV company.

4. **Collocated Facilities Pole Inspections:**
Shared poles and the attachments are counted every five years for inventory/billing purposes. At that time, each pole is evaluated and service orders are prepared as necessary. Any other time that a situation is found to be unsafe due to routine line patrol, customer contact or troubleshooting, the issue is addressed.

5. **Inspection Program Enforcement:**
No formal enforcement program is in existence. However, routine patrols, voltage conversion work, and other normal work related situations form a check and balance for inspection requirements.

6. **Data Gathering:**
Yes. New engineering software currently being utilized gathers and stores more specific information than has been available in the past.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
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(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible.** Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) Visual, sound, & bore
   - Distribution, Transmission or both: Distribution, OEMC owns no transmission.

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Yes

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? OREMC inspects all poles owned by OREMC

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Internal audits,

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes, will be retained in GIS database.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

Glades

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection**:
   - Type of inspection (i.e. visual, sound & bore) Visual, sound + bore (Use Osmose, Inc)
   - Distribution, Transmission or both: Both

2. **Excavation Requirement**:
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Yes

3. **Attachment strength Impact Assessment**:
   - Are all poles with attachments assessed for strength? Not relative to attachments.

4. **Collocated Facilities Pole Inspections**:
   - Do you have a plan on how shared poles will be inspected? No

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (~~contractors~~, internal audits)? It is part of our System Restoration Plan that is very closely monitored internally

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes. Digital from Osmose, Inc.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

Peace River

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore) VISUAL, SOUND & BORE
   - Distribution, Transmission or both: BOTH

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? YES

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? All poles are ours and inspected by the same procedures.

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Contractors provide computer data which is tied to the mapping system. Rejected poles are placed on WO's and maint. schedule.

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes, computer software and hard copies.

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

Talquin

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection**:
   - Type of inspection (i.e. visual, sound & bore) Sound & Bore also Visual with Talquin on Transm.
   - Distribution, Transmission or both: Both

2. **Excavation Requirement**:
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? Yes

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? on new - yes, existing - no

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Yes

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)? Internal Audit

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes

FECA
Florida Electric Cooperatives Association, Inc.

2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

FAX TRANSMITTAL SHEET

TO Sid Matlock

FROM TREVOR MASK

DATE 5-31-06

OPERATOR _____

PAGES (INCLUDING THIS COVER SHEET) ____

Comments: Talquin Electric Coop pole inspection survey

IF YOU DID NOT RECEIVE ALL OF THE INFORMATION FAXED PLEASE CALL US AT (850) 877-6166
OUR FAX NUMBER IS (850) 656-5485

HURRICANE PREPAREDNESS SURVEY

Please complete the following survey and return it to Michelle Hershel by fax (850)656-5485 or by e-mail to mhershel@feca.com. Your responses will be presented to staff on or before May 1 and we would like them to have the information sooner to provide to the legislature. This information may also be presented to the Commission at the June 5 Internal Affairs meeting if necessary. Note: Number 1 below deals only with transmission lines and Number 2 deals only with transmission lines and primary distribution feeders but Number 3 deals with both transmission and distribution facilities.

Cooperative Name: Talquin Electric Cooperative, Inc.

Please report on the following pre-hurricane preparation activities:

1. Inspection of all transmission lines (69kv and above only), poles and towers (including cross arms) to ensure their structural integrity.

   Transmission lines are inspected annually and repairs made as needed. In December 2004 an aerial survey of every transmission pole on the system. Any discrepancies were corrected within 30 days of receiving the survey report. The newest transmission line was constructed with concrete poles.

2. Re-inspection and clearance of all transmission (69kv and above only) and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches and any vegetation that does not meet minimum clearance requirements.

   Our vegetation management program is currently on a 4 year cycle with an annual herbicide program to control the under story beneath our transmission and distribution lines. We continually patrol our lines looking for dead or danger trees and bad right of way conditions. When this conditions are found crews are assigned to perform the necessary work.

3. Verify that all sweeps and backlogged storm repairs to transmission (69kv and above only) and distribution facilities, structurally compromised facilities and leaning poles have been completed.

   All repairs to damaged facilities incurred by 2004 and 2005 hurricanes were repaired within 7 to 10 from the arrival of the storm.

Pole Inspection Survey

1. What is your current pole inspection cycle?

   9.5 year cycle.

2. If your pole inspection cycle is greater than 8 years, will you consider voluntarily complying with an 8-year cycle and when will you begin?

   X yes, Time frame: By January 1, 2007.

   ____no

   If your answer to Question 2 is no:

3. Please indicate the reasons you cannot comply (i.e. costs, density etc.)

Please fax back to Michelle at (850)656-5485 or e-mail to mherchel@feca.com as soon as possible.

West DC

RD

FECA
Florida Electric Cooperatives Associa
2916 Apalachee Parkway
Tallahassee, Florida 32301
(850) 877-6166
FAX: (850) 656-5485

May 18, 2006

TO: General Managers

FROM: Michelle Hershel

SUBJECT: Information Request- Pole Inspection Programs

The PSC staff informed us that they would like additional information on each co-op's pole inspection program. Staff has indicated they would like information from the co-ops which is comparable to the information required to be filed by the IOUs on their pole inspection plans. Though this information is not required to be filed by co-ops and munis we feel that if you have this data available it would be beneficial to be responsive to the Commission's request. Therefore, please answer the following questions and fax back to me by **May 26th if possible**. Also, please be advised that your responses will not be anonymous and will be recorded on a table on an individual basis. I have attached the preliminary IOU responses to give you an idea on how to respond.

1. **Inspection method and pole selection:**
   - Type of inspection (i.e. visual, sound & bore)_____
   - Distribution, Transmission or both:_____

2. **Excavation Requirement:**
   - Does the sound & bore inspection include excavations, especially for Southern Pine poles, per RUS guidelines? N/A

3. **Attachment strength Impact Assessment:**
   - Are all poles with attachments assessed for strength? Yes

4. **Collocated Facilities Pole Inspections:**
   - Do you have a plan on how shared poles will be inspected? Visual inspection by Staking Techs & Hazard Recognition employee

5. **Inspection Program Enforcement:**
   - How will your pole inspection plan be enforced (contractors, internal audits)?

6. **Data Gathering:**
   - Is pole specific data retained? If yes, how? Yes - Work orders & Hazard Recognition Spreadsheet.

Pole Inspection Survey Results- Electric Cooperatives

Questions: 1. What is your current pole inspection cycle?
2. If greater than 8 years, will you consider voluntarily complying with an 8 year cycle?
3. If your answer to Question 2 is no, indicate the reasons you can not comply.

Tri-County Electric Cooperative
- 8 year cycle

Clay Electric Cooperative
- 10 year cycle
- will be on 8 year cycle in 2007

Sumter Electric Cooperative
- 9 year cycle
- will be on 8 year cycle in 2007

Gulf Coast Electric Cooperative
- 10 year cycle
- will be on 8 year cycle within 5 years

Peace River Electric Cooperative
- 8 year cycle

CHELCO
- 10 year cycle
- will be on 8 year cycle by the end of 2006

Alabama Electric Cooperative
- 4 year cycle

Seminole Electric Cooperative
- 20 year cycle
- will be on 8 year cycle by end of 2008
- Sound & Bore all lines by end of 2008
- Annual visual inspections

West Florida Electric Cooperative
- 10 year cycle
- will be on 8 year cycle by 2007

Talquin Electric Cooperative
- 9.5 year cycle
- will be on 8 year cycle by 2007

Central Florida Electric Cooperative
- 8 year cycle

Escambia River Electric Cooperative
- 6 year cycle

Florida Keys Electric Cooperative
- 5 year cycle

Suwannee Valley Electric Cooperative
- 8 year cycle

Withlacoochee River Electric Cooperative
- less than 7 years

Glades Electric Cooperative
- 10 year cycle
- will stay at 10 years because of high costs

Okefenoke Electric Cooperative
- 10 year cycle
- will stay at 10 years because of high costs

AUSLEY & MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

227 SOUTH CALHOUN STREET
P.O. BOX 391 (ZIP 32302)
TALLAHASSEE, FLORIDA 32301
(850) 224-9115 FAX (850) 222-7560

April 3, 2006

HAND DELIVERED

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

Re: Proposal to require investor-owned electric utilities to implement ten-year wood pole inspection program; FPSC Docket No. 060078-EI

Dear Mr. Devlin:

In compliance with Order PSC-06-0144-PAA-EI issued in the above docket on February 27, 2006, enclosed are three copies of Tampa Electric Company's Wood Pole Groundline Inspection Program.

Sincerely,

Lee L. Willis

LLW/pp
Enclosure

TECO

TAMPA ELECTRIC COMPANY

WOOD POLE GROUNDLINE INSPECTION PROGRAM

TABLE OF CONTENTS

INTRODUCTION

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

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

INSPECTION CYCLE

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

One type of wooden pole Tampa Electric utilizes is the chromated copper arsenate (CCA) pole. There is a wide belief within the utility and pole manufacturing industries as well as their respective trade associations that the longevity of this pole type is much greater than other wooden pole types. Tampa Electric's past practice has required a full pole inspection, including visual, sound and bore and excavation for CCA poles 20 years or older. A review of the 2004 and 2005 Tampa Electric pole inspection results of CCA poles revealed that CCA poles that are 20 years of age or older have a failure rate of less than 1%. Under this revised program, Tampa Electric will continue to perform a full inspection/excavation of all CCA poles 20 years or older within the identified lot of total poles. For CCA poles less than 20 years in age, Tampa Electric will complete a visual, sound inspection and pole attachment/load analysis as required. In the event that further inspection is warranted following the visual and sounding procedure, boring and excavation will be completed. Tampa Electric will continue to analyze CCA pole data annually to determine if a change in inspection cycle or procedure is warranted.

INSPECTION METHOD

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

INSPECTION PROCEDURE

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

Inspection in Conjunction with Other Field Work

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

Visual Inspection

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

Sound and Bore

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

Excavation

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

Hardware Inspection

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

Inspection and Treatment Labeling

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

Pole Attachment/Loading Analysis

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

Data Collection

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

DISPOSITION OF POLES

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

ROUTING OF INSPECTIONS

Distribution

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

Transmission

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

SHARED POLES

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

STANDARDS SUPERSEDING NESC REQUIREMENTS

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

REPORTING

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

AUSLEY & MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

227 SOUTH CALHOUN STREET
P.O. BOX 391 (ZIP 32302)
TALLAHASSEE, FLORIDA 32301
(850) 224-9115 FAX (850) 222-7560

May 26, 2006

HAND DELIVERED

Mr. Sid Matlock
Regulatory Analyst
Division of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Mr. Matlock:

Commission Order No. PSC-06-0144-PAA-EI required investor-owned utilities to submit a comprehensive wood pole inspection plan to the Commission by April 1, 2006. Tampa Electric complied with the order by submitting its Wood Pole Groundline Inspection Program.

On May 11, 2006, the Commission Staff provided a letter to Tampa Electric with an attached table summarizing the Staff's review of the inspection plans filed by the investor owned utilities. Tampa Electric is providing the comments below and the attached revised Wood Pole Groundline Inspection Program in response to the Staff's analysis of the company's plan.

Concerning the excavation requirement of Southern Pine poles, Tampa Electric's intent from the outset of initiating the new inspection program has been to perform an excavation inspection on all wooden poles including Southern Pine. However, for increased clarity, the company has specifically identified the inclusion of Southern Pine poles in its attached revised Wood Pole Groundline Inspection Program.

Tampa Electric shares the Commission's concern for inspection program enforcement. Although the company's plan submitted in April was silent as to the enforcement component that would ensure the integrity of the plan, a process had been designed to give the control needed. That quality control process has now been included in the attached revised Wood Pole Groundline Inspection Program.

With the revisions described above, Tampa Electric believes its revised Wood Pole Groundline Inspection Program meets the requirements of Commission Order No. PSC-06-0144-PAA-EI.

Sincerely,

James D. Beasley

JDB/pp
Attachment

cc: Tim Devlin

TAMPA ELECTRIC COMPANY

WOOD POLE GROUNDLINE INSPECTION PROGRAM

(Revised May 26, 2006)

TABLE OF CONTENTS

INTRODUCTION

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

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

INSPECTION CYCLE

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

One type of wooden pole Tampa Electric utilizes is the chromated copper arsenate (CCA) pole. There is a wide belief within the utility and pole manufacturing industries as well as their respective trade associations that the longevity of this pole type is much greater than other wooden pole types. Tampa Electric's past practice has required a full pole inspection, including visual, sound and bore and excavation for CCA poles 20 years or older. A review of the 2004 and 2005 Tampa Electric pole inspection results of CCA poles revealed that CCA poles that are 20 years of age or older have a failure rate of less than 1%. Under this revised program, Tampa Electric will continue to perform a full inspection/excavation of all CCA poles 20 years or older within the identified lot of total poles. For CCA poles less than 20 years in age, Tampa Electric will complete a visual, sound inspection and pole attachment/load analysis as required. In the event that further inspection is warranted following the visual and sounding procedure, boring and excavation will be completed. Tampa Electric will continue to analyze CCA pole data annually to determine if a change in inspection cycle or procedure is warranted.

INSPECTION METHOD

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

INSPECTION PROCEDURE

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

Inspection in Conjunction with Other Field Work

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

Visual Inspection

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

Sound and Bore

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

Excavation

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

Hardware Inspection

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

Inspection and Treatment Labeling

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

Pole Attachment/Loading Analysis

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

Data Collection

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

DISPOSITION OF POLES

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

ROUTING OF INSPECTIONS

Distribution

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

Transmission

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

SHARED POLES

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

STANDARDS SUPERSEDING NESC REQUIREMENTS

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

POLE INSPECTION PROGRAM PERFORMANCE VERIFICATION

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

REPORTING

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

Tampa Electric Company
Rationale for Chromated Copper Arsenate Pole Inspection Cycle

In Docket No. 060078-EI, Order No. PSC-06-0144-PAA-EI ("Order") issued February 27, 2006, the Florida Public Service Commission ("FPSC") required investor-owned utilities to implement an eight-year wood pole inspection program with associated annual reporting requirements.

Tampa Electric complied with the Order by filing its Wood Pole Groundline Inspection Program on April 3, 2006. Subsequently, the FPSC Staff requested some clarifying information and the company responded with minor modifications to its program in a filing submitted on May 26, 2006.

On June 27, 2006, the FPSC Staff identified the need for additional information concerning one component of Tampa Electric's program, namely, the rationale for the company's decision to perform a sound and bore inspection with excavation on Chromated Copper Arsenate ("CCA") poles that are 20 years of age or older.

Tampa Electric's determination to begin performing the sound and bore inspection with excavation of CCA poles 20 years of age or older is based on a thorough review and evaluation of the company's 5,685 inspection records of CCA poles for 2004 and 2005. . These inspections consisted of the sound and bore technique with excavation. A total of 30 poles or 0.53 percent failed the inspection. Of the 30 failures, 11 poles were 20 years of age or younger and 19 poles were older than 20 years. Therefore, the failure rate for poles 20 years of age or younger was 0.19% and the failure rate for poles older than 20 years was 0.33%. A table summarizing these CCA pole inspection results is provided below.

2004 and 2005 CCA Pole Inspection Results

Pole Age	No. of Failures	Percent Failure
0-5	1	0.02
6-10	0	0.00
11-15	3	0.05
16-20	7	0.12
21-25	18	0.32
26-30	1	0.02
Total	**30**	**0.53**

In the Order, the FPSC referenced the USDA Rural Utility Service ("RUS") guidelines regarding pole inspection cycles. The RUS suggests that the wood pole inspection frequency for Florida be eight years and that frequency should be increased if pole inspection failures related to decay is found to be greater than one percent. As demonstrated in the table above, Tampa Electric has analyzed the actual failure rate of CCA poles on its system for the 2004 through 2005 and concluded that the failure rate is

well below the one percent level that gives rise to concern for RUS. Therefore, the company believes that pole boring and a full excavation of CCA poles younger than 20 years of age is not warranted.

Although pole boring and excavation is not anticipated on CCA poles less than 20 years of age, Tampa Electric's Wood Pole Groundline Inspection Program does include a specific inspection methodology for these CCA poles. The methodology includes a visual and sound inspection with pole attachment/load analysis as required. In the event that further inspection is warranted following the visual and sounding procedure, boring and excavation will be completed. Therefore, every CCA pole contained in the total pole allotment selected for inspection each year will be inspected by one of the two methodologies as described.

Tony Swearingen

From: Jim Breman
Sent: Tuesday, August 01, 2006 11:42 AM
To: Bill McNulty; Tony Swearingen; Rosanne Gervasi
Subject: FW: CCA Pole Inspection Data
Attachments: 2004 & 2005 CCA Pole Inspection Summary - FPSC Data.xls

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From: Howard Bryant [mailto:htbryant@tecoenergy.com]
Sent: Tuesday, August 01, 2006 11:40 AM
To: Jim Breman
Cc: Scott H. Smith
Subject: CCA Pole Inspection Data

Jim,
Attached you will find a spreadsheet that provides the detail we spoke of last week. There are three tabs - a summary, the 2004 CCA inspection rejects and the 2005 inspection rejects.

Tampa Electric continues to believe the data supports the CCA pole inspection cycle outlined in the company's overall pole inspection program filed on April 3, 2006. Although the argument can be made that the number of inspections on poles younger than 20 years of age was less than adequate, the company inspected over 4,400 CCA poles older than 20 years of age and found only 19 failures. Since aging is the single greatest contributor to pole failures, the data strongly indicates that poles younger than 20 years of age are not the issue.

To reiterate from our conference call last Thursday, **ALL** CCA poles will be inspected. Those younger than 20 years of age will be visually inspected and sounded. If there is any evidence of deterioration or failure, boring and excavation will be done to confirm the integrity of the pole. Poles older than 20 years of age will be visually inspected, sounded, bored and excavated. The company believes this is the wisest use of resources for CCA pole inspections and will deliver the service reliability desired by the Commission and Tampa Electric.

I look forward to any dialogue necessary to assist with understanding the merits of the CCA pole inspection process proposed by Tampa Electric. Thanks, Howard

Please note: The 2005 inspection results indicate two poles with ages greater than 35 years. The company believes this is a key punch error and is attempting to validate the data. However, the poles did not fail inspection.

Tampa Electric Company
CCA Pole Inspection Results for 2004-2005

Inspections by Service Area

By Service Area	2004 CCA Pole Inspections		2005 CCA Pole Inspections		Combined CCA Pole Inspections	
CSA	404	14.3%	452	15.8%	856	15.1%
DCA	279	9.9%	0	0.0%	279	4.9%
ESA	565	20.0%	517	18.0%	1,082	19.0%
Interstate Crossings	16	0.6%	0	0.0%	16	0.3%
PCA	605	21.5%	1,064	37.1%	1,669	29.4%
SHA	316	11.2%	299	10.4%	615	10.8%
WHA	262	9.3%	0	0.0%	262	4.6%
WSA	373	13.2%	533	18.6%	906	15.9%
Totals	2,820	100.0%	2,865	100.0%	5,685	100.0%

Inspections by Age Range

By Age Range	2004 CCA Pole Inspections		2005 CCA Pole Inspections		Combined CCA Pole Inspections	
0 to 5 Years	69	2.4%	85	3.0%	154	2.7%
6 to 10 Years	65	2.3%	50	1.7%	115	2.0%
11 to 15 Years	86	3.0%	126	4.4%	212	3.7%
16 to 20 Years	135	4.8%	633	22.1%	768	13.5%
21 to 25 Years	2,459	87.2%	1,958	68.3%	4,417	77.7%
26 to 30 Years	6	0.2%	7	0.2%	13	0.2%
Over 30 Years	0	0.0%	6	0.2%	6	0.1%
Totals	2,820	100.0%	2,865	100.0%	5,685	100.0%

2004 Failures by Age Range

By Age Range	2004 CCA Pole Inspections		Poles Failed	Poles Failed to Poles Inspected
0 to 5 Years	69	2.4%	0	0.00%
6 to 10 Years	65	2.3%	0	0.00%
11 to 15 Years	86	3.0%	1	1.16%
16 to 20 Years	135	4.8%	5	3.70%
21 to 25 Years	2,459	87.2%	6	0.24%
26 to 30 Years	6	0.2%	0	0.00%
Over 30 Years	0	0.0%	0	0.00%
Totals	2,820	100.0%	12	0.43%

2005 Failures by Age Range

By Age Range	2005 CCA Pole Inspections		Poles Failed	Poles Failed to Poles Inspected
0 to 5 Years	85	3.0%	1	1.18%
6 to 10 Years	50	1.7%	0	0.00%
11 to 15 Years	126	4.4%	2	1.59%
16 to 20 Years	633	22.1%	2	0.32%
21 to 25 Years	1,958	68.3%	12	0.61%
26 to 30 Years	7	0.2%	1	14.29%
Over 30 Years	6	0.2%	0	0.00%
Totals	2,865	100.0%	18	0.63%

Combined Failures by Age Range

By Age Range	2005 CCA Pole Inspections		Poles Failed	Poles Failed to Poles Inspected
0 to 5 Years	154	2.7%	1	0.65%
6 to 10 Years	115	2.0%	0	0.00%
11 to 15 Years	212	3.7%	3	1.42%
16 to 20 Years	768	13.5%	7	0.91%
21 to 25 Years	4,417	77.7%	18	0.41%
26 to 30 Years	13	0.2%	1	7.69%
Over 30 Years	6	0.1%	0	0.00%
Totals	5,685	100.0%	30	0.53%

2004 Failures by Specific Pole Age

2004 Poles By Age	2004 CCA Pole Inspections		2004 Poles Failed	Poles Failed to Poles Inspected
1	13	0.5%	0	0.00%
2	11	0.4%	0	0.00%
3	11	0.4%	0	0.00%
4	21	0.7%	0	0.00%
5	13	0.5%	0	0.00%
6	10	0.4%	0	0.00%
7	17	0.6%	0	0.00%
8	11	0.4%	0	0.00%
9	14	0.5%	0	0.00%
10	12	0.4%	0	0.00%
11	8	0.3%	0	0.00%
12	7	0.2%	1	14.29%
13	20	0.7%	0	0.00%
14	21	0.7%	0	0.00%
15	31	1.1%	0	0.00%
16	15	0.5%	1	6.67%
17	22	0.8%	1	4.55%
18	24	0.9%	0	0.00%
19	33	1.2%	1	3.03%
20	41	1.5%	2	4.88%
21	625	22.2%	1	0.16%
22	574	20.4%	1	0.17%
23	476	16.9%	3	0.63%
24	500	17.7%	1	0.20%
25	284	10.1%	0	0.00%
26	2	0.1%	0	0.00%
27	0	0.0%	0	0.00%
28	0	0.0%	0	0.00%
29	1	0.0%	0	0.00%
30	3	0.1%	0	0.00%
Totals	2,820	100.0%	12	0.43%

2005 Failures by Specific Pole Age

2005 Poles By Age	2005 CCA Pole Inspections		2005 Poles Failed	Poles Failed to Poles Inspected
0	4	0.14%	0	0.00%
1	36	1.26%	0	0.00%
2	9	0.31%	0	0.00%
3	5	0.17%	1	20.00%
4	13	0.45%	0	0.00%
5	18	0.63%	0	0.00%
6	9	0.31%	0	0.00%
7	8	0.28%	0	0.00%
8	14	0.49%	0	0.00%
9	14	0.49%	0	0.00%
10	5	0.17%	0	0.00%
11	14	0.49%	0	0.00%
12	5	0.17%	0	0.00%
13	44	1.54%	0	0.00%
14	27	0.94%	0	0.00%
15	36	1.26%	2	5.56%
16	18	0.63%	0	0.00%
17	30	1.05%	0	0.00%
18	25	0.87%	0	0.00%
19	50	1.75%	2	4.00%
20	510	17.80%	0	0.00%
21	659	23.00%	5	0.76%
22	435	15.18%	1	0.23%
23	337	11.76%	2	0.59%
24	306	10.68%	1	0.33%
25	221	7.71%	3	1.36%
26	3	0.10%	0	0.00%
27	1	0.03%	0	0.00%
28	0	0.00%	0	0.00%
29	1	0.03%	1	100.00%
30	2	0.07%	0	0.00%
31	4	0.14%	0	0.00%
39	1	0.03%	0	0.00%
68	1	0.03%	0	0.00%
Totals	2,865	100.00%	18	0.63%

MAP_LINE	INST_YR	AGE OF FAILED POLE	Description of Reject
ESA	1992	12	Sound & Bore Reject (Initial Visual Reject Due to Mechanical Damage)
CSA	1988	16	Visual Reject
SHA	1987	17	Visual Reject
PCA	1985	19	Visual Reject
WSA	1984	20	Visual Reject
PCA	1984	20	Reject w/Ext. Treatment
WSA	1983	21	Excavated Reject
WSA	1982	22	Excavated Reject
WSA	1981	23	Excavated Reject
WHA	1981	23	Reject w/Ext. Treatment
SHA	1981	23	Excavated Reject
ESA	1980	24	Excavated Reject

MAP_LINE	INST_YR	AGE OF FAILED POLE	Description of Reject
WSA	2002	3	Visual Reject - Mechanical Damage
CSA	1990	15	Visual Reject
WSA	1990	15	Visual Reject
CSA	1986	19	Visual Reject
PCA	1986	19	Visual Reject
CSA	1984	21	Excavated Reject
SHA	1984	21	Reject w/Ext. Treatment
SHA	1984	21	Excavated Reject
PCA	1984	21	Excavated Reject
PCA	1984	21	Excavated Reject
PCA	1983	22	Excavated Reject
WSA	1982	23	Sound & Bore Reject
PCA	1982	23	Reject w/Ext. Treatment
PCA	1981	24	Excavated Reject
WSA	1980	25	Excavated Reject
WSA	1980	25	Excavated Reject
WSA	1980	25	Excavated Reject
CSA	1976	29	Excavated Reject

Bryan S. Anderson, Esq.
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
(561) 304-5253
(561) 691-7135 (Facsimile)

March 31, 2006

VIA HAND DELIVERY

Tim Devlin, Director
Division of Economic Regulation
Florida Public Service Commission
Betty Easley Conference Center
2540 Shumard Oak Boulevard, Room 110
Tallahassee, FL 32399-0850

Re: Docket #060078-EI
Notice of Proposed Agency Action Order No. PSC-06-0144-PAA-EI

Dear Mr. Devlin:

On February 27, 2006, the Commission issued a Notice of Proposed Agency Action Order No. PSC-06-0144-PAA-EI requiring each Investor Owned Utility to implement an eight year pole inspection cycle and requiring reports. Part of that Order requires each IOU to submit a comprehensive wood pole inspection plan to the Commission on or before April 1, 2006. Accordingly, attached is FPL's comprehensive wood pole inspection program.

Please acknowledge receipt of the enclosed by date-stamping a copy of this letter. Should you have any questions please contact me at the number listed above. Thank you for your assistance regarding this matter.

Sincerely,

Bryan S. Anderson

BSA/jsb
Enclosures

FPL

Florida Power & Light Company

Wood Pole Inspection Program

Index

Introduction

This document is to propose the implementation of a comprehensive wood pole inspection program for all FPL and joint use poles as outlined in Order No. PSC-06-0144-PAA-EI dated February 27th, 2006. The Commission prescribed this order due to the active hurricane and tropical storms seasons of 2004 and 2005 as well as the extended range forecast of Atlantic seasonal hurricane activity.

Joint Ownership

FPL will closely coordinate with 3rd party owners by sharing data to ensure that the work for poles identified for upgrade/reinforcing or replacement is completed in a timely manner.

Inspection Cycle

Distribution

FPL will perform inspection of wooden distribution poles on an eight-year cycle. Approximately 12.5% of the system will be targeted for inspections annually; although, the actual number of poles may vary from year to year.

Transmission

FPL will perform climbing or bucket inspections on all of its wood transmission poles on at least a six-year cycle. Approximately 16.6% of the transmission system will be targeted for inspections annually; although, the actual number of structures may vary from year to year.

Inspection Procedure

Distribution

FPL will perform a visual inspection of all wood distribution poles from the groundline to the top of the pole to identify visual defects (i.e. woodpecker holes, split tops, decayed tops, etc). If, due to the severity of the defects, the poles are not suited for continued service, the pole will not be tested further, and it will be reported and tagged for replacement. If the pole passes the above ground visual inspection, it will be excavated, sound and bored to determine the internal condition of the pole. All suitable poles will receive preservative treatment.

Transmission

FPL will perform a visual inspection on wood transmission poles from ground line to the pole top before any additional inspection work is completed. The visual inspection shall include a review of the pole condition itself and any pole attachment conditions. If a wood transmission pole does not pass visual inspection, the pole will not be tested further and will be reported for replacement.

After passing visual inspection, wood transmission poles will be sounded starting at ground line and continued up the length of the pole. If sounding warrants further investigation, wood poles will be bored to determine the internal condition of the pole. All suitable poles will be treated with an appropriate preservative treatment.

Strength Assessment

On wood poles, FPL shall perform a strength assessment to determine compliance to the NESC standards for strength. The strength assessment is based on a comparison of measured circumference versus original circumference of the pole. The effective circumference will be measured and data collected to ensure that the actual condition of the pole meets NESC requirements as outlined in Table 261-1A section 26 of the NESC. If the pole does not meet the NESC requirements, the pole will be upgraded/reinforced, or replaced.

Loading Assessment

The loading assessment is based on a combination of field measurements, span length, attachments heights (including 3rd party attachments) and wire sizes based on FPL construction standards. If this percentage does not meet NESC requirements, the pole will be upgraded/reinforced, or replaced.

Data Collection

Data for all annual inspections will be kept in a database with linkage to FPL's main database system which is a Geographic Information System (GIS) database. This data will include vintage, class, location and any follow up actions required, which will ensure accurate reporting.

Pole selection criteria

Distribution

The company has determined the most cost-effective approach for routing the work of the annual inspection program is by geographic location. These geographic locations will be prioritized using inputs such as coastal exposure, population density, historical outage data and analysis performed from past inspection results.

Transmission

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

Pole Inspection Program Quality Compliance

FPL will require the vendor to perform quality audits on their personnel to confirm that the specification standards are being met. Proper documentation will be required. FPL will also randomly sample pole locations previously inspected, treated, and reinforced for quality assurance and verification for work completion. This information will be kept in the pole database.

Standards/NESC requirements

FPL's Wood Pole Inspection Program complies with NESC requirements.

Reporting

FPL will file an annual Pole Inspection Report in full accordance with the reporting requirements set forth in Attachment B of Docket No. 060078-EI, Order No. PSC-06-0144-PAA-EI, issued February 27th, 2006. This report will include data for all wood poles inspected including joint use poles (poles shared by two or more companies), the details for each pole inspected, and the specific actions the company has taken or will take to correct each pole that requires follow-up.

Pole Inspection Program Cost Estimate

The estimated annual cost for the wood distribution pole inspection program based on an eight year cycle (12.5% targeted poles) is in the range of $17.6M to $24.6M. The cost to meet 3rd Party pole owner transfer requests due to their pole inspection program is in the range of $1.1M to 1.9M.

The estimated annual cost for the transmission pole inspection program based on a six year cycle (16.6% targeted poles) is in the range of $11M to $14M.

Florida Power & Light Company, 215 S. Monroe St., Suite 810, Tallahassee, FL 32301

July 17, 2006

Mr. Bill McNulty
Division of Economic Regulation
Florida Public Service Commissioner
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: Order No. 06-0144-PAA-EI Requiring Each Electric Investor-Owned Utility to Implement 8-Year Pole Inspection Cycle

Dear Mr. McNulty:

Attached please find FPL's responses to staff's questions received June 27th, 2006 regarding the above order.

If you have any questions, please call Bob Valdez at 305-552-4775.

Sincerely,

Bill Feaster

BF/nn
Enclosures

Summary
(Pole Inspection Program – Poles that can not be excavated)

All Southern pine poles that can not be excavated for such reasons as set in pavement or presence of electric risers, are inspected using the following process:

1) - The poles are visually inspected above ground level , to check for woodpecker holes, cracks, etc... Poles that do not pass the visual inspection are scheduled for replacement; if the poles pass this inspection then they are sounded & bored.

2) - The poles are sounded from ground level to as high as the inspector can reach, in order to locate interior pockets of decay. For boring, Osmose has developed a variation on the traditional boring procedure that better addresses the decay conditions specific to Florida. This ground level inspection method is referred to as Shell Boring.

The drill bit is placed and aimed so it will inspect the outer shell of the pole below ground. Southern yellow pine poles are bored both into the heart of the pole and into the outer shell below ground. The Shell boring procedure used by Osmose increases the accuracy of inspection, since shell rot is the predominant decay pattern.

This method complies with FPL's pole inspection specification section 4.4.4:

"Poles set in concrete or pavement shall be bored at least twice with the bored holes at 90 degrees from each other at the groundline down at a 45 degree angle into the pole and the boring sample checked for decay or voids.

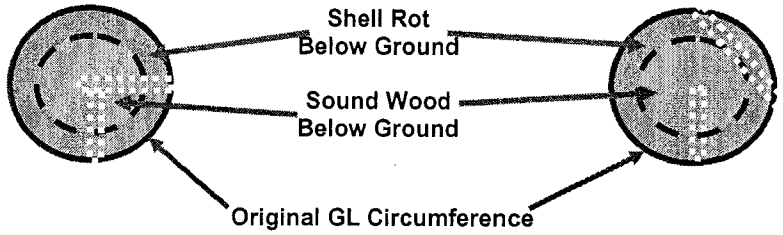
3) - Once step 2 is completed, the poles are internally treated with woodfume.

The process just described was developed by Osmose and it is the standard inspection method in the state of Florida for poles that can not be excavated. This field condition is also encountered by Osmose in other states of the country; the standard method there is to drill both borings at ground line at a 45 degree angle to a depth of the center line of the poles. (See drawing below)

Traditional Boring Inspection

Traditional & Shell Boring Inspection

Top View



2 Borings
to the Center of the Pole

1 Boring to the Center of the Pole
1 Boring toward the Shell below GL

Osmose, which is the industry leader in wood pole inspections, considers this inspection procedure to be the best method available for poles that can't be excavated. Based on their experience, Osmose believes that this inspection method identifies priority poles with extensive below grade decay.

Additional inspection devices and technology are under evaluation by Osmose. If any changes in inspection technology occurs and it is proven to be more accurate and effective than current methods, it will be added to FPL inspection specifications and implemented by Osmose to increase inspection efficiency.

The following items were identified by the FPSC Staff as non-compliant with the wood pole inspection requirements of Order No. PSC-06-0144-PAA-EI. For each item, FPL is responding with additional information accordingly;

Distribution :

Topic Heading: Excavation Requirement
Non-Conformance: Will excavate, insufficient detail to know if 18"

FPL Response:

FPL will excavate to 18" for all Southern Pine poles where feasible. Exceptions include poles in pavement/sidewalk and other obstructions that prevent excavation.

Transmission:

Topic Heading: Inspection Method, Cycle, Pole Selection
Non-Conformance: 3. Transmission poles passing visual and sounding test will not be bored.

FPL Response:

FPL's increase in inspection frequency of wood transmission structures meets the restoration objectives of the wood pole inspection order without the possibility of jeopardizing the cross-sectional area of the pole with the boring technique.

The USDA Rural Utility Service (RUS) recommends and Order No. PSC-06-0144-PAA-EI requires an eight (8) year inspection cycle for wood poles in the Florida environment. FPL substantially exceeds this frequency of inspection because it performs climbing and/or bucket inspections on 100% of wood transmission structures on a 3, 4, or 6 year cycle. These inspections include sounding each wood pole with a hammer and probing with a screwdriver. The combination of inspection methodology and increased frequency has proven adequate for detecting rot and decay in poles both for daily reliability performance and during extreme wind events.

In 2004, three (3) named storms (Charley, Frances & Jeanne) made landfall within FPL's service territory. Summarized below is the time for restoring transmission service during the 2004 season:

- 80% of transmission service restored by the end of day 1 (after landfall)
- 100% of transmission service restored by end of day 2 (after landfall)

In 2005, three (3) named storms (Katrina, Rita & Wilma) impacted FPL's service territory. Two (2) of these named storms (Katrina & Wilma) made landfall. No transmission structures required replacement as a result of either Katrina or Rita. Summarized below is the time for restoring transmission service in the 2005 season:

- 24% of transmission service restored by the end of day 1 (after landfall)
- 64% of transmission service restored by the end of day 2 (after landfall)
- 96% of transmission service restored by the end of day 3 (after landfall)

FPL's wood pole inspection method has also resulted in exceptional daily reliability performance of the transmission system. Over the past six (6) years, FPL has not had any transmission outages associated with a wood transmission structure failure during non-storm events.

Finally, with FPL's increased frequency of inspection, the ground line cross-sectional area may be jeopardized if the boring technique is used. At ground line, the diameter of a typical wood transmission pole is approximately 16 inches. Using a standard 7/16" boring drill bit, approximately 3% of the existing wood material is disturbed with each bore. Order No. PSC-06-0144-PAA-EI recognizes that wood poles may require drilling "in several locations to determine the extent of a hollow cavity". Thus, for each inspection, approximately 3-5% of the existing wood material is disturbed. Additionally, application of the replacement material must be consistently and properly applied to the boring such that the wood pole can interact with the material and perform as designed. With an increased inspection frequency of 3, 4, or 6 years; the boring impact on remaining wood cross-section is compounded with each inspection cycle.

Topic Heading: Excavation Requirement
Non-Comformance: 1. Excavation if warranted by sounding.

FPL Response:

FPL's inspection method of wood transmission structures requires excavation only if warranted by sounding rather than at every location. FPL uses this methodology for several reasons.

First, transmission right-of-ways within the Florida environment are not always conducive to periodic excavation. Transmission right-of-ways may be within swamp, marsh, or flooded areas where the base of transmission structures is under water. Other transmission right-of-way may be encased in pavement or sidewalks. Wood transmission structures may be within agricultural areas where adjacent roots may interfere with excavation.

Next, back-fill material and compaction are key components for transmission structural performance. FPL design instructions are specific for size, type, and compaction of back-fill material such that the transmission structure will perform as designed. FPL limits the amount of locations where disturbance of existing soil compaction occurs by only requiring if warranted by sounding.

Similar to the response on boring, excavation of transmission structures is compounded by the increased frequency (100% every 3, 4, or 6 years) of wood transmission pole inspections required by FPL. Also similar are the performance results observed both during storm and daily reliability performance of FPL's transmission system.

Pole Inspection Cycle and Reporting Requirements
Florida Public Utilities Company
Docket 060078-EI
April 1, 2006

- Florida Public Utilities Company (FPUC) will implement an eight year inspection cycle on all wooden transmission and distribution poles based on the requirements of the National Electric Safety Code (NESC).

- FPUC will report annually, by March 1, to the Commission regarding the results of the prior calendar year inspections of its wooden transmission and distribution poles.

- FPUC will perform inspections, in accordance with the predetermined cycles, of all wooden transmission and distribution poles. Cycles will be established, by division, based on a logical and efficient method of inspecting poles and considering previous inspection cycles. Due to the relatively similar nature and small size within each division, other factors will not be utilized at this time.

  The inspection will consist of a visual inspection to determine if any defects are found that would require that the pole be replaced. Should this test indicate that the pole is not suited for continued use, it will be rejected and the appropriate corrective action (replacement, bracing, etc.) will be planned.

  If the pole is found acceptable on the visual inspection, the pole will be sound and bored to determine the internal condition of the pole. Should this test indicate that the pole is not suited for continued use, it will be rejected and the appropriate corrective action (replacement, bracing, etc.) will be planned.

  If the pole is found acceptable in the sound and bored test, all non-CCA poles and all CCA poles in excess of 10 years of age will be excavated and tested. If this test indicates the pole is suitable for continued service, the pole will be treated and backfilled. Should this test indicate that the pole is not suited for continued use, it will be rejected and the appropriate corrective action (replacement, bracing, etc) will be planned.

- FPUC will perform both strength and loading assessments on each pole inspected should the above mentioned test indicate that the pole is suitable for continued use.

  The Strength Assessment will compare the current measured circumference to the original circumference of the pole. The effective circumference of the pole will be determined to ensure that the current condition of the pole meets the NESC requirements in Table 261-1A of the NESC. Should this test indicate that the pole is not suited for continued use, it will be rejected and the appropriate corrective action (replacement, bracing, etc.) will be planned.

The Loading Assessment will consider actual attachments on the pole. In performing this test field measurements, span lengths, attachment heights, wire sizes and other attachments (including 3rd party attachments) will be analyzed in order to determine if current FPUC specifications are met and if this application meets NESC requirements. Should this test indicate that the pole is not suited for continued use, it will be rejected and the appropriate corrective action (replacement, bracing, etc.) will be planned.

- FPUC will collect all relevant information on the pole inspections on an annual basis for all FPUC owned poles. Information will be maintained in a spreadsheet format by location, pole size, pole class, test results, etc. and be in such a form that summary information can be developed. Poles owned by other companies will be inspected in accordance with their specific procedures and FPUC will cooperate with any work caused by pole replacements. FPUC will work closely with 3rd party owners to share information on all poles in order to ensure work in completed in a timely manner.

  In order to ensure the integrity of the pole inspection procedure, the contractor will be requirement to perform quality control assessments of work in order to ensure pole inspection requirements are being met and provide documentation that this has occurred. FPUC will also random sample the results presented in order to verify and document results.

- FPUC will submit a summary report, as required, to the Division of Economic Regulation by March 1 of each year outlining results of the previous year's inspection. The summary will include type of inspection, poles inspected, pole data, poles rejected, reasons for rejection, and poles replaced or braced.

Progress Energy

(Writer's Direct Dial No. 727/820-5184)

JOHN T. BURNETT
Associate General Counsel – Florida

April 3, 2006

VIA HAND DELIVERY

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

Re: Wood Pole Inspection Plan

Dear Mr. Devlin:

Pursuant to Order No. PSC-06-0144-PAA-EI dated February 27, 2006 in Docket No. 060078-EI, Progress Energy Florida, Inc. hereby submits it Wood Pole Inspection Plan.

Please feel free to call me should you have any questions.

Very truly yours,

John T. Burnett LMS

John T. Burnett

JTB/lms
Enclosure

PEF

Progress Energy Florida, Inc.
106 E. College Avenue
Suite 800
Tallahassee, FL 32301

Progress Energy

Comprehensive Wood Pole Inspection Plan

Purpose and Intent of the Plan:

To implement a revised wood pole inspection program that complies with FPSC Order No. PSC-06-0144-PAA-EI issued February 27, 2006 (the "Plan"). The Plan concerns inspection of wooden transmission and distribution poles, as well as pole inspections for strength requirements related to pole attachments. The Plan is based on the requirements of the National Electric Safety Code ("NESC") and an average eight-year inspection cycle. The Plan provides a detailed program for gathering pole-specific data, pole inspection enforcement, co-located pole inspection, and estimated program funding required to effectuate the Plan. This Plan also sets forth pole inspection standards utilized by Progress Energy Florida ("PEF") that meet or exceed the requirements of the NESC.

The Plan includes the following specific sub-plans:

- Transmission Wood Pole Inspection Plan ("Transmission Plan").
- Distribution Wood Pole Inspection Plan ("Distribution Plan").
- Joint Use Wood Pole Inspection Plan ("Joint Use Plan").

These three inspection sub-plans are outlined and described below. All of these sub-plans will be evaluated on an ongoing basis to address trends, external factors beyond the Company's control (such as storms and other weather events), and cost effectiveness.

1) Transmission Wood Pole Inspection Plan

A. Introduction

Ground-line inspection and treatment programs detect and treat decay and mechanical damage of in-service wood poles. PEF's Transmission Department will accomplish this by identifying poles that are 8 years of age or older and treating these poles as necessary in order to extend their useful life. As required, PEF will also assess poles and structures for incremental attachments that may create additional loads. Poles that can no longer maintain the safety margins required by the NESC (ANSI C2-2002) will be remediated. These inspections will result in one of four or a combination of the following actions: (1) No action required; (2) Application of treatment; (3) Repaired; (4) Replaced.

B. General Plan Provisions

(i). Pole Inspection Selection Criteria

Transmission will perform ground patrols to inspect transmission system line assets to allow for the planning, scheduling, and prioritization of corrective and preventative maintenance work. These patrols will assess the overall condition of the assets including insulators, connections, grounding, and signs, as

well as an assessment of pole integrity. These patrols will be done on a three-year cycle and the assessment data and reports generated from these patrols will be used to plan the ground-line inspections set forth in Section 1B(ii) below. The ground patrol inspections will categorize wood poles into four conditions or states (State 2-5). PEF will conduct ground-line inspections of State 2 and 3 poles. State 3 poles will be given priority for ground-line inspection scheduling. PEF will replace State 4 and 5 poles. PEF will no longer utilize the State 1 category.

In performing inspection and patrols, the following Transmission Line Wood Poles Inspection State Categories shall apply:

State 2 : Meeting all of the criteria listed below:

- No woodpecker holes or woodpecker holes have been repaired.
- A pole that has been cut and capped.
- Checks/cracks show no decay or insect damage.
- Ground-line inspected/treated with no data in the remarks field of the report and no noted reduction in effective pole diameter.
- Hammer test indicates a hard pole.
- No pole top deflection noted.

State 3 : Meeting one or more of the criteria listed below:

- Checks/cracks show decay or insect damage, or the presence of minimal shell cracking.
- Ground-line inspected/treated with decay noted in the remarks field of the report and a noted reduction in effective pole diameter.
- Hammer test indicates a minimal amount of ground-line decay.
- Pole has been repaired (e.g., C-truss).
- Poles with a wood bayonet or a pole that needs to be cut and capped.
- Pole can be partially hollow but with no less than 3 – 4 inches of shell thickness and cannot be caved during a hammer test.
- Pole top deflection is less than 3 feet.

State 4 : Meeting one or more of the criteria listed below and should be scheduled to be replaced:

- Woodpecker holes which have deep cavities and are not repairable.
- Checks/cracks show significant decay or insect damage, or the presence of substantial shell cracking.
- Decay in the pole top is extensive such that the pole cannot be cut and capped nor is the pole top section a candidate for a bayonet.
- Ground-line inspected/treated and identified as rejected/restorable or rejected/non-restorable.
- When hammer tested, ground-line decay pockets are found and are greater than 5 inches wide and 2 inches deep.

• Pole is hollow with less than 3 – 4 inches of shell thickness extending over more than one-quarter of the pole circumference, determined by hammer test and/or a screw driver.
• Pole top deflection is between 3 to 5 feet.

State 5 : Meeting one or more of the criteria listed below. (This pole should be scheduled to be replaced as soon as possible):

• Woodpecker holes which have deep cavities and are not repairable, severely affecting the integrity of the pole.
• Ground-line inspection indicates the pole as "priority."
• When hammer tested, ground-line decay pockets are found and are greater than 8 inches wide by 3 inches deep.
• Pole is hollow with less than 2 inches of shell thickness extending over more than one-third of the pole circumference.
• Pole deflection exceeds 5 feet.

(ii). Ground-Line Inspections

Ground-line inspections of wood transmission poles will be conducted by qualified pole inspectors on an average 8-year cycle. This will result in, on average, approximately 12.5% of the remaining population of wood poles receiving this type of inspection on an annual basis. Treatment and inspection work shall be done or supervised by a foreman with a minimum of six months experience and shall be certified as being qualified for this work.

For poles without an existing inspection hole, the pole will be bored at a 45 degree angle below the ground line to a depth that extends past the center of the pole. For previously inspected poles, the original ground-line inspection plug shall be bored out and the depth of the inspection hole measured to ensure that the pole has been bored to the required depth. Fumigant application plug(s) will be bored out and the depth of these holes measured to ensure compliance. Hammer marks should be evident to show that the pole has been adequately sounded.

All work done, materials used, and materials disposed of shall be in compliance and accordance with all local, municipal, county, state, and federal laws and regulations applicable to said work. Preservatives used shall conform to the minimum requirements as set forth in this Transmission Plan.

The inspection method used will be a sound and bore inspection that will include the following components:

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.

- Partial Excavation – The soil is removed around the base of the pole and the pole is inspected for signs of decay.
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for "hollowness" of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of "good wood" left on the interior of the pole.
- Excavate to 6 inches (Partial Ground Line Inspection) – If significant decay is found during the partial excavation, the soil is removed 6 inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to "good wood" using a sharp pick.
- Assessment of Remaining Strength – All data collected from the inspection will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service "as-is," the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the minimum acceptable circumference for the applicable class pole listed in the latest version of ANSI 05.1-1992, American National Standard for Wood Poles and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement as either a State 4 or State 5 pole.

(iii) Structural Integrity Evaluation

As part of the visual inspection of the poles, the inspector will note and record the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform a loading analysis on certain poles or structures, where necessary, as more fully described in the Joint Use section of this Plan. In such cases, the loading information obtained from this analysis will be used along with the strength determined in the ground-line inspection. If the loads exceed: a) the strength of the structure when new and b) the strength of the existing structure exceeds the strength required at replacement, according to the NESC, the structure will either be braced to the required strength or will be replaced with a pole of sufficient strength. Specific information on this process in contained in the Joint Use section of this Plan.

(iv). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

   a. Number of poles inspected.
   b. Number of poles not requiring remediation.
   c. Number of poles requiring remedial action.
   d. Number of pole requiring minor follow up.
   e. Number of poles requiring a change in inspection cycle.
   f. Number of poles that were overloaded.
   g. Number of poles that with estimated remaining life less than 8 years.
   h. Number of inspections planned.

4) A pole inspection report that contains the following detailed information:

   a. Transmission circuit name.
   b. Pole identification number.
   c. Inspection results.
   d. Remediation recommendation.
   e. Status of remediation.

C. Program Cost and Funding

- In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, the number of poles inspected per year will start at approximately 4800 poles. It is expected that this program change will result in increases in pole replacements and treatments.

In order to ramp up to the average 8-year cycle, the current funding will be allocated to inspections only and replacements only for 2006. This will help PEF align with the "all wood pole" average 8-year inspection cycle. However, funding increases will be required to meet all aspects of an average 8-year pole inspection cycle as reflected in the chart below. The estimated figures in this chart are "best estimates," given information and facts known at this time and are subject to change or modification.

Wood Pole Program Cost Estimates

Annual Unit & Cost Estimate		
Cycle		
Years per cycle	8	
Poles inspected per year	4,800	
Assumed poles replaced*	4%	
O&M Cost		
GL inspection	$67,200	
Treatment	$60,480	
	$127,680	
Capital Cost		
Pole replacements	$2,688,000	

* Assumption is made that approximately 4% of the poles inspected will be identified for replacement.

2) Distribution Wood Pole Inspection Plan

A. Introduction

In accordance with FPSC Order No. PSC-06-0144-PAA-EI, PEF's Distribution Department will conduct wood pole inspections on an average 8-year cycle. These inspections will determine the extent of pole decay and any associated loss of strength. The information gathered from these inspections will be used to determine pole replacements and to effectuate the extension of pole life through treatment and reinforcement. Additionally, information collected from the wood pole inspections will be used to populate regulatory reporting requirements, will provide data for loading analyses, and will be used to track the results of the inspection program over time.

B. General Plan Provisions

(i). Ground-line Inspection Purpose

- The ground-line inspection process is the industry standard for determining the existing condition of wood pole assets. This inspection helps to determine extent of decay and the remaining strength of a pole. Ground-line inspections also provide insight into the remaining life of a wood pole.

- The ground-line inspection is performed at the base of the pole because the base is the location of the largest "bending moment," as well as the area subject to the most fungal decay and insect attack.

Assessing the condition of the pole at the base is the most efficient way to effectively treat and restore a wood pole.

(ii). Pole Inspection Process

When a wood distribution pole is inspected, the following tasks will be performed:

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.
- Partial Excavation – The soil is removed around the base of the pole and the pole is inspected for signs of decay.
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for "hollowness" of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of "good wood" left on the interior of the pole.
- Excavate to 6 Inches (Partial Ground Line Inspection) – If significant decay is found during the partial excavation, the soil is removed 6 inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to "good wood" using a sharp pick.
- Assessment of Remaining Strength – All data collected from the inspection is used to determine effective circumference and remaining strength of the pole.
    - If the effective pole circumference has been reduced by 25% in comparison to the original effective pole circumference, then the pole is classified as a Priority 2 (One Tag) pole. This 25% reduction in effective circumference results in a 58% reduction in pole strength.
    - If the effective pole circumference has been reduced by 50% in comparison to the original effective pole circumference, then the pole is classified as a Priority 1 (Two Tag) pole. This 50% reduction in effective circumference results in an 87% reduction in pole strength.
    - Priority 1 poles will take precedent over Priority 2 poles during replacement.

(iii) Data Collection

All data collected through the inspection process will be submitted to PEF's Distribution Department in electronic format by inspection personnel. This data will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service "as-is," the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the applicable minimum acceptable circumference

listed in the most current versions of ANSI 05.1-1992, American National Standard for Wood Poles, and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement.

(iv). Structural Integrity Evaluation

- As part of the visual inspection of the poles, the inspector will note the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform, as necessary, a loading analysis on certain poles or structures as more fully described in the Joint Use section of this Plan. In such instances, the loading information obtained from this analysis will be used along with the strength determined in the ground-line inspection. If the loads exceed: a) the strength of the structure when new and b) the strength of the existing structure exceeds the strength required at replacement, according to the NESC, the structure will either be braced to the required strength or will be replaced with a pole of sufficient strength. Specific information on this process in contained in the Joint Use section of this plan.

- Poles not meeting the required strength for loading will be processed in the same manner as loss of strength due to decay.

(v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

   a. Number of poles inspected.
   b. Number of poles not requiring remediation.
   c. Number of poles requiring remedial action.
   d. Number of pole requiring minor follow up.
   e. Number of poles requiring a change in inspection cycle.
   f. Number of poles that were overloaded.
   g. Number of poles that with estimated remaining life less than 8 years.
   h. Number of inspections planned.

4) A pole inspection report that contains the following detailed information:
   a. Distribution circuit name.

b. Pole identification number.
c. Inspection results.
d. Remediation recommendation.
e. Status of remediation.

C. Program Cost and Funding

(i). Poles Program Cost Estimates

In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, the number of poles inspected per year will have to increase. This increase will also result in increases in pole replacements, bracings, and treatments. In order to ramp up to the average 8-year cycle, the current funding will be allocated to inspections only and replacements only for 2006. This will help PEF align with the "all wood pole" average 8-year inspection cycle. However, funding increases will be required to meet all aspects of an average 8-year pole inspection cycle as reflected in the charts below. The estimated figures in these charts are "best estimates," given information and facts known at this time and are subject to change or modification.

Annual Unit Estimate

Years per Cycle	Wood Poles on 2006	Non-COA Replacements	COA Replacements	Non-COA Bracing	COA Bracing	Non-COA Treatments	COA Treatments
8	95,624	1,641	83	947	48	16,410	821

Annual Cost Estimate

Years per Cycle	O&M Costs		Capital		O&M COA	Capital COA	Program Pole Costs
	Inspections (S&B + Excavation)	Treatments (apply to Inspection)	Replacements	Braces			
8	$2,486,224	$206,772	$5,172,000	$278,600	$2,692,996	$5,450,600	8,143,596

3) Joint Use Pole Inspection Plan

A. Introduction

PEF currently has approximately 700,000 joint use attachments on distribution poles and approximately 5,000 joint use attachments on transmission poles. On average, PEF receives approximately 12,000 new attachment requests per year. All new attachment requests are reviewed in the field to assure the new attachments meet NESC and company clearance and structural guidelines. The information provided below outlines PEF's attachment permitting process and how PEF intends to gather structural information on certain existing joint use poles over an average 8-year inspection cycle to meet the obligations set forth

in Order No. PCS-06-0144-PAA-EI.

B. General Plan Provisions

(i). Structural Analysis for a Distribution Pole New Joint Use Attachment

When the Joint Use Department receives a request to attach a new communication line to a distribution pole, the following will be done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- For each group of poles in a tangent line, the pole that has the most visible loading, line angle and longest or uneven span length is selected to be modeled for wind loading analysis.
- The selected pole's information is loaded into a software program called "Pole Foreman" from PowerLine Technologies. The pole information is analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages.
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.
- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

(ii). Structural Analysis for a Transmission Pole New Joint Use Attachment

When the Joint Use Department receives a request to attach a new communication line to a transmission pole with distribution underbuild, the following will be done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- All pole information including structural plan and profiles are sent to the engineering company, Morrison & Hershfield in Plantation, Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis.

- Morison and Hershfield engineers determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.
- The selected pole information is loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.
- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

(iii). Analysis of Existing Joint Use Attachments On Distribution Poles

There are approximately 700,000 joint use attachments on approximately 500,000 distribution poles in the PEF system. All distribution poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. These audits will start at the sub-station where the feeder originates. For each group of poles in a tangent line, the pole that has the most visible loading, line angle, and longest or uneven span length will be selected to be modeled for wind loading analysis. Each pole modeled will be field inspected. The attachment heights of all electric and communication cables and equipment will be collected. The pole age, pole type, pole number, pole size / class, span lengths of cables and wires, and the size of all cables and wires on all sides of the pole will be collected.

The selected pole's information will then be loaded into a software program called "Pole Foreman" from PowerLine Technologies. The pole information will be analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages. If that one pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis. The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Poles rated at 100% or lower will be designated as "PASSED." Poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the pole is

changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

(iv). Analysis of Existing Joint Use Attachments On Transmission Poles

There are approximately 5,000 joint use attachments on approximately 2,500 transmission poles in the PEF system. All transmission poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. Audits will start at the sub-station where the feeder originates. All pole information (pole size, class, type, age, pole number, cable, wire, equipment attachment heights, span lengths) including structural plan and profiles will be sent to the engineering company, Morrison & Hershfield in Plantation, Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis. Morrison and Hershfield engineers will determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.

The selected pole information will be loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph. If that one transmission pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each transmission pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the transmission pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis.

The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Transmission poles rated at 100% or lower will be designated as "PASSED." Transmission poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the transmission pole is changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

(v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

a. Number of poles inspected.
b. Number of poles not requiring remediation.
c. Number of poles requiring remedial action.
d. Number of pole requiring minor follow up.
e. Number of poles requiring a change in inspection cycle.
f. Number of poles that were overloaded.
g. Number of inspections planned.

C. Program Cost and Funding

(i). Pole Analysis Funding

As stated above, there are currently approximately 700,000 joint use attachments on approximately 500,000 distribution poles and approximately 5,000 joint use attachments on approximately 2,500 transmission poles. PEF will analyze the "worst case" poles in a tangent line of similar poles as deemed appropriate during field inspections.

In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, PEF would require incremental funding annually to successfully gather data and enter it into the required reporting format. See calculation that follows. The estimated figures in these charts are "best estimates," given information and facts known at this time and are subject to change or modification.

Annual Unit & Cost Estimate

Distribution poles with joint use	Annual inspected [illegible]	[illegible] Distribution poles analyzed	[illegible] Distribution poles replaced	Transmission poles with joint use	Annual inspected [illegible]	[illegible] transmission poles analyzed	20% of transmission poles replaced	Total cost to analyze poles (O&M)	Total cost to replace poles [illegible]
500,000	62,500	6,250	630	2,500	313	94	63	$479,800	$2,772,000

Progress Energy Florida's
REVISED Wood Pole Inspection Plan

(Legislative Format)

Progress Energy

Comprehensive Wood Pole Inspection Plan

Purpose and Intent of the Plan:

To implement a revised wood pole inspection program that complies with FPSC Order No. PSC-06-0144-PAA-EI issued February 27, 2006 (the "Plan"). The Plan concerns inspection of wooden transmission and distribution poles, as well as pole inspections for strength requirements related to pole attachments. The Plan is based on the requirements of the National Electric Safety Code ("NESC") and an average eight-year inspection cycle. The Plan provides a detailed program for gathering pole-specific data, pole inspection enforcement, co-located pole inspection, and estimated program funding required to effectuate the Plan. This Plan also sets forth pole inspection standards utilized by Progress Energy Florida ("PEF") that meet or exceed the requirements of the NESC.

The Plan includes the following specific sub-plans:

- Transmission Wood Pole Inspection Plan ("Transmission Plan").
- Distribution Wood Pole Inspection Plan ("Distribution Plan").
- Joint Use Wood Pole Inspection Plan ("Joint Use Plan").

These three inspection sub-plans are outlined and described below. All of these sub-plans will be evaluated on an ongoing basis to address trends, external factors beyond the Company's control (such as storms and other weather events), and cost effectiveness.

1) Transmission Wood Pole Inspection Plan

A. Introduction

Ground-line inspection and treatment programs detect and treat decay and mechanical damage of in-service wood poles. PEF's Transmission Department will accomplish this by identifying poles that are 8 years of age or older and treating these poles as necessary in order to extend their useful life. As required, PEF will also assess poles and structures for incremental attachments that may create additional loads. Poles that can no longer maintain the safety margins required by the NESC (ANSI C2-2002) will be remediated. These inspections will result in one of four or a combination of the following actions: (1) No action required; (2) Application of treatment; (3) Repaired; (4) Replaced. PEF will also inspect poles that PEF does not own on which PEF assets are located. If such poles are in need of treatment, repair, or replacement, PEF will provide such information to the pole owner so that such action can be taken.

B. General Plan Provisions

(i). Pole Inspection Selection Criteria

Progress Energy

Comprehensive Wood Pole Inspection Plan

Transmission will perform ground patrols to inspect transmission system line assets to allow for the planning, scheduling, and prioritization of corrective and preventative maintenance work. These patrols will assess the overall condition of the assets including insulators, connections, grounding, and signs, as well as an assessment of pole integrity. These patrols will be done on a three-year cycle and the assessment data and reports generated from these patrols will be used to plan the ground-line inspections set forth in Section 1B(ii) below. The ground patrol inspections will categorize wood poles into four conditions or states (State 2-5). PEF will conduct ground-line inspections of State 2 and 3 poles. State 3 poles will be given priority for ground-line inspection scheduling. PEF will replace State 4 and 5 poles. PEF will no longer utilize the State 1 category.

In performing inspection and patrols, the following Transmission Line Wood Poles Inspection State Categories shall apply:

State 2 : Meeting all of the criteria listed below:

- No woodpecker holes or woodpecker holes have been repaired.
- A pole that has been cut and capped.
- Checks/cracks show no decay or insect damage.
- Ground-line inspected/treated with no data in the remarks field of the report and no noted reduction in effective pole diameter.
- Hammer test indicates a hard pole.
- No pole top deflection noted.

State 3 : Meeting one or more of the criteria listed below:

- Checks/cracks show decay or insect damage, or the presence of minimal shell cracking.
- Ground-line inspected/treated with decay noted in the remarks field of the report and a noted reduction in effective pole diameter.
- Hammer test indicates a minimal amount of ground-line decay.
- Pole has been repaired (e.g., C-truss).
- Poles with a wood bayonet or a pole that needs to be cut and capped.
- Pole can be partially hollow but with no less than 3 – 4 inches of shell thickness and cannot be caved during a hammer test.
- Pole top deflection is less than 3 feet.

State 4 : Meeting one or more of the criteria listed below and should be scheduled to be replaced:

- Woodpecker holes which have deep cavities and are not repairable.
- Checks/cracks show significant decay or insect damage, or the presence of substantial shell cracking.
- Decay in the pole top is extensive such that the pole cannot be cut and capped nor is the pole top section a candidate for a bayonet.

• Ground-line inspected/treated and identified as rejected/restorable or rejected/non-restorable.
• When hammer tested, ground-line decay pockets are found and are greater than 5 inches wide and 2 inches deep.
• Pole is hollow with less than 3 – 4 inches of shell thickness extending over more than one-quarter of the pole circumference, determined by hammer test and/or a screw driver.
• Pole top deflection is between 3 to 5 feet.

State 5 : Meeting one or more of the criteria listed below. (This pole should be scheduled to be replaced as soon as possible):

• Woodpecker holes which have deep cavities and are not repairable, severely affecting the integrity of the pole.
• Ground-line inspection indicates the pole as "priority."
• When hammer tested, ground-line decay pockets are found and are greater than 8 inches wide by 3 inches deep.
• Pole is hollow with less than 2 inches of shell thickness extending over more than one-third of the pole circumference.
• Pole deflection exceeds 5 feet.

(ii). Ground-Line Inspections

Ground-line inspections of wood transmission poles will be conducted by qualified pole inspectors on an average 8-year cycle. This will result in, on average, approximately 12.5% of the remaining population of wood poles receiving this type of inspection on an annual basis. Treatment and inspection work shall be done or supervised by a foreman with a minimum of six months experience and shall be certified as being qualified for this work.

For poles without an existing inspection hole, the pole will be bored at a 45 degree angle below the ground line to a depth that extends past the center of the pole. For previously inspected poles, the original ground-line inspection plug shall be bored out and the depth of the inspection hole measured to ensure that the pole has been bored to the required depth. Fumigant application plug(s) will be bored out and the depth of these holes measured to ensure compliance. Hammer marks should be evident to show that the pole has been adequately sounded.

All work done, materials used, and materials disposed of shall be in compliance and accordance with all local, municipal, county, state, and federal laws and regulations applicable to said work. Preservatives used shall conform to the minimum requirements as set forth in this Transmission Plan.

The inspection method used will be a sound and bore inspection that will include the following components:

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.
- ~~Partial Excavation – The soil is removed around the base of the pole and the pole is inspected for signs of decay.~~
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for "hollowness" of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of "good wood" left on the interior of the pole.
- Excavate to 18~~6~~ inches (~~Partial~~ Full Ground Line Inspection) – ~~If significant decay is found during the partial full excavation,~~ T~~t~~he soil is removed 18~~6~~ inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to "good wood" using a sharp pick.
- Assessment of Remaining Strength – All data collected from the inspection will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service "as-is," the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the minimum acceptable circumference for the applicable class pole listed in the latest version of ANSI 05.1-1992, American National Standard for Wood Poles and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement as either a State 4 or State 5 pole.

(iii) Structural Integrity Evaluation

As part of the visual inspection of the poles, the inspector will note and record the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform a loading analysis on certain poles or structures, where necessary, as more fully described in the Joint Use section of this Plan. In such cases, the loading information obtained from this analysis will be used along with the strength determined in the ground-line inspection. If the loads exceed: a) the strength of the structure when new and b) the strength of the existing structure exceeds the strength required at replacement, according to the NESC, the structure will either be braced to the required strength or will be replaced with a pole of sufficient strength. Specific information on this process in contained in the Joint Use section of this Plan.

(iv). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

   a. Number of poles inspected.
   b. Number of poles not requiring remediation.
   c. Number of poles requiring remedial action.
   d. Number of pole requiring minor follow up.
   e. Number of poles requiring a change in inspection cycle.
   f. Number of poles that were overloaded.
   g. Number of poles that with estimated remaining life less than 8 years.
   h. Number of inspections planned.

4) A pole inspection report that contains the following detailed information:

   a. Transmission circuit name.
   b. Pole identification number.
   c. Inspection results.
   d. Remediation recommendation.
   e. Status of remediation.

C. Program Cost and Funding

- In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, the number of poles inspected per year will start at approximately 4800 poles. It is expected that this program change will result in increases in pole replacements and treatments.

In order to ramp up to the average 8-year cycle, the current funding will be allocated to inspections only and replacements only for 2006. This will help PEF align with the "all wood pole" average 8-year inspection cycle. However, funding increases will be required to meet all aspects of an average 8-year pole inspection cycle as reflected in the chart below. The estimated figures in this chart are "best estimates," given information and facts known at this time and are subject to change or modification.

Wood Pole Program Cost Estimates

Annual Unit & Cost Estimate		
Cycle		
Years per cycle	8	
Poles inspected per year	4,800	
Assumed poles replaced*	4%	
O&M Cost		
GL inspection	$67,200	
Treatment	$60,480	
	$127,680	
Capital Cost		
Pole replacements	$2,688,000	

* Assumption is made that approximately 4% of the poles inspected will be identified for replacement.

2) Distribution Wood Pole Inspection Plan

A. Introduction

In accordance with FPSC Order No. PSC-06-0144-PAA-EI, PEF's Distribution Department will conduct wood pole inspections on an average 8-year cycle. These inspections will determine the extent of pole decay and any associated loss of strength. The information gathered from these inspections will be used to determine pole replacements and to effectuate the extension of pole life through treatment and reinforcement. Additionally, information collected from the wood pole inspections will be used to populate regulatory reporting requirements, will provide data for loading analyses, and will be used to track the results of the inspection program over time. PEF will also inspect poles that PEF does not own on which PEF assets are located. If such poles are in need of treatment, repair, or replacement, PEF will provide such information to the pole owner so that such action can be taken.

B. General Plan Provisions

(i). Ground-line Inspection Purpose

- The ground-line inspection process is the industry standard for determining the existing condition of wood pole assets. This inspection helps to determine extent of decay and the remaining strength of a pole. Ground-line inspections also provide insight into the remaining life of a wood pole.

- The ground-line inspection is performed at the base of the pole because the base is the location of the largest "bending moment," as well as the area subject to the most fungal decay and insect attack. Assessing the condition of the pole at the base is the most efficient way to effectively treat and restore a wood pole.

(ii). Pole Inspection Process

When a wood distribution pole is inspected, the following tasks will be performed:

- Above Ground Observations - Visual inspection of the exterior condition of the pole and visual inspection of components hanging from the pole.
- Partial Excavation – The soil is removed around the base of the pole and the pole is inspected for signs of decay.
- Sound with Hammer – The exterior of the pole is tested with a hammer and the inspector listens for "hollowness" of the pole.
- Bore at Ground Line – The pole is bored at a 45 degree angle below the ground line. This inspection method helps to determine internal decay at the base as well as measure the amount of "good wood" left on the interior of the pole.
- Excavate to 18 Inches (~~Partial~~ Full Ground Line Inspection) – If significant decay is found during the ~~partial~~ full excavation, the soil is removed 18 inches below ground line. Decay pockets are identified and bored to determine the extent of decay.
- Removal of Surface Decay – Identified areas of decay are removed down to "good wood" using a sharp pick.
- Assessment of Remaining Strength – All data collected from the inspection is used to determine effective circumference and remaining strength of the pole.
    - If the effective pole circumference has been reduced by 25% in comparison to the original effective pole circumference, then the pole is classified as a Priority 2 (One Tag) pole. This 25% reduction in effective circumference results in a 58% reduction in pole strength.
    - If the effective pole circumference has been reduced by 50% in comparison to the original effective pole circumference, then the pole is classified as a Priority 1 (Two Tag) pole. This 50% reduction in effective circumference results in an 87% reduction in pole strength.
    - Priority 1 poles will take precedent over Priority 2 poles during replacement.

(iii) Data Collection

All data collected through the inspection process will be submitted to PEF's Distribution Department in electronic format by inspection personnel. This data will be used to determine effective circumference and remaining strength of the pole. In evaluating pole conditions, deductions shall be made from the original

ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator shall be used to determine the measured effective critical circumference. To remain in service "as-is," the pole shall meet minimum NESC strength requirements. The measured effective critical circumference will be compared to the applicable minimum acceptable circumference listed in the most current versions of ANSI 05.1-1992, American National Standard for Wood Poles, and NESC-C2-1990(1). Poles below the minimum acceptable circumference shall be rejected and will be marked in the field for replacement.

(iv). Structural Integrity Evaluation

- As part of the visual inspection of the poles, the inspector will note the type and location of non-native utility pole attachments to the pole or structure. This information will be used by the Joint Use Department to perform, as necessary, a loading analysis on certain poles or structures as more fully described in the Joint Use section of this Plan. In such instances, the loading information obtained from this analysis will be used along with the strength determined in the ground-line inspection. If the loads exceed: a) the strength of the structure when new and b) the strength of the existing structure exceeds the strength required at replacement, according to the NESC, the structure will either be braced to the required strength or will be replaced with a pole of sufficient strength. Specific information on this process in contained in the Joint Use section of this plan.

- Poles not meeting the required strength for loading will be processed in the same manner as loss of strength due to decay.

(v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

   a. Number of poles inspected.
   b. Number of poles not requiring remediation.
   c. Number of poles requiring remedial action.
   d. Number of pole requiring minor follow up.
   e. Number of poles requiring a change in inspection cycle.

f. Number of poles that were overloaded.
g. Number of poles that with estimated remaining life less than 8 years.
h. Number of inspections planned.

4) A pole inspection report that contains the following detailed information:
a. Distribution circuit name.
b. Pole identification number.
c. Inspection results.
d. Remediation recommendation.
e. Status of remediation.

C. Program Cost and Funding

(i). Poles Program Cost Estimates

In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, the number of poles inspected per year will have to increase. This increase will also result in increases in pole replacements, bracings, and treatments. In order to ramp up to the average 8-year cycle, the current funding will be allocated to inspections only and replacements only for 2006. This will help PEF align with the "all wood pole" average 8-year inspection cycle. However, funding increases will be required to meet all aspects of an average 8-year pole inspection cycle as reflected in the charts below. The estimated figures in these charts are "best estimates," given information and facts known at this time and are subject to change or modification.

Annual Unit Estimate

8	95,624	1,641	83	947	48	16,410	821

Annual Cost Estimate

	O&M Costs		Capital				
8	$2,486,224	$206,772	$5,172,000	$278,600	$2,692,996	$5,450,600	8,143,596

3) Joint Use Pole Inspection Plan

A. Introduction

PEF currently has approximately 700,000 joint use attachments on distribution poles and approximately 5,000 joint use attachments on transmission poles. On average, PEF receives approximately 12,000 new attachment requests per year. All new attachment requests are reviewed in the field to assure the new attachments meet NESC and company clearance and structural guidelines. The information provided below outlines PEF's attachment permitting process and how PEF intends to gather structural information on certain existing joint use poles over an average 8-year inspection cycle to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI.

B. General Plan Provisions

(i). Structural Analysis for a Distribution Pole New Joint Use Attachment

When the Joint Use Department receives a request to attach a new communication line to a distribution pole, the following will be done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- For each group of poles in a tangent line, the pole that has the most visible loading, line angle and longest or uneven span length is selected to be modeled for wind loading analysis.
- The selected pole's information is loaded into a software program called "Pole Foreman" from PowerLine Technologies. The pole information is analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages.
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.
- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

(ii). Structural Analysis for a Transmission Pole New Joint Use Attachment

When the Joint Use Department receives a request to attach a new communication line to a transmission pole with distribution underbuild, the following will be done to ensure that NESC clearance and loading requirements are met before permitting the new attachment:

- Each pole is field inspected, and the attachment heights of all electric and communication cables and equipment are collected. The pole number, pole size and class (type) are noted as well as span lengths of cables and wires on all sides of the pole.
- All pole information including structural plan and profiles are sent to the engineering company, Morrison & Hershfield in Plantation, Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis.
- Morison and Hershfield engineers determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.
- The selected pole information is loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph
- If that one pole fails, the next worst case pole in that group of tangent poles is analyzed as well.
- Each pole is analyzed to determine existing pole loading and the proposed loading with the new attachment.
- If the existing analysis determines the pole is overloaded, a work order is issued to replace the pole with a larger class pole. If the pole fails only when the new attachment is considered, a work order estimate is made and presented to the communication company wishing to attach.
- The results of the analysis and the new attachment are entered into the FRAME system.

(iii). Analysis of Existing Joint Use Attachments On Distribution Poles

There are approximately 700,000 joint use attachments on approximately 500,000 distribution poles in the PEF system. All distribution poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. These audits will start at the sub-station where the feeder originates. For each group of poles in a tangent line, the pole that has the most visible loading, line angle, and longest or uneven span length will be selected to be modeled for wind loading analysis. Each pole modeled will be field inspected. The attachment heights of all electric and communication cables and equipment will be collected. The pole age, pole type, pole number, pole size / class, span lengths of cables and wires, and the size of all cables and wires on all sides of the pole will be collected.

The selected pole's information will then be loaded into a software program called "Pole Foreman" from PowerLine Technologies. The pole information will be analyzed and modeled under the NESC Light District settings of 9psf, no ice, 30° F, at 60 MPH winds to determine current loading percentages. If that one pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed

meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis. The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Poles rated at 100% or lower will be designated as "PASSED." Poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the pole is changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

(iv). Analysis of Existing Joint Use Attachments On Transmission Poles

There are approximately 5,000 joint use attachments on approximately 2,500 transmission poles in the PEF system. All transmission poles with joint use attachments will be inspected on an average 8-year audit cycle to determine existing structural analysis for wind loading. Audits will start at the sub-station where the feeder originates. All pole information (pole size, class, type, age, pole number, cable, wire, equipment attachment heights, span lengths) including structural plan and profiles will be sent to the engineering company, Morrison & Hershfield in Plantation, Florida, to be modeled in PLS-CADD/LITE and PLS-POLE for structural analysis. Morrison and Hershfield engineers will determine the worst case structures in a tangent line and request the structural drawings and attachment information on those selected poles. Typically, transmission poles with line angle and uneven span lengths are the poles considered for wind loading analysis.

The selected pole information will be loaded into the PLS-CADD and PLS-POLE software. Depending on the pole location per the NESC wind charts, one of the following load cases is run. **NESC Light District:** 9psf, no ice, 30° F, 60mph; **NESC Extreme:** 3 sec gust for the specific county, no ice, 60° F (Ex: Orange County is 110 mph); or **PEF Extreme** at 36psf, 75° F, wind chart mph. If that one transmission pole fails, the next worst case pole in that group of tangent poles will be analyzed as well. Each transmission pole analyzed will determine the existing pole loading of all electric and communication attachments on that pole. If the existing analysis determines the transmission pole is overloaded, a work order will be issued to replace the pole with a larger class pole. Should the original pole analyzed meet the NESC loading requirements, all similar poles in that tangent line of poles will be noted as structurally sound and entered into the database as "PASSED" structural analysis.

The results of the analysis and all communication attachments will be entered into the FRAMME system. Reporting from the FRAMME system will indicate the date and results of the analysis. Transmission poles rated at 100% or lower will be designated as "PASSED." Transmission poles that are analyzed and determined to be more than 100% loaded will be designated as "FAILED," and scheduled to be changed out. Once the transmission pole is changed out, FRAMME will be updated to reflect the date the new pole was installed with the new loading analysis indicated.

(v). Records and Reporting

A pole inspection report will be filed with the Division of Economic Regulation by March 1st of each year. The report shall contain the following information:

1) A description of the methods used for structural analysis and pole inspection.

2) A description of the selection criteria that was used to determine which poles would be inspected.

3) A summary report of the inspection data including the following:

   a. Number of poles inspected.
   b. Number of poles not requiring remediation.
   c. Number of poles requiring remedial action.
   d. Number of pole requiring minor follow up.
   e. Number of poles requiring a change in inspection cycle.
   f. Number of poles that were overloaded.
   g. Number of inspections planned.

C. Program Cost and Funding

(i). Pole Analysis Funding

As stated above, there are currently approximately 700,000 joint use attachments on approximately 500,000 distribution poles and approximately 5,000 joint use attachments on approximately 2,500 transmission poles. PEF will analyze the "worst case" poles in a tangent line of similar poles as deemed appropriate during field inspections.

In order to meet the obligations set forth in Order No. PCS-06-0144-PAA-EI, PEF would require incremental funding annually to successfully gather data and enter it into the required reporting format. See calculation that follows. The estimated figures in these charts are "best estimates," given information and facts known at this time and are subject to change or modification.

Annual Unit & Cost Estimate									
500,000	62,500	6,250	630	2,500	313	94	63	$479,800	$2,772,000

Susan D. Ritenour
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GULF POWER
A SOUTHERN COMPANY

March 31, 2006

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

Dear Mr. Devlin:

RE: Docket 060078-EI - Proposal to Require Investor-Owned Electric Utilities to Implement Wood Pole Inspection Program

In accordance with the requirements of PAA Order No. PSC-06-0144-PAA-EI issued in Docket No. 060078-EI, enclosed is Gulf Power Company's proposed comprehensive Wood Pole Inspection Plan. Please give me a call if you have any questions.

Sincerely,

Susan D. Ritenour

lw

Enclosures

cc:

GULF

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060078-EI

GULF POWER COMPANY'S

Wood Pole Inspection Plan

April 1, 2006

GULF POWER

A SOUTHERN COMPANY

GULF POWER COMPANY
POLE INSPECTION PLAN SUMMARY
Docket No. 060078-EI
Order No. PSC-06-0144-PAA-EI

DISTRIBUTION POLES

INTRODUCTION

In the early 1990's, Gulf Power began to evaluate its distribution pole inspection processes and determined it would be beneficial to begin a full ground line inspection program on its wood pole plant. Gulf contracted with Osmose, Inc. to complete ground line inspections on a sample of its wood poles to determine if the need for a full ground line inspection program existed. The sample found evidence of decay in poles treated with Creosote and Pentachlorophenol (Penta). There were no signs of decay in poles treated with Chromated Copper Arsenate (CCA). Gulf decided to begin a full ground line inspection program on wood poles treated with Creosote and Penta. CCA poles would be sampled periodically to determine when inspection of these poles should begin.

Gulf Power Company's distribution pole inspection program was based on a ten-year cycle, completing its first cycle in 2002. The inspection methodology utilized sound and bore with excavation to a depth of 18 inches. Decayed wood was removed from the outside of the pole, and measurements were taken to determine the poles remaining strength. The poles were then treated with preservatives. Reject poles were scheduled for replacement or reinforcement.

Gulf Power rate of rejection for distribution wood poles has fallen from approximately 15% on its first inspection cycle to approximately 5% on it second inspection cycle.

INSPECTION CYCLE

Gulf Power plans to transition from its present ten-year cycle to an eight-year cycle. Gulf began its present ten-year cycle in 2003 and through 2005 has completed the inspection of 76,744 distribution wood poles. Gulf will have to inspect an average of 33,810 poles per year in order to complete its present inspection cycle within eight years.

Historically, Gulf has not inspected a set number of poles each year. Annual inspection rates have varied as the Company responded to its various needs. Using this philosophy, Gulf successfully completed its first inspection cycle in 2002. Gulf plans to utilize the same flexible approach to insure the Company completes it second inspection cycle within eight years, while also insuring other programs meet the needs of our customers each year.

INSPECTION METHODOLOGY

Based on the lessons learned during it first pole inspection, Gulf has refined it pole inspection process for distribution wood poles. During its first inspection cycle, Gulf inspected all Creosote and Penta poles, but also excavated and bored a sample of CCA poles to determine if these poles required excavation and boring. Gulf learned that CCA poles provide superior decay resistance when compared to Creosote and Penta poles. Based on the findings of these inspections, Gulf did not excavate or inspect CCA poles during its first inspection cycle. In 2003, when Gulf began its second inspection cycle, Gulf inspected and excavated 4,804 CCA poles to determine if these poles needed to be inspected. While only two of these poles were rejected, Gulf refined its inspection process (Attachment A) and developed an inspection matrix based on pole age, treatment type, and condition (Attachment A, Page 10).

Under this matrix, all poles (Creosote, Penta, and CCA) receive a visual inspection with sounding, boring and excavation as appropriate.

Gulf will continue to incorporate a sampling on non-excavated poles into its present inspection process to insure on-going statistical validity of its inspection matrix. A sample of poles that would not normally qualify for full excavation under the present matrix will be fully excavated and inspected to determine if any modifications need to be made to the present inspection process.

STRENGTH IMPACT ASSESSMENT OF POLE ATTACHMENTS

Historically, Gulf engineered its distribution system to accommodate third party attachments but has not performed strength assessments on poles with other utility attachments. Gulf will develop specifications for the methodology of performing this analysis and incorporate them into the existing inspection program.

COLLOCATED POLES

Gulf Power will assume responsibility for inspecting and maintaining all wood poles it owns, regardless of other utility attachments. Gulf will coordinate with utilities having joint use attachments to insure pole bracing or replacement is completed when necessary. Poles owned by other utilities will be inspected by the owning utility.

PROGRAM ENFORCEMENT

An Asset Management Coordinator (AMC) position has been created to oversee the entire pole inspection program. The AMC will insure program enforcement is accomplished through random spot checks of inspected poles to insure the inspection process meets Gulf's specifications. The AMC will also insure annual reporting on pole inspection activities is accurately completed in accordance with PSC requirements.

Gulf will continue to require quality control programs from its inspection contractors as a standard part of its contract for pole inspection services.

TRANSMISSION STRUCTURES

INTRODUCTION

In 2004 Gulf Power adopted the Southern Company Transmission Line Inspection Standards (Attachment B). Gulf contracts ground line inspections and uses a combination of Company employees and contractors to perform comprehensive walking and aerial inspections. Gulf Power Company's transmission inspection program is based on two alternating twelve-year cycles which results in a structure being inspected at least every six years.

INSPECTION CYCLE

Gulf does not propose any changes to its present six-year inspection cycle since it exceeds the PSC ordered eight-year cycle. Historically, Gulf has not inspected a set number of poles each year. Annual inspection rates have varied as the Company responded to its various needs. Gulf plans to utilize the same flexible approach to insure the Company completes its inspection cycle as required.

INSPECTION METHODOLOGY

Attachment B provides a detailed description of Gulf's transmission inspection program.

STRENGTH IMPACT ASSESSMENT OF POLE ATTACHEMENTS

Gulf designs its transmission structures to accommodate third party attachments but has not performed strength assessments on poles with other utility attachments. Gulf will develop specifications to perform this analysis and incorporate it into the inspection program.

COLLOCATED POLES

Gulf Power is responsible for inspecting and maintaining all transmission structures it owns, regardless of other utility attachments. Gulf will coordinate with utilities having joint use attachments to insure pole bracing or replacement is completed when necessary.

PROGRAM ENFORCEMENT

Gulf's Transmission Line Supervisor is responsible for ensuring program enforcement and that random spot checks of inspected poles are performed to ensure the inspection process meets Gulf's specifications. The Transmission Manager will also ensure annual reporting on pole inspection activities is accurately completed in accordance with PSC requirements.

Gulf will continue to require quality control programs from its inspection contractors as a standard part of its contract for pole inspection services.

ATTACHMENT A

POLE AND OVERHEAD LINE INSPECTION,
WOOD POLE TREATMENT AND WOOD POLE REINFORCEMENT

TECHNICAL SPECIFICATIONS

_____ Osmose Utility Services, Inc.

1.0 INSPECTION AND TREATMENT OF DISTRIBUTION POLES

1.1 SCOPE

This Specification addresses overall conditions and requirements for inspection of distribution pole plant, structures, associated overhead lines and facilities, pole ground line inspections, internal and external pole treatments, re-inspection(s) of aforementioned facilities, and other related miscellaneous activities of distribution pole plant, structures, and associated overhead lines and facilities serving service territories of one (1) Operating Companies of Southern Company.

Southern Company service territories addressed in this Specification shall be defined as those territories having customers which are served by distribution electrical facilities of following Operating Company:

Gulf Power Company

Unless otherwise noted, all references in this Specification to "Operating Company representative" shall be indicative of designated Operating Company employee representing Gulf Power Company.

Although this Specification is intended to address a majority of issues that will arise during course of Services to be performed during this inspection and treatment program certain aspects of this Specification will be decided on a per Operating Company basis. While need for certain Operating Company specific specifications is recognized as necessary, intent of this paragraph is not to replace this Specification. When deemed necessary, additional guidelines will be supplied in written form to Contractor by Operating Company representative and shall then be considered an addition to this Specification to be recorded as such in attachment form.

1.2 GENERAL REQUIREMENTS

1.2.1 WORKMANSHIP

Contractor shall at all times exercise caution in order to prevent injury to any and all persons and to prevent damage to any and all property during performance of work.

1.2.2 PROPERTY LIMITS AND ACCESS

Contractor shall perform all inspections and treatments to poles and structures subject to but not to be limited to following exceptions:

A) Locations deemed inaccessible due to acts of God
B) Locations deemed inaccessible due to circumstances beyond control of the Contractor
C) Alternate access to a location has been established. This applies to private property poles where access has been denied by the property owner.
D) Traversing the rights-of-way from location to location would prove damaging to crops, tree plantings, or established lawns
E) Traversing the rights-of-way from location to location would require fording of streams, creeks, or other water run-offs

Any pole not receiving an inspection after all reasonable efforts have been attempted shall be indicated on all copies of inspection maps and a reason for inaccessibility given. Any exception is to be reported to Operating Company representative.

1.2.3 GENERAL PESTICIDE REQUIREMENTS

All pesticides shall be handled and applied in a manner that will prevent damage to vegetation, property, livestock, pets, and/or general public.

Contractor may submit substitute pesticides for consideration to Operating Company representative for which service is being performed; however, unless Operating Company representative provides written approval, use of substitute pesticides is strictly prohibited.

When making this submission, in addition to general pesticide information, data supportive of following information shall be included:

A) Wood penetration
B) Retention values
C) Service data from field reports when pesticide is used on older, in- service utility poles

It should be understood that all substitute pesticides will be applied at maximum labeled rate in all applications.

Only pesticides registered by Environmental Protection Agency and Department of Agriculture or the similar governing agency for state in which the Services are performed will be considered for approval by each respective Operating Company. Pesticides not approved for use by aforementioned agencies shall not be applied. Pesticides shall only be applied per manufacturer's label recommendations.

No external preservative treatments shall be applied by Contractor where a utility pole is located in a vegetable garden or a permanent water source such as a lake, pond, river, or stream. No external or internal preservative treatment will be applied within fifty (50) feet of a well.

1.2.4 PESTICIDE LICENSING AND LABEL REQUIREMENTS

1.2.4.1 Contractor shall be certified commercial pesticide business for pesticide application set forth under this contract, and shall be registered with Department of Agriculture or similar governing agency for each state in which the Services are performed during Current application year. Contractor shall furnish proof of this current registration to Operating Company representative prior to commencing Services. Contractor shall be responsible for recording and submitting all pesticide usage forms required under the Legal Requirements.

1.2.4.2 Contractor shall possess copies of pesticide labels and Material Safety Data Sheets (MSDS) of all preservative treatments, insecticides, pesticides, and fumigants being used. Label and MSDS of all pesticides used during inspection, treatment, and reinforcement process shall list pesticide composition, description, directions for use, precautionary statements, warnings, environmental hazards, practical treatments, storage and disposal instructions, and any other relevant information. Upon request, label and MSDS of all pesticides used during inspection, treatment, and reinforcement process shall be made available to anyone desiring this information.

1.2.5 PESTICIDE SECURITY AND CONTAINER DISPOSAL

Any container in which pesticide is stored shall be securely locked or bolted to vehicles when on Operating Company rights-of-way or job location and kept locked when unattended. Empty pesticide containers shall be removed from Operating Company rights-of-way or job location and kept in locked compartment until disposal. Disposal of pesticides and their containers shall be done in accordance with the applicable Legal Requirements. Burial on Operating Company rights-of-way is not an acceptable disposal procedure.

1.2.6 SPILL PREVENTION

1.2.6.1 Pesticide spills shall be immediately contained and cleaned up in a manner consistent with manufacturer's label recommendations, MSDS instructions, and all applicable Legal Requirements including, without limitation, acceptable environmental procedures.

1.2.6.2 Contractor shall provide each crew a spill kit containing sufficient materials for purpose of aiding in prevention of spread of and subsequent clean up of liquid pesticide, fumigant, or hollow heart compound spills. This spill kit shall consist of, but not be limited to following materials:

A) Absorptive materials (Ex. sawdust, oil dry, etc.)
B) Neutralizing agents
C) Containers for waste disposal

1.2.7 PESTICIDE TRAINING

Each pole inspector or foreman shall be required to attend pesticide training program which addresses:

A) Biology of wood destroying insects and fungi
B) Proper and safe handling, storage, disposal, and transport of pesticides
C) Product labels and their MSDS
D) Emergency procedures for pesticides spills
E) Other particulars of wooden pole inspections and treatment

1.2.8 HAZARDOUS COMMUNICATION PROGRAM

Contractor shall provide to its employees a hazardous communication program, which addresses purpose of using pesticide MSDS, product labels, protective safety equipment and clothing, and product information.

1.3 CONTRACTOR REQUIREMENTS

1.3.1 PERSONNEL QUALIFICATIONS

1.3.1.1 Contractor is required to have minimum five (5) years experience in the in-service pole inspection and treatment business. Inspection and treatment Services of distribution pole plant shall be performed or supervised by foreman having minimum six (6) months experience and shall be certified by Contractor as being qualified to perform the Services. Foreman's immediate supervisor shall have minimum two (2) years field experience performing pole inspection and treatment and shall not be responsible for more than four (4) crews within Operating Company boundaries. A supervisor may oversee more than four (4) crews within Operating Company boundary with approval of Operating Company representative. Overall supervision shall be performed by a specialist having minimum two (2) years field experience performing pole inspection and treatment. A full-time, on-site foreman shall supervise each inspection crew.

1.3.1.2 All Contractor Personnel and equipment shall be neat and orderly in appearance and shall have features which identify Contractor Personnel and equipment as being employed by or owned by Contractor.

1.3.2 CONTRACTOR SUPERVISORY REQUIREMENTS

Contractor supervisory Personnel shall supervise a minimum 10% of the hours logged by each crew. This time is in addition to time spent with each crew for quality assurance checks.

1.3.3 WORK HOURS

Normal work hours are to be scheduled beginning Monday and ending Saturday of each calendar week. Normal work week shall consist of forty (40) hours divided into Regular Work Days of either five (5) - eight (8) hour or four (4) - ten (10) hour days. These Regular Work Days are to be scheduled between hours of 6:00 a.m. and 6:00 p.m. of each day, on days other than holidays defined below as mutually agreed to by the Parties:

A) New Year's Day
B) Martin Luther King, Jr. Day
C) Memorial Day

D) Forth of July
E) Labor Day
F) Thanksgiving Day
G) The day following Thanksgiving Day
H) Christmas Eve
I) Christmas Day

Holiday observance shall be designated by Operating Company representative prior to beginning of Contract year and understood by Contractor.

1.3.4 WORK REPORTING LOCATIONS

Contractor is responsible for obtaining suitable reporting locations for its crews. Reporting locations should be a nominal distance from Work Site(s). Operating Company locations should not be considered suitable reporting location unless agreed to by Operating Company representative.

1.3.5 COMMUNICATION

1.3.5.1 REQUIRED DEVICES

Each Contractor crew shall have either a two-way radio compatible to communication system utilized by Operating Company of Southern Company (Southern Linc) or mobile cellular telephone. Contact number(s) of communication device(s) shall be provided to Operating Company representative. Costs of communication device(s) shall be included in Contract rates.

1.4 OPERATING COMPANY RESPONSIBILITIES

1.4.1 Operating Company representative shall furnish Contractor with this Specification and any Operating Company specific rules that apply for respective Operating Company.

1.4.2 Operating Company representative shall provide Contractor with copies of respective Operating Company maps related to the Services to be performed per Section 1.11.1.

1.4.3 Operating Company representative shall perform quality assurance checks per Section 1.9.1.

1.4.4 Operating Company representative shall have right to terminate Services as described in Section 1.2.1.

1.4.5 Operating Company shall aid Contractor in disputes arising with private property owners concerning Work Site accessibility per Section 1.3.6.2.

1.5 POLE GROUND LINE INSPECTION AND TREATMENT

1.5.1 GENERAL

During progress of Services, a representative of Contractor shall notify Operating Company representative planned area of Services prior to performance of that Services. This notification shall include town or area and Operating Company map sheet number and/or other information that such Operating Company deems necessary or desirable. If a Work Site changes due to either completion of Services or an unforeseen circumstance, Contractor representative shall notify Operating Company representative of change prior to beginning Services at another Work Site. Contractor foreman shall also notify Operating Company representative of days that Contractor does not perform Services and the reason(s) of non-performance. It is recommended Operating Company representative keep a readily accessible log of crew locations for communication purposes.

1.5.2 ITEMS RECEIVING INSPECTION

1.5.2.1 Contractor, after having reviewed this Specification, shall understand items to receive inspection and level of inspection expected. Any question pertaining to these items shall be addressed to Operating Company representative and any clarification shall be made to Contractor by Operating Company representative through oral explanation, pictorial depictions, or field visits. This clarification shall be made prior to beginning of inspection year.

1.5.2.2 All Southern Company overhead distribution electrical facilities attached to Gulf Power owned poles shall receive visual inspection per 1.5.5.

1.5.2.3 If Operating Company map identifies pole as foreign-owned and field conditions identify pole as Operating Company-owned or opposite condition (i.e., map states Operating Company-owned and field condition indicates a foreign-owned) exists, determination of pole ownership shall be made by Operating Company representative. This condition shall be addressed prior to beginning of inspection year and solutions shall remain in effect during course of present inspection year.

1.5.3 POLES

A) In very rare occasions, pole will prove to be inaccessible. If, after all reasonable efforts to reach pole have proved fruitless and pole is judged to be truly inaccessible, pole shall receive as thorough a visual inspection as possible per Section 1.5.4.1. All noted defects shall be recorded and reason for inaccessibility given to Operating Company representative.

B) Operating Company-owned, CCA treated poles zero (0) to fourteen (14) years of age and having no notable ground line defects as described in Items A-C of Section 1.5.10.1 shall receive visual inspection per Section 1.5.4.1 and sound and selective bore inspection per Section 1.5.7.

C) Operating Company-owned, CCA treated poles zero (0) to fourteen (14) years of age and having notable ground line defects as described in Items A-C of Section 1.5.10.1 shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

D) Operating Company-owned, CCA treated poles fifteen (15) years of age to twenty-four (24) years of age shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

E) Operating Company-owned, CCA treated poles twenty-five (25) years of age and older and found to have never received external treatment shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, full excavation inspection per Section 1.5.10.2, and external treatment application per Section 1.5.17.

F) Operating Company-owned, CCA treated poles twenty-five (25) years of age and older and found to have previously received external treatment shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

G) Operating Company-owned, non-CCA treated poles found to have never received external ground line treatment shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, full excavation inspection per Section 1.5.10.2, and external treatment application per Section 1.5.17.

H) Operating Company-owned, non-CCA treated poles having previously received external ground line treatment one (1) to four (4) years prior to present inspection and found to have no notable ground line defects during present inspection as described in Items A-E of Section 1.5.10.1 shall receive visual inspection per Section 1.5.4.1 and sound and selective bore inspection per Section 1.5.7.

I) Operating Company-owned, non-CCA treated poles having last received an external ground line treatment one (1) to four (4) years prior to present inspection and found to have notable ground line defects during present inspection as described in Items A-E of Section 1.5.10.1 shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

J) Operating Company-owned, non-CCA treated poles having previously received external treatment five (5) years or greater prior to present inspection cycle shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

K) Operating Company-owned, non-CCA treated poles found to have been removed from one in-service location and installed at another in-service location shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, full excavation inspection per Section 1.5.10.2, and external treatment application per Section 1.5.17.

L) All Operating Company-owned poles, after having been inspected, which are found to have obvious internal sapwood decay and are not rejected for replacement shall receive full excavation per Section 1.5.10.2, external

treatment application per Section 1.5.17, internal fumigant application per Section 1.5.20, and internal treatment application per Section 1.5.21.

Extra caution shall be exercised when performing both internal fumigant and internal treatment application to single pole. When internal fumigant and internal treatment chemicals are mixed during joint applications, overall level of desired effectiveness is reduced.

If it is determined that both internal fumigant and internal treatment cannot be applied without possibility of cross contamination between two (2) chemicals, it is preferred that only internal treatment per Section 1.5.21 shall be applied.

M) Operating Company-owned poles meeting requirements for excavation inspection found in environment prohibiting minimum seventy-five (75) percent excavation of pole as described in Section 1.5.10.3 shall receive visual inspection per Section 1.5.4.1 and shall be inspected per Section 1.5.10.3.

N) Operating Company-owned concrete poles or metal poles, towers, or structures shall receive visual inspection per Section 1.5.4.2 or Section 1.5.4.3. **Not relevant for Gulf Power Company.**

O) Operating Company owned transmission poles, towers, or structures having distribution voltage facilities attached shall receive visual inspections per applicable Sections of Section 1.5.4 and Section 1.5.5.

P) Operating Company-owned poles having underground power risers are excluded from excavation under this agreement unless specifically requested by Operating Company representative.

If Operating Company-owned poles having underground power risers shall receive excavation inspection, extra caution will be exercised when excavating in suspected areas of underground cable(s) in an effort to prevent <u>any</u> damage to these cables.

1) Operating Company-owned, CCA treated poles zero (0) to fourteen (14) years of age having underground power risers <u>and having no notable ground line defects</u> as described in Items A-C of Section 1.5.10.1 shall receive visual inspection per Section 1.5.4.1 and sound and selective bore inspection per Section 1.5.7.

   Operating Company-owned, CCA treated poles zero (0) to fourteen (14) years of age having underground power risers <u>and having notable ground line defects</u> as described in Items A-C of Section 1.5.10.1 shall be inspected per the following:

2) If Operating Company has designated these poles being eligible for excavation, they shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10.

3) If Operating Company has designated these poles as not being eligible for excavation, they shall receive visual inspection per Section 1.5.4.1 and sound and bore inspection per Section 1.5.12.

Operating Company-owned poles having underground power risers which are CCA treated fifteen 15) years old or older and non-CCA treated shall be inspected per following:

4) If Operating Company has designated these poles being eligible for excavation, they shall receive visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and excavation inspection per Section 1.5.10. These poles will also receive fumigant application per Section 1.5.20.

5) If Operating Company has designated these poles as not being eligible for excavation, they shall receive visual inspection per Section 1.5.4.1 and sound and bore inspection per Section 1.5.13. These poles will also receive fumigant application per Section 1.5.20.

R) Poles reinforced during previous cycle shall receive visual inspection per Section 1.5.4.1 and shall be fully excavated per Section 1.5.10.2. These poles shall receive external treatment per Section 1.5.17, internal fumigant application per Section 1.5.20, and internal treatment per Section 1.5.21. In an effort to properly evaluate internal portion of pole, extra attention shall be concentrated to areas of pole having reinforcing bands and area of pole at and above top of the truss.

S) Poles receiving full excavation inspection and not determined to be rejected for replacement shall receive external treatment per Section 1.5.17.

T) Poles determined to be rejected for restoration shall receive treatments per Section 2.5.4.

U) Non-restorable rejected poles shall not receive treatment.

All bolded alpha references below refer to corresponding paragraphs of Section 1.5.3				Visual	Sound	Bore Inspection	Partial Excavate	Full Excavate	Type of Treatment
A	Inaccessible poles			Yes	No	No	No	No	No
N	Concrete poles		OR	n/a	n/a	n/a	n/a	n/a	n/a
N	Metal Poles, towers, or structures								
O	OpCo-owned transmission poles with distribution facilities attached			Yes	Yes	No	No	No	No
B	CCA 0-14 yrs old	Ω	OR	Yes	Yes	Sel	No	No	No
H	Non-CCA 1-4 yrs since prior treatment	Ω		Yes	Yes	Sel	No	No	No
C	CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	Yes	If Need	Ex
D	CCA 15-25 yrs old		OR						
F	CCA 25 yrs or older with prior treatment								
I	Non-CCA 1-4 yrs since prior treatment	☼	OR	Yes	Yes	Sel	Yes	If Need	Ex
J	Non-CCA 5 yrs or greater since prior treatment								
E	CCA 25 yrs or older with no prior treatment			Yes	Yes	Sel	Yes	If Need	Ex
G	Non-CCA with no prior external treatment		OR	Yes	Yes	Man	No	Yes	Ex
K	Non-CCA - relocated								
P-1	Riser Pole, CCA 0-14 yrs old	Ω	OR	Yes	Yes	Sel	No	No	No
P-2	Excavatable Riser Pole, CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	No	IF Need	Ex
P-4	Excavatable Riser Pole, CCA 15 yrs or older			Yes	Yes	Sel	No	No	Fu
P-4	Excavatable Riser Pole, Non-CCA			Yes	Yes	Sel	No	If Need	Ex
P-3	Non-Excavatable Riser Pole, CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	No	No	Fu
P-5	Non-Excavatable Riser Pole, CCA 15 yrs or older			Yes	Yes	Sel	No	No	Fu
P-5	Non-Excavatable Riser Pole, Non-CCA			Yes	Yes	Yes	No	No	Ex, Fu
M	Non-Excavatable Pole			Yes	Yes	Man	No	No	Fu
M	Poles unable to excavate minimum 75%			Yes	Yes	Man	Yes	No	Fu
R	Previously reinforced pole		OR	Yes	Yes	Man	No	Yes	Ex, In, Fu
L	Pole with obvious internal sapwood decay								
O	Foreign owned pole			n/a	n/a	n/a	n/a	n/a	n/a

This matrix is to be used as a guide only and will not cover every inspection and/or treatment option to be encountered in field conditions. For instances not covered above or for further explanation of inspection and/or treatment situations, refer to specific specification(s) which are applicable to the situation.

Unless otherwise indicated, answers are to apply for total group, not individual line items.

Ω - Poles found to have no notable g/l defects per those described in Section 1.5.10.1
☼ - Poles found to have notable g/l defects per those described in Section 1.5.10.1

If Need - Poles are to be fully excavated only if partial excavate reveals need for further inspection
Ex - External treat if full excavate & not rejected for replacement per Section 1.5.17
In - Internal Treatment application per Section 1.5.21
Fu - Internal fumigant application per Section 1.5.20

Bore Inspection - Sel = Selective Bore Inspection, Man = Mandatory Bore Inspection

1.5.4 VISUAL INSPECTION OF THE POLE

1.5.4.1 WOOD POLES

In visual inspection of each pole, following items shall be inspected and recorded:

A) Condition of shell
B) Manufacturers birthmark information
C) Woodpecker holes
D) Defective pole top – badly split, decayed, or damaged by lightning
E) Cracks or breaks across the grain
F) Mechanical or fire damage (location and extent if at location other than ground line)
G) Insect damage (location and extent if location is other than ground line)

If, after this visual inspection of pole, it is determined that this pole is deemed unsuitable for further serviceable life due to serious defects, it shall not be inspected further, but reported as visually rejected pole for reinforcement or replacement and shall be indicated as such on map.

1.5.5 VISUAL INSPECTION OF OVERHEAD LINE FACILITIES

1.5.5.1 In addition to visual inspection of pole per applicable part of Section 1.5.4, following items shall receive visual inspection and damaged or missing associated items (equipment numbers, locks, hardware, identification numbers, etc.) shall be recorded:

A) Condition of primary and/or secondary conductor(s)
B) Condition of all overhead equipment
C) Damaged or blown lightning arrestor(s)
D) Gang switch lock damaged or missing
(To be reported to Company Coordinator)
E) Grounding issues
    1) Not made up to neutral
    2) Wire broken and unable to repair
    3) Rod broken or missing
    4) Not made up to switch operating handle
    5) Not made up to the underground riser
F) Underground riser(s) (regardless of voltage)
G) Burning or Tracking on poles
H) Missing or damaged primary and/or secondary insulator(s)
I) Guying facilities
    1) Broken or damaged wire
    2) Broken, damaged, abandoned, or missing rod
    3) Broken, damaged, or missing fiberglass insulator
    4) Non-insulated, non-grounded guy wires
J) Inadequate conductor (regardless of voltage) clearance issues at pole or any point between poles

1) Conductor to Joint use facilities
2) Conductor to Structure (sign, building, non-utility pole, etc)
3) Conductor to ground

K) Obvious rights-of-way encroachment(s) at pole or any point between poles

L) Vegetation problem(s)
1) Trees or limbs contacting primary or neutral conductors or pole
2) Pole covered by vegetation

1.5.5.2 Items per Section 1.5.5.1 shall only be recorded if damaged or any associated items are noted to be damaged or missing. Following shall be recorded as inventory type entry:

A) Wooden cross arm(s) (obvious damage or missing associated items shall also be noted)

B) Stub pole locations (Indicate which poles have no attachments and are ready to be pulled)

C) Unauthorized pole attachments

D) Stub pole attachments (both authorized and unauthorized)

E) Ceramic guy insulators (Johnny ball insulators) if missing

F) Aerial Markers

1.5.5.3 Attachments shall be defined as authorized or unauthorized. Authorized attachments shall include following:

A) Operating Company overhead facilities (transformers, capacitors, conductors, lighting, etc.)

B) Telephone company overhead cables and facilities, overhead to underground risers, and pedestals

C) Cable television company overhead cables and facilities and overhead to underground risers and accompanying pedestals

D) Customer owned, Operating Company maintained lighting

Non-authorized attachments shall include but shall not be limited to:

A) Buildings and structures (playhouses, sheds, carports, etc.)

B) Fences, gates, etc.

C) Recreational items (basketball goals, swing sets, etc.)

D) Customer-owned, customer maintained lighting

E) Customer owned power cables

F) Billboards or other large signs, banners, balloons, flagging, etc. (not including campaign literature, advertisements, or other notices affixed to pole using staples, tacks, or small nails)

1.5.6 ADDITIONAL SERVICES

Following additional Services shall be performed during inspection process:

1.5.6.1 GROUND WIRE REPAIR

Upon inspection, ground wires that are found to be broken or cut up to five feet (5') above ground line or are disconnected from ground rod are to be repaired in field and/or reconnected to ground rod and noted on report. Ground wire is also to be stapled to pole per Southern Company specification to a height of five feet (5') above ground level.

Contractor shall provide following:
1) Safety equipment
2) Appropriate tools
3) Compression dies

Operating Company shall supply following:
1) Repair wire
2) Staples
3) Splice Connectors

If for any reason ground wire cannot be repaired, pole location and reason for non-repair shall be recorded in report.

1.5.6.2 GUY MARKER INSTALLATION / REPLACEMENT

Down guys for Operating Company overhead facilities that are found to have no guy marker shall have yellow, lightweight, plastic marker installed. Existing markers that are found to be damaged or have deteriorated to point of being ineffective shall be replaced. Operating Company representative shall define "deteriorated to point of being ineffective".

If more than one guy lead is attached to single anchor rod, only top-most or outside guy wire is to receive guy marker per Figure 5.

Operating Company shall make determination as to provider of marker. If it is determined that Contractor will provide marker, marker shall meet Operating Company material specifications.

1.5.6.3 DIGITAL IMAGES

Poles rejected for replacement shall have digital image recorded to indicate pole construction type. This image shall be provided to Operating Company representative. Provision of these images is based on representative's discretion.

1.5.6.4 POLE STEP REMOVAL

A) Any pole steps found installed in wooden poles below a height of eight feet (8') above ground level shall be removed from pole and shall be properly disposed of.
B) Any pole step bolts found installed in concrete poles below a height of eight feet (8') above ground level shall be removed and returned to proper Operating Company location.
C) Concerning metal poles, towers, or structures which do not have an installed anti-climbing device; any steps found installed below a height of eight feet (8')

above ground level shall be removed and returned to proper Operating Company location.

Summary of these additional items shall be included in summary reports forwarded to respective Operating Companies.

1.5.7 SOUND AND SELECTIVE BORE

Poles described in Section 1.5.3 as those to receive sound and selective bore inspection shall be sounded per Section 1.5.8. If internal decay is suspected as a result of sound inspection, selective bore inspection shall be performed per Section 1.5.9. Poles indicated to have a mandatory bore inspection per the respective Operating Company Pole Inspection and Treatment Matrix are to be bore inspected regardless of suspicion of pole's internal condition.

Poles which are bored as a result of soundings per this inspection shall be reported as SOUNDED AND BORED on work summaries forwarded to Operating Company representatives.

1.5.8 SOUNDING INSPECTION

Using hand hammer of adequate size, inspector shall sound pole in circumfluous manner from ground line to as high as inspector can reach to locate exterior or interior pockets of decay. In cases of pole excavation, sounding shall begin at lowest point of ground contact.

1.5.9 BORE INSPECTION

1.5.9.1 Beginning at ground line level and using maximum 3/8" diameter bit, at least one (1) test hole shall be bored into pole beginning one inch (1") to side of and parallel to deepest check extending below ground line. Boring shall be taken at a forty-five (45) degree angle and proceed past center of pole in depth. If, through sounding or boring, pockets of internal decay are detected, minimum three (3) additional borings shall be taken to determine the extent of decay. First of these subsequent borings shall be ninety (90) degrees from and six inches (6") higher than initial bore. Additional boring(s), if necessary, shall continue in this ninety (90) degree and six inch (6") progression until a maximum of four (4) borings have been performed. Shell thickness shall be determined with shell depth indicator.

1.5.9.2 All inspection holes shall be plugged with tight-fitting, treated wooden dowel or composite plug originally manufactured for this purpose. Care should be taken to ensure that no inspection hole is left unplugged.

NOTE: To aid in quality assurance inspections, all inspection bore holes shall be made easily identifiable via use of semi-permanent markings. These markings shall remain visible two (2) months minimum.

1.5.10 EXCAVATION

1.5.10.1 When age, treatment, and location are appropriate per Section 1.5.2.4, poles will initially receive partial excavation inspection. This partial excavation shall consist of

a ten inch (10") deep and ten inch (10") wide excavation. If external decay is found after partial excavation, full excavation will be performed.

In case of pole not meeting age requirements for partial inspection as defined in Section 1.5.3 but, any of following conditions are found, partial excavation will be performed in area(s) of:

A) Obvious decay
B) Mechanical damage
C) Green mold
D) Where largest check near ground line is located
E) Underground risers *

* Decision to excavate underground risers shall be made by respective Operating Company representative per Section 1.5.3-Q.

When age, treatment, and location are appropriate per Section 1.5.3 for poles to receive partial inspection and none of conditions A – E above, are found, ground line locations for partial inspection shall be left to discretion of inspector.

Items D and E, above shall only be applicable to CCA poles fifteen (15) years of age and older. Non-CCA treated poles do not have age limitations concerning these two (2) items.

Prior to beginning any Services, Contractor shall take all reasonable precautions to insure there will be no pole failure during the performance of Services.

1.5.10.2 Poles that have been partially excavated and are found to have external decay shall be fully excavated to minimum depth of eighteen inches (18") below ground level in a method that entirely encircles the pole. Diameter of excavation shall provide minimum clearance of ten inches (10") around entire pole at ground level and four inches (4") around entire pole at bottom of hole. Wire brush or check scraper shall be used to clean below-ground line portion of pole.

1.5.10.3 For pole to be considered candidate for full excavation, at least seventy-five percent (75%) of pole's circumference must be receptive to excavation. Items prohibiting excavation can be but should not be limited to following:

A) Concrete, asphalt, or other paved surfaces
B) Buildings
C) Walls
D) Non-removable fences
E) Other structures
F) Pole surrounded by water
G) Limited landscaping
H) Large tree roots

If, prior to beginning excavation inspection, it is determined pole cannot be excavated at least seventy-five percent (75%) of circumference, pole shall be inspected per Section 1.5.12 or Section 1.5.13.

If, during full excavation inspection, less than seventy-five percent (75%) of pole has been excavated the full eighteen inches (18") but conditions prohibit further excavation, portion of pole which has been excavated shall receive external treatment application per Section 1.5.17.5. Pole shall also be inspected per Section 1.5.12 or Section 1.5.13.

1.5.10.4 For all excavations, tarpaulin or other suitable ground cover shall be used to keep area as clean as possible. Sod grass shall be cut and carefully removed so as to make a neat replacement possible. No hole shall remain open overnight.

1.5.10.5 When excavating backyard locations or on private property, property owner shall be notified to nature of Services. If permission to excavate is not granted, pole shall receive visual inspection per Section 1.5.4.1, sound and bore inspection per Section 1.5.12 or Section 1.5.13, and fumigant application per Section 1.5.20.

1.5.10.6 **CAUTION:** During the excavation process, care must be taken not to break the ground wire or to disconnect it from the ground rod. Broken wires must be carefully pulled away from the pole so as not to interfere with the Services and restored as closely as possible to the original, non-broken condition when the excavation portion of the Services is completed.

1.5.10.7 In the case of foreign-owned cable or related facility becoming damaged during the excavation process, Contractor shall be responsible for contacting foreign utility to notify them of damage. Any charges incurred due to this damage will be Contractor's responsibility.

1.5.11 INSPECTION OF THE GROUND LINE AREA

After performing either partial, ten inch (10") or full, eighteen inch (18") excavation, Contractor shall perform sounding inspection per Section 1.5.8. Additionally, if conditions warrant, boring inspection shall be performed per Section 1.5.9.

When evaluating pole after full excavation, following items shall be reported in addition to those items per Section 1.5.4.1.

A) Original pole circumference (prior to chipping / shaving)
B) Effective pole circumference (after chipping / shaving)

1.5.12 SOUNDING AND BORING WITHOUT EXCAVATION – CCA POLES ZERO (0) TO FOURTEEN (14) YEARS OF AGE

If circumstances (existing cables, landscaping, pavement, concrete, underground service risers, etc.) exist that prohibit pole excavation, CCA treated poles zero (0) to fourteen (14) years of age shall receive a visual inspection per Section 1.5.4.1 and a sounding inspection per Section 1.5.8. If internal decay is suspected as result of this sounding inspection, two (2) test boring inspections shall be performed per Section 1.5.9. Initial boring shall be taken at a point one inch (1") to side of and parallel to deepest check extending below ground line. Second boring shall begin at a point 180 degrees (the opposite side of the pole) to initial boring. All holes shall be

plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose.

NOTE: To aid in quality assurance inspections, all inspection bore holes shall be made easily identifiable via the use of semi-permanent markings. These markings shall remain visible two (2) months minimum.

Condition of pole shall be evaluated per Section 1.5.15 and, if deemed treatable, appropriate internal treatment per Section 1.5.20 (internal fumigant), or Section 1.5.21 (internal treatment) shall be applied.

1.5.13 SOUNDING AND BORING WITHOUT EXCAVATION – ALL OTHER OPERATING COMPANY-OWNED POLES

If circumstances (existing cables, landscaping, pavement, concrete, underground service risers, etc.) exist that prohibit pole excavation, all CCA treated poles fifteen (15) years of age and older and all non-CCA treated poles shall receive a visual inspection per Section 1.5.4.1, sounding inspection per Section 1.5.8, and two (2) test boring inspections shall be performed per Section 1.5.9. Initial boring shall be taken at point one inch (1") to the side of and parallel to the deepest check extending below the ground line. Second boring shall begin at a point 180 degrees to initial boring. All holes shall be plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose.

NOTE: To aid in quality assurance inspections, all inspection bore holes shall be made easily identifiable via use of semi-permanent markings. These markings shall remain visible two (2) months minimum.

Condition of pole shall be evaluated per Section 1.5.15. Pole shall receive fumigant treatment per Section 1.5.20 and, if deemed necessary, internally treated per Section 1.5.21.

1.5.14 CLEANING AND CHIPPING OF BELOW GROUND SURFACE

1.5.14.1 Surface of pole below ground line shall have all foreign material removed using wire brush or check scrapper and circumference of pole shall be measured at ground line.

1.5.14.2 Surface of pole shall be wire brushed, scrapped, and chipped as necessary to remove decay pockets and shell rot. Surface shall be probed for softness and/or external decay and all loose and/or decayed wood shall be removed from at least six inches (6") above ground line to eighteen inches (18") below ground line by either shaving pole or by using quality chipping tool. It is essential that all exterior decay be removed from treatment zone. All chips are to be removed from hole and surrounding ground. Chips and decayed pieces shall be disposed of in accordance with all applicable Legal Requirements. Care should be taken not to remove good wood and thus reduce strength of pole.

1.5.15 EVALUATION

1.5.15.1 Original circumference of pole shall be the circumference when pole was initially installed.

Effective circumference of pole shall be the circumference after all external decay has been removed and deductions have been made per Section 1.5.15.2 and Section 1.5.15.3.

1.5.15.2 Deductions shall be made from original circumference of the pole to account for internal decay pockets and removal of external decay. Pole shall have sufficient good wood remaining to meet minimum National Electrical Safety Code (NESC) and Southern Company standards. See Table 1, Table 2, Table 3, and Table 4 for minimum Southern Company ground line circumference requirements and deductions for decay pockets. See Table 5 and Table 6 for NESC guidelines pertaining to wooden poles.

1.5.15.3 Measured minimum circumference shall be at point of greatest decay removal taking into account deductions to compensate for hollow heart, internal and external pockets of decay. Minimum acceptable circumference will be compared against figures defined in Table 1 and calculated for deductions per Table 2, Table 3, and Table 4. Poles below minimum circumference shall be rejected, marked in field using tagging system per Figure 1, and reported. Poles with minimum shell thickness of two inches (2") shall be treated. **Poles with an average minimum shell thickness of less than two inches (2") shall be rejected.**

1.5.15.4 The following conditions warrant pole to be rejected as priority reject pole and reported to Operating Company representative the same day:

A) Pole is completely decayed across the grain
B) Pole has an average minimum shell thickness of less than one inch (1")
C) Effective circumference is less than 1/3 original circumference

1.5.15.5 When evaluating poles that have been previously inspected, following criteria shall be used:

A) If decay was found during initial or previous cycle(s) and no additional decay is found during this inspection, indicate original circumference, effective circumference, and indicate zero (0) for decay for this cycle.

B) If decay was found during initial or previous cycle(s) and further is found during this inspection, indicate original circumference, effective circumference, and appropriate deduction for this cycle. Indicate only reduction of circumference for decay found during this cycle.

C) If no decay was present during first cycle but was found during this cycle, indicate original circumference, effective circumference, and entire decay deduction for this cycle.

D) If decay is found during this cycle, accurately indicate location of decay per the following:

1) A = Above treatment zone
2) B = Below treatment zone
3) I = In treatment zone

1.5.15.6 Poles rejected during any previous cycle and still in service shall receive visual inspection per Section 1.5.4.1, and shall be sounded and bored per Section 1.5.8 or Section 1.5.9 to check extent of deterioration and reported. If, after these inspections, pole is considered a priority candidate, Operating Company representative shall be notified same day.

This pole will be recorded as SOUND AND BORE reject. It will be noted as "Rejected Last Cycle" in remarks column.

1.5.15.7 Poles reinforced during any previous cycle and after receiving an inspection per Section 1.5.3-R will be recorded as ¾ treat with decay on reports. Poles will be noted as "Reinforced" in remarks column.

Reinforcing steel bands, trusses, and connections shall be inspected for signs of deterioration. All deteriorated conditions shall be noted and reported by pole number.

1.5.16 PRESERVATIVES AND FUMIGANTS

1.5.17 EXTERNAL PRESERVATIVES

1.5.17.1 GENERAL

Contractor Personnel shall apply all pesticides in a safe and workmanlike manner. Applicators shall wear required protective clothing and equipment.

1.5.17.2 APPROVED EXTERNAL PRESERVATIVES

Using 1/16" thick minimum application, external preservatives having the following ingredients shall be used:

Creosote	45.62%
Sodium Fluoride	44.42%
Sodium Dichromate	3.20%
Inert Ingredients	6.76%

1.5.17.3 EXTERNAL PRESERVATIVES APPLICATION

1.5.17.4 After Contractor completes preparatory Services and all debris is removed from excavation, an approved preservative per Section 1.5.17.2 shall be applied to external pole surface at maximum rate specified per manufacturer's recommendations. Treatment shall extend from three inches (3") above ground line to at least eighteen inches (18") below ground line. Particular care shall be taken to ensure that checks and decay pockets are liberally treated. Preservative shall be covered with plastic coated moisture barrier. After allowing minimum four inches (4") of overlap, wrap shall be held firmly in place via stapling overlapping edge and top of wrap. There shall be no exposed preservative above ground line. All poles receiving full excavation inspection shall be ground line treated with exception being those poles rejected after full excavation inspection and determined to be poles rejected for replacement. Determination to ground line treat those poles rejected for replacement

shall be made by respective Operating Company. Poles located in pastures shall be treated to ground line and then protected in ground line area with nine inch (9") nylon reinforced pasture wrap paper.

1.5.17.5 Where obstructions (Ex. fences, curbs, walls, service risers, ground rods, etc.) occur, preservative shall be applied up to obstructions and moisture barrier wrap shall be placed as close to obstruction as possible. Such conditions shall be recorded on daily work sheets.

1.5.18 INTERNAL FUMIGANTS

1.5.18.1 GENERAL

Poles shall be internally treated with fumigant as follows:

1.5.18.2 Poles that have received fumigant application during prior inspection cycle and are not determined to be rejected for replacement during present inspection shall receive fumigant application.

1.5.18.3 Poles, with exception of CCA treated poles zero (0) to fourteen (14) years of age, which cannot be excavated (Ex. surrounded by concrete, pavement, or landscaping, poles having power risers, etc.) shall be fumigated with approved internal fumigant as defined in Section 1.5.20. Refer to Section 1.5.3-M for further clarification of poles meeting this criteria.

1.5.18.4 Excavated Douglas fir and Cellon treated poles shall be fumigated with approved internal fumigant as defined in Section 1.5.20.

1.5.18.5 Poles being reinforced shall be fumigated with approved internal fumigant as defined in Section 1.5.20 as a part of reinforcing process.

1.5.18.6 Poles found to have obvious internal sapwood decay shall be fumigated with approved internal fumigant as defined in Section 1.5.20.

1.5.19 APPROVED FUMIGANT

Internal fumigant having following ingredients shall be used:

Methylisothiocyanate	97%
Inert Ingredients	3%

1.5.20 APPLICATION OF FUMIGANT

1.5.20.1 When working with poles which were fumigated during previous cycles: Existing fumigant holes will have plugs removed per Section 1.9.3.1, re-fumigated with approved internal fumigant defined in Section 1.5.20, and hole plugs will be replaced with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose. The only exception to this shall be holes found inaccessible due to obstructions or attachments placed on pole after fumigant was applied.

1.5.20.2 Fumigant will be applied in following amounts:

A)	Poles up to 35" in circumference	3 Tubes
B)	Poles 35 +" to 49" in circumference	4 Tubes
C)	Poles 49 +" to 59" in circumference	5 Tubes
D)	Poles greater than 59" in circumference	6 Tubes

1.5.20.3 Holes shall be bored to a diameter of 7/8 inch. Holes shall be equally spaced around pole, upward in spiral pattern, with vertical distance of six inches (6") between holes.

1.5.20.4 Minimum hole depth for proper fumigant tube placement is ten inches (10"). This allows 6-1/2 inches for fumigant tube, ½ inch for air space, and three inches (3")for hole plug. In addition to ten inch (10") minimum hole depth, hole should extend to a point beyond center of pole. This hole depth will insure best possible fumigant migration.

1.5.20.5 Starting at ground line, adjacent to deepest check, drill toward center of pole at approximately a forty-five (45) degree angle. If required depth for fumigant holes cannot be achieved for reasons beyond Contractor's control, this fact and reason why borings are short shall be recorded on inspection form.

1.5.20.6 Care should be exercised during boring in order to avoid intersecting a seasoning check. Fumigant shall not be placed in hole which has intersected a check. If a check has been intersected, one (1) additional hole may be bored in pole; otherwise, boring shall be restricted to number and depth as specified.

1.5.20.7 Extreme care shall also be taken to avoid drilling completely through pole. Prior to inserting fumigant, inspector should check each fumigant hole opposite entry point to ensure hole has not exited. Holes that exit pole shall be immediately plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for that purpose at lower end in order to prevent spillage and subsequent loss of fumigant.

1.5.20.8 Much of fumigant placed in decay pockets will be lost through any seasoning checks which intersect pockets. Therefore, when decay pockets are encountered, holes shall be drilled above and/or below pocket to allow diffusion of fumigant through relatively solid wood as it volatizes. This will provide protection of wood around pocket of decay.

1.5.20.9 After fumigant tube has been inserted, hole shall be plugged using tight fitting, treated wooden dowel or composite plug originally manufactured for that purpose.

1.5.20.10 Pole shall be tagged per Section 1.8 indicating year of fumigant treatment.

1.5.20.11 Precaution must be taken when handling all fumigants. All label directions are to be followed. Empty containers shall be disposed of according to label directions per Section 1.2.7.

1.5.21 INTERNAL PRESERVATIVES

1.5.21.1 GENERAL

If, during inspection process, pole is discovered to have pocket(s) of internal decay, insect infestation, or an internal void, pole shall be treated with an internal preservative.

Poles internally treated during a previous cycle shall be internally treated during present cycle by removing treatment hole plugs per Section 1.9.3.1, applying approved internal preservative per Section 1.5.21.3, and plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose after they have received treatment.

1.5.21.2 APPROVED PRESERVATIVES

Internal preservatives having following ingredients shall be used:

Preservative "A"	
Sodium Fluoride	10.90%
Sodium Dichromate	4.80%
Tri-Sodium Arsenate	5.36%
Inert Ingredients	78.94%

1.5.21.3 APPLICATION

To determine size of pocket(s) of internal decay, insect infestation, or internal void, pole shall be bored per Section 1.5.9 using minimum three (3) to five (5) test holes. Actual minimum number of test holes shall be determined by Operating Company representative. After extent of internal problem area has been determined through this boring process, preservative shall be applied under pressure (minimum 50 P.S.I.) into lowest hole until it begins to exit next highest hole. Preservative shall be applied until either cavity is filled or maximum one (1) gallon of preservative has been applied. If one (1) gallon application did not cause preservative to exit next highest hole, lowest hole shall be plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose. Application procedure shall be repeated for each hole (working from lowest hole to top-most hole) until preservative either exits next highest hole or top-most hole is treated. Maximum one (1) gallon of preservative shall be applied per hole. All holes are to be plugged with tight fitting, treated wooden dowel or composite plug originally manufactured for this purpose after they have received treatment.

1.6 DETERMINATION OF REJECTED POLES FOR REINFORCEMENT OR REPLACEMENT

Poles rejected as a result of external damage or decay, internal voids, decay pockets, or insect infestations shall receive an evaluation to determine whether they are candidates for reinforcement or replacement. Factors determining whether pole is restorable or should be replaced are found in Figure 4 and also based on figures found in Table 1, Table 2, Table 3, and Table 4.

1.7 RESTORATION AND CLEAN-UP OF WORK SITE

1.7.1 After treatment, all poles shall be solidly back-filled. Lowest 1/3 of excavation shall be back-filled and tamped, followed in successive 1/3 increments until excavation is replaced around pole. Tamping of each 1/3 section of back-fill shall be made by inspector using firm foot pressure. Any excess earth shall be sloped around pole a maximum of three inches (3") above normal ground level to allow for settlement.

1.7.2 Caution should be exercised to not tear moisture barrier which was applied to pole.

1.7.3 No debris, loose dirt, or other job related material is to remain in pole area after completion of Services. Debris from each Work Site shall be collected by Contractor in an approved collection receptacle, removed from Operating Company rights-of-way or job location, and disposed of in accordance with applicable Legal Requirements and must meet approved environmental practices. Private property turf, turf between curbs and sidewalks, and/or landscaping of any kind that was removed for the purpose of excavation is to be carefully replaced.

1.7.4 Sawdust and/or wooden shavings from boring operations shall be removed from surrounding area as thoroughly as possible.

1.7.5 On paved surfaces or other areas of pedestrian traffic, area must be swept clean of all wooden particles. Disposal of sawdust and/or wooden shavings shall be performed in accordance with any applicable Legal Requirements and must meet approved environmental practices.

1.7.6 Clean-up shall be a continual operation as Contractor moves from pole location to pole location.

1.7.7 Any pesticides which were spilled shall be immediately contained and cleaned up per Section 1.2.6.

1.7.8 All pesticide containers shall be properly disposed of per Section 1.2.6.1.

1.8 TAGGING OF INSPECTED AND TREATED POLES

1.8.1 All inspected poles shall be marked with weatherproof tags identifying following:

A) A pole numbering tag having single digit identifying the division of Services being performed followed by a dash followed by a sequential, six (6) digit number uniquely identifying the pole—not location. This is an option and will only be done with the Operating Company's approval.

B) Type of Services performed, Contractor performing Services, and date of Services

1.8.2 Tags shall be similar to designations found in Ground Line Inspection and Treatment Legend for Marking Poles per Figure 1.

1.8.3 Tags shall be supplied by Contractor and placed five feet (5") to six feet (6') above ground line facing nearest roadway. If pole location cannot be easily seen from nearest roadway, tag shall be placed facing source of electrical circuit.

1.8.4 Tags shall be placed in following order:

A) Pole number tags shall be attached to pole via driving a nail through right-side hole of tag.

B) Tag(s) indicative of work performed, Contractor, and date of Services shall then be placed over left-side hole of pole number tag and both tags shall then be nailed to pole.

1.8.5 If pole being inspected or treated is a pole that has previously been inspected or treated and does not have an existing pole number tag, new tag combination shall be attached directly below existing tag(s).

1.8.6 If an Operating Company chooses not to utilize pole numbering tag defined in Section 1.8.1-A, the tag(s) described in Section 1.8.1-B shall be used and affixed to pole via a single nail. If pole has received prior inspections, tag(s) shall be applied to pole below existing inspection/treatment tag(s) per Section 1.8.3 and Section 1.8.5.

1.9 QUALITY ASSURANCE FOR GROUND LINE INSPECTION, TREATMENT, AND/OR RESTORATION

1.9.1 GENERAL

Gulf Power Company reserves the right to perform quality assurance checks on a periodic basis in order to assure quality of Services performed meets specified requirements. Quality assurance check is in no way intended nor should it be construed as substitute for careless supervision by Contractor's Personnel. Quality assurance checks shall be of a joint nature, with responsibility of checks shared between Operating Companies and Contractor. All quality assurance check inspections and associated findings shall be recorded on forms equal to or equivalent to those shown in Figure 5 or Figure 5-A (Ground line Inspection and Treatment) or Figure 6 or Figure 6-A (Pole Restoration).

1.9.2 FREQUENCY

Operating Company representative and a representative of Contractor shall together perform minimum one (1) quality assurance check on a bi-weekly (once every two (2) weeks) basis per crew. If Operating Company representative is unable to accompany Contractor representative during quality assurance check, Contractor representative shall perform check and provide a report of findings and, if needed, any corrective action(s) taken to Operating Company representative. This is not intended to excuse Operating Company representative from responsibility of performing these checks; however, if scheduling conflicts, check shall be performed by Contractor representative. Check(s) shall be scheduled such that one (1) week's Services are inspected following week. Each quality assurance check shall consist of an inspection performed on at least three (3) randomly selected poles. When accompanying Contractor representative during checks, Operating Company representative shall select poles.

1.9.3 IMPLEMENTATION

1.9.3.1 For poles requiring an inspection hole, original ground line inspection plug shall be removed and depth of inspection hole measured to ensure that pole has been bored per Section 1.5.9. Fumigant application plugs shall be removed and hole measured in order to ensure hole depth corresponds with guidelines per Section 1.5.20. Treated wooden hole plugs shall be removed via boring out dowel. Composite hole plugs shall be removed via unscrewing plug.

All holes which have plug removed for inspection purposes shall be plugged with tight-fitting, treated wooden dowel or composite plug originally manufactured for this purpose. In-service, composite hole plugs which were not damaged during removal may be re-used. Care should be taken to ensure that no inspection hole is left unplugged.

1.9.3.2 Inspection of external treatment shall consist of randomly selecting one (1) or more externally treated poles per inspection per crew. These poles shall be re-excavated, wrap removed, and completely re-inspected and retreated. Hammer marks should be readily apparent indicating pole was properly sounded.

1.9.4 DISCREPANCIES / CORRECTIVE ACTION

Operating Company representative shall point out any discrepancies to Contractor. Corrective action, satisfactory to Operating Company representative, shall be taken by Contractor to remedy situation prior to next quality assurance check. If serious problems exist, corrective action may include re-inspecting and subsequent retreating of each pole dating back to previous quality assurance check ending point. These re-inspections shall be performed at no cost to Operating Company.

It should be reiterated that these quality assurance checks are not intended to be a substitute for Contractor's own quality assurance program, but rather to supplement Contractor's inspection program.

1.10 RECORDING

For every pole location, Contractor shall accurately record all pertinent information gathered in field during inspection and treatment process into a hand-held computer. If hand-held computer is provided by Contractor, that computer shall meet Operating Company specifications. Should Operating Company provide hand held computer, Operating Company shall provide initial software, subsequent software upgrades, and training for that computer. When submitting invoices for payment, each invoice shall be cross-referenced against one (1) copy of maps provided to Contractor prior to inspection and treatment program per Section 1.11.1. This will be done in order to assure pole numbers invoiced correspond to pole numbers indicated inspected.

Computer data must provide following information:

A) Pole number (as identified per Section 1.8.1)
B) Pole length and class per manufacture's birthmark (if legible)
C) Original Treater (Manufacturer)
D) Original type of treatment
E) Species of wood
F) Original treatment date per manufacturer's birthmark (if legible)

G) Date of previous ground line inspection and type(s) of supplemental treatment as indicated by attached tag(s)
H) Type of present re-treatment
I) Original ground line circumference (prior to shaving or chipping)
J) Effective ground line circumference (after shaving or chipping)
K) Condition of pole above ground line
L) Insect damage (include approximate location if other than ground line)
M) Woodpecker damage
N) Mechanical damage (location and dimension of damage)
O) Condition of ground wire if found defective
P) Condition of all Operating Company appurtenances if found defective per Section 1.5.4
Q) Foreign attachment(s) (authorized and unauthorized) per Section 1 to pole
R) Foreign attachment(s) (authorized and unauthorized) per Section to stub

Crew foreman, date of inspection, line name/map sheet number, Operating Company, division, and district work is performed are to be recorded in header section of pole report.

In addition to above information, Operating Company may require additional data be recorded, or may request blank columns for other Operating Company uses.

1.11 REPORTING

1.11.1 Operating Companies using electronic mapping shall provide either computer units and/or software and necessary training for field level data input. All Contractor owned computer units shall meet Operating Company specifications.

1.11.2 Prior to inspection process, Operating Company representative shall provide to Contractor two (2) copies of each map which will designate territory to be inspected. If territory to be inspected requires more than one (1) map, any additional map copies will be included in package. One copy of each map set shall be labeled as Foreman Work Copy. The other map copy shall be labeled as Office Turn-In Copy. Contractor shall mark both maps to indicate:

A) Pole numbering series per pole tagging system per Section 1.8
B) Last pole number
C) Foreman's signature
D) Last day worked

Each Office Turn-In Copy shall be color coded to designate following information:

A) RED
   1) Pole Rejected for Replacement – Priority
      a) Red X circled
      b) Pole number written in red
   2) Pole Rejected for Replacement – Non-Priority
      a) Red X
      b) Pole number written in red

B) GREEN
   1) Pole Rejected for Reinforcement
      a) Priority restorable pole – green X circled
      b) Restorable pole – green X
      c) Pole number written in green

C) BLACK or BLUE
   1) For maps using BLUE ink
      a) BLACK ink shall be used for pole identification
      b) BLACK ink shall be used to indicate any additions to map
   2) For maps with BLACK ink
      a) BLUE ink shall be used for pole identification
      b) BLUE ink shall be used to indicate any additions to map

1.11.3 Contractor foreman shall return Office Turn-In Copy of map to Operating Company representative. This map copy shall become Operating Company's permanent record and shall be matched to invoice and accompanying printout and put in files. Confirmed copies of this map can be used by district personnel for field checking restorable and rejected poles and by line crews for pole change-out locations.

1.12 WORK SUMMARIES

Contractor shall track course of work in progress and condition of pole plant. Following information shall be provided to Operating Company representative(s) in either electronic or hard-copy form:

A) Ground line Inspection and Treatment Summary with Cost Figures – Weekly
B) Pole Restoration Summary with Cost Figures– Weekly
C) Inventory Item Summary – Per Map Sheet
D) Location Maintenance Summary – Per Map Sheet
E) Operating Company Owned Poles Rejected – Restorable – Per Map Sheet
F) Operating Company Owned Poles Rejected – Non-Restorable – Per Map Sheet
G) Stub Pole Summary – Per Map Sheet
H) Visual Inaccessible Pole Summary – Per Map Sheet
I) Reject Summary Foreign Owned JU Poles – Non Restorable – Per Map Sheet
J) Reject Summary Foreign Owned JU Poles – Restorable – Per Map Sheet
K) Manufacturer's Summary – Annually
L) Year-to-Date Reject Summary by Headquarters

Items A, B, and K shall be submitted to Operating Company representative(s) electronically. These items shall be in a Year To Date format. Items A-B will be broken down to indicate Services performed per operating district, summarized into Services performed per operating division, summarized into Services performed on total Operating Company basis. Item K shall indicate inspected poles by manufacturer per division summarized to indicate Operating Company-wide totals.

Items C-J shall be submitted to Operating Company representative in hard copy form in conjunction with completed map sheet and invoice which covers Services performed for that map sheet.

Upon completion of yearly pole inspection, treatment, and restoration program, Contractor shall prepare and submit an annual summary of Services performed.

1.13 INFORMATION REQUIRED ON ANNUAL SUMMARIES

1.13.1 POLE SPECIES

A) Southern Yellow Pine – Creosote Treated
B) Southern Yellow Pine – Penta and Oil Treated
C) Southern Yellow Pine – Cellon Treated
D) Southern Yellow Pine – CCA Treated
E) Southern Yellow Pine – Copper Naphthenate Treated
F) Western Red Cedar
G) Douglas Fir

1.13.2 POLE AGE

Pole age will be indicated per the following categories:

A)	0 – 10	All poles that are 10 years or less in age
B)	11 – 15	All poles that are 11 to 15 years of age
C)	16 – 20	All poles that are 16 to 20 years of age
D)	21 – 25	All poles that are 21 to 25 years of age
E)	26 + years	All poles that 26 years of age or older

Pole's age will be computed by subtracting date that pole was manufactured, per manufacture's birthmark, from current year of inspection

1.13.3 POLE MANUFACTURER

Each pole will be classified by one (1) of following manufacturers

A) Apalachee
B) Baldwin
C) Brown
D) Cahaba
E) Crown Zellarbach
F) Gulf Port
G) Koppers
H) Stallworth
I) Swift
J) T. R. Miller

Poles without a legible birthmark or those having a manufacturer other than those listed above shall receive a manufacturer's designation of OTHER.

1.13.4 TOTAL POLES

TOTAL POLES will be number of total poles inspected, by pole age, class, species, and treatment. Each pole visited, regardless of type of inspection(s) and treatment(s), will be counted as one (1) pole toward total pole count.

1.13.5 NUMBER OF POLES REJECTED (#REJ)

Total number of poles, by pole age, class, species, and treatment which were rejected.

1.13.6 PERCENT OF REJECTED POLES (%REJ)

Percentage of TOTAL POLES, by pole age, class, species, and treatment which were rejected. Mathematically, this is expressed as:

(# REJ / TOTAL POLES) X 100 Round to nearest 1/10 pole.

1.13.7 NUMBER OF POLES WITH INTERNAL DECAY (#DCY INT)

Total number of poles, by pole class, species, and treatment exhibiting internal decay at time of inspection and were internally treated with either fumigant or preservative.

1.13.8 NUMBER OF POLES WITH EXTERNAL DECAY (#DCY EXT)

Total number of poles, by pole class, species, and treatment exhibiting external decay and were treated with external preservative for decay at time of inspection.

1.13.9 PERCENT OF POLES WITH DECAY MINUS REJECTS (%DCY)

Percent of TOTAL POLES, by pole class, species, and treatment exhibiting either external decay, internal decay, or a combination of two types but were treated and not rejected at time of inspection. Mathematically, this is as:

((#DCY INT + DCY EXT)/TOTAL POLES) x 100 Round to nearest 1/10 pole.

1.13.10 TOTAL POLES DECAYED & REJECTED

Total number of poles, by pole class, species, and treatment that were rejected or exhibited external decay, internal decay, or a combination of two (2) types at time of inspection. Mathematically, this is expressed as:

#REJ + DCY INT + #DCY EXT

1.13.11 PERCENT OF POLES WITH DECAY PLUS REJECTS (% TOTAL DECAY)

Percent of TOTAL POLES, by pole age, class, species, and treatment that were rejected or exhibited external decay, internal decay, or a combination of two (2) types at time of inspection. Mathematically, this is expressed as:

((#REF + DCY INT + #DCY EXT)/TOTAL POLES) x 100 Round to nearest 1/10 pole.

1.13.12 OBSERVATIONS

Data presented in this section of WORK SUMMARY summarizes all inspections, treatments, and rejections for all species, treatments, and manufacturers combined.

1.13.13 REPORTED POLES

All poles that were shown on map but were not in service. All poles that cannot be physically reached. All poles on map but not in service, a.k.a. idle facilities.

1.13.14 TREATMENTS (INTERNAL AND/OR EXTERNAL)

All poles visited that received external and/or internal treatment(s).

1.13.15 TREATMENTS (GROUND LINE TREATED DECAY)

All poles that were treated with external preservative because of external or internal decay.

1.13.16 INTERNAL PRESERVATIVE TREATED

All poles that received internal treatment due to a well-defined internal void being discovered during pole inspection.

1.13.17 INTERNAL FUMIGANT

All poles that received an internal fumigant treatment.

1.13.18 REJECTED POLES

All poles rejected because of either internal or external defects.

1.13.19 TREATED REJECTS

A pole receiving either internal or external treatment and determined to be restorable.

1.13.20 VISUAL REJECTS

All poles rejected because of external defects.

1.13.21 SOUND AND BORE REJECTS

All poles that were rejected because of internal defects above ground line that could not be excavated.

1.13.22 TOTAL POLES VISITED

Every pole visited for inspection and treatment.

1.13.23 REMARKS

These are additional inspection and treatment results that will enhance analysis of pole plant. Total number of poles pertaining to each category should be listed. Categories are as follows:

A) Poles found in priority condition
B) Candidates for pole restoration
C) Pole identification markers installed
D) Private property poles
E) Poles with mechanical damage
F) Poles with broken ground wires
G) Poles with split or rough tops
H) Poles with woodpecker holes
I) Poles with insect infestations
J) Broken or loose guy wires
K) Missing or unreadable pole identification markings or tags

1.13.24 TOTAL COST OF INSPECTION AND TREATMENT PROGRAM

Total cost of all work performed and listed on WORK SUMMARY.

1.13.25 AVERAGE COST PER POLE

Average cost per pole on inspection and treatment program. Mathematically, this is expressed as:

$$\frac{\text{TOTAL COST OF INSPECTION AND TREATMENT PROGRAM \$}}{\text{TOTAL POLES VISITED}}$$

2.0 REINFORCEMENT OF WOODEN POLES

2.1 SCOPE

This Specification addresses overall conditions and requirements for reinforcement (restoration) of in-service distribution wooden pole plant belonging to Gulf Power Company.

Southern Company service territories addressed in this Specification shall be defined as those territories having customers which are served by distribution electrical facilities of following Operating Company:

Gulf Power Company

Unless otherwise noted, all references in this Specification to "Company representative" shall be indicative of designated Operating Company employee representing Operating Company in which Services are being performed.

Although these Specifications are intended to address a majority of the issues that will arise during course of Services to be performed during this pole reinforcement program, due to nature of varying rules and regulations applying to separate Operating Companies, certain aspects of this Specification will be decided on a per Operating Company basis. While the need for certain Operating Company specific specifications is recognized as necessary, intent of this paragraph is not to replace this Specification. When deemed applicable, additional guidelines will be supplied in written form to the Contractor by the Operating Company representative and shall then be considered an addition to this Specification to be recorded as such in attachment form.

2.2 GENERAL

Pole reinforcement is a method by which a pole that has been weakened due to decay, insect infestation, or mechanical damage can be braced by a steel C-truss, enabling pole to remain in its present location. Poles meeting qualifications for reinforcement shall first be externally and/or internally treated with preservatives to arrest decay and/or to exterminate insect infestation. If special requirements are applicable to Services requested, Operating Company representative shall provide Contractor with a written copy of specific instructions and requirements, which shall be considered an addition to this Specification to be recorded as such in attachment form.

2.3 REQUIREMENTS

Requirements for Reinforcement portion of the Agreement shall mirror those same requirements of Inspection and Treatment portion of the Agreement beginning at Section 1.2 and ending through Section 1.4.5.

2.3.1 ADDITIONAL CONTRACTOR REQUIREMENTS

2.3.1.1 Contractor shall furnish all supervision, labor, tools, equipment, report forms, transportation, and material necessary (except for materials indicated to be furnished by respective Operating Company) for inspection, treatment and reinforcement of in-service wooden poles of Southern Company and its Operating Companies covered under this agreement.

2.3.1.2 Foreman of reinforcement crew shall meet following criteria:

A) Have a one (1) year minimum of experience in pole reinforcement and ground line inspection and treatment.
B) Be able to pass a written test or demonstrate to Operating Company representative, abilities necessary to perform duties related with these type Services.

2.3.1.3 Supervision shall be performed by a pole reinforcement specialist with a minimum of two (2) years experience.

2.3.1.4 With exception of individuals receiving training instruction, Personnel not specifically qualified to reinforce poles as outlined above shall not be transferred to perform Services in pole reinforcement from other contractual Services. Those individuals receiving training instruction shall be under direct supervision of an experienced pole reinforcement employee while performing reinforcement duties.

2.3.2 ADDITIONAL OPERATING COMPANY RESPONSIBILITIES

2.3.2.1 After receiving Contractor's initial recommendation of poles qualifying for reinforcement discovered during inspection and treatment process, Operating Company representative shall make final determination as to whether pole(s) should be reinforced. Reasons for refusal of pole reinforcement could be, but should not be limited to:

A) Planned retirement of pole
B) Planned upgrade of pole
C) Pole is idle
D) Pole has damage higher than restoration will repair. Examples of this type damage would be lightning, woodpecker, mechanical, fire, etc.
E) Cost of restoration vs. replacement will be a determining factor

2.3.2.2 The method of this determination shall be left up to individual Operating Company representative.

2.3.2.3 After making these determinations, Operating Company representative shall provide two (2) copies of map(s) and/or accompanying documentation indicating restorable candidates to Contractor.

2.4 DETERMINING REINFORCING CANDIDATES

2.4.1 A pole found to be in good condition above ground line need not be reinforced, provided that a sufficient cross sectional area of sound wood is present at ground line to provide an equivalent ground line circumference that is equal to or greater

than values shown in Table 1 and does not exceed reduction factors as defined in Table 2, Table 3, and Table 4.

2.4.2 If ground line cross sectional area of sound wood is determined to be less than required amount in order to provide minimum equivalent ground line circumference as shown in Table 1 and exceeds reduction factors as defined in Table 2, Table 3, and Table 4, pole must either be reinforced or replaced. To determine if a pole is suitable for reinforcement, following requirements must be satisfied:

A) To the best of the reinforcement inspector's ability, upper pole shall be determined suitable for reinforcement

B) Pole shall have a minimum four inch (4") shell thickness at five feet (5') above ground line or, if longer reinforcement trusses are an option, pole's minimum shell thickness shall be four inches (4") at six feet (6') above ground line

C) Pole shall have a minimum two inch (2") shell thickness at fifteen inches (15") above ground line or, provided Item B is satisfied, pole's minimum shell thickness shall be two inches (2") at twenty-six inches (26") above ground line

D) Other utility attachments will not impede the reinforcing process

2.5 INSPECTION OF REINFORCEABLE CANDIDATES

2.5.1 Per map(s) provided from Operating Company representative, Reinforcing Contractor shall perform a visual inspection of all poles to be reinforced prior to any Services being performed. This visual inspection is performed to determine whether pole has already been externally treated, if that external treatment was properly performed, to determine if pole has sustained any damage since ground line inspection crew performed their inspection, to determine condition of upper portion of pole, and to determine, to the best of inspector's ability, if other utility attachments would impede specified reinforcement. Attachments should be checked for obvious improper conditions. If, after this inspection, pole is determined not to be a candidate for reinforcing and/or if appearance of any attachment seems improper, this information must be forwarded to Operating Company representative and no Services are to be performed until such conditions have been corrected.

2.5.2 After initial ground line inspection has revealed pole to be a reject, the following shall be performed:

A) Visually re-inspect pole for any damage incurred since prior ground line inspection. This shall include the upper pole for evidence of fire, lightning or mechanical damage, and/or woodpecker holes.

B) Pole shall be sounded thoroughly above ground line. Particular attention shall be paid in a zone fifteen inches (15") to five feet (5') above ground line.

C) An inspection hole shall be drilled at five feet (5') above ground line against line of lead and pole's shell thickness shall be verified using a shell thickness indicator. Pole shall have a minimum of four inches (4") of shell thickness at this height. If this boring indicates less than a four inches (4") shell thickness,

a second boring is to be made on opposite side of pole (180 degrees) from first boring whenever possible. Other borings should be taken as necessary. If average shell is less than four inches (4") at five feet (5') above ground line and longer reinforcing trusses are an option, using the same method of bore inspections as were used at five feet (5'), pole may be checked at six feet (6') above ground line for four inches (4") of average shell thickness. If average shell thickness at five feet (5') above ground line is less than four inches (4") and longer reinforcement trusses are not an option, pole will be rejected for replacement. If average shell thickness is less than four inches (4") at six feet (6') above ground line, pole shall be rejected for replacement regardless of truss length used.

D) If, after Item C, pole is determined to be a restorable candidate, an inspection hole shall be drilled at fifteen inches (15") above ground line against line of lead. If this boring indicates less than two inches (2") of shell thickness, a second boring is made on opposite side of pole (180 degrees) from first boring whenever possible. Other borings should be taken as necessary. If average shell thickness at fifteen inches (15") above ground line is less than two inches (2"), proceed to step D, below. If average shell thickness at fifteen inches (15") above ground line is two inches (2") or greater, reinforce pole with banding or strapping as shown in Figure 3.

NOTE: To aid in quality assurance inspections, all inspection bore holes shall be made easily identifiable via use of semi-permanent markings. These markings shall remain visible two (2) months minimum.

D) Poles having less than two inches (2") average shell thickness at fifteen inches (15") above ground line can be reinforced if there is a two inch (2") average shell thickness at twenty-six inches (26") above ground line and criteria from Item C, above, are met. When shell thickness requirements are raised from fifteen inches (15") to twenty-six inches (26") above ground line, truss is installed to six feet (6') above ground line. Special conditions may exist that require other reinforcement methods such as longer trusses.

E) For further clarification of the minimum average shell thickness of two inches (2") at the lower banding point or four inches (4") at top of truss, refer to Figure 3. These are the minimum acceptable shell thicknesses used to prevent crushing pole upon tightening of the reinforcing bands.

2.5.3 Rejected poles that are determined to be candidates for reinforcement shall receive external, fumigant, and internal treatments as follows:

A) Inspection crew shall apply external ground line treatment per Section 1.5.17.
B) Reinforcement crew shall apply fumigant treatment per Section 1.5.20 and internal treatment per Section 1.5.21.

Extra caution shall be exercised when performing both internal fumigant and internal treatment application to a single pole. When internal fumigant and internal treatment

chemicals are mixed during joint applications, overall level of desired effectiveness is reduced.

If it is determined that both internal fumigant and internal treatment cannot be applied without possibility of cross contamination between two (2) chemicals, it is preferred that only internal treatment per Section 1.5.21 shall be applied.

2.5.4 Refer to Figure 4 for illustrations of poles which can and cannot be reinforced.

2.6 DETERMINATION OF C-TRUSS SIZE

2.6.1 Proper number and size of trusses shall be determined using information per Table 7 and Table 8.

2.6.2 Up-to-date truss design and strength assumes zero (0) wood strength at ground line.

BE ADVISED: previous truss design and strength requires some wood strength. Use proper tables if using salvaged trusses.

2.7 TEMPORARY POLE REINFORCEMENT

2.7.1 At discretion of Operating Company representative, rejected poles may be temporarily reinforced prior to replacement. It is not necessary that a temporarily reinforced pole receive external treatment, but internal preservative treatment should be applied per Section 1.5.21 in addition to internal fumigant treatment being applied per Section 1.5.20.

2.7.2 Trusses for temporary reinforcement shall meet size and strength requirements per table Table 7 and Table 8.

2.7.3 Trusses for temporary reinforcement shall be utilized to support transverse loading only. This requirement does not preclude use of trusses on corner poles; however, truss usage is not intended to replace proper guying. Trusses shall be positioned per Figure 2.

2.7.4 When temporarily reinforcing poles, caution should be exercised when positioning trusses in order to prevent damage to any part of grounding system or other underground facilities.

2.7.5 Determination to cap a temporary truss should be made per Operating Company recommendations. If capping is required, it shall be performed per Section 2.8.8.

2.7.6 Trusses for temporary reinforcement shall have top edge filed smooth.

2.7.7 Trusses for temporary reinforcement shall have each band or strap and filed top edge of truss painted with cold zinc compound.

2.8 INSTALLATION OF C-TRUSS

2.8.1 Per Operating Company determination, all poles being reinforced, prior to truss installation, shall receive internal fumigant application per Section 1.5.20. Internal preservative treatment shall also be applied per Section 1.5.21.

2.8.2 Trusses shall be utilized to support transverse loading only. This requirement does not preclude use of trusses on corner poles; however, truss usage is not intended to replace proper guying. Trusses shall be positioned per Figure 2 with following exceptions:

A) Trusses may be offset by up to three inches (3") from line of lead to accommodate obstructions without changing specification truss size per Table 7 and Table 8.

B) Offsets of three (3) inches and forty-five (45) degrees from line of lead require an increase of truss width size by one (1) size per Table 7 and Table 8.

C) Offsets between forty-five (45) and ninety (90) degrees from line of lead require either an increase in truss width of two (2) sizes or two (2) trusses of proper size per Table 7 and Table 8 shall be used. Due to truss fit to pole, preferred method is double truss installation.

2.8.3 Caution should be exercised when positioning trusses in order to prevent damage to any part of grounding system or other underground facilities.

2.8.4 Trusses are driven to a depth that develops adequate anchoring below decay zone per Figure 3. During installation, truss must be held tightly against pole to insure a good working unit.

2.8.5 All trusses shall receive banding per Figure 3. All bands shall be pulled tight using a pneumatic or a manual tensioning device using 2,000 # of force / 100 PSI air pressure. All bands will be fastened using two (2) seals. Each seal shall receive two (2) crimps using a pneumatic powered crimping tool operating on 90 PSI air pressure providing ninety-five percent (95%) average joint efficiency. Seals must remain flat against pole, not becoming "C-shaped".

2.8.6 Top edge of all trusses shall be filed smooth.

2.8.7 Each band or strap and filed top edge of truss shall be painted with cold zinc compound.

2.8.8 Per Operating Company requirements, each truss shall be covered at top using sheet metal, formed at top of C-truss then securely fastened in place using nails.

2.8.9 Per Operating Company requirements, entire truss, band, and cap assembly shall be painted with an approved paint colored brown, gray, or green to match pole.

2.9 POST REINFORCEMENT ITEMS

2.9.1 Poles shall be tagged per the method described in Section 1.8. Reinforced poles shall have tag applied indicating reinforcement and year of reinforcement per Figure 1.

2.9.2 Any debris caused as a result of reinforcement shall be removed or any landscaping removed in order to facilitate reinforcement access shall be replaced in original or as close to original condition as possible per Section 1.7.3

2.10 DETERMINING A POLE TO BE REPLACED

2.10.1 Upon being visually inspected per Section 1.5.4.1, poles found to have upper damage from lightning, fire, mechanical damage, excessive woodpecker infestation, etc. shall be rejected for replacement and reported as a VISUAL REJECT to Operating Company representative. To determine extent of ground line damage, pole shall receive sound and selective bore inspection per Section 1.5.7.

2.10.2 After having received visual inspection per Section 1.5.4.1, poles found to have upper damage from lightning, fire, mechanical damage, excessive woodpecker infestation, etc. or after receiving sound and selective bore inspection per Section 1.5.7 have been determined to have an effective circumference of twenty-eight percent (28%) or less shall be rejected for priority replacement. See Table 1 for further details concerning pole circumference.

2.10.3 Poles found to have no upper damage but, after having received visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and, if pole environment permits, excavation inspection per Section 1.5.10 and have been determined to have an effective circumference of twenty-eight percent (28%) or less but greater than eighteen percent (18%) shall be rejected for replacement. See Table 1 for further details concerning pole circumference parameters.

2.10.4 Poles found to have no upper damage but, after having received visual inspection per Section 1.5.4.1, sound and selective bore inspection per Section 1.5.7, and, if the pole environment permits, excavation inspection per Section 1.5.10 and have been determined to have an effective circumference eighteen percent (18%) or less shall be rejected for priority replacement. See Table 1 for further details concerning pole circumference parameters.

ATTACHMENT B

Issued: 1/1/1998
Revised: 12/31/2005

Southern Company Transmission

Southern Company Transmission Line Inspection Standards

By Transmission Line Maintenance Committee

SOUTHERN COMPANY

Energy to Serve Your World

TRANSMISSION LINE INSPECTIONS

A. Introduction

A comprehensive transmission line inspection program is essential to the effective and orderly maintenance of the transmission system. The safe and reliable operation of our transmission system is dependent upon a good, systematic inspection program. The objectives of this program are:

* To maximize plant facility life
* To gather information necessary to manage and prioritize needs and resources
* To minimize unscheduled or emergency maintenance by performance of preventative maintenance

B. Goal

The goal of the SCT Line Inspection is to provide a program that will result in a target of zero transmission outages due to maintenance related issues. Accomplishment of this goal will require a trained inspection team to record all absits into the TLIS program outlined in this standard.

C. Southern Company Transmission Bulletins:

The following Transmission Bulletins shall be utilized where applicable:

TL-1 Ground Inspection
TL-2 Specifications for Groundline Inspection and Treatment of Wood Poles
TL-3 Steel Structures Groundline Inspection and Maintenance
TL-4 Comprehensive Walking Inspection
TL-5 Comprehensive Aerial Inspection
TL-6 Routine Aerial Patrol
TL-7 Anchor Rod Inspection Procedure
TL-8 Burn Shields for CCA Wood Poles
TL-9 Guideline for Rating Guy Wire or Overhead Ground Wire for Remaining Life
TL-10 Guideline for ROW and Vegetation Management
TL-11 Wood Pole Inspection Procedures
TL-12 Screening/Repairing Wood Poles

D. Inspection Activities

The following types of transmission line inspections and patrols are considered essential activities of the overall inspection program:

- Ground Inspection per SCT BulletinTL-1
- Wood Groundline Treatment Inspection per SCT BulletinTL-2
- Steel Groundline Treatment Inspection per SCT BulletinTL-3
- Comprehensive Walking Inspection per SCT BulletinTL-4
- Comprehensive Aerial Inspection per SCT BulletinTL-5
- Routine Aerial Patrol per SCT BulletinTL-6

E. Schedule

Listed below is a basic schedule for the performance of these inspections. It is the intent of these procedures that every structure be inspected at least every 6 years.

- **Wood Structures:**
  * Ground Inspection –6 years after line is placed in service once only.

  On a 6 year cycle alternate the following inspections
  1. Groundline Treatment Inspection every 12 years
  2. Comprehensive Walking Inspection every 12 years

- **Steel Structures:**

  On a 6 year cycle alternate the following inspections
  1) Ground Inspection every 18 years
  2) Comprehensive Helicopter Inspection or Comprehensive Walking every 18 years
  3) Steel Groundline Treatment Inspection every 18 years

- **Concrete Structures:**

  On a 6 year cycle alternate the following inspections
  1) Comprehensive Helicopter Inspection or Comprehensive Walking Inspection every 12 years
  2) Ground Inspection every 12 years

- **All Structures:**
  * Routine Aerial Patrol – 4 Minimum Times per year

F. Items to be Inspected:

In general the following items should be checked when performing an Inspection if practical based on the type of inspection. Also, based on the type of inspection additional items may need to be inspected. The Transmission Line Inspection program (TLIS) shall be used to record all absits found on inspections. All absits repaired during the inspection shall be entered into TLIS with a Status of Repaired.

General
- Visually inspect the entire structure
- Is structure leaning
- Is there any condition which would endanger the line
- Note damaged or missing structure numbers
- Check condition and location of aerial marker balls
- Note damaged or missing aerial warning markers at transmission line crossings

Wood Poles
- Note condition of pole (split, burned, etc.)
- Probe decay pockets
- Note woodpecker holes
- Note if hardware cloth is needed

Concrete Poles
- Inspect concrete poles for cracked or broken concrete, and evidence of rust bleeding through concrete from reinforcing steel
- Inspect pole top for cracking, splitting, or deterioration of concrete
- Inspect that pole steps are removed from lower portion of pole to 12 feet

Metal Structures
- Inspect for deterioration due to rust
- Check condition at Ground Line of direct embedded structures
- Sound bolted structures and listen for loose connections
- Check condition of anti-climbing guards and warning signs
- Check that pole steps are removed from lower portion of structure to 12 feet

Foundations
- Inspect concrete footings for cracking or erosion problems
- Inspect anchor bolts and nuts to determine if any are broken, missing, or corroded

Arms
- Inspect wood arms and braces for signs of deterioration (splits, cracks, etc.)
- Inspect steel arms for rust
- Inspect fiberglass arms for contamination or tracking

Pole Grounds
- Inspect and repair broken or deteriorated grounds
- Check condition of ground connections and make repairs if necessary
- Measure ground resistance
- Check if pole ground is properly bonded to hardware

Insulators
- Determine if chipped, broken, flashed, or contaminated
- Inspect polymer insulators for contamination, tracking, deterioration, or gunshot damage

Conductors
- Inspect for broken strands
- Inspect connectors for signs of excessive heating
- Measure clearance at any questionable location

Shieldwire
- Inspect for broken strands
- Inspect for deterioration due to rust
- Check that OPGW is properly installed and trained down the structure
- Check condition of connection to pole ground, if required

Dampers
- Inspect for missing, misaligned, improperly installed, or drooping dampers

Hardware
- Inspect for tightness, deterioration, or missing nuts, bolts, or cotter pins
- Inspect conductor and shieldwire hardware attachments for rust, signs of vibration damage, or missing parts
- Inspect banding and banding attachments

Guys and Anchors
- Inspect for deteriorated or damaged guy wire, guy grip, or anchor rod
- Classify rust on guy and grips
- Inspect under all guy markers
- Note if anchor head is below ground or below water. Add extension if possible.
- Replace missing guy marker

Switches
- Inspect for signs of overheating at the contacts
- Inspect for loose or missing hardware, operating platform, structure ground, switch handle bonding connection, and switch numbers
- Inspect for alignment and condition of switch accessories such as arcing horns, interrupters, and motor operators

Right-of-Way
- Note general condition of right-of-way
- Report any danger trees per SCT BulletinTL-10
- Report any erosion problems
- Report encroachments such as buildings, storage areas, deer stands, refuse, etc.
- Note any special access problems or new access roads
- Note if gates are needed in fences (i.e., new fences, cable gaps, etc.)
- Note pole stubs or old poles on right-of-way

Avian
- Note animal guard location, type and condition
- Note animal activity

DRIVERS

The Transmission Line Inspection Schedule is the recommended schedule for inspection; however, since our system has varying states of reliability, we may not be able to strictly adhere to a time-based schedule; but, these should be used as a minimum. If changes are needed to the recommended schedule, it should be based on the following drivers:

1. Operating history
2. Customer satisfaction
3. System stability
4. Budget constraints
5. Line voltage
6. Structure material
7. Age
8. Location

Southern Company Transmission Bulletin

Number: TL-1
Issued: 12/31/2005
Revised:

Subject: Ground Inspection

The Ground Inspection (GI) will be performed on the cycle outlined in the SCT Line Inspection Standard. This inspection and maintenance bulletin covers the scope of the Ground Inspection (GI) and reporting, during the inspection. The inspection process is designed to investigate and report problems and make minor repairs as listed. The inspection and repairs will be documented through a defined set of SCT absits, as well as the documentation of all attributes associated with the Line and Facilities being inspected.

Scope of Inspection

The purpose of the Ground Inspection is a stand alone inspection as well as a feasible follow-up to the Comprehensive Aerial Inspection or as an In-Service Inspection, with the following objectives:

- The intent is to spend the time necessary to do a thorough evaluation of the reported problems and condition of the transmission facilities, as well as inspection of the transmission line and recording the associated Absits and attributes.
- Ground Inspection is a visual ground inspection per the Southern Company Transmission Line Inspection Standards

Ground Inspection

- Any and all structures associated with Line will be inspected and attribute information gathered on Ground Inspection
- Minor repairs as listed on Items to be repaired
- All attributes to be noted and any defects reported on inspection
- All Absits to be recorded using TLIS
- All data to be gathered using TLIS

Ground Inspection Associated with a Comprehensive Aerial Patrol

- Any structure that the aerial inspection shows an area of concern shall be inspected to determine scope of problem.
- Visual ground inspection on all structures
- Minor repairs as listed on Items to be repaired
- All Absits to be recorded using TLIS
- All data to be gathered using TLIS
- See attachment "A" for when this should be performed

Ground Inspection Associated with an In-Service Inspection

- Any and all structures associated with Line will be inspected and attribute information gathered on In-Service part of Ground Inspection
- All attributes to be noted and any defects reported on inspection

- All defects to be noted using TLIS and the associated Absits
- All data to be gathered using TLIS

Property Limits and Access

SCT Employees and Contractors shall confine all operations within the limits of the right-of-way subject to the following exceptions:

- Alternate access to a structure location has been established.
- To traverse the right-of-way from structure to structure would damage crops, tree plantings or established lawns.
- To traverse the right-of-way from structure to structure would require crossing streams, creeks, or other water run-offs.
- Pole line is not built on defined right-of-way.

Items to be Repaired

Minor repairs that should be performed during the Ground Inspection are as follows:

- Remove steps to a height of 12 feet from groundline
- Install or repair climbing guards where needed (Tower)
- Install or repair warning signs where needed (Tower)
- Repair broken structure grounds
- Retention loose guy wires
- Install anchor extensions as needed per SCT Anchor Inspection Bulletin
- Replace defected guy grips
- Install or replace guy shields
- Fill bird holes
- Next visit absits on the TLMS work order.
- All repairs made during the inspection should be entered into TLIS with a status of Repaired,

Attachment A

Follow-up Ground Inspections

:

When a Comprehensive Aerial Inspection is being used, some key items may be missed due to not having a person on the ground at the structure. In an effort to insure that all abnormal situations (absits) are identified and important line facility information is gathered, a follow-up ground inspection may be necessary on some lines to guarantee system reliability and not compromise liability issues.

On every line that a Comprehensive Aerial Inspection (CAI) is scheduled, a ground inspection (GI) may be scheduled based on the MATRIX in Attachment B. Absit information will be gathered at the time of the Comprehensive Aerial Inspection and absits will be loaded into the CTDB. Special care should be taken not to overlook absits and absit priority information collected on inspections prior to the Comprehensive Aerial Inspection. The Ground Inspection should be scheduled in the same year as the Comprehensive Aerial Inspection if possible, but after the results from the Comprehensive Aerial Inspection are entered in the CTDB. The purpose of scheduling the Ground Inspection after the Comprehensive Aerial Inspection is to facilitate absit repairs.

Attachment B

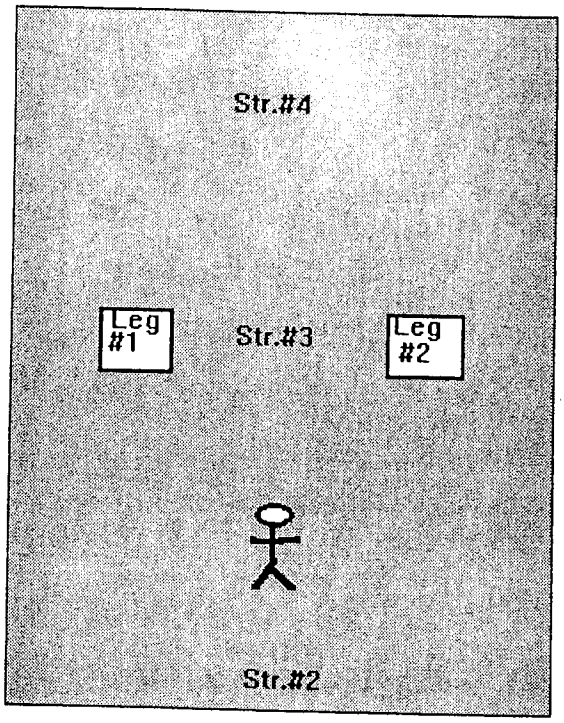
Follow-up Ground Inspection Matrix

Line Situations	IF:		Then: Action Required
Line with everything in colored box below			
-All foundations above ground	YES	NO	
-Warning signs legible and affixed	X		No GI Required
-Climbing guards where required		X	Perform GI and make repairs as needed
-Groundline Inspection performed last cycle			
-Items reported Next Visit on last inspection	X		Schedule and perform repairs
		X	No action required
-Critical discrepancies reported on CAI (OHGW, insulators, hardware, or conductors)	X		Make repairs when reported
		X	No action required
-Is Data needed for CTDB?	X		Perform GI and make repairs as needed
		X	No GI Required
-Guyed Structures	X		Perform GI and make repairs as needed
-Structures with anchors that can not be visually inspected with the CAI		X	No action required

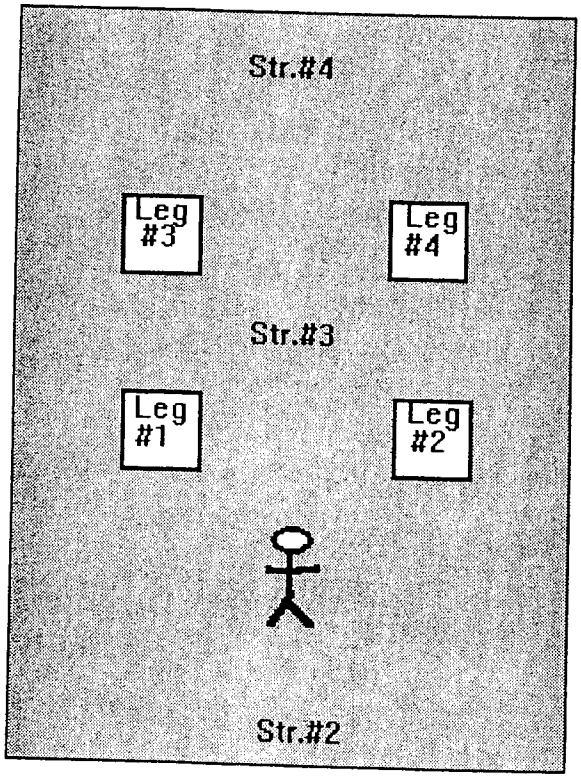
Absits that are reported by the Comprehensive Aerial Inspection should be scheduled based on the assigned priority code. As noted all critical condition absits that are reported on the OHGW, insulators, associated hardware, or conductor that are determined to endanger the public or system reliability shall be repaired by the crews or the aerial contractor when found and reported.

Attachment C

Two Legged Structure



Four Legged Structure



Southern Company Transmission Bulletin

Number: TL-2
Issued: 10/10/02
Revised: 12/31/2005

Subject: Specifications for the Groundline Inspection and Treatment of Wood Poles

To outline the proper inspection, treatment, and maintenance process to be performed on the Southern Company Wood Pole Transmission System. This specification covers the requirements for inspection, groundline treatment, and other miscellaneous activities of standing wood poles on the Southern Company transmission system.

General Guidelines

Additional Contractor Requirements and Obligations

1. The contractor will not be required to inspect or perform any work on poles inaccessible by acts of God or by any causes beyond the control of the contractor. All power lines and circuits shall continue in normal operation during this work, and the contractor shall provide and use all protective equipment necessary for the protection of the general public and his employees and to guard against interfering with the normal operations of said line.
2. Contractor shall pick-up maintenance materials and data information from various locations and operating Headquarters around the system. Chemical materials for the treatment of poles shall be supplied by the contractor.

Working Conditions

1. For work performed on a per unit basis, the following will apply:
   - Work should be performed during the hours of daylight, from Monday to Friday unless approved by the appropriate transmission authority.
   - Even though work is being performed on a per unit basis, forty hours shall constitute a normal week unless approved by the appropriate transmission authority.
   - If the contractor wishes to work on a non-working day to complete a normal work week, the work shall be performed at the regular unit price rate and shall be done only with prior approval of appropriate transmission authority.

Crew Reporting and Moving

1. When a new crew is added to the Southern Company Transmission system, no equipment rental or wages to the Contractor's employees shall be paid to move Contractor's vehicles and equipment from the Contractor's home office or previous job site to the new crew headquarters.
2. Upon Company request, Contractor shall provide to the appropriate transmission person a report listing the names of all employees presently working on the Company's system.
3. Two weeks prior to the Contractor completing a transmission maintenance inspection, the Contractor shall notify the operating company.

Property Limits and Access

1. The Contractor shall confine all operations within the limits of the right-of-way subject to the following exceptions:
   - Alternate access to a structure location has been established.
   - To traverse the right-of-way from structure to structure would damage crops, tree plantings or established lawns.
   - To traverse the right-of-way from structure to structure would require crossing streams, creeks, or other water run-offs.
   - Pole line is not built on defined right-of-way.

Equipment Rental

1. Contractor agrees to furnish tools, equipment, and transportation to accomplish the assigned work and those tools, equipment, and transportation shall be included in their unit prices. Contractor shall not be compensated for equipment on an hourly basis when man-hour rates apply.

Communication

1. General Supervision of the Contractor shall have a two-way communication device installed and active, if deemed necessary by the operating Company. Contractor shall make known to the Company representative(s) the phone/radio numbers of each crew. The cost of these devices shall be included in the Contractor's unit rates.

Technical Specifications

All Groundline Inspection and Treatment Services shall be performed in accordance with the following technical specifications.

Scope

1. This standard consists of specifications and conditions for the preservative treatment and inspection of the ground line area of in-service Southern pine, Douglas fir, and Western Red Cedar poles. Complete detailed instructions shall be given the contractor whenever the requirements of these specifications are modified to meet special conditions.

Qualifications

1. The Contractor shall be a certified commercial pesticide business for the chemical application set forth under this contract, and shall be registered with the State Department of Agriculture and Industries for the current application year. The Contractor shall furnish proof of his current registration to the Company prior to commencing work. The Contractor shall be responsible for recording and submitting all pesticide usage forms required by the various pesticide regulatory agencies and for complying with all applicable Federal and State rules and regulations.

2. The Contractor shall possess copies of the chemical labels and material safety data sheets (MSDS) of all the preservatives, insecticides and fumigants being used. The labels and material safety data sheets shall list the chemical composition, description, directions for use, precautionary statements, warnings, environmental hazards, practical treatments, storage and disposal instructions, and any other relevant information. Upon request, the labels and material safety data sheets shall be made available to anyone desiring this information.

3. Treatment and inspection work shall be done or supervised by a foreman with a minimum of four (4) months training and shall be certified by the contractor as being qualified for this work. The foreman's immediate supervisor shall be a professional pole inspector with a minimum of two (2) years experience in this specific field and shall have a valid state Pesticides Applicators License.
4. The contractor shall furnish all supervision, labor, tools, equipment, and material necessary to inspect and treat all poles as per this specification. The Company will furnish the contractor with necessary information and assistance if necessary in locating specific lines, which are subject for inspection and treatment. All work done and materials used shall be in compliance and accordance with all local, municipal, county, state and federal laws and regulations applicable to said work. Preservatives used shall conform to the minimum requirements as set forth in this specification. Quality control checks shall be made weekly for each crew by the foreman's immediate supervisor. A minimum of five poles or five per-cent of line shall have quality control performed. A copy of this quality control check shall be sent to appropriate transmission personnel monthly.
5. All work shall be performed in a workmanlike manner and shall be in accordance with this specification and all Federal and State regulations. The Contractor shall at all times exercise care to prevent injury to any persons and to prevent any property damage during performance of the work. The Company considers work not in accordance with this specification or State and Federal regulation, to be sufficient reason to order the Contractor to stop work. Work will not be resumed until deficiencies are satisfactory corrected. The Company reserves the right to require Contractor to replace any worker before work is allowed to continue. If not satisfied, the Company will consider this to be just cause for termination of the contract.

Chemical Handling

Security

1. Any container in which a chemical is stored, shall be securely locked or bolted to the vehicle when on the right of way or job location and kept locked when unattended. Empty chemical containers shall be removed from the right of way or job location and kept in a locked compartment until properly disposed of in accordance with rules and regulations of all Federal and state regulations. Burial on the right of way is not acceptable.

Spills

1. Chemical spills shall be immediately cleaned up in a manner consistent with label instructions and Federal and State regulations.
2. The Contractor shall provide each crew with sufficient absorbent materials for cleaning up potential spills of chemicals.
3. The Contractor shall provide each crew with sufficient neutralizing agents to deactivate spills.

Hazard Communication

1. The Contractor shall provide to its employees a hazard communication program which addresses the purpose of using pesticide material safety data sheets, product labels, protective safety equipment and clothing, and product information

Inspection and Treatment Categories

- **Inspection Categories**

  Inspect and Report Pole

  A Ground Inspection shall be performed on all poles per Southern Company Transmission Inspection Document and all data reported on a mobile computing device. Any discrepancy found that may be critical to the line operation will be reported to the maintenance area at time of inspection.

Sound and Bore Pole

The pole shall be sounded with a hammer completely around the pole from ground line to as high as the inspector can reach. All questionable sounding areas shall be bored to determine if decay is present. Transmission poles shall be bored a minimum of two times. All holes shall be filled with the appropriate plugs.

Water Poles

Pole that can't be inspected due to high water will be reported as water poles.

Anchor Inspection

Anchor Inspection shall be performed per Southern Company Anchor Inspection Bulletin. All rusty or damaged guy grips shall be replaced. All loose or broken guys shall be re-tensioned. All guys shall have guy shields. Missing or damaged guy shields shall be replaced. Guy work will not be performed on guys that may come in contact with energized conductors when relaxed or have been predetermined to need no work.

Ground Wire Repairs

Pole grounds found broken or cut shall be repaired using wire and connectors furnished to the contractor (the contractor shall be responsible for providing appropriate rubber gloves, tools, and dies). Pole grounds broken by the contractor during groundline treatment shall be repaired and reported at the contractor's expense.

- **Treatment Categories**

Wood Pole Inspection

All wood poles shall be inspected and treated using the following criteria no matter the age of pole at time of inspection. The only exception to this rule will be CCA treated wood poles. Any CCA treated wood pole that is twelve years old or less will be visually inspected and sound. If there is any questionable area found, the full inspection process will be performed.

Sounding and Boring Without Excavation

In some cases poles cannot be excavated due to existing cables, underground services and other obstructions. The Contractor shall hammer sound the pole completely from just above groundline to as high as the inspector can reach to identify exterior or interior decay pockets. At least two test borings of 3/8 inches shall be taken 180 degrees from one another. The borings shall be taken downward at a 45 degree angle and proceed past the center of the pole. If decay pockets are detected additional inspection holes shall be bored to determine full extent of decay. Shell thickness shall be determined with a shell depth indicator. All inspection holes shall be filled with approved plugs. (Refer to decay classifications for circumference deductions based on National Electrical Safety Code Safety Factor Tables)

Excavation

Before any work is started, the Contractor shall take all reasonable precautions to insure there will be no pole failure during the work. Pole shall be excavated to a minimum depth of 18 inches below ground level. (Bottom diameter of excavation to be 4 inches and groundline diameter of excavation to be 10 inches.) A check scrape shall be used to clean the below ground portion of the pole.

In areas such as lawns, parks, and sidewalks, tarps shall be used to keep area as clean as possible. **No holes will left open overnight.**

Every effort should be made to contact the property owner and communicate the nature of work.

Groundline Treatment

After excavation the inspector shall hammer sound the pole completely from just above groundline to as high as the inspector can reach to identify exterior or interior decay pockets. At least two test borings of 3/8 inches shall be taken 180 degrees from one another. The borings shall be taken downward at a 45 degree angle and proceed past the center of the pole. If decay pockets are detected additional inspection holes shall be bored to determine full extent of decay. Shell thickness shall be determined with a shell depth indicator. All inspection holes shall be filled with approved plugs.

The surface of the pole shall be scraped to remove all foreign materials below groundline and the groundline circumference shall be taken. Decay pockets and external decay shall be chipped from the surface of the pole from 6 inches above ground to 18 inches below grade with chipping tool. Care shall be taken not to remove good sound wood from the pole. All removed wood shall be disposed of in accordance with State and Federal regulations. The approved preservative (preservative "A") and moisture resistant bandage should then be applied from 3 inches above ground to 18 inches below grade there shall be no exposed preservative above groundline. Poles located in pastures shall be protected with 9 inch nylon reinforced pasture wrap.

When obstructions prevent total excavation, the preservative and moisture wrap shall be applied up to obstruction as close as possible. If no more than 75 % of the pole can be excavated, the exposed portion of pole shall be externally treated and treated with MITC-Fume.

Appropriate backfilling, tagging and clean up complete this procedure. (Refer to decay classifications for circumference deductions based on National Electrical Safety Code Safety Factor Tables)

Internal Treatment

When internal decay or hollow heart has been detected, (preservative "B") shall be applied under pressure (50 psi) through a sufficient number of bored holes to assure coverage. Cavity shall be filled with approved preservative starting with bottom hole and moving to next highest hole; this procedure will be followed until cavity is filled or a maximum of one gallon is used. All holes shall be filled with the appropriate plugs. The appropriate tag shall be applied to the pole.

MITC-Fume Treatment

If the pole cannot be properly excavated or internal decay has been found it shall be bored and treated with the approved fumigant (MITC-Fume preservative "C"). All Douglas-fir poles and Cellon treated poles shall also be treated with MITC-Fume. Fumigant shall be applied in the following manner. Starting at the ground line 90 degrees apart at successive 6 inch intervals in height, bore the appropriate 7/8-inch diameter holes at an 45 degree angle, 10 inches in depth. Excessively long holes should be avoided to eliminate unnecessary strength reductions.

Poles up to 35 inches in circumference	3 tubes
Poles 36 – 49 inches in circumference	4 tubes
Poles 50 – 59 inches in circumference	5 tubes
Poles 60 inches and greater in circumference	6 tubes

Care should be taken while drilling to avoid intersecting seasonal cracks and drilling completely through the pole. After tubes are inserted into the 7/8-inch diameter hole, all holes shall be filled with the appropriate plugs. The appropriate tag shall be applied to the pole.

Reject Poles

Rejects Requiring Replacement

Any pole upon inspection after excavation that is found to have insufficient sound wood to be serviceable shall be rejected and reported that it warrants replacement.

Reinforceable Rejects

Any pole upon inspection after excavation that is found to have insufficient sound wood but can be made serviceable by pole restoration methods shall be rejected; groundline treated and reported that it is a candidate for restoration. (Refer to Southern Company guideline for details).

Decay Classification and Pole Serviceability

After removal of unsound wood the pole must be evaluated. The Contractor must determine the circumference reduction by measuring the decayed section and comparing to Safety Tables Number 1, 2, 3 and 4. After the reductions are made based on the Safety Tables, the Contractor can refer to the Pole Circumference Table to determine if the pole has the required strength to remain in service. No pole should have a Safety Factor less than 2.67.

Type of ground line decay shall be classified as follows:

- General External Decay
- External Pockets
- Hollow Heart
- Internal Pockets

External decay may extend around the pole so as to cover a large area of the circumference; or it may be limited to a small area representing only a portion of the circumference. If the decay is limited to a portion of the pole not exceeding 6 inches in width and 5 inches in depth it shall be classified as "External Pocket". Otherwise, external decay shall be classified as "General External Decay".

General External Decay

After cutting away all decayed wood, measure the circumference above or below the decayed section to determine the original circumference. Then measure where the decay was removed to determine the reduction in circumference. Check the original and reduced circumference with Safety Factor Table No. 1.

External Pocket

Remove decayed wood, measure the depth and width of the pocket, and then refer to Table No. 2 to determine circumference reduction. After circumference reduction is determined, measure the pole for original circumference and check the original and reduced circumference with Safety Factor Table No. 1. For more than one external decay pocket, figure each pocket separately and add to get the total reduction.

Hollow Heart

When hollow heart is found, determine the shell thickness and the original circumference of the pole, then refer to Table No. 3 to obtain the circumference reduction, check the original circumference and the reduced circumference with Safety Factor Table No. 1.

Internal Pocket

An internal pocket is an off center void as shown in Table No. 4 and should be measured by drilling holes as described in "Hollow Heart". After the pocket is measured, check the original circumference and reduced circumference with Safety Factor Table No. 1. For more than one enclosed pocket, figure each pocket separately and add to determine the total reduction.

Internal Treatment

When internal decay has been detected and measured, an approved preservative solution shall be applied under pressure through a sufficient number of bored holes to assure coverage. All holes shall be filled with appropriate plugs.

Preservative and Bandage Application

The preservative shall be applied to the excavated section from 18 inches below ground line to 3 inches above ground line at a minimum thickness as designated. All checks and decay pockets shall be liberally treated with preservatives. An approved moisture resistant bandage shall be securely wrapped around the entire treated area and stapled in place. The bandage shall cover an area from 18 inches below ground line to 4 inches above ground line.

Backfilling

After treatment the excavation will be refilled and tamped to a point 3 inches above ground line. Care shall be taken so that rocks and stones will not be laid against the pole, which could tear or puncture the protective wrapping.

Tagging

All treated poles shall have an identifying aluminum tag securely fastened directly under the I.D. tag. This tag shall be a minimum of one (1) inch in diameter and show the contractor's name and year of treatment. (See Southern Company PoleTagging).

Clean Up

All debris, loose dirt, and wood chips shall be removed from the pole area. Turf, bushes and other shall be replaced with care.

Preservatives and Fumigants

Preservatives used for treatment of poles shall contain the following minimum active ingredients :

Preservative "A" *	
Sodium Fluoride	44.4%
Copper Naphthenate	20.0%
Inert Ingredients	35.6%
1/16 inch minimum thickness	

Preservative "B" *	
Sodium Fluoride	10.90%
Sodium Dichromate	4.80%
Tri-Sodium Arsenate	5.36%
Inert Ingredients	78.94%

* Or preservative of adequate service life

Fumigant used for the internal treatment of poles shall contain the following amount of active ingredient:

Preservative "C"	
Methylisothiocyanate (MITC)	98%

* Or preservative of adequate service life

Pole Inspection Data:

The inspection and pole data shall be gathered in the field by utilizing the Southern Company Transmission Inspection Program. The device utilized to run the program will be furnished by the contractor. Data files shall be submitted to the local area and appropriate transmission authority within two (2) weeks of completing the inspection. A report of the weekly work will be submitted to the local area and appropriate transmission authority, showing descriptions of work performed and status of poles inspected. A list of R2 reject poles to be reinforced will be included in the weekly report. A summary of these inspection reports will be provided to the appropriate transmission authority showing totals of poles treated, numbers of R1, R2, and R3 reject poles found, and numbers of work items performed.

Table 1

Pole Circumference (inches)

Original Circumference	Reduced Circumference			
	SF 2.67 Good Pole	R2 Reject (Reinforceable)	R1 Reject (Non Reinforceable)	R3 Reject (Priority Pole)
SF4	minimum of	Minimum of	minimum of	less than
30	26.15	20.00	13.07	13.07
31	27.02	20.67	13.51	13.51
32	27.89	21.34	13.95	13.95
33	28.76	22.00	14.38	14.38
34	29.63	22.67	14.81	14.81
35	30.15	23.34	15.07	15.07
36	31.38	24.00	15.69	15.69
37	32.25	24.67	16.12	16.12
38	33.12	25.34	16.56	16.56
39	33.99	26.00	16.99	16.99
40	34.87	26.67	17.43	17.43
41	35.74	27.34	17.87	17.87
42	36.61	28.00	18.30	18.30
43	37.48	28.67	18.74	18.74
44	38.25	29.34	19.12	19.12
45	39.22	30.00	19.61	19.61
46	40.10	30.67	20.05	20.05
47	40.97	31.34	20.48	20.48
48	41.84	32.00	20.92	20.92
49	42.71	32.67	21.35	21.35
50	43.58	33.34	21.79	21.79
51	44.45	34.00	22.22	22.22
52	45.33	34.67	22.66	22.66
53	46.20	35.34	23.10	23.10
54	47.07	36.00	23.53	23.53
55	47.94	36.67	23.97	23.97
56	48.81	37.34	24.40	24.40
57	49.69	38.00	24.84	24.84
58	50.56	38.67	25.28	25.28
59	51.43	39.34	25.71	25.71
60	52.30	40.00	26.15	26.15

Table 2

Reduction in Measured Circumferences to Compensate
For External Pockets

Width of Pocket (inches)	1					2					3					4					5					6				
Depth of Pocket (inches)	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Measured Circumference of Pole (inches)																														
30 to 40	1	1	1	2	2	1	2	2	3	3	2	3	4	4	4	2	4	5	5	6	3	5	6	7	8	5	7	8	9	10
40 to 50	1	1	1	2	2	1	2	2	3	3	2	3	3	4	4	2	3	4	5	6	3	4	5	6	7	3	5	6	7	8
50 to 60	1	1	1	2	2	1	2	2	3	3	2	3	3	4	4	2	3	3	4	5	3	4	4	5	6	3	4	5	6	7

Table 3

Reduction in Measured Circumferences to Compensate
For Hollow Heart

Measured Circumference of Pole (inches)	Minimum Thickness of Shell (inches)			
	3	3 1/2	4	4 1/2
30 to 40	2	1	0	0
40 to 50	3	2	1	0
50 to 60	4	3	2	1

Table 4

Reduction in Measured Circumferences to Compensate
For Internal Pockets

Diameter of Pocket (inches)	3			4			5		
Measured Thickness of Shell (inches)	1	2	3	1	2	3	1	2	3
Measured Circumference of Pole (inches)	Reduction in Circumference (inches)								
30 to 40	2	1	1	3	1	1	4	2	1
40 to 50	2	1	1	3	2	1	4	3	1
50 to 60	2	2	1	3	3	1	4	3	1

Standard Specifications for the Ground Line Treatment and Inspection of Wood Poles

Southern Company Transmission Bulletin

Number: TL-3
Issued: 10/12/02
Revised: 12/31/05

Subject: Steel Structures Groundline Inspection and Maintenance

The Steel Groundline Inspection (SGL) will be performed on an 18 year cycle, and to be followed by other inspection types on a 6 year interval. This inspection and maintenance bulletin covers the method of inspection, reporting, and the minor repairs of steel structures. The inspection process is designed to gather the following information:

- Overall deterioration above ground
- Deterioration from the groundline to two feet below groundline.

Purpose

1. Outline the proper method of inspecting galvanized and painted galvanized steel structures.
2. Outline the proper method for groundline treatment of galvanized and painted galvanized steel structures.
3. Define the procedure for reporting absit.

Special Stipulations

1. Contractor Requirements and Obligations

   The contractor will not be required to inspect or perform any work on structures inaccessible by acts of God or by any causes beyond the control of the contractor. All power lines and circuits shall continue in normal operation during this work, and the contractor shall provide and use all protective equipment necessary for the protection of the general public and his employees and to guard against interfering with the normal operations of said line.

   Contractor shall pick-up maintenance materials and data information from various locations and operating headquarters throughout the Southern Company transmission system. Contractor shall give operating company officials ample notice to restock materials for inspection and maintenance activities.

   The contractor shall furnish all supervision, labor, tools, and equipment, necessary to inspect and treat all structures as per this specification. The Company will furnish the contractor with necessary information and assistance if necessary in locating specific lines, which are subject for inspection and treatment. Work shall conform to the minimum requirements as set forth in this specification. Quality control checks shall be made weekly for each crew by the foreman's immediate supervisor. A minimum of five per-cent of line shall have quality control performed. A copy of this quality control check shall be sent to appropriate transmission personnel monthly.

   All work shall be performed in a workmanlike manner and shall be in accordance with this specification and all Federal and State regulations. The Contractor shall at all times exercise care to prevent injury to any persons and to prevent any property damage during performance of the work. The Company considers work not in accordance with this specification or State and Federal regulation, to be sufficient reason to order the Contractor to stop work. Work will not be resumed until deficiencies are satisfactory corrected. The Company reserves the right to require Contractor to replace any worker before work is allowed to continue and the company reserves the right to withhold payment of invoices for work not performed to this specification. If not satisfied, the Company will consider this to be just cause for termination of the contract.

2. Scheduling

Contractor shall provide the operating company that work is being performed in with a weekly schedule outlining crew name, radio number, work order number, line name, inspection type, estimated completion date and previous weeks completed work by work order number and line name.

3. Working Conditions

For work performed on a per unit basis, the following will apply:

- Work should be performed during the hours of daylight, from Monday to Friday unless approved by the appropriate transmission authority.
- Even though work is being performed on a per unit basis, forty hours shall constitute a normal week unless approved by the appropriate transmission authority.
- If the contractor wishes to work on a non-working day to complete a normal work week, the work shall be performed at the regular unit price rate and shall be done only with prior approval of appropriate transmission authority.

4. Crew Reporting and Moving

When a new crew is added to the Southern Company Transmission system, no equipment rental or wages to the Contractor's employees shall be paid to move Contractor's vehicles and equipment from the Contractor's home office or previous job site to the new crew headquarters.

Upon Company request, Contractor shall provide to the appropriate transmission person a report listing the names of all employees presently working on the Company's system.

Two weeks prior to the Contractor completing a transmission maintenance inspection, the Contractor shall notify the operating company.

5. Property Limits and Access

The Contractor shall confine all operations within the limits of the right-of-way subject to the following exceptions:

- Alternate access to a structure location has been established.
- To traverse the right-of-way from structure to structure would damage crops, tree plantings or established lawns.
- To traverse the right-of-way from structure to structure would require crossing streams, creeks, or other water run-offs.
- Pole line is not built on defined right-of-way.

6. Equipment Rental

Contractor agrees to furnish tools, equipment, and transportation to accomplish the assigned work and those tools, equipment, and transportation shall be included in their unit prices. Contractor shall not be compensated for equipment on an hourly basis when man-hour rates apply.

7. Communication

   Contract Supervision and Inspection crews shall have Southern Linc radios. Contractor shall make known to the Company representative(s) the phone/radio numbers of each crew. The cost of these devices shall be included in the Contractor's unit rates.

General

Transmission steel inspection data shall be collected using the Southern Company's Transmission Line Inspection Program. A complete inventory of structure and components shall be collected at each structure location. The steel assessment rating shall be per Attachments A, B, & D. The structure legs shall be identified as shown on Attachment C.

The Groundline Inspection process involves three main steps:

- Inspection of all steel structures.
- Evaluation and reporting of the information gathered.
- Remediation of those steel structures that can be repaired.

*Weathering steel and galvanized direct embedded structures with core coating intact shall be inspected and inventoried only. Depending on operating companies past experience, some sampling of core coated structures may be required at some interval.

Footings

Some types of footings that need evaluation:

- Stub angle in a concrete foundation
- Small box steel in a concrete foundation
- Anchor bolts (drilled pear and spread footing)
- Leg angle direct in the earth
- Leg angle direct in the earth with a small circumference of mortar around the steel
- Grillage / pipe foundation
- Direct imbedded tubular steel
- Guyed structure on pedestal foundation

Structural Deterioration

The greatest deterioration takes place from the point at which the steel makes contact with the earth, down to two feet below groundline. There are many reasons for this deterioration:

- The age of the steel
- The quality of the coating
- The type of coating
- The corrosion currents at the structure
- The type of structure ground
- The close proximity to sub-station
- The soil types
- Any soil additives
- The amount of industry in the area.

Galvanized Steel Life Expectancies

How long does galvanizing last? Atmospheric conditions play a big roll in the amount of service life we have between the time the structure is installed and the ideal time to paint. The chart below shows the average number of years before the galvanized steel structure will normally need painting*.

Transmission Tower Life Spans

Heavy Industrial	12 Years
Moderate Industrial	17 Years
Light Industrial	16 Years
Marine	15 Years
Suburban	22 Years
Rural	24 Years

***References:** American Hot Dip Galvanizers, Keeler & Long

Lead Paint Policy

Before cleaning and/or painting a structure we need to determine if that structure was painted in the past. Structures that have been painted may have been painted with paints that contain lead. The simplest way to determine if the paint in question contains lead is to use a lead-detecting swab. If lead is present, the swab turns a particular color. (The color varies depending on the manufacturer.)

If lead is detected, do not grind or sandblast painted steel unless we have a controlled work site. This means an extensive amount of preparation including tents, respirators, and the means to recover any paint removed from the structure. Disposal costs, which are high for paints containing lead, must also be factored into the total remediation costs.

When lead paint is detected:

- Scrape off any loose or flaking paint.
- Clean with a course-bristle brush.
- Repaint with an approved paint, making sure that you completely cover all lead paint with the new paint.

* Normally the below ground portion of a steel lattice structure doesn't have an after market coating.

Inspection Process

Evaluate the extent of deterioration to the steel structure above ground (Overall Corrosion Assessment) using the **Steel Deterioration Chart Attachment D** and the **Steel Corrosion Ratings Chart Attachment A & B**. Report assessment on the Southern Company's Transmission Line Inspection Program

Evaluate and inspect the structure at and below the groundline, removing the earth around the structure to a depth of two feet or until a foundation of some type is exposed. Cleaning the steel of the structure leg is best performed with the following tools:

- An air compressor capable of holding a constant pressure of 90 psi
- An air drill with assorted wire brush attachments and air chisel to remove all loose and flaky rust if needed.
- A blasting tool will be used to clean all corrosion and corrosion cells from the steel

- Sand blasting aggregate : medium grade star blast **(No silicon sand will be used)**
- Two moisture separators are needed to eliminate moisture from being blown on to the cleaned steel and prevent flash rusting (Filters must be checked daily and replaced when saturated)
- Blasting tips need to be checked regularly depending on usages for wear and replaced as needed
- A blower attachment
- A hand held wire brush

Note: When steel is imbedded directly into a concrete foundation, pay special attention to the steel at the point just above the concrete. This is where severe corrosion has been found.

Note: When working in areas that may be susceptible to salts, a neutralizing agent may be required to be applied to the steel prior to coating the steel. SoCo will furnish neutralizing agents.

After cleaning the steel, determine the R rating by comparing it to the **Steel Deterioration Chart (Attachment D)** and report findings on the Southern Company's Transmission Line Inspection Program.

Report all damaged or missing steel. **R-4 and R-5 damaged components shall be painted above ground with orange paint.** Use the diagrams shown on Attachment C to determine the structure leg numbers for reporting. Keep the lower structure number behind you when using the diagrams.

Repair Process

Painting:

Prepping the steel is one of the most important parts of this program. The following steps are essential:

1. The steel must be cleaned thoroughly with the air tools in order to remove all dirt. Blasting is required when corrosion cells are present, using star blast/medium grade aggregate. SoCo will supply aggregate. **Note:** When working in areas that may be susceptible to salts, a neutralizing agent may be required to be applied to the steel prior to coating the steel. SoCo will supply neutralizing agents.
2. Blow off area that has been prepared for painting with air nozzle attachment. (This step should remove all dust particles and dry the steel. If steel is not dry, a small torch may be used to remove remaining moisture.) **Note:** If a torch is used to dry the steel, make sure that the steel is cool before applying paint.
3. Apply paint to prepared steel with 2" to 4" brush or 2" to 4" roller. **Note:** To get the required corrosion protection, the paint must have two coats applied at 8 to 10 mils thick. First coat must become tacky prior to applying second coat of paint. Applying the paint at this thickness is extremely important at and below groundline. SoCo will supply paint.
4. Paint from 2 feet below to 2 feet above groundline.
5. Allow the paint to cure at least 4 to 8 hours before backfilling.
6. Backfill and tamp. Do not scratch or damage the coating while backfilling. Dome the earth up around structure leg to accommodate water run off.

Maintenance Items

- Remove steps to a height of 12 feet from groundline
- Install or repair climbing guards where needed (Tower)

- Install or repair warning signs where needed (Tower)
- Take ground readings
- Anchor rod inspection
- Retention loose guy wires
- Install anchor extensions as needed per SCT Anchor Inspection Bulletin
- Replace defected guy grips
- Install or replace guy shields

Attachment A

Steel Corrosion Assessment Ration Guide for Galvanized Structures

Steel Corrosion Assessment Rating Guide Galvanized Structures		
Rating #	**Maintenance**	**Description**
(R - 1)	No Rust OK	Zinc Layer - Original Galvanizing Smooth & Gray
(R - 2)	Light Rust Clean & Paint	Zinc Iron Alloy Layer - Weathering of Alloy Layer Smooth Dark Gray/ Later Red, Yellow, Brown
(R - 3)	Medium Rust Clean & Paint	Base Steel Layer - Initial Weathering of Steel Layer Red - Dark Red Light Pitting
(R - 4)	Heavy Rust Repairable/Reinforce Protective Coating	Rusty Steel Layer Red, Brown, Black Heavy Pitting, (30 to 50)% Localized Metal Loss In Critical Region Structural Repair Feasible
(R - 5)	Severe Rust Reject/Beyond Repair	Black Steel Porous and Flaking Severe Metal Loss In Critical Region - Structurally Unsafe Structural Repair Not Feasible or Cost Effective

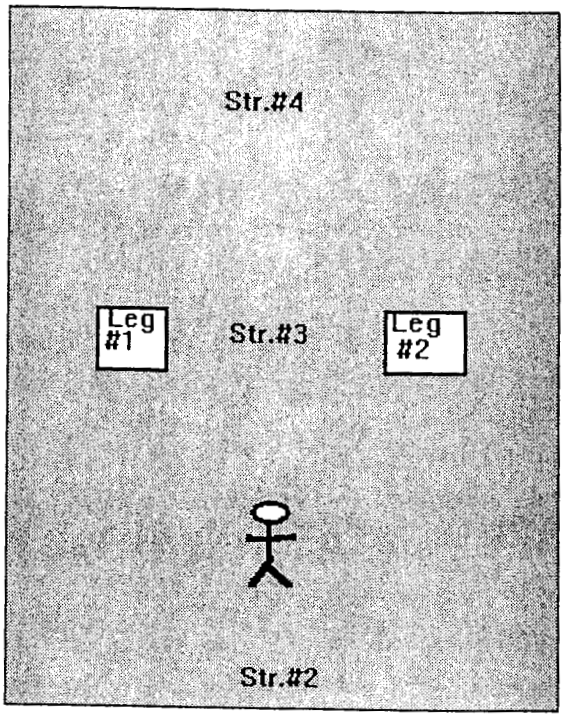
Attachment B

Steel Corrosion Assessment Rating Guide for Painted Steel Strutures

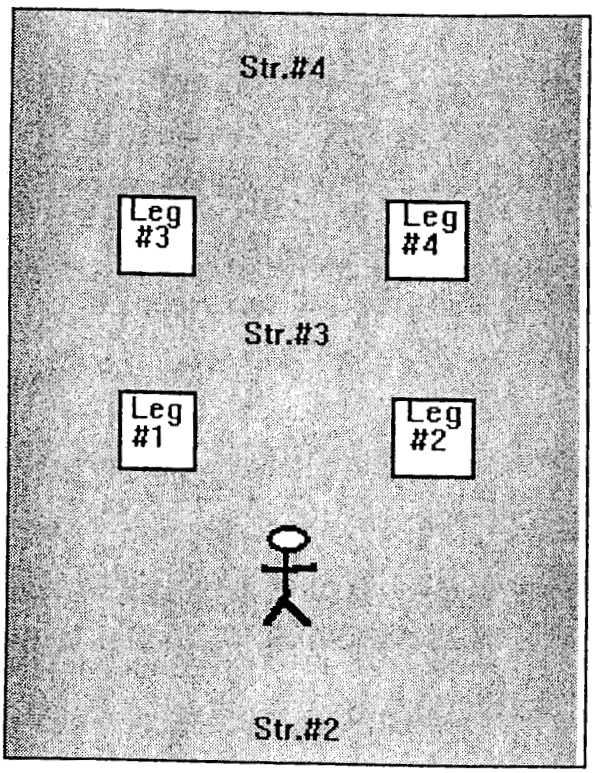
Steel Corrosion Assessment Rating Guide Painted Steel Structures		
Rating #	**Maintenance**	**Description**
(R - 1)	No Rust OK	Coating Tightly Adhered Continuous Corrosion Protection Provided
(R - 2)	Light Rust Clean & Paint	Coating Moderately Adhered Rust Film - No Pitting on Metal
(R - 3)	Medium Rust Clean & Paint	Coating Loosely Adhered Light Pitting of Corroded Metal
(R - 4)	Heavy Rust Repairable/ Reinforce Protective Coating	Coating Completely Gone -No Corrosion Protection Remaining Heavy Pitting Of Corroded Metal (30 to 50)% Localized Metal Loss In Critical Region Structural Repair Feasible
(R - 5)	Severe Rust Reject/Beyond Repair	Steel Porous and Flaking Severe Metal Loss In Critical Region - Structurally Unsafe Structural Repair Not Feasible Or Cost Effective

Attachment C

Two Legged Structure

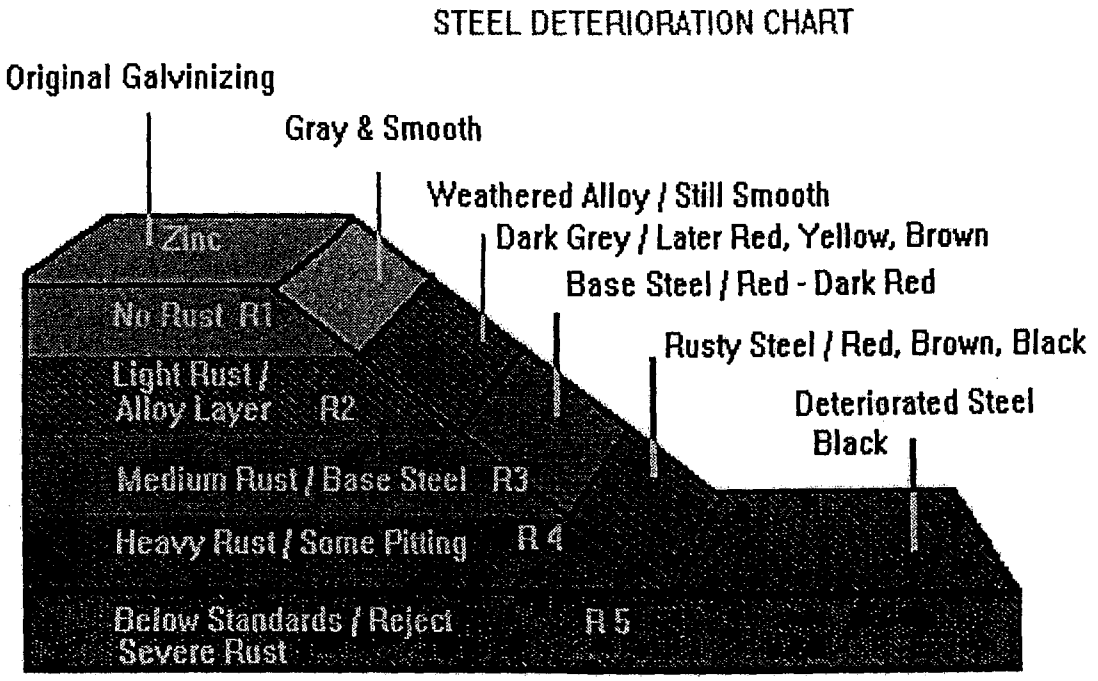


Four Legged Structure



Attachment D

Steel Deterioration Chart



Southern Company Transmission Bulletin

Number: TL-4
Issued: 12/31/05
Revised:

Subject: Comprehensive Walking Inspection

The Comprehensive Walking Inspection (CWI) will be performed on the cycle outlined in the SCT Line Inspection Standard. This inspection and maintenance bulletin covers the scope of the Comprehensive Walking inspection, reporting, and the minor repairs made during the inspection. The inspection process is designed to gather all field problems identified by the SCT absits list.

Scope of Inspection

The purpose of the Comprehensive Walking is an economical replacement for the climbing inspection with the following objectives:

- Focus more on identifying field problems, absits, and recording them in TLIS. The intent is to spend the time necessary to do a true evaluation of the condition of the transmission facilities.
- Focus on structure and conductor hardware for wear and deterioration.
- Classify all steel guys, grips and shieldwires by their stage of rust to help prioritize replacements.
- Climb only the structures that need to be climbed.
- This inspection shall be done in compliance with the SCT Inspection Standards.

General

Transmission Line inspection data shall be collected using the Southern Company's Transmission Line Inspection Program (TLIS). The Inspection process involves the following steps:

- Inspect the R/W and conditions
- Check for clearance issues
- Visual inspection of entire structure and the span ahead with recommended binoculars and spotting scope
    - Sound all wood poles with hammer and drill any questionable areas to determine wood pole condition (plug all holes bored) per SCT TL-11
    - Pay special attention to the groundline area of steel structures per SCT TL-3
    - Check concrete foundations for cracks and foundation integrity
    - Visually inspect all anchors and guy insulators
    - Classifications of all guys, guy grips, and shieldwires per SCT TL-9
- Take ground reading if required
- Note bird guards and bird activity and report in TLIS
- Inventory of transmission facilities in TLIS
- Based on visual inspection determine if the structure needs to be climbed

- Add new structures and note retired structures in TLIS
- Reporting of all absits and the correction to any existing absits that no longer exist in the field
- Make all necessary repairs per the "Items to be Repaired" section of this bulletin.
- Recording of track log in TLIS of structure access location

Structures That Need to be Climbed

The following are guidelines to be used in determining if a structure should be climbed:

- **Wood Poles**
  - A structure with wood arms.
    - If unable to maintain minimum approach distance to inspect the top of the arm, it shall be inspected by suitable means to determine the condition of the arm.
  - Water penetration beyond treatment
    - Since a pole will deteriorate at any location that allows water to enter past the treated area, special attention should be paid to all through bolt holes.
    - If there are any signs of down slotting of the wood at the bolt location or other signs of deterioration the questionable area of the pole shall be sounded and drilled as needed.
  - Storm guys or attachment points
    - Since storm guys are in an area of high load and possible deterioration, the pole should be climbed to check this location unless the pole is treated with CCA which is12 years old or less.
    - Other attachment i.e. CATV or Telephone may be areas of high load that need to be checked.
  - Woodpecker holes:
    - If a pole has bird holes it shall be climbed to determine the extent of damage.
    - Repair all bird holes SCT TL-12
  - Poles manufactured by Brown Manufacture dated 1989 or earlier.
  - Any pole that the visual inspection shows an area of concern shall be climbed to determine scope of problem.
  - Any structure with loose or damaged hardware.
  - Any structure with existing absits that need to be repaired.
  - Major highways and Interstate crossing structures.

- **Steel Structures**
  - Any structure with loose, worn or missing hardware
  - Any tubular structure with questionable rusty spot
    - Rusty spot that may have rusted to the point that may cause structural concern
  - Any structure with existing absits that need to be repaired
    - Major highways and Interstate crossing structures.

- **Concrete Structures**
    - Any structure that has concrete damage
        - Special attention should be given to cracked poles and missing concrete that exposes the reinforcing cables
    - Any structure with loose, worn or missing hardware
    - Any structure with existing absits that need to be repaired
    - Major Highways and Interstate

Tools

The following tools should be use in performing the inspection:

Normal Transmission Line Tools	Bulletins & Guide Books
Go-No-Go Gauge for Anchors	Laser Range Finder
Digital Camera	Ground Resistance Tester
Binoculars	Spotting Scope
Battery Power Drill	3/8" blunt nose bit
Normal Maintenance Materials	

Items to be Repaired

Minor repairs that should be performed during the comprehensive walking inspection are as follows:

- Remove steps to a height of 12 feet from groundline
- Install or repair climbing guards where needed (Tower)
- Install or repair warning signs where needed (Tower)
- Repair broken structure grounds
- Re-tension loose guy wires
- Install anchor extensions as needed per SCT TL-7
- Replace defective guy grips
- Install or replace guy shields
- Repair bird holes per SCT TL-12
- Next visit absits on the TLMS work order.

All repairs made during the inspection should be entered into TLIS with a status of "Repaired".

Property Limits and Access

The SCT employee or Contractor shall confine all operations within the limits of the right-of-way subject to the following exceptions:

- Alternate access to a structure location has been established.

- To traverse the right-of-way from structure to structure would damage crops, tree plantings or established lawns.
- To traverse the right-of-way from structure to structure would require crossing streams, creeks, or other water run-offs.

Southern Company Transmission Bulletin

Number: TL-5
Issued: 12/31/2005
Revised:

Subject: Comprehensive Aerial Inspection

The Comprehensive Aerial Inspection is a mobile, fast, and precise inspection process used to complement the transmission maintenance program. The Comprehensive Aerial Inspection will identify discrepancies that are critical to the transmission infrastructure while collecting information to better manage the assets. This bulletin will provide a description of the Comprehensive Aerial Inspection (CAI) and the follow-up ground inspection (GI). This bulletin will also outline the information to be gathered and what type of repairs will be needed as a result of the inspections. Most, but not all, lines that have a Comprehensive Aerial Inspection will need a follow-up ground inspection. The types of situations requiring a follow-up ground inspection are identified in the Bulletin as well.

General

The Comprehensive Aerial Inspection (CAI) is a thorough and methodical airborne visual inspection of the transmission line and all its components. This inspection is performed by a team of specially-qualified journeyman transmission line personnel/inspectors aided by gyroscopically-stabilized optical equipment operating from an airborne helicopter slowly maneuvered in close proximity to the line. The specially-qualified personnel must have the ability to immediately contact the appropriate Southern Company representative to report any defects or deficiencies which pose an imminent threat to system reliability or public safety.

Comprehensive Aerial Inspections will predominately be used on 230 kV and 500 kV steel constructed lines. The nature of these facilities (steel construction, long spans and increased clearances) make the use of CAIs very cost effective versus a Climbing or Comprehensive Walking inspection.

Data Gathered

The base facility data gathered for each structure during a CAI will encompass all the required fields in the Southern Company Transmission Line Inspection Program (TLIS) that can be ascertained from the air. In addition, the CAI will also report any abnormal situations (absits) on all visible components of the following major elements:

1. Overhead ground/fiber optic wires ("shield wires" or "static wires")
2. Conductors, jumpers and conductor connections, including hardware
3. Spacers, dampers and any other devices that are installed on conductors and/or overhead ground wires, including any attachment hardware
4. Suspension/tension assemblies for conductors and overhead ground wires, including insulators and hardware
5. Structures and related fixtures and hardware
6. Structure footings and foundations, including grounding hardware and

7. Right-of-way, with regard to tree and vegetation condition and encroachments

All of the above information will be transferred into the Common Transmission Database (CTDB) to assist the Southern Company Transmission Line Maintenance program. Examples of reportable items are shown below.

Comprehensive Aerial Inspection Reportable Items

- Missing or damaged structure number
- Missing or damaged OHGW dampers
- Worn or damaged OHGW hardware
- OHGW damage
- OPGW issues
- Insulators in OHGW
- OHGW bonding issues
- Broken or damaged insulators
- Contaminated Insulators
- Conductor damage
- Defected splices
- Worn or damaged conductor hardware

- Missing or damaged conductor dampers
- Damaged conductor spacers
- Missing or damaged marker balls
- Missing or damaged structure components
- Bird roost and nest
- Broken guys
- Missing or damaged guy shields
- Missing or damaged warning signs
- Missing or damaged climbing guards
- Foundation issues
- Right of Way issues

Photographs and Images

In addition to the tabular data, a CAI includes the taking of color photographs providing sufficient detail of:

1. Each individual structure on the line
2. Any absits or other reportable items discovered

These photographs are to be digital images captured using a minimum of 6.0 mega-pixel digital camera. The images are to be cross-referenced to the tabular data using mapping quality, differentially corrected GPS coordinates.

Southern Company Transmission Bulletin

Number: TL-6
Issued: 12/31/2005
Revised:

Subject: Routine Aerial Patrol

1. Routine Aerial Patrols will be performed a minimum of 4 times per year. This bulletin covers the scope of the inspections made during Routine Aerial Patrols and the reporting process. The inspection process is designed to gather all field problems identified by the list of SCT absits. The intent is to review the system a minimum of 4 times per year; therefore, methods other than fixed wing planes may be used.

Scope of Inspection

The purpose of Routine Aerial Patrols is to provide a frequent but economical inspection of major transmission line facilities (poles, towers, fixtures) as well as general R/W conditions and encroachment activity. The following items should be checked when performing a Routine Aerial Patrol:

- Broken conductor or shieldwire
- Broken poles
- Leaning structures
- Broken cross-arms
- Broken guys
- Broken insulators
- Deer stands or other foreign objects on structure or right-of-way
- Vines on guys or structures
- Danger trees or evidence of trees burning
- Right-of-way growth
- Encroachments
- Erosion
- Logging, construction, or other activity in vicinity of line
- Missing aerial warning markers
- Missing aerial marker balls
- Water standing around structure or guys
- Fiber optic shieldwire properly grounded
- Foreign objects on conductor or shieldwire

Reporting of Inspection Observations

Immediate threats: Any condition observed during the Routine Aerial Patrol that could pose an immediate threat to the safety and welfare of the public or system reliability should be reported immediately (while in the air) to the appropriate Southern Company representative via radio or any other communication device.

Abnormal Situations (Absits): All discrepancies or abnormal situations (absits) noted during the inspection will be recorded and entered into the Common Transmission Data Base (CTDB). The review and resolution of the absits will be managed with the CTDB and the normal transmission line maintenance program. Each absit will be associated with a line name, structure number and GPS location to aid in location of the absit on the ground.

Southern Company Transmission Bulletin

Number: TL-7
Issued: 10/10/2002
Revised: 12/31/2005

Subject: Anchor Rod Inspection Procedure

This bulletin covers the need and procedure to inspect all anchor rod installations on the Southern Company Transmission system on a standard cycle.

Purpose:

This bulletin specifies inspection and remediation actions for steel anchor rods. These actions should slow rod deterioration and prevent anchor failures that can cause structure failure and/or line outages.

General/Procedure:

Anchor rod inspections shall be performed along with the ground inspection as specified in the Southern Company Transmission Line Maintenance Standard. Prior to performing any work up a structure that has anchors, a visual inspection of all anchors and guy wires shall be performed. It is imperative that any anchor that has a rust line at ground line be excavated eight inches and inspected. Also be sure that all preforms at the anchor are not rusty or broken. Square 1 ½ inch power installed anchors need not be inspecting at this time unless rust is evident. **At anytime, when the top of the anchor is under the earth or water, an anchor extension shall be installed.**

1. Inspection Data:
   - Record all anchor information and defects found on the Southern Company Inspection program.

2. Round Power Installed Anchors:
   - Check to make sure head of anchor is 3 inches above ground level. If not, an extension is required.
   - Check all guy wraps for rust or damage and replace as needed.
   - Dig out around all anchors 8 inches below ground level.
   - Remove dirt and rust from anchor with wire brush.
   - A Go/No-Go gauge and the following matrix will be used to determine the amount of allowable deterioration to the anchor.

Minimum Diameter of Anchor Rod

	2-3/8" Guys	1-7/16" Guy	1-1/2" Guy	2ea- 7/16" or 1/2" Guys
3/4" Rod	11/16"	11/16"	Full	N/A
1" Rod	11/16"	11/16"	13/16"	Full

Example: For a 3/4" anchor rod with 1-7/16" guy would require the go-no-go gauge to reach at least the 11/16" mark on the gage or it is a reject.

- **All anchors that are excavated shall be coated with zinc 10 mils thick. To obtain this thickness, apply zinc until the product runs. Zinc should be dry before back filling.**
  - ✓ If the rod is cold or wet to the touch use a propane torch to dry the rod. This causes the zinc to adhere to the rod.
- Back fill and tamp hole around anchor.
- **Install guy shield if there is not one.**
- Cut guy tails.

3. Square Power Installed Anchors:
   - Make sure head of anchor is 3 inches above ground level. If not, an extension is required.
   - Check all guy wraps for rust or damage and replace as needed.
   - Install guy shield if there is not one.
   - Cut guy tails.
   - If there are signs of rust the anchor shall be excavated and treated with zinc as outline above.

4. Pipe anchors (usually in wet areas):
   - **Replace all pipe anchors discovered.**

5. Anchor Extensions:
   - When the extension coupler or shackle is underground, it shall be coated with zinc.

Product Information:

Zinc is a product that is self-sacrificing and diminishes about 1/3 mil per year. When this product is installed at the proper thickness the life of the anchor is extended and the anchor is easy to inspect on the next cycle.

Southern Company Transmission Bulletin

Number: TL-8
Issued: 02/17/03
Revised: 12/31/2005

Subject: Burn Shields for CCA Wood Poles

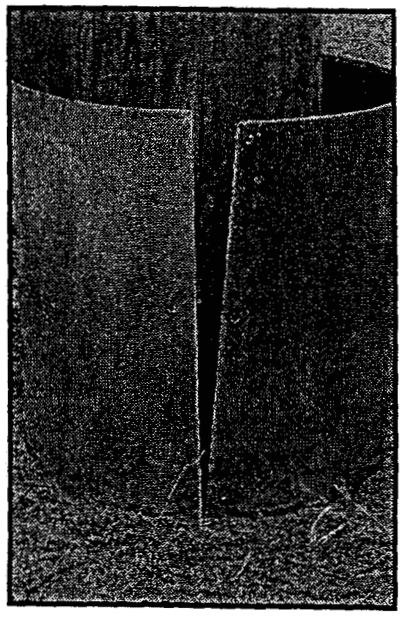
This bulletin is issued to outline the proper method of protecting CCA wood poles from fire damage.

General Guidelines

Even though the majority of landowners are aware of the need to keep fire away from wood poles, we continue to have wood pole failures due to fire damage. Wood pole lines located in areas that are prone to experiencing annual burn offs and forest fires are likely to experience a number of wood pole failures due to fire damage. Of the many fire retardant products developed over the years, the most practical and effective method to protect wood poles from fire is installing a sheet of metal around the base of the pole. The CCA preservative actually bonds to the wood pole cells and deters moisture that can lead to decay.

Burn shields should be installed on wood pole lines located in areas highly susceptible to fire such as farmland areas. Routine line inspections (aerial, climbing, and walking) offer opportunities to look for visual signs of burning.

The burn shield is made of 26 - 28 galvanized sheet metal and measures 60" X 24 ". This size should accommodate a pole having a base of 59" or less. All sides should be hemmed to prevent any protruding sharp edges. The sheet metal should be rolled to assist in forming around the pole. ***Install the sheet metal underneath the ground wire, and at least 1" below the groundline, making sure it fits snuggly around the pole.*** Remove the shield prior to climbing the pole in order to thoroughly inspect the pole's structural integrity. Securing the burn shield to the pole using 1/4" X 2 1/2" lag screws allows for easy removal and reinstallation during climbing inspections and groundline treatments.



Southern Company Transmission Bulletin

Number: TL-9
Issued: 10/10/02
Revised: 12/31/2005

Subject: Guideline for Rating Guy Wire or Overhead Ground Wire for Remaining Life

This inspection and maintenance bulletin is to provide some suggested guidelines for determination of guy wire or overhead ground wire conditions and replacement schedule on transmission lines.

Purpose

To provide pictures and give an explanation of conditions as well as the estimated remaining life of the transmission guy wire or overhead ground wire.

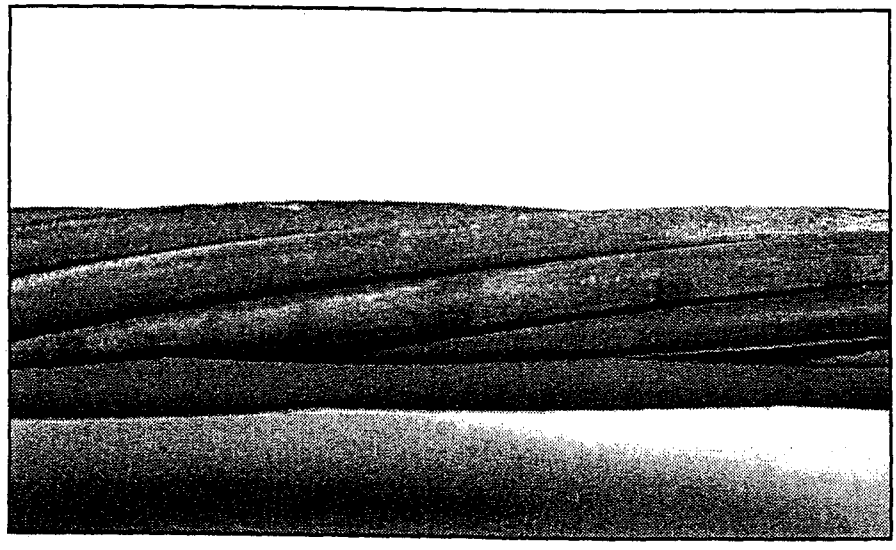
General

STAGE 1:

Stage 1 condition means that the wire is practically like new and has an indefinite service life remaining. Generally it is silver in appearance. The majority of galvanizing is in tact. This is wire that has no red rust or white corrosion which indicates no corrosion cell has started.

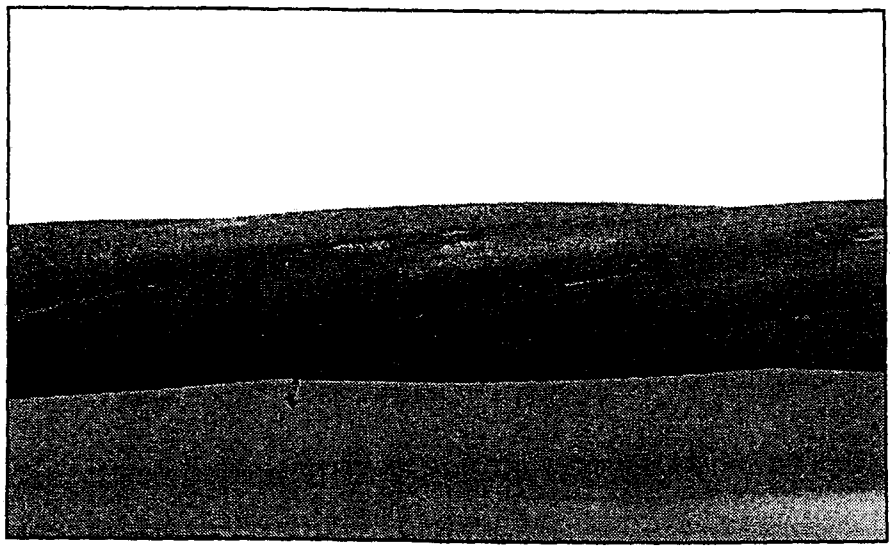
STAGE 2:

Stage 2 means that the wire has considerable remaining product life. The remaining life of the wire would be considerably more than 5 years and could be as much as 25 years. This depends on the environment that it is in. This is wire which has a considerable amount of white corrosion product and would have some slight red rust appearing. The protective galvanizing is sacrificing to the environment at an average rate of 1/3 mil per year.



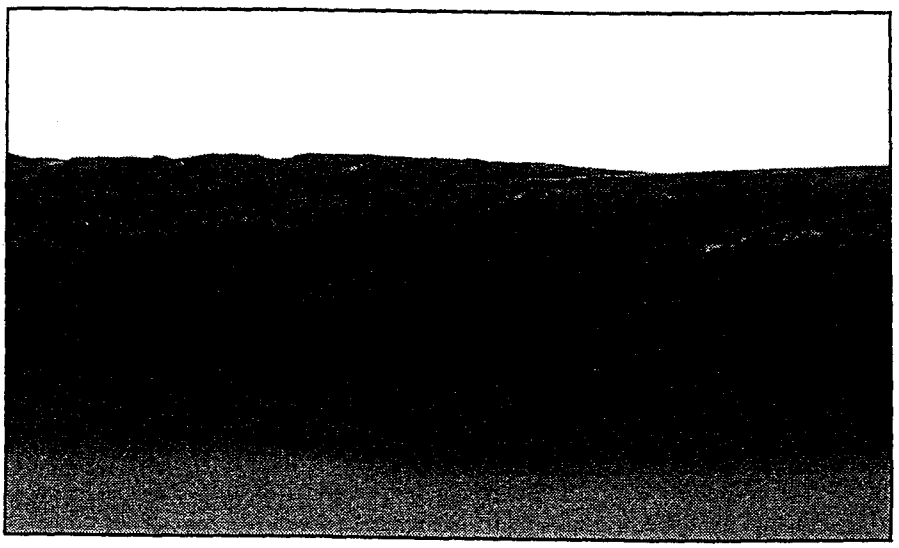
STAGE 3:

Stage 3 wires have up to 5 years of remaining life before strength starts deteriorating. Wire will be mostly brown or rusty in appearance. It may still have some white or silver visible. The majority if not all of the protective galvanizing has sacrificed away to the environment generally local corrosion is present. At this stage there should be no pitting of the steel strands.



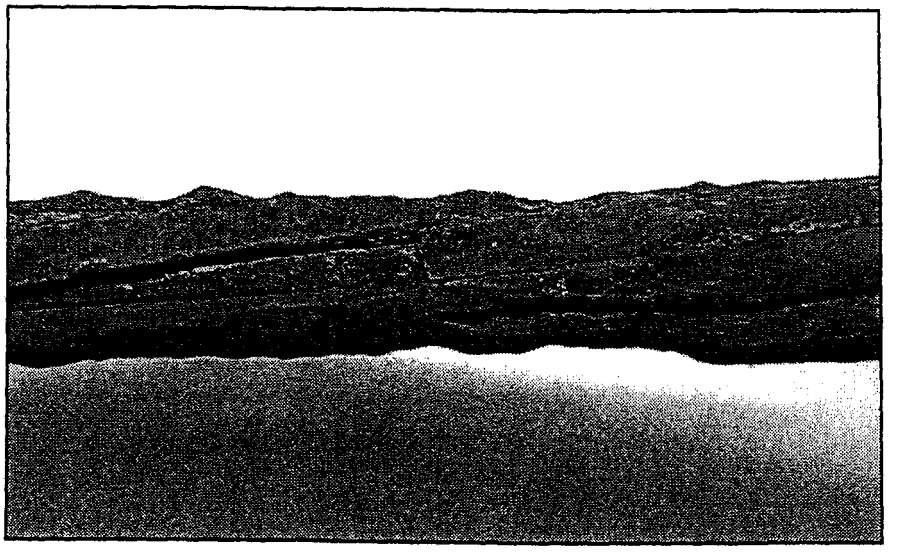
STAGE 4:

Stage 4 wire is at the end of its useful life. The mechanical strength is deteriorating and will deteriorate at the rate of approximately 5% per year. The sections of wire in stage 4 condition should be scheduled for replacement. STAGE 4 wire is completely rusty and red, dark brown, or black in color. Rust flakes will drop or come off in hand when touched or wire is flexed. Some pitting may be present and reduced cross section is evident. The stage 4 wire will start to become more brittle and the cross section of the wire will start to reduce.



STAGE: 5

Stage 5 wire will have very severe pitting, crevice corrosion, and may have some strand breakage. Stage 5 wires need to be replaced ASAP.



As with any carbon steel product, the life of the wire is dependent on many factor. The quality and thickness of the protective galvanizing is on most steel products the front line defense. Other factors such as air quality, acid rain and chlorides have a large effect on the life expectancy of steel products. Acidic environments expedite the corrosion process dramatically. With the inspection processes that we have in place and this guideline, we will be able to identify and prioritize wire replacements.

Southern Company Transmission Bulletin

Number: TL-11
Issued: 12/31/2005
Revised:

Subject: Wood Pole Inspection Procedures
Ground and Comprehensive Walking Inspections

The Wood Pole Inspection Bulletin outlines the proper procedure used to inspect an in-service wood pole on the SCT system.

Purpose:

- To outline the proper method to inspect in-service wood transmission poles.
- To describe the types of defects in wood poles.
- To describe the tools needed to properly inspect in-service wood transmission poles.

Results:

- A standardized wood pole inspection procedure for Southern Company transmission personnel.
- Increase the knowledge of Southern Company transmission personnel.
- Decrease the number of wood transmission poles replaced prematurely.
- Make a safer work environment for transmission personnel.

I. Defect Classifications

General External Decay - Decay on the external surface of the pole that is not usually over an inch deep

External Pocket - Decay that is limited to a small external area of the pole not exceeding six inches in width and five inches in depth.

Hollow Heart - Decay or void in the center of the pole.

Internal Decay - Off center decay or void in the internal portion of the pole.

Shake - Separation of the sapwood and heartwood. Usually a very thin void and not decay.

Check - Crack that develops as pole dries out, and isn't decay or caused by decay. Ants and termites are known to use and build in these cracks. This, if not treated, will cause the pole to become structurally unsound.

Compression Wood - Loose wood on external portion of the pole. The best way to detect compression wood is to look for horizontal cracks in the pole and or locations on the pole where the shell is starting to pull away. Compression wood can be dangerous to lineman if stepped in with climbers because this wood in some cases will not support the weight of a lineman.

II. Procedure

1. Visually inspect wood pole: Look for bird holes that will hold water (even under hardware cloth), loose or missing sapwood (shell), areas of pole turning green from mold or mildew, and look for termite trails and ants building in the wood pole. In locations that are not wet, mold and mildew on the pole is an indication of a decreasing amount of preservative in the pole and the pole is starting to hold moisture.

Note: Prior to climbing any pole the climber shall find the birth mark to insure that the pole has been set at the proper depth and check the integrity of the pole below ground. Most rot and decay occurs one foot to one and one half ft. below ground line.

2. Sound pole: Sound pole with a hammer completely around the pole from ground line to as high as you can reach. Sounding the pole will help to determine the structural integrity of the pole. Poles that have checks may also have loose sapwood, but does not usually affect the strength of the pole unless ants and termites have been using this area for some time. Sounding the pole will help in determine one of three options: the pole is structurally sound, the wood pole has general external decay, or there are some questionable sounding areas in the pole. Questionable sounding areas can be external pockets, internal pockets, shake, or hollow heart. All questionable sounding areas shall be bored to determine if decay is present and how large the decay area is.

3. Boring the pole: Boring the pole can be performed by using two different sets of tools:

a) **T-handle increment borer and extractor**

To use this tool, you need to start a pilot hole with your screw-driver at the area in question. Using the boring tool without the extractor in place, bore the pole. If there is a pocket of decay the threaded boring bit will quit pulling itself through the pole. At this point you can easily push the boring bit to the back of the pocket to measure the depth of area. You may have to bore additional holes to determine the width of pocket. If the area in question is shake, in most cases when the tool quits pulling itself through the pole, you can apply pressure while turning the tool clockwise and the tool will start boring again. A large percentage of the time when a pole appears to be hollow by sounding, it is just shell separation (shake). One advantage of the T-handle boring tool is that a core sample can be taken. After boring within two inches of the handle, stop and install the extractor into the barrel of the borer all the way. After this is done, turn the handle of the boring tool counter clockwise one complete turn. Pull out the

extractor to view the core sample. With careful observation you can see how much the preservative penetrated the wood and how rich the heartwood is. A moldy smell would indicate that the wood or pole is starting to hold water. All drilled holes must be plugged. To help preserve the integrity of the pole place a 5/16 in. FLUROD in the 3/8 inch inspection hole and install a 7/16 in. pressure treated plug.

b) **3/8 inch blunt nosed bit, gasoline or battery powered drill and shell indicator**

- To use this method, drill into the questionable area a depth not more than half the diameter of the pole. After removing the drill, probe the hole with the shell indicator. The shell indicator has a hook on the end of it that easily lets you determine the size of the decay pocket or if shake is present. The shell indicator is marked in increments of one inch so you can measure the pockets of decay or amount of separation. Usually decay pockets can be detected while drilling the pole by the feel of the drill and the appearance of the wood chips coming out of the pole. All drilled holes must be plugged. To help preserve the integrity of the pole place a 5/16 in. FLUROD in the 3/8 inch inspection hole and install a 7/16 in. pressure treated plug.

III. Additional Information:

While inspecting the pole, if you see a tag that shows the pole has had internal treatment in the past, this indicates that the pole is known to have some internal decay and has been treated in the past. The tag will be Woodfume, MITC- fume or internal treatment.

Different types of woods absorb preservatives in different ways. Most of the preservative is in the sapwood; therefore trees that have a lot of sapwood retain preservatives better. Southern Pine has a lot of sapwood, Douglas Fir has very little. This is the reason we have had so much trouble in the past with Douglas Fir decaying at the ground. We did not get a sufficient amount of preservative in the pole at the groundline area until we started radial boring them. The Western Cedar poles on the other hand have a built in natural preservative.

IV. Ordering Information For Tools And Materials

Increment Borer - Ben Meadows - cat. # 104014
ph. # 1-800-241-6401

Shell Indicator - Osmose Wood Preserving
ph. # 1-800-877-POLE

7/16 in. Wood Plugs – Osmose Wood Preserving

5/16 X 1-1/2 in. FLUROD – Osmose Wood Preserving (350 per container)

3/8 in. Wood Bit – Most hardware stores

Southern Company Transmission Bulletin

Number: TL-12
Issued: 12/31/2005
Revised:

Subject: Woodpecker Repair Process

This bulletin is issued to outline procedures for protecting wood transmission line structures from woodpecker damage, and repairing woodpecker damaged structures through the proper use of wire screen and woodpecker hole filler. This bulletin will also help the crews to identify poles that are and are not repairable.

General Guidelines

1. All new wood poles to be installed should have wire screen properly attached. Wire screen shall be stapled to the pole every 12 inches.

2. On existing wood pole lines, installation of wire screen should be used where experience and evidence has indicated a need.

3. Wood poles that are found with woodpecker holes, which can be repaired, should have holes filled with one of the approved woodpecker hole repair products. After repairs are made, wire screen should be installed over the entire pole per specification where applicable.

4. The wire screen must be bonded to the pole ground down lead to prevent television and radio interference. This will also prevent induced voltage on the wire screen. Bonding can be accomplished by stapling the wire screen to the pole ground or down lead.

5. Poles that do not have a pole ground down lead should have a down lead and driven ground system installed to bond the wire screen.

6. Expense for pole repairs and installation of wire screen should be made to the proper maintenance account. When a pole is replaced due to woodpecker damage, the new pole should be screened and charges made to the appropriate plant account.

   Note: When a wood pole is not repairable due to; woodpecker damage, lightning damage, rot or severe checking in the top five feet of the pole, the following procedures shall be performed.

1. Check the pole for other problems that may affect the structural integrity. Ground line decay, loose or missing shell, compression wood, severe checking, mechanical damage, and burnt at the ground. Check for rejection tag and old wood reinforcement.

2. After determining that the pole has no structural problems except in the top five feet, saw the defected portion off.

3. Install pole cap to protect the untreated pole top.

4. Install bayonet to regain pole length and regain OHGW shielding.

Woodpecker Hole Guidelines

1. Change out pole when:
   - There is not 3 inches of shell
   - There is more than one entrance to hole or nest
   - The area of removed wood is over 18 inches top to bottom
   - There are 3 inches or more shell and the entrance is more than 6 inches in diameter

2. Repair hole when:
   - There is at minimum 3 inches of good shell,
   - There is only one entrance,
   - The entrance is not more than 6 inches in diameter and
   - The removed area of wood is not more than 18 inches, top to bottom

   3. Woodpecker hole filler is not needed if the woodpecker hole will not hold water and the untreated heart wood is not exposed. The pole does need to be screened if woodpecker activity is evident.

   4. If the woodpecker hole is determined to be repairable based on the guidelines, use the guidelines recommended by the company that supplies the woodpecker hole repair product to fill the void.

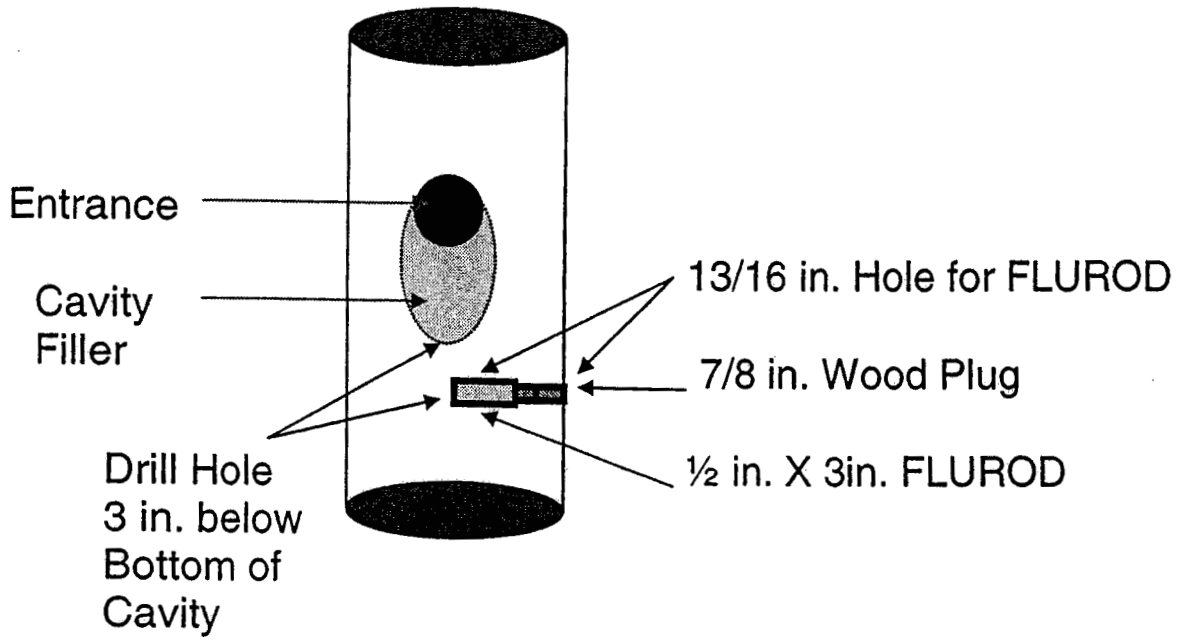
   5. It is also recommended to drill a 13/16 in. hole 3 inches below the bottom of the woodpecker cavity ¼ to ½ way through the pole and insert a ½ x 3 in. FLUROD preservative capsule. This will help eliminate any decay to the wood pole that might have been caused by the woodpecker hole. Plug the 13/16 in hole with a 7/8 in. wood plug. All holes in the pole must be plugged with an approved product. (See Attachment A)

Approved Woodpecker Hole Repair Products

1.	Hole Filler, I-FOAM	Materials Standards
2.	Osmosweld	Order direct from Osmose at 1-800-877-POLE X-254
3.	½ X 3 in. FLUROD	Order direct from Osmose
4.	7/8 in. Wood Plug	Order direct from Osmose
3.	Timberbond	Order direct from Hughes Supply at 770-330-9472
4.	Wire Screen	Materials Standards

Attachment A

Wood Pole Woodpecker Repair Process



Tony Swearingen

From: Tony Swearingen
Sent: Thursday, August 03, 2006 11:21 AM
To: Bill McNulty; Jim Breman
Subject: FW: CCA pole inspection data

Attachments: CCA Initial Results Aug 06.pdf

CCA Initial Results Aug 06.pdf...

Bill & Jim,

Here is the data from Gulf on the inspection of CCA poles.

Tony

-----Original Message-----
From: Battaglia, Edward J. [mailto:EJBATTAG@southernco.com]
Sent: Thursday, August 03, 2006 11:02 AM
To: Tony Swearingen
Subject: CCA pole inspection data

Per our conversation

<<CCA Initial Results Aug 06.pdf>>

Tracking:

Recipient	Read
Bill McNulty	Read: 8/3/2006 11:23 AM
Jim Breman	Read: 8/3/2006 11:34 AM

Osmose®

OSMOSE INSPECTION
GROUNDLINE DECAY BY AGE GROUP
INITIAL
Summary of Pole Conditions

CCA Decay/Reject Study

YEAR	TOTAL NO. OF POLES INSPECTED	POLES REJECTED				POLES DECAYING AND WEAKENED				TOTAL POLES REJECTED OR DECAYED	
		Interior Decay (More than 1" from surface)	Outer Decay (1" or less from surface)	Other	% To Total	Interior Decay (More than 1" from surface)	Outer Decay (1" or less from surface)	Other	% To Total	No.	% To Total
0-5 Years	2111	0	0	0	0.00%	0	0	0	0.00%	0	0.00%
6-10 Years	2043	0	0	0	0.00%	0	0	0	0.00%	0	0.00%
11-15 Years	3253	0	0	1	0.03%	0	0	0	0.00%	1	0.03%
16-20 Years	2577	2	47	5	2.00%	5	44	3	2.00%	106	4.20%
21-25 Years	1170	16	28	7	4.35%	28	30	1	5.00%	110	9.40%
26-30 Years	5663	9	35	162	3.63%	12	56	0	1.20%	274	4.90%
31-35 Years	878	28	58	16	11.60%	2	14	1	1.93%	119	13.60%
36-40 Years	2328	70	82	42	8.33%	21	63	1	3.65%	279	12.00%
41-45 Years	221	21	7	7	15.80%	2	9	1	5.42%	47	21.30%
46-50 Years	49	7	7	2	32.60%	1	0	0	2.00%	17	34.70%
51-55 Years	7	0	2	1	42.80%	0	0	2	28.50%	5	71.50%
56-60 Years	11	0	1	3	36.30%	0	1	1	18.10%	6	54.60%
Unknown	0	0	0	0	0.00%	0	0	0	0.00%	0	0.00%
TOTALS	20311	153	267	246	3.14%	71	217	10	1.76%	964	4.91%

Gulf Power Company
Order No. PSC-06-0144-PAA-EI

July 14, 2006

Purpose of Memorandum

The purpose of this Memorandum is to summarize Gulf Power Company's comments related to Staff's request regarding Staff's chart titled, "Compliance of Investor Owned Electric Utility Pole Inspection Plans with Order No. PSC-06-0144-PAA-EI"

> In the columns labeled "Inspection Method, Cycle, Pole Selection and Excavation Requirement" of the above-referenced chart, Staff indicated that these items need further explanation.

Response: Based on the lessons learned during its first pole inspection, Gulf has refined its pole inspection process for distribution wood poles and feels that this process complies with FPSC Order No. PSC-06-0144-PAA-EI. During its first inspection cycle, Gulf inspected all Creosote and Penta poles, but also excavated and bored a sample of CCA poles to determine if these poles required excavation and boring. Gulf learned that CCA poles provide superior decay resistance when compared to Creosote and Penta poles. Based on the findings of these inspections, Gulf did not excavate or inspect CCA poles during its first inspection cycle. In 2003, when Gulf began its second inspection cycle, Gulf inspected and excavated 4,804 CCA poles to determine if these poles needed to be inspected. While only two of these poles were rejected, Gulf refined its inspection process and developed an inspection matrix based on pole age, treatment type, and condition (see below). Under this matrix, all poles (Creosote, Penta, and CCA) receive a visual inspection with sounding, boring and excavation as appropriate.

Pole Inspection & Treatment Matrix for Gulf Power Company

All bolded alpha references below refer to corresponding paragraphs of Section 1.5.3				Visual	Sound	Bore Inspection	Partial Excavate	Full Excavate	Type of Treatment
A	Inaccessible poles			Yes	No	No	No	No	No
N	Concrete poles		OR	n/a	n/a	n/a	n/a	n/a	n/a
N	Metal Poles, towers, or structures								
O	OpCo-owned transmission poles with distribution facilities attached			Yes	Yes	No	No	No	No
B	CCA 0-14 yrs old	Ω	OR	Yes	Yes	Sel	No	No	No
H	Non-CCA 1-4 yrs since prior treatment	Ω		Yes	Yes	Sel	No	No	No
C	CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	Yes	If Need	Ex
D	CCA 15-25 yrs old		OR						
F	CCA 25 yrs or older with prior treatment								
I	Non-CCA 1-4 yrs since prior treatment	☼	OR	Yes	Yes	Sel	Yes	If Need	Ex
J	Non-CCA 5 yrs or greater since prior treatment								
E	CCA 25 yrs or older with no prior treatment			Yes	Yes	Sel	Yes	If Need	Ex
G	Non-CCA with no prior external treatment		OR	Yes	Yes	Man	No	Yes	Ex
K	Non-CCA - relocated								
P-1	Riser Pole, CCA 0-14 yrs old	Ω	OR	Yes	Yes	Sel	No	No	No

P-2	Excavatable Riser Pole, CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	No	IF Need	Ex
P-4	Excavatable Riser Pole, CCA 15 yrs or older			Yes	Yes	Sel	No	No	Fu
P-4	Excavatable Riser Pole, Non-CCA			Yes	Yes	Sel	No	If Need	Ex
P-3	Non-Excavatable Riser Pole, CCA 0-14 yrs old	☼	OR	Yes	Yes	Sel	No	No	Fu
P-5	Non-Excavatable Riser Pole, CCA 15 yrs or older			Yes	Yes	Sel	No	No	Fu
P-5	Non-Excavatable Riser Pole, Non-CCA			Yes	Yes	Yes	No	No	Ex, Fu
M	Non-Excavatable Pole			Yes	Yes	Man	No	No	Fu
M	Poles unable to excavate minimum 75%			Yes	Yes	Man	Yes	No	Fu
R	Previously reinforced pole		OR	Yes	Yes	Man	No	Yes	Ex, In, Fu
L	Pole with obvious internal sapwood decay								
O	Foreign owned pole			n/a	n/a	n/a	n/a	n/a	n/a

This matrix is to be used as a guide only and will not cover every inspection and/or treatment option to be encountered in field conditions. For instances not covered above or for further explanation of inspection and/or treatment situations, refer to specific specification(s) which are applicable to the situation.

Unless otherwise indicated, answers are to apply for total group, not individual line items.

Ω - Poles found to have no notable g/l defects per those described in Section 1.5.10.1
☼ - Poles found to have notable g/l defects per those described in Section 1.5.10.1

If Need - Poles are to be fully excavated only if partial excavate reveals need for further inspection
Ex - External treat if full excavate & not rejected for replacement per Section 1.5.17
In - Internal Treatment application per Section 1.5.21
Fu - Internal fumigant application per Section 1.5.20

Bore Inspection - Sel = Selective Bore Inspection, Man = Mandatory Bore Inspection

Gulf will continue to incorporate a sample of non-excavated poles in its present inspection process to insure on-going statistical validity of its inspection matrix. A sample of poles that would not normally qualify for full excavation under the present matrix will be fully excavated and inspected to determine if any modifications need to be made to the present inspection process.

As part of Southern Company Transmission, Gulf adheres to the Southern Company Transmission Line Inspection Standard as filed with the FPSC. The Standard requires that all wood poles be inspected and treated regardless of wood type and age, except for CCA poles twelve years old or less. CCA poles older than twelve years will be inspected and treated with the rest of Gulf's Transmission pole plant.

Staff's Chart titled, "Compliance of Investor Owned Electric Utility Pole Inspection Plans with Order No. PSC-06-0144-PAA-EI"

In the column labeled "Collocated Facilities Pole Inspections" of the above-referenced chart, Staff indicated that Gulf is "apparently non-compliant "in regard to providing a plan by which "shared" poles will be inspected. To clarify Gulf's proposed plan regarding the inspection of joint-use or shared poles, the Company offers the following comment.

Response: As stated in Gulf's 8-Year Wood Pole Inspection Plan submitted on April 1, 2006, *"Gulf will assume responsibility for inspecting and maintaining all wood poles it owns, regardless of other utility attachments. Gulf will coordinate with utilities having joint use attachments to insure pole bracing or replacement is completed when necessary. Poles owned by other utilities will be inspected by the owning utility".*

Gulf's proposed plan is to inspect and maintain all joint-use poles that the Company owns and coordinate any necessary modifications with the joint-use utility to ensure compliance. Poles not owned by Gulf Power should be inspected and maintained by the owning utility; however, Gulf will coordinate inspection activities and share the resulting data with the other utilities.