

ORIGINALDecision No. 68835

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of)
 SOUTHERN CALIFORNIA EDISON COMPANY)
 for an order amending General Order)
 No. 95, "Rules for Overhead Electric)
 Line Construction", with respect to)
 Specifications and Dimensions for)
 Wood Poles.)

Application No. 47208
 (Filed December 23, 1964)

O P I N I O N

Southern California Edison Company (Edison) requests an order amending and revising certain provisions of Rule 48.1 of General Order No. 95, "Rules for Overhead Electric Line Construction", relating to specifications and dimensions for wood poles.

The Commission's presently effective General Order No. 95 governing overhead electric line construction provides safety factors for wood poles in Rule 48.1. This rule presently provides that the values to be used for moduli of rupture for wood in bending shall not exceed 7,400 psi (pounds per square inch) for round Douglas fir poles and for round Southern pine poles and 5,600 psi for round Western red cedar poles. The existing provisions of Rule 48.1 are based upon the specifications of the American Standards Association, designated ASA 05.6-1941 for Douglas fir poles and 05.4-1941 for Southern pine poles.

On March 5, 1963, the American Standards Association approved a revision in fiber stress ratings of Douglas fir, Southern pine, and Western red cedar poles. The revisions are included in the American Standard Specifications and Dimensions

for Wood Poles, designated ASA 05.1-1963. A copy of said Standard is attached to the application as Exhibit I.

Edison states full size pole strength tests have been conducted at the U. S. Forest Products Laboratory at Madison, Wisconsin, under the supervision of the American Society for Testing and Materials (ASTM) Committee D7 on Wood and sponsored by pole vendors and pole users. The over-all research program covered tests of over 600 full size poles and about 14,000 tests of small specimens to evaluate the properties of clear wood. In these tests it has been determined that Douglas fir, Southern pine, and Western red cedar are stronger than previously rated. As a result, the American Standards Association's new specification ASA 05.1-1963 (which supersedes the earlier standard upon which the provisions of Rule 48.1 of General Order No. 95 are based) contains fiber stress ratings which have been increased from 7,400 psi to 8,000 psi for Douglas fir and Southern pine and from 5,600 psi to 6,000 psi for Western red cedar. In turn, minimum ground line circumferences have been reduced by 1/2 to 1-1/2 inches, depending upon class and length of pole.

Edison further states that through its distribution, transmission and timber products engineering group, it has investigated ASA 05.1-1963 and found the new ratings of fiber stress and reduced ground line circumferences for wood poles acceptable and desirable and that pole suppliers have indicated they are willing to produce poles under the new ASA specification because the smaller ground line circumferences give them a greater selection by class.

For many years suitable preservatives other than creosote have been available for the treatment of poles. Many pole users have adopted the practice of treating Douglas fir poles with such other substances where circumstances indicate this to be more desirable than the use of creosoted poles. General Order No. 95 should be modified to reflect this practice.

The principal pole users in California are electric and telephone utilities subject to the requirements of General Order No. 95. Edison requests that General Order No. 95 be amended by revising Rule 48.1, Table 5, to conform to ASA 05.1-1963. Edison states and this Commission has information that the major electric and telephone utilities in California support the revision of Rule 48.1 of General Order No. 95 to reflect the provisions of the new ASA specification.

Applicant proposed that the present requirement for "creosoted" poles stated in footnote (b), Table 5 of Rule 48.1 be revised to refer to "full length treated" poles. Subsequently, by letter dated February 19, 1965, applicant has requested, in order to adequately describe the required preservative treatment, that "full length treated" be deleted from the proposed revision and the sentence "Such poles shall be given suitable preservative treatment" be added. Said letter is hereby received as Exhibit II herein.

After investigation the Commission finds that Douglas fir, Southern pine, and Western red cedar poles are stronger than previously rated; that suitable preservatives other than creosote are available; that safety standards are not reduced; and that General Order No. 95 should be modified to conform to American

Standards Association's new specification ASA 05.1-1963. A public hearing is not necessary.

ORDER

IT IS ORDERED that General Order No. 95, Rule 48.1, Table 5, be amended as follows:

- a. Change the value for modulus of rupture in bending for cedar, Western red, round poles from 5,600 lbs. per sq. in. to 6,000 lbs. per sq. in.
- b. Change footnote reference (b) of said table to read: "Where poles meet specifications of American Standards Association, 05.1-1963 for Douglas Fir Poles and Southern Pine Poles, this value may be increased to not more than 8,000 lbs. per square inch. Such poles shall be given suitable preservative treatment."

IT IS FURTHER ORDERED that the Secretary shall cause a copy of this order to be served upon each electric and telephone utility subject to the jurisdiction of this Commission and, further, shall cause a suitable number of copies to be made available for distribution to such other utilities and the general public as may request the same.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 6th day of APRIL, 1965.

Fredrick B. Holdhoff
President

W. C. Rittell

George L. Grover

Augustus

William B. Beaudin
Commissioners