

SPECIFICATION NUMBER ENG00-16

**SPECIFICATION
FOR
SOUTHERN YELLOW PINE
TRANSMISSION AND DISTRIBUTION POLES
TREATED WITH
PENTACHLOROPHENOL (PENTA)**

Revised December 1, 2000

**LAKELAND ELECTRIC
ELECTRIC SYSTEM ENGINEERING
LAKELAND, FLORIDA**

NOTE TO BIDDERS:

This specification represents a first attempt at revising our previous CCA Pole Spec., to cover the purchase of Penta poles. Since we suspect that this process has not been without error, we invite your comments and suggestions. In particular, any applicable AWPA or ANSI specifications you could offer (send us copies of), would be most appreciated. Thank you for your assistance in this matter.

Sincerely,

Lakeland Electric

SPECIFICATIONS

1.0 SCOPE

- 1.1 The specifications cover pressure preservative treatment of Southern Yellow Pine poles with Pentachlorophenol preservative (Penta). The specifications are intended as a quality standard for preservative treated wood poles for use in powerline construction.

2.0 APPLICABLE DOCUMENTS

- 2.1 The following documents, American National Standards Institute (ANSI) and American Wood Preservers Association (AWPA) and the latest revision thereof, shall apply except where modified in this specification. In the event that any of the referenced standards are shown to be contradictory then the more stringent shall apply.
- 2.2 (ANSI) 05.1 (LATEST REVISION): SPECIFICATIONS AND DIMENSIONS FOR WOOD POLES.
- 2.3 (AWPA) STANDARD (LATEST REVISION): STANDARDS FOR OIL-BORNE PRESERVATIVES.
- 2.4 AWPA STANDARD C1 (LATEST REVISION): ALL TIMBER PRODUCTS PRESERVATIVE TREATMENT BY PRESSURE PROCESSES.
- 2.5 AWPA STANDARD C4 (LATEST REVISION): POLES-PRESERVATIVES TREATMENT BY PRESSURE PROCESSES.
- 2.6 AWPA STANDARD A7 (LATEST REVISION): STANDARD WET ASHING PROCEDURE FOR PREPARING WOOD FOR CHEMICAL ANALYSIS.
- 2.7 AWPA STANDARD A9 (LATEST REVISION): STANDARD METHODS OF ANALYSIS OF TREATED WOOD AND TREATING SOLUTIONS BY X-RAY EMISSION SPECTROSCOPY.
- 2.8 AWPA STANDARD M1 (LATEST REVISION): STANDARD FOR THE PURCHASE OF TREATED WOOD PRODUCTS.

2.9 AWPA STANDARD M2 (LATEST REVISION): STANDARD FOR INSPECTION OF TREATED TIMBER PRODUCTS.

3.0 REQUIREMENTS

3.1 General. All poles shall meet the requirements of ANSI 05.1, unless specifically excepted in this specification.

3.2 Specie. All poles shall be cut from live and sound Southern Yellow Pine timber.

3.3 Seasoning. Poles shall be seasoned prior to treatment in accordance with AWPA Standard M1 and ANSI Standard 05.1.

3.4 Framing.

- 1) Poles shall be roofed, bored, and gained before treatment. Poles shall be framed in accordance with the attached drawings.
- 2) Poles shall be burn branded in accordance with ANSI Standard 05.1. The brand shall be fully legible and applied to the face and butt of each pole in accordance with the attached drawings.
- 3) Pole brand shall include the following information:
 - a) Supplier code, trademark or name.
 - b) Plant location and month and year of treatment.
 - c) Code letters denoting the preservative used and the specified retention by assay.
 - d) The true class numeral, and numerals showing the length of the pole.
 - e) Code LE (owners mark for Lakeland Electric).

3.5 Shape. All poles shall be free from short crooks. Poles may have sweep subject to the following limitations:

- 1) Sweeps in two planes shall not be permitted.
- 2) Poles may have sweep in one or two directions as limited by ANSI 05.1, except that:
 - a) For all poles a straight line joining the surface of the pole at the groundline and the edge of the pole at the top in all poles shall not be distant from the surface of the pole at any point by more than 1 inch

for each 10 feet of length between these points.

- 3) The circumference of the pole at the butt shall not be more than 1/5 greater than the circumference at the groundline.

3.6 Defects. All poles shall be free of defects as specified in ANSI 05.1

- 1) Permitted defects shall be as limited by ANSI 05.1, except that the depth of a trimmed scar shall not be more than 2 inches regardless of the diameter of the pole.

4.0 TREATMENT. Treatment shall be performed in accordance with AWPA Standard C1 and C4.

4.1 Preservatives. The preservative shall be pentachlorophenol (penta), per AWPA Treating Standards.

4.2 Retention. Retention shall be tested, by assay, in accordance with AWPA A7 or AWPA Standard A9. The minimum retention shall be 0.45 pounds per cubic foot in the zone 0.5 to 2.0 inches from the surface.

4.3 Penetration. Penetration shall be determined in accordance with AWPA Standard C1 and shall be minimum of 3.5 inches or 90% of sapwood.

5.0 QUANTITIES

5.1 The quantities are as specified on the bid form.

6.0 DELIVERY

6.1 Delivery is required as specified on the bid form.

6.2 Delivery of all poles shall be to a pole yard furnished by Lakeland Electric. Inspection of the pole yard prior to submitting a bid can be arranged by contacting Lakeland Electric Purchasing. @ (863) 834-6780

6.3 The bid price shall include delivery and unloading of poles. Poles shall be placed in the designated area for the size being delivered. Unloading poles by rolling them off trucks is an unacceptable method of unloading.

6.4 Pole handling shall be in accordance with ANSI Standard 05.1. Unloading poles by

rolling them off trucks is an unacceptable method of unloading.

7.0 QUALITY CONTROL

- 7.1 All pole lots shall be subject to inspection by Lakeland Electric or their representative either at the treating plant or at destination.
- 7.2 All poles shall also be subject to job site inspection. Poles may be rejected at the time of delivery or at any time defects are found prior to initial erection.
- 7.3 Poles found to be defective shall be promptly replaced by the supplier at no expense to Lakeland Electric.

8.0 APPROVED MANUFACTURES

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