SPECIFICATION FOR CREOSOTE TREATMENT OF WESTERN RED CEDAR POLES

1) SCOPE

i) This specification covers the minimum requirements for wood poles used for electric transmission and distribution to be treated with creosote. Creosote is an excellent wood preservative that protects wood used outdoors against termites, fungi, mites, and other pests. The below requirements include material (wood product), treatment, inspection, handling, delivery, and storage. Western Red Cedar is the only accepted wood species.

B) REFERENCE DOCUMENTS

i) All poles shall comply with the AWPA Book of Standards (hereinafter AWPA), latest revision. For pole classes, dimensions, material requirements, and manufacturing requirements, reference the latest revision of ANSI 05.1 Wood Product Specifications and Dimensions. For wood treatment requirements, reference the latest revision of AWPA.

ii) Other references:

(1) AWPA A1-11 Standard Methods for Analysis of Creosote and Oil-Type Preservatives

(2) AWPA A52-11 Standard Method for The Distillation of Creosote and Creosote Solutions

(3) AWPA P4-11 Standard for Petroleum Oil for Blending with Creosote

(4) AWPA P2-13 Stand for Creosote Solution

(5) AWPA P3-14 Standard for Creosote-Petroleum Solution

(6) AWPA P1/P13-13 Standard for Creosote Preservative

C) ORDER OF PRECEDENCE

i) In the event of inconsistency between this specification and documents listed in this specification, the order of precedence shall be as follows:

(1) This specification

(2) The referenced documents

D) PRE-TREATMENT REQUIREMENTS

i) Conditioning

(1) Although partial air seasoning is acceptable, Boulton Drying/Boultonizing is the preferred means of conditioning. Further conditioning to reduce moisture content will be in accordance with AWPA Standard T1.

ii) Star Locks

(1) All poles (except glue lam poles) shall have star locks installed at the pole top. All star locks shall be installed before treatment.

iii) Incising

(1) All poles, regardless of deep incising, through boring or species, shall be full-length incised.

iv) Through Boring

(1) All poles shall be through-bored, as specified in the latest version of ANSI-05.1.

v) Framing

(1) Poles shall be drilled in accordance with the attached pole drilling guides prior to treatment. Tolerances shall be in accordance with Table 1 herein.

2) Table 1: Drilling Tolerances		
3)	**4) HOLE ENTRANCE (GAIN SIDE)**	**5) HOLE EXIT (SIDE OPPOSITE GAIN)**
6) FROM CENTERLINE OF HOLES	7) ±1/8”	8) ±1/4”
9) LOCATION (FROM TOP OF POLE)	10) ±1/4”	11) ±1/2”

(1) The Supplier shall carefully select pole stock that is dimensionally stable in order to minimize error. Tolerance for unit assembly holes such as pole pins, brackets, and stand-off arms is ± 1/2". Tolerance for holes not used in unit assemblies is ± 2”.

(2) Plastic or metal crossarm pole gains shall be provided with each pole.

ii) Markings

(1) The code letters of species, treatment, date of treatment, class of pole, pole length, and supplier’s code or trademark shall be stamped on a metal pole identification disc (marking disc). The marking disc shall be installed in a 1/2" deep mortise located 10’ from the pole butt for poles up to 55’ in length, and 14’ from the pole butt for poles over 55’ in length.

(a) The code letter for creosote treatment is “C.”

(2) Each pole shall have its length, class, and pole drilling guide branded or otherwise permanently marked on the butt surface. Refer to AWPA Standard M6.

B) TREATMENT REQUIREMENTS

i) Preservative treatment shall be creosote.

ii) Creosote preservative shall conform to current AWPA Standard U1.

iii) Treatment retention shall conform to the requirements of AWPA Standard U1, table 4.4A.

iv) Should re-treatment be necessary, re-treatment shall be in accordance with AWPA Standard T1, Section 6.

C) POST-TREATMENT REQUIREMENTS

i) No poles treated with creosote shall be shipped for use later than 1 year following the original treatment date branded on the pole unless it complies with the following:

(1) Poles shall be reassessed by the producer. If conforming to preservative retention requirements, as shown in Table 10, Exhibit H of RUS Bulletin 1728F-700 it may be shipped. Reassessed poles shall be identified on the sawed butt surface with a metal tag showing date of reassessment.

(2) If the reassessed material fails to meet retention requirements and is less than two years from its original treatment date, the producer must retreat, reassess, and butt tag said material per the tagging requirements in 4.6.1 A.

ii) Testing for penetration of preservative shall be in accordance with AWPA Standard M2 and T1.

iii) Checks at drilled bolt holes shall not exceed 3/8” in width.

iv) Any holes drilled after treatment shall be treated with copper naphthenate.

v) All poles that are cutback after treatment shall be re-treated. Total steaming time, both for initial treatment and re-treatment, is cumulative and shall not exceed 220° Fahrenheit and an impregnation pressure of 100 lb/in^2. Re-treatment of cutback or reserve treated stock poles shall be by submersion in preservative for not less than 10 minutes under 25 pounds per square inch gauge pressure or not less than 30 minutes at atmospheric pressure.

vi) Poles shall be dry before shipment. The moisture content in the pole after treatment shall be approximately 25% at a depth of 2”. Bleeders (or poles with freely draining liquid) will not be accepted.

D) HANDLING & DELIVERY

i) Poles shall be delivered to Trinity Public Utilities District at 26 Ponderosa Ln, Weaverville, CA 96093. Delivery and unloading shall be handled by the supplier and the construction contractor.

ii) Poles shall not be dragged along the ground. Cant hooks, pole tongs, or other pointed tools shall not be applied to the ground line section of any pole.

iii) Upon delivery, poles shall be piled and supported in such a manner that all poles are at any point at least 12” above the general ground level and any vegetation growing thereon.

iv) Poles will not be accepted if they contain indentations attributed to loading or handling slings that are 1/4"or more in depth over 20% or more of the pole circumference, or more than 1/2" deep at any point on the pole. Other indentations or abrasions, i.e. forklift damage, chain-saw damage, shall not be more than 1/10 of the pole diameter at the point of damage up to a maximum of 1”. Such damage is permitted in an oversized section, where the excess of wood shall be taken into consideration in evaluating the

effects of the damage. In any case, the remaining circumference shall meet or exceed the specification minimum.