

ORIGINAL

Decision No. 74342

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application
of THE PACIFIC GAS AND ELECTRIC
COMPANY for an order amending
and modifying those provisions of
General Order No. 95 herein
mentioned.

Application No. 47929
(Filed September 29, 1965;
Amended February 9, 1967;
Amended May 8, 1967)

(Electric)

SUPPLEMENTAL OPINION

Reason for Supplemental Decision

Pacific Gas and Electric Company (hereinafter referred to as PG and E), on January 9, 1968, petitioned the Commission to modify its order effective January 6, 1968, in Decision No. 73455 in the following manner and for the following grounds:

1. By substituting "24" for "30" in Column G of Case 20, in the portion of Table 2 which appears on page 15 of Appendix A attached to the decision.

PG and E's application requested vertical spacing of 11 1/2 inches in Column E, 17 1/2 inches in Column F, and 24 inches in Column G. The staff proposed vertical spacing of 24 inches in each of the three columns and the IBEW recommended 24 inches in Columns E and F and 30 inches in Column G. At the hearings evidence was offered tending to prove that a 17 1/2-inch clearance was unsafe because of the length of metal ferrules on liveline tools which approached 18 inches. In light of that evidence, PG and E supported the staff's proposal of 24-inch spacings in Columns E and F. No evidence was offered in support of a 30-inch spacing in Column G and safety does not require such a spacing because the

A. 47929 bjh

arcing distance of the voltages in Column G does not exceed the arcing distance of voltages in Column F by more than one inch. The same liveline tools are used in both voltage ranges.

2. By adding the words "or neutral-supported service drop cable manufactured in accordance with Standard No. WC-5-1961 or Standard No. WC-3-1959 of the National Electric Manufacturers Association" after the word "sheath" in the amended version of Rule 54.8-B(4)(b) which appears on page 13 of Appendix A attached to the decision.

Although the decision itself, at page 25, states that:

"'Abrasion resistant cable having a grounded metallic sheath' is to be interpreted as referring to the same type of service wire now permitted for reduced clearing crossings over swimming pools. This wire is commonly called 'Triplex' and is more particularly described in Commission Resolution No. E-1109 modifying Rule 54.8-B(5)."

The language incorporated in Rule 54.8-B(4)(b) does not describe what is commonly called "Triplex" in the industry. Persons only familiar with the general order and not with Decision No. 73455 would not know that Triplex was approved. The addition of the suggested language, which is taken from the Commission's Resolution No. E-1109, would correct this.

3. By the addition of:

"Table 7
"Size and Material of Tie Wire

"Line Conductor		Tie Wire	
<u>"Material</u>	<u>Size</u>	<u>Size</u>	<u>Material</u>
***	***	***	***
"Aluminum or ACSR.	4 AWG or smaller	Same as line conductor or 6 AWG	Soft Aluminum or Aluminum Alloy Strong Alloy Aluminum*
	"2 AWG or larger	4 AWG or 6 AWG	Soft Aluminum or Aluminum Alloy Strong Alloy Aluminum"*

* "Minimum tensile strength of 350 pounds."

to Appendix A attached to the decision.

The Commission's decision at page 26 approves PG and E's proposed revision of Table 7 but Appendix A attached to the decision does not include the revision sought. Unless the appendix is modified by the addition of the above, the general order itself will not include the approved change to the table.

4. By the removal of the words "Dimension D" and the substitution therefor of the word "diameter" in Rule 54.11-G which appears on page 7 of Appendix A attached to the decision.

"Dimension D" originally referred to a drawing which PG and E proposed be added to Appendix G of General Order No. 95 as Figure 89. Because the decision did not adopt the proposed Figure 89, the dimension D has nothing to which to refer.

5. By the removal of the words "is not limited" and the substitution therefor of the words "shall be limited to four" in Rule 54.4-D(6)(b) which appears on page 8 of Appendix A attached to the decision.

Rules 54.4-C(4)(b) and 54.4-D(6)(b) originally contained identical language permitting unlimited numbers of conductors in circuits of more than 5,000 volts. The former rule was modified in the decision by limiting such circuits to no more than four conductors. The latter rule should be similarly modified to conform therewith.

6. By the removal of the numbers "54.6-D(1) and 54.6-D(2)" and substituting therefor the numbers "54.6-D(2) and 54.6-D(3)" in Rule 54.6-D(5) which appears on page 11 of Appendix A attached to the decision.

PG and E's application contained the numbers as they appear in Appendix A, but the reference was to the rules which now appear as Rules 54.6-D(2) and 54.6-D(3). The difference arises because the decision adopted the staff's addition of a new Rule 54.6-D(1) which was not proposed by PG and E.

7. By the removal of the words and numbers

"Top Circuit

Below
Top Circuit

24"

36"

36"

from Appendix G, Figure 15 of General Order No. 95.

The words and numbers to be removed were included in Figure 15 because of the second paragraph of Rule 54.4-D(6)(b) which was removed from that rule as rewritten which appears on page 8 of Appendix A attached to the decision. Figure 15 should be modified to conform to the rule as changed.

A. 47929 hjh

The petition was served upon all parties to the proceeding. No party has objected to PG and E's proposed changes.

Finding and Conclusion

Granting petitioner's request will clarify certain paragraphs contained in Appendix A of Decision No. 73455 as well as adding certain material inadvertently omitted from Appendix A. We find and conclude that petitioner's request should be granted and that public hearing on this petition is not necessary.

SUPPLEMENTAL ORDER

IT IS ORDERED that this Commission's General Order No. 95, "Rules for Overhead Electric Line Construction", be and it is hereby modified to the extent set forth in Appendix A attached to this order, said modifications to become effective on the effective date of this order.

IT IS FURTHER ORDERED that the Secretary shall cause a copy of this order and its Appendix to be served upon each electric and upon each telephone utility subject to the jurisdiction of this Commission and, further, to cause a suitable number of copies to be made available for distribution to such of 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 2nd day of JULY, 1968.

[Signature]
President
[Signature]
[Signature]
[Signature]
Commissioners

APPENDIX A
Page 1 of 3

The rules of General Order No. 95 are modified, amended or added to as set forth below:

TABLE 2

Table 2 is modified as follows:

Case No.	Nature of clearance and class and voltage of wire cable or conductor concerned	A	B	C	D	E	F	G	H	I
		*	*	*	*	750-7500	7,500-20,000	20,000-35,000	35,000-68,000	Over 68,000
**	***	*	*	*	*	*	*	*	*	*
20	Vertical clearance between conductors of the same circuit on horizontal post insulators					24	24	24	36	48(g)

- (g) 1.
2.
3. Conductors supported on post insulators 54.4-C(7)(c)

Rule 54.8-B(4)(b)

This rule is modified as follows:

The current-carrying conductors consist of abrasion-resistant cable having a grounded metallic sheath or neutral-supported service drop cable manufactured in accordance with Standard No. WC-5-1961 or Standard No. WC-3-1959 of the National Electric Manufacturer Association and are insulated for the voltage being supplied and the roof is metallic or nonmetallic, non-walkable overhang or patio cover.

Add Table 7Table 7
Size and Material of Tie Wire

Line Conductor		Tie Wire	
<u>Material</u>	<u>Size</u>	<u>Size</u>	<u>Material</u>
***	***	***	***
Aluminum or ACSR	4 AWG or smaller	Same as line conductor or 6 AWG	Soft Aluminum or Aluminum Alloy Strong Alloy Aluminum*
	2 AWG or larger	4 AWG or 6 AWG	Soft Aluminum or Aluminum Alloy Strong Alloy Aluminum*

* Minimum tensile strength of 350 pounds.

Rule 54.11-G

This rule is modified as follows:

G. ALLOWABLE CLIMBING SPACE OBSTRUCTIONS

Post-type insulators and their attaching brackets which support line conductors of over 750 volts may extend not more than one-half of their diameter into the climbing space.

Rule 54.4-D(6)(b)

This rule is modified as follows:

Not more than two conductors of a circuit of 750-5000 volts shall be attached directly to a pole in vertical configuration without the use of crossarms. The number of conductors of a circuit of more than 5000 volts so supported on a pole shall be limited to four. Branch circuits may be taken from such construction without the use of crossarms provided a climbing and working space as specified in Rules 54.7 and 54.11 is maintained.

APPENDIX A
Page 3 of 3

Rule 54.6-D(5)

This rule is modified as follows:

- (5) RUNS WITHIN 8 FEET OF GROUND: Vertical conductors installed as specified in Rule 54.6-D(2) and 54.6-D(3), and which extend within 8 feet of the ground shall be treated as risers. Runs which terminate in the top of enclosures which afford ample mechanical protection to the runs may extend within 8 feet of the ground but not less than 6 feet of the ground without being treated as risers.

Appendix G, Figure 15

This rule is modified as follows:

By removal of the words and numbers

Top Circuit

Below
Top Circuit

24"

36"

36"