

Decision No. 32088

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application
of PACIFIC GAS AND ELECTRIC COMPANY
for an order of the Railroad Com-
mission of the State of California
amending and modifying those provi-
sions of General Order No. 95 herein
mentioned.

APPLICATION No. 25309.

ORIGINAL

BY THE COMMISSION:

SECOND SUPPLEMENTAL OPINION

In Decisions Nos. 36344 and 36791 in the above proceedings the Pacific Gas and Electric Company (sometimes referred to herein as Pacific) was given authority to deviate from certain rules of General Order No. 95 in response to its original and First Supplemental Applications. In this Second Supplemental Application permission is requested for authority to deviate from certain provisions of Rule 22.2 of the General Order.

Rule 22.2, page 20 of General Order No. 95, states in part that "Protective Covering, Suitable, means a covering of wood or other material having the electrical insulating efficiency and mechanical strength of 1½ inches of redwood, or hardwood moulding (oak or rock elm) three-eighths of an inch in thickness or having a cross section as shown in Figure 81 of Appendix C, or as otherwise authorized by the Railroad Commission."

The Applicant alleges that for a number of years last past, it has been and now is the practice of electric utilities to use the alternative hardwood section mentioned in this rule for covering ground wires and bond wires ranging in size from #6 to 2/0 A.W.G. in preference to the use of redwood with its much larger cross section. It further states that it is becoming increasingly difficult to secure hardwood moulding and, furthermore, the oak moulding authorized by the Commission rules and extensively

used in the past has been found to warp badly which has resulted in ground wire exposures and thus to undue amount of maintenance work.

Relative to the use of the larger cross section of redwood or so-called soft wood moulding, Pacific states that due to its rigidity it is impossible to install it to conform with the uneven surfaces of poles, with the result that the wires become exposed; that it is bulky and thus interferes with linemen climbing and working on poles; and such moulding and its attachments are unnecessarily expensive. On account of these difficulties and considerations, Pacific states that it believes the use of Douglas Fir of a section one-half inch in thickness as specified in Exhibit "A", attached to its Second Supplemental Application, will provide a more satisfactory protective covering for ground and bond wires than the redwood covering or its alternative hardwood covering specified in Rule 22.2 (and Figure 81 of Appendix C) of General Order No. 95. The essential reasons for this belief and the advantages of the use of the smaller section are that:

- (1) Douglas Fir, intermediate in hardness between oak and redwood, is sufficiently hard to warrant use of an appropriately dimensioned section thinner than the required thickness of redwood,
- (2) The proposed section of Douglas Fir is flexible enough to install on uneven pole surfaces in such a manner that small wire will not become exposed and all wires will be substantially and adequately covered,
- (3) The section of one-half inch thickness will cover less pole surface and will offer less obstruction in the climbing or working spaces,
- (4) The small section of oak moulding now authorized is subject to warping, which tendency is aggravated in our California climate and which results in exposure of ground wires to contact and occasions considerable maintenance in keeping

- installations safe for workmen. Douglas Fir is less subject to warping than oak and will therefore be a better covering, and
- (5) Its cost will be lower than the required section of either oak or redwood.

It is not only requested in this Supplemental Application that use of Douglas Fir of the proposed reduced section be permitted as a substitute for the Suitable Protective Coverings defined in General Order No. 95 for covering ground and bond wires, but also that the equal of Douglas Fir of this reduced section be authorized under the condition that any equivalent of Douglas Fir shall have at least the hardness and strength thereof. Douglas Fir while classified as a soft wood is one of the hardest, strongest and most durable of woods of that classification. The matter of relative values of different species, with respect to hardness, strength and durability, is a controversial subject and, therefore, it would seem impractical and unnecessary to authorize the use of species which may be the equal of Douglas Fir.

In view of the foregoing circumstances, granting of the request of the Applicant, with respect to the use of moulding made of Douglas Fir appears to be warranted provided well-seasoned, straight grained and dense Douglas Fir having dimensions not less than those of the cross section specified in Exhibit "A" of the Supplemental Application, is used and further provided such moulding is installed in a workmanlike manner. The order will authorize, under these conditions, the deviation requested.

ORDER

The Commission having considered the above application and being of the opinion that a public hearing is unnecessary, and good cause appearing,

IT IS ORDERED that Pacific Gas and Electric Company be and it is hereby authorized, in the covering of ground and bond wires on wood poles and wood crossarms, to use moulding of Douglas Fir, having a minimum thickness of one-half inch and cross section with dimensions not less than those of Exhibit "A" attached to its Second Supplemental Application in place of

the protective coverings specified in Rule 22.2 of General Order No. 95 under the following conditions:

- (1) That Douglas Fir, used for making such mouldings, shall be well-seasoned, clear, dense and straight grained,
- (2) That such moulding used to cover ground or bond wires installed on the surface of wood poles or crossarms shall be attached in a workmanlike manner to such surfaces with straps or staples spaced not more than three feet apart, but at more frequent intervals where uneven pole surfaces require same to secure workmanlike installations.

The order shall be effective on the 20th day after the date hereof.

Dated at Los Angeles, California, this 31st day of May, 1944.

Richard Kasper
Justus J. Culver
Samuel

Commissioners