

**MEMORANDUM**

TO: Roy Buxton, Engineering Department Manager

FROM: Jim Spencer, Senior Electrical Engineer

DATE: August 29, 2007

RE: Tree Conditions in AmerenCIPS' Service Territory

**1. Introduction**

During May, June, and July, 2007, I performed random inspections of tree conditions near AmerenCIPS overhead electric lines in ten cities served by AmerenCIPS. I was accompanied by Ameren personnel on each of the inspections except on 5/8/07, when Mary Bilyeu was my driver. The communities inspected on each date were as listed below:

<u>Date</u>	<u>Location(s)</u>
5/8/07	Effingham, Murphysboro, Carbondale
5/24/07	Macomb
6/19/07	Quincy
7/9/07	Paxton, Hoopeston
7/10/07	Charleston, Mattoon
7/16/07	Taylorville

I performed the inspections by driving around the areas chosen and looking at trees near AmerenCIPS overhead electric lines without regard to circuit identification and without the use of circuit maps. This memorandum documents the results of the field inspections and my assessment of the state of tree trimming on those dates in the ten communities inspected.

I chose the above cities for inspection because they provide a fairly wide geographic diversity within the area of Illinois served by AmerenCIPS. While the area covered by these inspections represents only a small portion of AmerenCIPS' service territory, I believe it is reasonable to expect that the tree trimming conditions observed in the variety of communities chosen for these inspections are representative of what is likely to be found in many of the other communities served by AmerenCIPS.

I also noted five AmerenCIPS NESC railroad crossing violations during the tree trimming inspections, though I did not make a special effort to find them. Notes related to these items found are included here, but the resolution of these issues will be handled separately with AmerenCIPS.

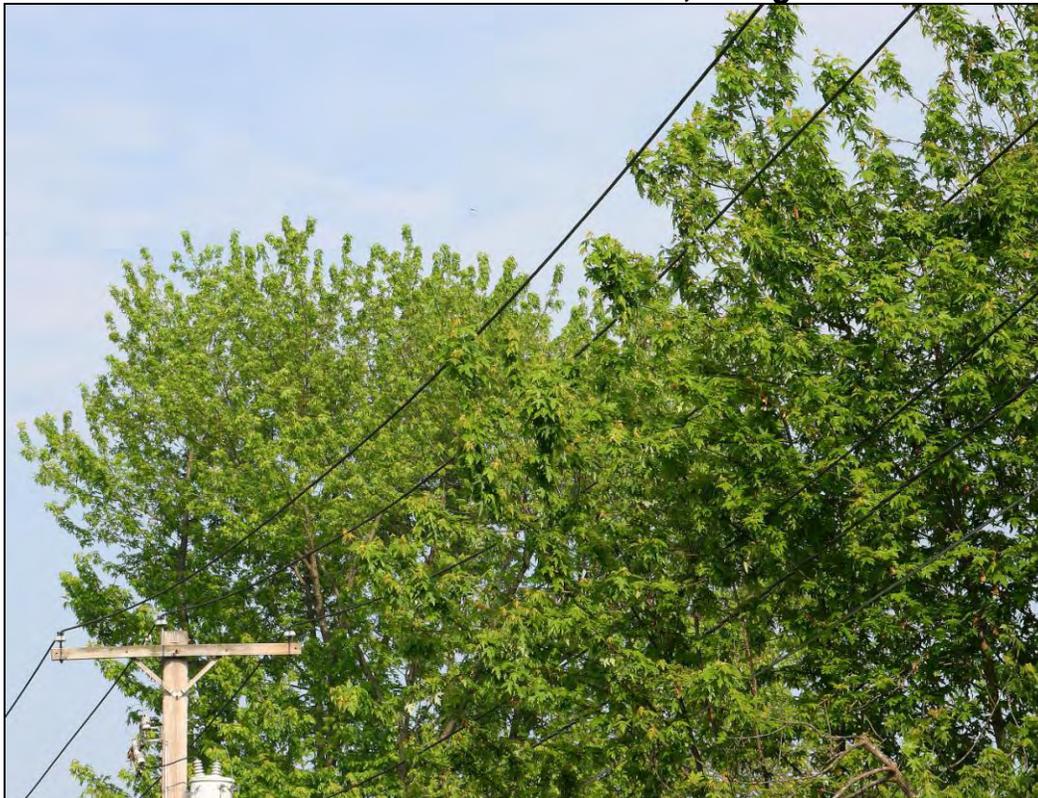
**2. Findings**

Tree trimming in Effingham and in Murphysboro was well done, with only a few exceptions noted. Trimming in Carbondale was even better, with only one close location noted. My notes of the tree inspections in these three communities are summarized in Table 1 below. Figures 1 & 2 are photographs of two of the tree trimming problems noted in Effingham and Murphysboro.

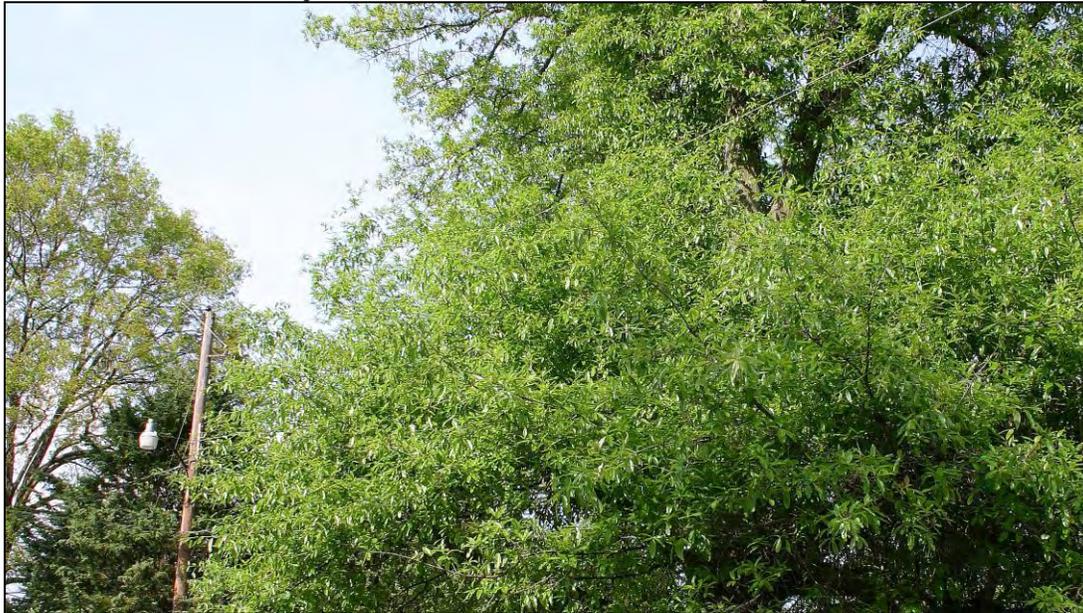
**Table 1**

<b>Summary of Tree Conditions Field Inspections by ICC Staff</b>			
<b>Town</b>	<b>Item Description</b>	<b>Photo(s)</b>	<b>Location</b>
<b>Effingham (5/8/07) -- Trimming was well done, with only a few exceptions noted.</b>			
	Oak tree close to primary		Flamingo Ave. east of Main St.
	Soft maple tree into 3-phase primary	114-1447	Mulberry St. north of St. Anthony Ave.
	Soft maple tree into 3-phase primary	1448, 1449	Franklin Ave. west of Lincoln St.
<b>Murphysboro (5/8/07) -- Trimming was well done, with only a few exceptions noted.</b>			
	Several soft maple trees very close to single-phase primary		22nd St. just south of Roblee Ave.
	Tree into primary	114-1463, 1464	21st St. just south of Roblee Ave.
	Trees very close to primary		Commercial Ave. west of 21st St.
<b>Carbondale (5/8/07) -- Trimming was very well done, with only one close location noted.</b>			
	Trees close to primary		Oakland Ave. south of Cherry St.

**Figure 1 (Photo 07-CIP1449)**  
**Soft maple tree into 3-phase primary,**  
**Franklin Ave. west of Lincoln St., Effingham**



**Figure 2 (Photo 07-CIP1464)**  
**Tree into primary,**  
**21<sup>st</sup> St. just south of Roblee Ave., Murphysboro**



Trimming in Macomb was okay in some parts of the town, especially in the northeast quadrant, but I saw too many problems in most areas. In one case, a laurel oak tree had grown into the primary. In another case, a Norway maple tree had grown into the primary with a limb between and blowing into the phase conductors. My notes of the tree inspection in Macomb are summarized in Table 2. Figures 3 and 4 show two of the tree conflicts I noted in Macomb.

**Table 2**

Summary of Tree Conditions Field Inspections by ICC Staff			
Town	Item Description	Photo(s)	Location
<b>Macomb (5/24/07) -- Trimming was okay in parts of the town, but too many problems were noted.</b>			
	Laurel oak tree into 3-phase primary	115-1516	Quailwalk Rd. south of Jamestown Rd.
	Box elder & several other trees into primary	1517	Quailwalk Rd. south of Jamestown Rd.
	Soft maple tree close to primary		Quailwalk Rd. just north of Jamestown Rd.
	Trees close to primary		301 N. Quailwalk Rd. (north of Yorktown Rd.)
	Soft maple tree close to primary		Adams St. just east of Quailwalk Rd.
	Locust trees into primary		South of Adams St. in the easement east of Eggers Dr.
	Trees close to primary		Ward St. north of Piper St.
	Trees close to primary		Ward St. just west of Patton Park.
	Hackberry tree into primary	1520	North of Piper St. in the easement east of Campbell St.
	Soft maple very close to primary		Dudley St. between Piper & Walker Sts.
	Norway maple into 3-phase primary, with limb between & blowing into phase conductors	1521, 1522, 1523, 1524	902 E. Piper St. (just west of Monroe st.)
	Trees into primary		Grant St. west of Johnson St.
	Alianthus tree into 3-phase primary	1518, 1519	Maple Ave. south of Grant St. ( <u>near substation</u> )
	Chinese elm tree very close to primary		Grant Ave. east of Maple Ave./Randolph St.

**Figure 3 (Photo 07-CIP1516)**  
**Laurel oak tree into 3-phase primary,  
Quailwalk Rd. south of Jamestown Rd., Macomb**



**Figure 4 (Photo 07-CIP1519)**  
**Alianthus tree into 3-phase primary,  
Maple Ave. south of Grant St. (near a substation), Macomb**



Trimming in Quincy was well done in much of the town, but I noted many scattered problems, mostly with fast growing tree species. I also came across an NESC railroad crossing violation on 30<sup>th</sup> Street in Quincy. A summary of the inspection notes is shown in Table 3. Figures 5 and 6 are photographs of two of the tree trimming conflicts I noted in Quincy.

**Table 3**

Summary of Tree Conditions Field Inspections by ICC Staff			
Town	Item Description	Photo(s)	Location
<b>Quincy (6/19/07) --</b> <i>Trimming was well done in much of the town, but many scattered problems were noted. One NESC railroad crossing violation was also noted.</i>			
	Trees close to primary		12th St. south of Mohrman Dr.
	Soft maple tree very close to single-phase primary		5th St. between Oak & Spring Sts.
	Locust tree into 3-phase primary	116-1614	Locust St. just east of 14th St.
	Trees very close to primary		16th St. between Elm & College Sts.
	<b>Code railroad crossing violation (NESC 261.D.4.c):</b> Single wood crossarm supporting a 3-phase crossing of a railroad, on the north side of the railroad crossing. (Double crossarms required).	1615	30th St. at the railroad crossing north of Chestnut St., Quincy. (Circuit V56002)
	Tree into 3-phase primary		30th St. between College & Oak Sts.
	Trees very close to primary		Vermont St. between 11th & 12th Sts.
	Soft maple tree into primary	1617, 1618	Vermont St. west of 14th St.
	Trees into primary		24th St. (Rt. 96) just north of Maine St.
	Soft maple tree into primary		Maine St. just east of Madison Park.
	Several trees very close to primary		Along Maine St. between Madison Park & 28th St.
	Tree into primary		Maine St. just west of Woodlawn Rd.
	Soft maple tree very close to 3-phase primary		6th St. north of Monroe St.
	Trees into primary	1616	6th St. just south of Monroe St.
	Trees very close to primary		6th St. between Monroe & Adams Sts.
	Trees close to primary		Jackson St. between 7th & 8th Sts.
	Trees very close to primary		Jackson St. between 8th & 9th Sts.
	Trees close to primary		18th St. south of Adams St.
	Soft maple trees into primary, with burning	1619, 1620	24th St. south of VanBuren St.
	Sweet gum tree into primary, with burning	1621	24th St. just north of Harrison St.

**Figure 5 (Photo 07-CIP1620)**  
**Soft maple trees into primary, with burning,**  
**24<sup>th</sup> St. south of VanBuren St., Quincy**



**Figure 6 (Photo 07-CIP1621)**  
**Sweet gum tree into primary, with burning,**  
**24<sup>th</sup> St. just north of Harrison St., Quincy**



Tree trimming in Paxton was not well done, with far too many problems noted for a town this size. The conflicts were spread throughout the town, with no particularly good areas. In one case, a tree had grown through the primary with limbs between and as much as six feet or more above the primary phase conductors (see Figure 7). I noted one NESC railroad crossing violation on Morrow Street in Paxton. See Table 4 for a summary of my inspection notes, and Figures 7 through 9 for example photographs of tree trimming problems I noted in Paxton.

**Table 4**

Summary of Tree Conditions Field Inspections by ICC Staff			
Town	Item Description	Photo(s)	Location
<b>Paxton (7/9/07) -- Trimming was not well done--far too many problems were noted for a town this size. One NESC railroad crossing violation was also noted.</b>			
	Trees very close to primary		Between Cherry & Elm Sts. in the easement north of Patton St.
	Soft maple tree into 3-phase primary	116-1680	Cherry St. north of Pells St.
	Trees into primary		Along Cherry St. between Pells & State Sts.
	Soft maple tree into primary, with burning & electrotrimming	1681, 1682	Cherry St. south of State St.
	Tree grown through primary (between & about 6 ft. above primary phases)	1683, 1684	Between Cherry & Elm Sts. in the alley north of Holmes St.
	Trees into primary		Between Elm & Maple Sts. in the alley north of Holmes St.
	Tree close to primary		Between Maple & American Sts. in the alley north of Holmes St.
	Trees very close to primary		Morrow St. east of Union St.
	<b>Code railroad crossing violation (NESC 261.D.4.c): Single wood crossarm supporting a single-phase (on crossarms) crossing of a railroad, on the west side of the railroad crossing. (Double crossarms required).</b>	1685, 1686	Morrow St. between Union St. & Stockholm Rd., Paxton. (Circuit Y55001)
	Soft maple tree very close to primary		Union St. north of Spruce St.
	Soft maple tree very close to primary		Union St. south of Pine St.
	Trees close to primary		Union St. between Center & Orleans Sts.
	3-phase primary burning a hard maple tree	1687, 1688	Summer St. east of Park St.
	Soft maple tree into primary		Summer St. west of Fall St.