BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Petition of the General Order 95/128 Rules Committee to Adopt, Amend, or Repeal a Regulation Pursuant to Pub. Util. Code Section 1708.5.	Petition 14-02-010 (Filed February 27, 2014)
Order Instituting Rulemaking to Consider Proposed Amendments to General Order 95.	R._____

ORDER INSTITUTING RULEMAKING PROCEEDING TO CONSIDER PROPOSED AMENDMENTS TO GENERAL ORDER 95

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ORDER INSTITUTING RULEMAKING PROCEEDING TO CONSIDER PROPOSED AMENDMENTS TO GENERAL ORDER 95

1. Summary

In response to Petition 14-02-010, this Order institutes a rulemaking proceeding to consider proposed amendments to the Commission's General Order 95 (GO 95). GO 95 contains rules for the design, construction, and maintenance of overhead power lines and communications lines located outside of buildings. The purpose of the proposed amendments is to improve safety, enhance reliability, increase efficiency, and correct errors in GO 95. The text of the proposed amendments is set forth in Appendix B of this Order.

Petition 14-02-010 was filed by an ad hoc group known as the GO 95/128 Rules Committee whose membership includes telecommunications companies, electric utilities, labor unions, and others. The Petition asks the Commission to open a rulemaking proceeding pursuant to Public Utilities Code Section 1708.5 for the purpose of adopting 29 proposed amendments to GO 95. The Petition is granted to the extent these proposed amendments are specifically included in the scope of the rulemaking proceeding instituted by this Order as set forth in Appendix B. The Petition is denied without prejudice to the extent the proposed amendments are excluded from the rulemaking proceeding. The excluded amendments would reduce clearances between conductors and other facilities, relax requirements for the use of spreader brackets, and delete provisions in GO 95 that pertain to "open wire" communication conductors.

2. Regulatory Background

The Commission adopted General Order (GO) 95 in Decision (D.) 34884, dated December 23, 1941, and has amended GO 95 many times since then.

GO 95 contains rules for the design, construction, and maintenance of overhead power lines and communications lines located outside of buildings.

The Commission adopted GO 128 in D.73195, dated October 17, 1967, and has amended GO 128 several times since then. GO 128 contains rules for the design, construction, and maintenance of underground electrical supply systems and communication systems. Decision 73195 also ordered utilities to keep GO 128 up-to-date by filing applications. In response to this directive, electric utilities and communication companies formed a committee to propose changes to GO 128. The work of the committee later evolved to include GO 95. As a result, the committee is known as "the GO 95 and 128 Rules Committee" (hereafter, the Rules Committee or Committee).

The Rules Committee is a consensus-based organization whose membership consists of California's public and privately owned electric utilities, telecommunication companies, trade associations, and labor unions. The Rules Committee provides a forum to share information on the application of GOs 95 and 128 and to develop consensus proposals to revise GOs 95 and 128.

In D.05-01-030, the Commission instructed the Rules Committee and other "parties" to henceforth seek to revise GOs 95 and 128 by first holding good-faith meet-and-confer discussions among the parties and then filing a petition pursuant to Public Utilities Code Section (Pub. Util. Code §) 1708.5 and Rule 14.7 of the Commission's Rules of Practice and Procedure (now Rule 6.3). Section 1708.5 and Rule 6.3 authorize any person to file a petition to open a rulemaking proceeding to adopt, amend, or repeal a regulation.

3. Procedural Background

The Rules Committee filed Petition 14-02-010 on February 27, 2014, pursuant to Pub. Util. Code § 1708.5 and Rule 6.3. Notice of the Petition

appeared in the Commission's Daily Calendar on March 6, 2014. Responses were filed by Southern California Edison Company (SCE), the Commission's Safety and Enforcement Division (SED), and jointly by the California Municipal Utilities Association, Los Angeles Department of Water and Power, and the Sacramento Municipal Utilities District (together, the Publicly Owned Utilities or POUs). Replies were filed by the Rules Committee, the POUs, and SCE.

The Rules Committee filed and served documents on May 2, May 6, May 13, and June 5, 2014, that provided additional information requested by the assigned Administrative Law Judge (ALJ). SED filed and served replies on May 9, May 13, and May 20, 2014.[1]

4. Summary of the Petition

Petition 14-02-010 asks the Commission to amend GO 95 by adopting a package of 29 proposed rule changes (PRCs). The 29 PRCs—with the specific proposed changes to the text of GO 95 and supporting rationales—are appended to the Petition, reproduced in Appendix A of this Order, and summarized below:

Proposed Rule Changes and Affected GO 95 Rules	Summary of Proposed Amendments to GO 95
• PRCs 1, 2, 3, 4, 14, 16, 17, 19, 20, 21, 23, 24, and 29 • Rules 20.9, 37 (Table 1), 38 (Table 2), 39 (Table 2-A), 81.3, 84.4-C(1), 84.6-A, 84.8-B(1), 84.8-D (Table 15), 87.4-C(3), 92.1, and Figures 84-2 and 84-3	Delete provisions in GO 95 that pertain explicitly to "open wire" communication conductors. Revise Figures 84-2 and 84-3 to replace diagrams that use "open wire" communication conductors to depict certain GO 95 requirements with new diagrams that use communication messengers and cables to depict GO 95 requirements.

[1] SED did not reply to the Rules Committee's filing on June 5, 2014.

Proposed Rule Changes and Affected GO 95 Rules	Summary of Proposed Amendments to GO 95
• PRC 3 • Rule 38 (Table 2, Column C, Case 21, Reference (ww))	Delete the requirement to maintain a clearance of 10 inches between antennas and communication cables on the same support structure that belong to the antenna owner/operator.
• PRCs 5, 6, 15, 18, 22, 27, and 28 • Rules 51.7, 54.6-E, 81.6, 84.7-E, 87.7-D, 91.3-B, 91.4	Establish a minimum height of eight feet above ground level and nearby structures for pole steps and riser support brackets to prevent easy climbing of utility poles.
• PRC 7, 9, and 11 • Rules 54.8-D(1), 54.10-B(2), and 57.4-H	Clarify that a clearance of less than 12 inches is allowed between (1) non-climbable street light/traffic signal poles, and (2) power line service drops of 0 - 750 volts, multi-conductor cables of 0 - 750 volts with bare neutral, messengers, and metal–sheathed cables (all with mechanical protection from abrasion).
• PRCs 9 and 11 • Rules 54.10-B(2) and 57.4-H	Reduce from 36 inches to 12 inches the minimum clearance between (1) non-climbable street light/traffic signal poles, and (2) multi-conductor cables 0 - 750 volts with bare neutral (without mechanical protection from abrasion). Reduce from 15 inches to 12 inches the minimum clearance between (1) non-climbable street light/traffic signal poles, and (2) certain types of messengers or metal–sheathed cables (without mechanical protection from abrasion).
• PRC 8 • Rule 54.9-C	Require a weather-resistant covering for conductors 0 – 750 volts in rural districts attached to poles in a vertical rack configuration.
• PRC 10 • Rule 54.12-D(1)	Delete the requirement to use spreader brackets to maintain a minimum in-span vertical separation of 8 inches between conductors 0 – 750 volts in an extended rack configuration.

Proposed Rule Changes and Affected GO 95 Rules	Summary of Proposed Amendments to GO 95
• PRC 10 • Rule 54.12-D(2)	Increase the maximum allowed span between spreader brackets, or between spreader brackets and poles, from 135 feet to 200 feet for conductors 0 - 750 volts in an extended rack configuration.
• PRC 12 • Rule 58.1-A(1)	Allow multiple units of enclosed equipment (transformers, capacitors, etc.) installed on non-climbable poles to extend beyond the vertical plane through the centerline of the pole.
• PRC 13 • Rule 58.3-D	Replace the term "mechanism" with "rod" or "handle" at several places in Rule 58.3-D.
• PRC 13 • Rule 58.3-D(4)	For line switches that are operated from a ground-level, non-insulated platform using an all-metal, non-insulated control mechanism, the requirement that the mechanism must be effectively grounded is replaced with a requirement that the rod handle and non-insulated platform must be bonded and effectively grounded.
• PRC 13 • Rule 58.3-D	Reduce the minimum clearances between power lines and non-metallic operating rods for line switches.
• PRC 14 • Rule 81.3-A	Delete Rule 81.3-A, which specifies when Grade C wood poles must be reinforced or replaced.
• PRCs 18, 25, and 26 • Rule 84.7, Figure 84-4, and renumbered Figure 84-5	Provide clear rules for pole "working space" in the vicinity of communication lines.
• PRC 18 • Rule 84.7-E	Replace the term "techniques" with "materials."
• PRCs 18 and 27 • Rules 84.7 and 91.3-B	Require steps, or fixtures for temporary steps, to be installed as part of a pole-restoration process.

The Rules Committee states that the 29 PRCs have several purposes. First, the PRCs modernize GO 95 by removing references to obsolete "open wire" communication conductors that have not been installed since the 1940s.

Second, the PRCs improve safety by (1) requiring a specified clearance between conductors and non-metallic operating rods for line switches; (2) requiring steps, or fixtures for temporary steps, to be installed as part of a pole-restoration process; (3) requiring pole steps and riser support brackets to be at least eight feet above ground level and nearby structures; and (4) providing clear rules for pole "working space" in the vicinity of communication lines.

Third, several PRCs establish a uniform minimum clearance of 12 inches between (1) non-climbable street light/traffic signal poles, and (2) low-voltage power line service drops, multi-conductor cables, messengers, and metal-sheathed cables (all without mechanical protection from abrasion). The current minimum clearances range from 12 inches to 36 inches, depending on the facility. The proposed uniform clearance of 12 inches is meant to simplify GO 95.

Fourth, PRC 10 eliminates the mandatory use of spreader brackets to maintain the in-span vertical separation between power lines in "extended rack" construction. PRC 10 also increases the allowed distance between spreader brackets, or between spreader brackets and poles, for power lines in "extended rack" construction. The Rules Committee states that these revisions harmonize the overly prescriptive requirements regarding the use of spreader brackets for "extended rack" construction in Rule 54.12-D with the safe and proven requirements for "rack" construction in Rule 54.9-D.

Finally, several PRCs correct errors in GO 95 and make minor technical revisions to the General Order.

In response to the requirement in Rule 6.3(b) of the Commission's Rules of Practice and Procedure that a petition filed pursuant to Pub. Util. Code § 1708.5 must state whether the issues raised in the petition were litigated in previous Commission proceedings, the Rules Committee states that none of the PRCs

were litigated in previous proceedings, as far as the Committee is aware. The Rules Committee adds that while several PRCs touch on GO 95 rules that were adopted in recent proceedings, the issues raised in the Petition are entirely new.

The Rules Committee avers that it complied with the requirement in Ordering Paragraph 8 of D.05-01-030 to meet and confer with SED before the Committee files a petition to amend GO 95. This requirement was satisfied on December 5, 2013, when the Rules Committee's Executive Board met in person and via teleconference with SED to discuss the 29 PRCs.

The Rules Committee disagrees with SED's assertion, summarized below, that the Committee did not comply with the requirement in D.05-01-030 that petitions to amend GO 95 should be filed jointly with SED. The Rules Committee replies that D.05-01-030 does not require petitions to be filed jointly with SED. Rather, the decision expresses the Commission's "preference" that the parties identified in D.05-01-030 should file such petitions jointly.[2]

The Rules Committee disputes SED's accusation, summarized below, that the PRCs reduce safety. The Rules Committee replies that the sole purpose of many of the PRCs is to enhance safety. The Rules Committee finds it ironic that SED does not support these safety-enhancement proposals.

The Rules Committee disagrees with SED's position, summarized below, that deleting references in GO 95 to "open wire" communication conductors would exempt these facilities from GO 95 safety requirements. SED is mistaken for two reasons, according to the Rules Committee. First, the definition of

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[2] D.05-01-030, Ordering Paragraph 8. The Rules Committee points out that with the exception of SED, all the "parties" identified in D.05-01-030 at page 1 are members of the Rules Committee.

"conductor" in Rule 20.9 of GO 95 encompasses open wire communication conductors. Thus, all GO 95 safety requirements that apply to communication conductors will continue to apply to open wire communication conductors.

Second, the Rules Committee interprets Rule 12.3 of GO 95 as requiring utility facilities to comply with the GO 95 rules in effect at the time a particular facility is built. Thus, if GO 95 rules regarding open wire communication conductors are deleted, the deleted rules continue to apply to facilities that were built when the deleted rules were in effect.

The Rules Committee explains that the main reason for deleting references to open wire communication conductors is to avoid confusion that may arise from the many GO 95 rules, tables, and diagrams that address modern telecommunications technology alongside archaic open-wire technology. The Rules Committee states that because most personnel who use GO 95 will never encounter open wire communication conductors, deleting references to these facilities will make GO 95 easier to comprehend and thereby enhance safety.

5. Summary of the Responses to the Petition

The POUs and SCE support Petition 14-02-010. They believe the 29 PRCs will clarify GO 95, modernize archaic rules, and improve safety and reliability.

The POUs and SCE disagree with SED's claim, summarized below, that the Petition would decrease safety by exempting open wire communication conductors from GO 95 safety requirements. They reply that open wire communication conductors are a "conductor" as defined by Rule 20.9 of GO 95, and thus subject to all GO 95 safety requirements applicable to conductors. The POUs and SCE also concur with the Rules Committee's position that removing references to archaic open wire communication conductors from GO 95 would enhance safety by making GO 95 easier to comprehend.

SCE disagrees with SED's concern, summarized below, that PRC 10 reduces safety by relaxing requirements for the use of spreader brackets. SCE replies that the purpose of PRC 10, as stated in the Petition, is to establish "uniform conductor spacing and span length requirements" and to "promote the use of spreader brackets to maintain the required conductor separation."

SCE also disagrees with SED's concern, summarized below, that PRC 11 diminishes safety by reducing a particular clearance requirement for messengers and metal-sheathed cables from 15 to 12 inches. SCE replies that the reason for PRC 11, as stated in the Petition, is to establish a uniform clearance standard of 12 inches for similar facilities. SCE believes the existing situation of requiring 15 inches of clearance for messengers and metal-sheathed cables versus 12 inches for other similar facilities sows confusion and reduces safety.

SED opposes Petition 14-02-010. SED argues that the Petition should be denied because most or all of the 29 PRCs reduce safety. SED provides several examples to support its argument. First, many of the PRCs delete GO 95 rules that apply to open wire communication conductors. SED argues that deleting these rules would have the effect of exempting open wire communication conductors from GO 95 safety standards.

Second, PRC 9 reduces from 36 inches to 12 inches the minimum clearance between cables and non-climbable street light/traffic signal poles. PRC 11 reduces from 15 inches to 12 inches the minimum clearance between messengers and non-climbable street light/traffic signal poles. The rationale for reducing minimum clearances to 12 inches is to establish a uniform standard based on the existing 12-inch clearance requirement for power line service drops. SED notes that the Rules Committee did not explain why the Commission originally adopted different clearances for different types of facilities or why the original

basis is no longer relevant. SED adds that if the goal is to achieve a uniform clearance for different types of facilities, the safe solution is to standardize around the highest clearance requirement, not the lowest.

Third, PRC 10 relaxes requirements regarding the use of spreader brackets to maintain in-span separation between power lines in "extended rack" construction. The purpose of PRC 10 is to conform the use of spreader brackets for "extended rack" construction with the less stringent requirements regarding the use of spreader brackets for "rack" construction. SED submits that the safe solution is to conform to the most stringent requirements, not the least.

Finally, PRC 13 modifies Rule 58.3-D by changing the Rule's wording from "control mechanisms" for line switches to "control rods." SED states that the existing term "mechanism" is a broader—and thus safer—than the proposed term "rod" because a "mechanism" includes rods, handles, and other components. SED is also concerned about the proposal in PRC 13 to reduce clearances between non-metallic operating rods and power lines.

Besides reducing safety, SED contends that Petition 14-02-010 has two fatal procedural defects. First, Rule 6.3(b) of the Commission's Rules of Practice and Procedure requires a petition for rulemaking to state whether the issues raised in the petition have been litigated before the Commission, and if so, when and how the Commission resolved the issues. SED states that while the Petition admits that some PRCs touch on issues in previous rulemakings, the Petition does not disclose the results of the litigation in previous proceedings. Second, SED asserts that the Rules Committee ignored the Commission's preference expressed in D.05-01-030 that petitions to amend GO 95 should be filed jointly with SED.

6. Order Instituting Rulemaking Proceeding

A threshold issue is whether Petition 14-02-010 complies with the procedural requirements in D.05-01-030 and Rule 6.3 of the Commission's Rules of Practice and Procedure. Ordering Paragraph 8 of D.05-01-030 requires:

> Following good-faith meet-and-confer discussions, parties (preferably jointly) should file a petition to adopt, amend or repeal provisions of GO 95… pursuant to Pub. Util. Code § 1708.5 and Rule [6.3] of the Rules of Practice and Procedure.

There is no dispute that the Rules Committee held good-faith meet-and-confer discussions with other parties. We disagree with SED's contention that D.05-01-030 requires a petition to amend GO 95 to be filed jointly with SED. The decision plainly indicates that jointly filed petitions are preferred but not required.[3] For the preceding reasons, we conclude that Petition 14-02-010 complies with D.05-01-030.

Rule 6.3(a) states, in relevant part, as follows:

> The proposed regulation must apply to an entire class of entities or activities over which the Commission has jurisdiction and must apply to future conduct.

Petition 14-02-010 asks the Commission to open a rulemaking proceeding for the purpose of amending GO 95 (an entire class of activities). The amendments, if adopted, would apply to future conduct. The Commission has jurisdiction under the California Constitution and the Public Utilities Code to

[3] We affirm our preference expressed in D.05-01-030 that petitions to amend GO 95 should be filed jointly with SED, but a preference is not a requirement. Indeed, it would be problematic to require the Rules Committee to file such petitions jointly with SED, as Rule 6.3(a) allows "any person" to file a petition to adopt, amend, or repeal a regulation.

amend GO 95 in the manner requested by the Petition.[4] Therefore, we find that Petition 14-02-010 complies with Rule 6.3(a).

Rule 6.3(b) states, in relevant part, as follows:

> A petition must concisely state the justification for the requested relief, and if adoption or amendment of a regulation is sought, the petition must include specific proposed wording for that regulation. In addition, a petition must state whether the issues raised in the petition have, to the petitioner's knowledge, ever been litigated before the Commission, and if so, when and how the Commission resolved the issues, including the name and case number of the proceeding (if known).

Appendix A of the Petition provides a concise rationale for each of the 29 PRCs and specific wording for each proposed amendment to GO 95. The Rules Committee states that, to the best of its knowledge, none of the PRCs were litigated in previous Commission proceedings. While the Rules Committee acknowledges that some PRCs would affect GO 95 rules that were adopted in recent rulemaking proceedings, the Committee represents that these PRCs raise issues that are wholly distinct from the previous revisions to GO 95.[5] Therefore, we find that Petition 14-02-010 complies with Rule 6.3(b).

We next consider the substance of Petition 14-02-010 wherein the Rules Committee asks the Commission to open a rulemaking pursuant to Pub. Util. Code § 1708.5 to amend GO 95 to incorporate the 29 PRCs appended to the Petition. The Commission has broad discretion to grant or deny the Petition, in whole or in part. The standard we will use is whether the 29 PRCs appear reasonably formulated to achieve one or more of the following objectives:

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[4] Cal. Constitution, Article XII, §§ 3, 5, and 6; and Pub. Util. Code §§ 216, 701, 761, 768, 770, 8002, 8037 and 8056.

[5] Petition 14-02-010 at 3 – 4, and the Petitioner's Response filed on May 13, 2014, at 3 - 5.

(1) improved safety, (2) enhanced reliability, (3) increased efficiency, and/or (4) correction of errors in GO 95 or other technical revisions.

After carefully reviewing the Petition and the parties' filings, we find that it is reasonable to open a rulemaking proceeding to consider some, but not all, of the 29 PRCs. We emphasize that we do not reach any final conclusions in today's Order regarding the merits of the PRCs that we will consider in the rulemaking proceeding. We will not amend GO 95 to reflect a particular PRC unless we are convinced, based on the record in the rulemaking proceeding, that the PRC achieves one or more of the previously identified objectives with no countervailing effects on safety or reliability.

We disagree with SED that Petition 14-02-010 should be denied because most or all of the PRCs would adversely affect safety. As set forth below, several PRCs correct errors in GO 95 or make other technical changes that appear to have no effect on safety. Other PRCs appear reasonably formulated to improve safety, reliability, and/or efficiency. We concluded that it is in the public interest to consider these PRCs in a rulemaking proceeding.

6.1. PRCs Included in the Rulemaking Proceeding

6.1.1. Corrections and Technical Revisions

We find that it is reasonable to consider in the rulemaking proceeding instituted by today's Order the following proposed corrections and technical revisions to GO 95:

> **PRC 2**: Those parts of PRC 2 that eliminate Reference (aa) in Rule 37, Table 1, Column B, Case 3.[6] Petition 14-02-010 states that

[6] Those parts of PRC 2 that delete provisions in Rule 37 that apply explicitly to open wire communication conductors are excluded from the rulemaking proceeding.

Reference (aa) was mistakenly added to Table 1, Column B, Case 3 by Resolution SU-6 dated November 21, 1990.[7]

PRC 2: Those parts of PRC 2 that add a new Reference (kkk) to Rule 37, Table 1, Column B, Case 3. The contents of proposed Reference (kkk) are currently in subpart 12 of Reference (aa). **PRC 2** has the effect of deleting all of Reference (aa) from Table 1, Column B, Case 3, except for subpart 12 of Reference (aa).

PRC 2: Those parts of PRC 2 that move subpart 12 in Reference (aa) of Rule 37 to proposed new Reference (kkk). The Rules Committee states that subpart 12 was mistakenly added to the existing Reference (aa) by Resolution SU-6 dated November 21, 1990, instead of being added as a new standalone reference.[8]

PRC 16: Those parts of PRC 16 that amend Rule 84.4-C(2) to read as follows: "Insulated single conductors ~~(rubber insulated)~~, duplex, triplex and paired conductors are considered ~~as~~ cables (see definition, Rule 20.4) and the clearances for such conductors are specified in Rule 87.4." (Revisions shown with strikeout.)[9]

PRC 18: Those parts of PRC 18 that amend one sentence of Rule 84.7-E to read as follows: "Pole restoration ~~techniques~~ materials are allowed in climbing space provided pole steps are placed in the restoration area as part of the process." (Revisions shown with strikeout and underline.)

PRCs 23 and 24: Those parts of PRCs 23 and 24 that add diagrams to Figures 84-2 and 84-3, respectively, showing climbing space requirements using messengers and cables.[10]

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[7] Reference (aa) appears several places in Rule 37, Table 1. PRC 2's proposed elimination of Reference (aa) is limited to one appearance in Table 1, Column B, Case 3.

[8] Petitioner's Response filed on June 5, 2014.

[9] Those parts of PRC 16 that delete provisions in Rule 84.4-C that apply explicitly to open wire communication conductors are excluded from the rulemaking proceeding.

[10] Those parts of PRCs 23 and 24 that delete diagrams which depict open wire communication conductors are excluded from the rulemaking proceeding.

6.1.2. Improved Safety

The following PRCs appear reasonably formulated to improve safety for workers and/or the public and, therefore, are included in the rulemaking proceeding instituted by today's Order.

6.1.2.1 Pole Steps and Riser Brackets

The following PRCs seek to improve safety by (1) raising the height for the lowest pole step from 7 ½ feet to eight feet to deter unauthorized climbing of poles; (2) requiring steps, or fixtures for temporary steps, to be installed during the restoration of a pole; and/or (3) establishing a height of eight feet for the lowest riser support bracket to deter unauthorized climbing of poles:

- All of PRC 5 re: Rule 51.7.
- All of PRC 6 re: Rule 54.6-E.
- All of PRC 15 re: Rule 81.6.
- The part of PRC 18 that revises two sentences in Rule 84.7-E to read as follows: "Pole stepping shall be in accordance with Rules ~~51.7 and~~ 81.6. ~~Hardware for the use of detachable pole steps shall be installed as part of the restoration process from ground line to 7 feet 6 inches.~~" (Revisions shown with strikeout and underline.)
- All of PRC 22 re: Rule 87.7-D(3).
- All of PRC 27 re: Rule 91.3-B.
- All of PRC 28 re: Rule 91.4.

6.1.2.2 Operating Mechanisms

PRC 13 includes revisions to Rule 58.3-D that aim to provide workers with additional protection from electrocution when using the manual operating mechanisms for line switches and disconnects. The parts of PRC 13 that are

included in the rulemaking proceeding instituted by today's Order appear in PRC 13 as proposed new Rule 58.3-D(1)(d)(i) and (ii).[11]

6.1.2.3 Working Space

PRC 18 includes revisions to Rule 84.7 that seek to improve worker safety by providing definitive guidance regarding pole "working space" in the vicinity of communication lines. Analogous requirements already exist for pole working space around power lines. The proposed rules for working space are depicted in a new Figure 84-4 contained in PRC 25. The existing Figure 84-4 is renumbered as Figure 84-5 in PRC 26. All of PRCs 18, 25, and 26 are included in the rulemaking proceeding.[12]

6.1.3. Increased Reliability and Efficiency

The following PRCs appear reasonably formulated to increase reliability and/or efficiency and, therefore, are included in the rulemaking proceeding instituted by today's Order:

> **All of PRC 8**: This PRC revises Rule 54.9-C to require a weather-resistant covering for power lines in rural districts of 0 – 750 volts that are attached to a pole in a vertical rack configuration. An analogous requirement already exists for urban districts.
>
> **All of PRC 12**: This PRC revises Rule 58.1-A(1), which currently requires two or more units of enclosed equipment (e.g., transformers) on a utility pole to be installed on the same side of the vertical plane that extends through the pole's centerline. The Rules Committee represents that the current rule induces electric

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[11] The parts of PRC 13 that are included in the rulemaking proceeding appear in Appendix B of today's Order as proposed Rules 58.3-D(4)(a) and (b). All other parts of PRC 13 are excluded from the rulemaking proceeding for the reasons stated later in today's Order.

[12] Besides proposals dealing with working space, PRC 18 includes unrelated revisions to GO 95 regarding pole-restoration materials and pole steps that are included in the rulemaking proceeding for the reasons stated previously in today's Order.

> utilities to construct a two-pole platform to accommodate two or three large transformers in combination. PRC 12 would allow two or more units installed on a non-climbable pole to extend through the vertical plane and thereby reduce the number of costly double-pole platforms without affecting the safety of workers.

6.2. PRCs Excluded from the Rulemaking Proceeding

We decline to grant Petition 14-02-010 to the extent the Petition requests that we consider in the new rulemaking proceeding the PRCs identified below. These PRCs are rejected without prejudice. The Rules Committee may resubmit these PRCs in a new petition filed pursuant to Pub. Util. Code § 1708.5 provided our concerns, discussed below, are addressed and resolved in the new petition.

6.2.1. Deleted Rules for Open Wire Conductors

We decline to consider in the rulemaking proceeding instituted by today's Order those PRCs that delete GO 95 rules which apply explicitly to "open wire" communication conductors. These rules have proven successful over the years at protecting safety and reliability. In our judgment, deleting these rules would be contrary to the public-interest objectives embodied in GO 95 and Pub. Util. Code § 451, which state, in relevant part, as follows:

> **GO 95, Rule 11**: "The purpose of [GO 95] is to formulate, for the State of California, requirements for overhead line design, construction, and maintenance, the application of which will ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation or use of overhead lines and to the public in general."
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> **Pub. Util. Code § 451:** "Every public utility shall furnish and maintain such… instrumentalities, equipment, and facilities... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public."

We disagree with the Rules Committee's position that the GO 95 rules which apply explicitly to open wire communication conductors are unnecessary

because these types of conductors are nearly extinct. We believe that as long as open wire communication conductors remain in service, it would be reckless to delete the GO 95 rules that have successfully protected safety and reliability.

We are not convinced by the Rules Committee that the GO 95 rules which apply explicitly to open wire communication conductors may be safely deleted because such facilities fall within the definition of "conductor" in Rule 20.9 and, therefore, remain subject to all GO 95 rules that apply to communication conductors. There are several GO 95 rules that apply either exclusively or differently to open wire communication conductors.[13] The Rules Committee did not explain why the GO 95 rules that are unique to open wire communication conductors can be deleted with no adverse effects on safety or reliability.

We are not persuaded by the Rules Committee that the GO 95 rules for open wire communication conductors may be safely deleted because the deleted rules would still apply pursuant to Rule 12.3 of GO 95, which states as follows:

> The requirements of this Order… do not apply to lines or portions of lines constructed or reconstructed prior to the effective date of this Order. In all other particulars, such lines or portions of lines shall conform to the requirements of the rules in effect at the time of their construction or reconstruction.

We are concerned that after the GO 95 rules that apply explicitly to open wire communication conductors are deleted, the utility personnel responsible for constructing, maintaining, and repairing open wire communication conductors will rely on the then-current version of GO 95 (without the rules that apply explicitly to open wire communication conductors) instead of the deleted rules. This could have adverse implications for safety and reliability if the then-current

[13] *See*, for example, Rules 81.3-A, 84.4-C(1)(b), 84.6-A, 92.1-C, and 92.1-D.

version of GO 95 has provisions that are less stringent than the deleted rules with respect to open wire communication conductors.[14]

The following PRCs that delete GO 95 rules which apply explicitly to open wire communication conductors are excluded from the rulemaking proceeding instituted by today's Order:

- All of PRC 1. This PRC deletes Rule 20.9-D, which sets forth the definition of "open wire conductors."
- Those parts of PRC 2 that delete open wire communication conductors from Rule 37, Table 1, the title of Column B; and from subpart 10 of Reference (aa).
- Those parts of PRC 3 that delete open wire communication conductors from the following elements of Rule 38: Table 2, the title of Column C; subpart 1 of Reference (j); subpart 2 of Reference (s); and subpart 2 of Reference (w).
- All of PRC 4. This PRC deletes the term "open wire" in the title of Column B of Table 2-A in Rule 39.
- All of PRC 14. This PRC deletes Rule 81.3-A, which specifies when Grade C wood poles must be reinforced or replaced.[15]
- Those parts of PRC 16 that delete Rule 84.4-C(1), which establishes clearance requirements between open wire communication conductors and other conductors (including other open wire communication conductors).

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[14] Notably, the Rules Committee does not propose that new and reconstructed installations of open wire communication conductors be prohibited going forward. Without this prohibition, Rule 12.3 would require new and reconstructed open wire communications facilities to comply with the then-current provisions in GO 95 that may be less stringent than the deleted provisions.

[15] PRC 14 is also problematic because it would eliminate a rule that pertains to the replacement of Grade C wood poles. Grade C construction applies to all communication-only facilities, not just open wire communication conductors.

- All of PRC 17. This PRC deletes Rule 84.6-A, which prohibits open wire communication conductors from (1) intruding into the climbing space when passing from one level to another level from; and (2) passing between conductors of any other circuit except between the pole-pin conductor positions.
- All of PRC 19. This PRC deletes Rule 84.8-B(1), which requires service drops from open-wire lines attached to the pole surface to be at least 6 feet below or 4 feet above the level of the nearest unprotected power lines supported on the same pole.
- All of PRC 20. This PRC deletes Column B from Table 15 in Rule 84.8-D(1)(b), which specifies the minimum clearance between certain open wire communication conductors and communication service drops supported on the same pole.
- All of PRC 21. This PRC deletes provisions in Rule 87.4-C(3) that (i) pertain to the minimum clearance between open wire communication conductors and communication cables or messengers in specified situations; and (ii) refer to Figure 84-2, which uses open wire communication conductors to depict certain clearance requirements.
- Those parts of PRC 23 that delete a diagram from Figure 84-2 that depicts open wire communication conductors.
- Those parts of PRC 24 that delete a diagram from Figure 84-3 that depicts open-wire communication conductors.
- All of PRC 29. This PRC deletes (1) Rule 92.1-C, which sets vertical clearance and guard arm requirements for open wire communication conductors attached to poles jointly used with power lines; and (2) provisions in Rule 92.1-D that establish clearance and place-of-attachment requirements for open wire communication conductors attached to the same pole as power lines in the situation where the pole is located on private property and serves one party.

6.2.2. Reduced Vertical Clearances for Antennas

Antennas must have a vertical clearance of at least 24 inches above communication cables on the same support structure pursuant to Rule 38, Table 2, Column C, Case 21, Reference (ww), except that a vertical clearance of 10 inches is allowed when the communication cables belong to the antenna owner/operator. PRC 3 eliminates the 10-inch clearance requirement for the antenna owner/operator. The Rules Committee claims there is no need for a vertical clearance between antennas and communications cables when both facilities are owned/operated by the same entity because the personnel working on integrated wireless-wireline networks receive radio frequency safety training.

The existing 10-inch vertical clearance requirement helps to protect the safety of workers and maintain service reliability. The Rules Committee provided no information that indicates the existing 10-inch vertical clearance requirement is unduly burdensome or that eliminating this requirement would have no adverse effects on safety or reliability. As a result, the Rules Committee has not demonstrated to our satisfaction that PRC 3 should be considered in the rulemaking proceeding instituted by today's Order.[16]

6.2.3. Reduced Clearances for Streetlight/Traffic Signal Poles

PRCs 7, 9, and 11 establish a uniform clearance requirement for power line service drops, multi-conductor cables, messengers, and metal-sheathed cables (all without mechanical protection from abrasion) that pass by non-climbable

[16] PRC 3 addresses two subjects: the elimination of provisions in Rule 38 regarding open wire communication conductors and the elimination of the 10-inch vertical clearance requirement between communications cables and antennas that owned/operated by the same entity. Because neither subject will be considered in the rulemaking proceeding instituted by today's Order, all of PRC 3 is excluded from the rulemaking proceeding.

street light poles and/or traffic signal poles, including mastarms and fixtures. The following table shows the current and proposed clearance requirements:

Current and Proposed Clearance Requirements for Facilities Passing Non-Climbable Street Light Poles and/or Traffic Signal Poles				
PRC	**GO 95 Rule**	**Facility (Without Mechanical Protection from Abrasion)**	**Clearance Requirement**	
			Current	**Proposed**
7	54.8-D(1)	Power Line Service Drop 0 – 750 Volts	12 inches	12 inches
9	54.10-B(2)	Low Voltage Multi-Conductor Cable with Bare Neutral, 0 – 750 Volts	36 inches	12 inches
11	57.4-H	Messengers and Metal-Sheathed Cables that Are Bonded and Grounded	15 inches	12 inches

PRC 7 revises the existing text of Rule 54.8-D(1) to conform to the proposed changes to the text of Rules 54.10-B(2) and 57.4-H in PRCs 9 and 11, respectively. PRCs 9 and 11 reduce existing clearances of 36 inches and 15 inches, respectively, to conform to the existing clearance of 12 inches in Rule 54.8-D(1). The Rules Committee states that because the physical characteristics of the facilities in the above table are similar, it is reasonable to have a uniform clearance of 12 inches as set forth in Rule 54.8-D(1).

In deciding whether to include PRCs 7, 9, and 11 in the rulemaking proceeding instituted by this Order, we start with the premise that the existing clearance requirements help to protect safety and maintain reliability. The Rules Committee did not show that the existing requirements are unduly burdensome or that reducing clearance requirements would have no adverse effect on safety or reliability. Nor did the Rules Committee explain why the Commission originally adopted different clearances for different facilities or why the original basis for different clearances is no longer relevant. As a result, the

Rules Committee has not demonstrated to our satisfaction that PRCs 7, 9, and 11 should be considered in the rulemaking proceeding instituted by today's Order.

6.2.4. Reduced Requirements for Spreader Brackets

Rule 54.12-D requires a vertical separation of at least eight inches between power lines of 0 – 750 volts for "extended rack" construction. Rule 54.12-D(1) requires the vertical separation of eight inches to be maintained in-span with spreader brackets. Rule 54.12-D(2) limits the maximum span between spreader brackets, or between spreader brackets and poles, to 135 feet. PRC 10 eliminates the requirement to use spreader brackets to maintain in-span vertical separation and increases from 135 feet to 200 feet the maximum span between spreader brackets, or between spreader brackets and poles.

The Rules Committee believes it is safe to relax the requirements in Rule 54.12-D regarding the use of spreader brackets for "extended rack" construction because there are no requirements in Rule 54.9-D regarding the use spreader brackets for "rack" construction. The difference between "extended rack" and "rack" construction, according to the Rules Committee, is that power lines in extended rack construction are installed at least 15 inches from the centerline of the support pole versus less than 15 inches for rack construction.

In deciding whether to include PRC 10 in the rulemaking proceeding instituted by this Order, we start with the premise that the existing requirements regarding the use of spreader brackets for extended rack construction help to protect safety and maintain reliability. The Rules Committee provided no information that shows these requirements are unduly burdensome. As a result, the Rules Committee has not demonstrated to our satisfaction that PRC 10 should be considered in the rulemaking proceeding instituted by today's Order.

We are not persuaded that the absence of requirements in Rule 54.9-D regarding the use of spreader brackets for rack construction is relevant to extended rack construction. Rule 54.9-D has been in effect essentially unchanged since GO 95 was adopted in 1941. In contrast, Rule 54.12-D, which sets forth requirements for the use of spreader brackets with respect to extended rack construction, was adopted by Resolution SU-10 in 1992. It is notable that the Commission in Resolution SU-10 found it necessary to mandate the use of spreader brackets for extended rack construction, despite having no such requirement for rack construction during the previous 50 years. The Rules Committee did not identify the reasons why it was necessary to require spreader brackets for extended rack construction when Rule 54.12-D was adopted in 1992 or explain why these reasons are no longer relevant.[17]

6.2.5. Revised Rules for Operating Mechanisms

PRC 13 proposes several changes to Rule 58.3-D, which contains a number of requirements to protect workers from electrocution when using manual operating mechanisms for line switches and disconnects. We conclude that two parts of PRC 13 should be excluded from the rulemaking proceeding.[18] First, PRC 13 replaces the term "mechanism" with "rod" or "handle." As SED aptly observes, the term "mechanism" is broader than "rod" or "handle" because a "mechanism" includes rods, handles, and other components. Thus, the effect of this proposal is to narrow the scope of Rule 58.3-D and its safety requirements.

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[17] Resolution SU-10 does not explain why spreader brackets were deemed necessary for extended rack construction.

[18] The remainder of PRC 13 is included in the rulemaking proceeding for the reasons discussed previously in today's Order.

Second, PRC 13 reduces the clearances between non-metallic operating rods and conductors below the switch level (e.g., from 24 inches to 3 inches for conductors operating at 22,000 volts). The only rationale the Rules Committee offers for reducing clearances is that doing so would align GO 95 with industry practice. In our judgment, this is not a sufficient reason to consider a reduction in clearances that help to protect safety and maintain reliability.

6.3. Preliminary Scoping Memo

For the preceding reasons, today's Order institutes a rulemaking proceeding pursuant to Pub. Util. Code § 1708.5. This Order Instituting Rulemaking (OIR) contains a preliminary scoping memo pursuant to Rule 7.1(d) of the Commission's Rules of Practice and Procedure[19] that sets forth the scope and schedule of this rulemaking proceeding, preliminarily determines the category of this proceeding and the need for hearings, and addresses other matters that are customarily the subject of scoping memos.

6.3.1. Scope

The scope of this rulemaking proceeding is to consider and possibly adopt the proposed amendments to GO 95 set forth in Appendix B of this OIR (referred to hereafter as "proposed rule changes" or PRCs). The adopted PRCs, if any, should achieve one or more of the following objectives:

- Improved safety for workers or the public.
- Enhanced reliability for utility facilities or services.
- Increased efficiency for utility facilities or operations.
- Correction of errors in GO 95 or other technical revisions.

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[19] In this preliminary scoping memo, all references to the term "Rule" refer to the Commission's Rules of Practice and Procedure unless otherwise indicated.

There should be no tradeoff among the objectives. For example, an adopted PRC should not increase safety at the expense of reliability.

The following issues are within the scope of this proceeding:

- The costs and benefits, broadly construed, of each PRC.
- The specific changes to GO 95 that are necessary to fully integrate the adopted PRCs, if any, including ancillary changes to GO 95 tables of contents, index, and internal cross references.
- Alternative PRCs recommended by interested parties that address the same rules and provisions in GO 95 as the PRCs in Appendix B of this OIR.
- The environmental impacts, if any, of each PRC.
- Implementation issues/timeframe for the adopted PRCs (if any).

Consistent with Rule 6.3(a), any amendments to GO 95 adopted in this rulemaking proceeding will apply prospectively. The assigned Commissioner may refine the scope of this proceeding, as appropriate, in the scoping memo issued pursuant to Rule 7.3(a).

6.3.2. Schedule

The preliminary schedule is summarized below. It may be revised by the assigned Commissioner or the assigned ALJ, as appropriate, to develop an adequate record, provide due process, and conduct this rulemaking proceeding in an orderly and efficient manner.

Preliminary Schedule for the Rulemaking Proceeding	
Event	**Date (Measured from the Date this OIR Is Issued)**
All Party Meeting(s) Arranged by the Rules Committee	Completed within 50 Days
Combined Prehearing Conference Statements and Opening Comments Filed and Served	Day 60
Reply Comments Filed and Served	Day 70
Prehearing Conference (PHC)	To be determined
Evidentiary Hearings and Briefs, if Needed	To be determined
Projected Submission Date	To be determined

The Rules Committee shall organize, chair, and notice at least one all-party meeting where the parties shall work collaboratively to (1) identify areas of consensus regarding matters within the scope of this proceeding; (2) identify disputed issues; and (3) reach an agreement, if possible, on the schedule for this proceeding and appropriate procedures for resolving disputed issues. The Rules Committee may select co-chairs to help with these tasks.[20] The parties are encouraged to hold additional meetings to settle disputed issues, if appropriate.

The combined PHC statements and opening comments due on Day 60 should address the following matters:

- The matters set forth in Rule 6.2 of the Commission's Rules of Practice and Procedure.

[20] A potential template for conducting the all-party meeting(s) is provided in Appendix D of the *Phase 3, Track 3 Technical Panel Report For Workshops Held June - September 2013* that was filed in Rulemaking 08-11-005 on September 23, 2013.

- The party's positions and recommendations regarding the matters within the scope of this proceeding, including:
  - Specific proposed changes to the text of GO 95 that implement each PRC in Appendix B of this Order (or the party's alternate PRCs) and ancillary revisions to GO 95's tables of contents, index, and internal cross references.
  - The costs and benefits of each PRC, including:
    - Economic costs and benefits.
    - Impact on worker safety.
    - Impact on public safety.
    - Impact on service reliability.
  - An explanation regarding why each PRC is, or is not, in the public interest.
  - The potential environmental impacts of each PRC.
  - Whether adoption of each PRC is exempt from the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA) and, if so, why. If not, what steps need to occur under CEQA and/or NEPA before the PRC can be adopted.
  - Implementation issues/timeframe for the adopted PRCs (if any).
  - The process, procedures, and schedule for addressing issues within the scope of this proceeding, including all major events contemplated by the party, such as additional written comments, workshops, workshop reports, mediation, discovery cutoff, written testimony, evidentiary hearings, briefs, and other events.
  - Whether Commission-assisted alternative dispute resolution, such as mediation, would be useful in resolving disputed issues.
  - Whether an evidentiary hearing is needed. Any party who believes an evidentiary hearing is needed must (i) identify and describe the material factual issues that will be litigated; and (ii) provide a schedule for all hearing-related events.
  - Any other matters that are relevant to the scope, schedule, and/or conduct of this rulemaking proceeding.

The opening and reply comments should fully describe and explain a party's positions, arguments, and recommendations, as there might not be another opportunity to do so in this proceeding.

The assigned Commissioner and/or assigned ALJ will schedule a PHC as soon as practicable. Consistent with Rule 6.2 and the statutory deadline for quasi-legislative proceedings in Pub. Util. Code § 1701.5, we expect this proceeding to conclude within 18 months from the date the scoping memo is issued. The actual schedule for this proceeding will be determined by the assigned Commissioner in the scoping memo issued pursuant to Rule 7.3(a).

6.3.3. Proceeding Category and the Need for Hearings

Pursuant to Rule 7.1(d), we preliminarily determine that the category for this rulemaking proceeding is quasi-legislative as that term is defined in Rule 1.3(d), and that there is no need for evidentiary hearings in this proceeding. As permitted by Rule 6.2, parties may address these preliminary determinations (and all other determinations in this preliminary scoping memo) in their written comments that are filed and served in accordance with the previously identified schedule for this proceeding. The assigned Commissioner will make a final determination regarding the category of this proceeding and the need for hearings in a scoping memo issued pursuant to Rules 7.1(d) and 7.3(a).

6.3.4. Official Service List

Placement on the official service list for this rulemaking proceeding is governed by Rule 1.9(f). Any person or entity that files comments in this rulemaking proceeding pursuant to Rule 6.2 will automatically become a party pursuant to Rule 1.4(a)(2)(ii). The due date for comments is set forth previously in this preliminary scoping memo. Other persons and entities may request party status in this rulemaking proceeding by motion pursuant to Rule 1.4(a)(3) or (4).

The Commission's practice is to list only one representative per party in the "Parties" category of the official service list. Other representatives for the same party may be placed on the service list in the "State Service" category or the "Information Only" category using the procedures identified below.

Anyone can receive electronic service of documents in this rulemaking proceeding by asking to be placed on the official service list for this proceeding in the "Information Only" category. Such requests should be sent to the Commission's Process Office by e-mail (ProcessOffice@cpuc.ca.gov) or by letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102). The request should include the following information:

- Docket Number of this rulemaking proceeding.
- Name of the person (and the entity represented, if applicable).
- E-mail address (if available).[21]
- Postal address.
- Desired category (Information Only or State Service).

Employees of the State of California who wish to receive service of documents may be added to the service list in the "State Service" category using the procedures described previously for the "Information Only" category.

To ensure receipt of all documents, requests to be added to the official service list should be sent to the Process Office as soon as practical.[22] The

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[21] Non-parties, other than those eligible for addition to the service list as "State Service," must provide an e-mail address in order to receive service of documents that are not required to be served by hard copy. (See Rule 1.10(b).)

[22] To ensure service of all documents prior to obtaining party status, persons should promptly request addition to the "Information Only" category or "State Service" category as described above. Such persons will be removed from that category upon obtaining party status.

Commission's Process Office will publish the official service list on the Commission's website (www.cpuc.ca.gov) and update the list as necessary.

All persons and entities on the official service list for Petition 14-02-010 will be placed in the "Information Only" category of the official service list for the newly instituted rulemaking proceeding. These persons and entities may be moved to the "Parties" category or the "State Service" category for this rulemaking proceeding using the procedures identified previously.

6.3.5. Updating and Correcting the Official Service List

It is the responsibility of each person or entity on the official service list to ensure that their information on the service list (e.g., the name and e-mail address of a party's representative) is correct and up to date. This information can be corrected and updated by sending an e-mail or letter to the Process Office.

6.3.6. Document Subscription Service

Persons may monitor this rulemaking proceeding by subscribing to receive electronic copies of documents in this proceeding that are published on the Commission's website. There is no need to be on the official service list in order to use the subscription service. Instructions for using the subscription service are available on the Commission's website at http://subscribecpuc.cpuc.ca.gov/.

6.3.7. Filing and Serving Documents

All documents that are filed and/or served in this proceeding must comply with Article 1 of the Commission's Rules of Practice and Procedure. (See particularly Rules 1.5 - 1.10 and 1.13.) Questions about filing and/or serving documents may be directed to the Commission's Docket Office by telephone ((415) 703-2121) or by e-mail (efile-help@cpuc.ca.gov). The assigned Commissioner and the assigned ALJ may establish additional requirements for filing and/or serving documents in this proceeding.

6.3.8. E-Mail Communications

E-mail communications in this rulemaking proceeding should include on the subject line the docket number for this proceeding and a brief description of the contents of the e-mail (e.g., motion for party status, opening comments, etc.).

6.3.9. Public Advisor

Anyone interested in participating in this rulemaking proceeding who is unfamiliar with the Commission's procedures may obtain assistance by calling or e-mailing the Commission's Public Advisor as follows:

Contact Information for the Public Advisor	
Toll Free Number	(866) 849-8390
Regular Number	(415) 703-2074
TTY-Toll Free Number	(866) 836-7825
E-mail Address	public.advisor@cpuc.ca.gov

6.3.10. Intervenor Compensation

In accordance with Pub. Util. Code § 1804(a)(1) and Rule 17.1(a), notices of intent to claim intervenor compensation in the rulemaking proceeding must be filed and served no later than 30 days after the date of the PHC.

6.3.11. Ex Parte Communications

Communications with decision makers and advisors in this rulemaking proceeding are governed by Article 8 of the Rules of Practice and Procedure.

7. Service of the Order Instituting Rulemaking

In the interest of broad notice, the Executive Director shall serve this OIR on the service lists for the following proceedings involving GO 95, with such service to be effected in accordance with Rule 1.10:

> **Petition 14-02-010 (**re: Petition of the General Order 95/128 Rules Committee to Adopt, Amend, or Repeal a Regulation Pursuant to Pub. Util. Code § 1708.5.)
>
> **Rulemaking 08-11-005** (re: Rulemaking to Revise and Clarify Commission Regulations Relating to the Safety of Electric Utility and Communications Infrastructure Provider Facilities.)
>
> **Rulemaking 01-10-001** (re: Rulemaking to Revise Commission General Order Numbers 95 and 128.)

Service of this OIR does not confer party status or place a person who has received such service on the official service list for this rulemaking proceeding.

8. Closure of the Docket for Petition 14-02-010

This OIR closes the docket for Petition 14-02-010. All documents that are filed and/or served in the rulemaking proceeding instituted by this OIR should have the caption for the rulemaking proceeding (and not for Petition 14-02-010).

9. Assignment of Petition 14-02-010

Michael R. Peevey is the assigned Commissioner for Petition 14-02-010 and Timothy Kenney is the assigned ALJ.

Findings of Fact

1. Petition 14-02-010 asks the Commission to institute a rulemaking proceeding pursuant to Pub. Util. Code § 1708.5 to consider 29 proposals (which the Petition refers to as "proposed rule changes" or "PRCs") to amend GO 95.
2. Prior to filing Petition 14-02-010, the Rules Committee held good-faith meet-and-confer discussions with SED regarding the content of the Petition.
3. Petition 14-02-010 provides a concise justification for each PRC and specific wording for each proposed amendment to GO 95.
4. None of the PRCs in Petition 14-02-010 have been litigated previously before the Commission.

5. The PRCs set forth in Appendix B of this Order appear reasonably formulated to achieve one or more of the following objectives:

i. Improved safety for workers and/or the public.
ii. Enhanced reliability of utility facilities and/or services.
iii. Increased efficiency of utility facilities and/or services.
vi. Correction of errors in GO 95 and other technical revisions.

6. For the reasons set forth in the body of this Order, there is insufficient justification at this time to use scarce Commission resources to consider the PRCs that are not included in Appendix B of this Order.

Conclusions of Law

1. The PRCs in Petition 14-02-010 apply to an entire class of future activities over which the Commission has jurisdiction.

2. Petition 14-02-010 complies with D.05-01-030 and Rule 6.3 of the Commission's Rules of Practice and Procedure.

3. The Commission has broad discretion to grant or deny a petition for rulemaking filed pursuant to Pub. Util. Code § 1708.5.

4. For the reasons stated in Findings of Fact 5 and 6, it is in the public interest to grant Petition 14-02-010 to the extent the Petition asks the Commission to institute a rulemaking proceeding to consider and possibly adopt the proposed amendments to GO 95 set forth in Appendix B of this OIR. The Petition should be denied in all other respects without prejudice.

5. The following Order should be effective immediately so that the rulemaking proceeding instituted by the Order may commence forthwith.

O R D E R

IT IS ORDERED that:

1. A rulemaking proceeding is instituted to consider and possibly adopt the proposed amendments to General Order 95 that are set forth in Appendix B of this Order. The assigned Commissioner may determine the specific issues that are within the scope of this rulemaking proceeding.
2. The preliminary schedule for this rulemaking proceeding is set forth in the body of this Order. The assigned Commissioner and/or the assigned Administrative Law Judge may modify the proceeding schedule for the reasonable, efficient, and orderly conduct of this proceeding.
3. The preliminary category for this rulemaking proceeding is quasi-legislative. There is no preliminary need for an evidentiary hearing in this rulemaking proceeding.
4. All persons and entities on the official service list for Petition 14-02-010 shall be placed on the official service list for this rulemaking proceeding in the "Information Only" category. These persons and entities may request to be moved to the "Parties" category or the "State Service" category on the official service list for this rulemaking proceeding in accordance with the procedures identified in the body of this Order.
5. Pursuant to Public Utilities Code Section 1804(a)(1) and Rule 17.1(a) of the Commission's Rules of Practice and Procedure, the deadline in this rulemaking proceeding to file and serve notices of intent to claim intervenor compensation is 30 days after the date of the prehearing conference.

6. The Executive Director shall serve this Order Instituting Rulemaking on the official service lists for Petition 14-02-010, Rulemaking 08-11-005, and Rulemaking 01-10-001 in accordance with Rule 1.10 of the Commission's Rules of Practice and Procedure.

7. Petition 14-02-010 is granted to the extent the Petition is consistent with the scope, schedule, category, need for hearings, and procedures for this rulemaking proceeding as set forth in the previous Ordering Paragraphs. The Petition is denied in all other respects without prejudice.

8. Petition 14-02-010 is closed.

This Order is effective today.

Dated _____, at San Francisco, California.

Appendix A: Petition's Proposed Revisions to GO 95

Petition 14-02-010's proposed revisions to GO 95 are shown below with underline for new text and strikethrough for deleted text.

Note: Proposed Rule Change (PRC) 4 in Petition (P.) 14-02-010 mistakenly indicates that the PRC applies to Rule 38. PRC 4 actually applies to Rule 39 (and not Rule 38). This error is corrected in the PRCs reproduced below.

Note: PRC 7 mistakenly recommends that Rule 54.8-D(1) should be amended to reduce the specified radial clearance from 15 inches to 12 inches. The Rules Committee acknowledged in a document filed on May 2, 2014, at page 2, Item 1, that the specified radial clearance in Rule 54.8-D(1) is already 12 inches. This error is corrected (i.e., the erroneous part of PRC 7 is not included) in the PRCs reproduced below.

Note: PRC 9 mistakenly inserts the word "unless" in place of the correct word "when" in the current text of Rule 54.10-B(2). This error is corrected (i.e., the word "when" is used) in the PRCs reproduced below.

Note: PRC 9 does not show with underlined font the following sentence that the PRC adds to Rule 54.10-B(2): "This clearance may be reduced provided the cables are mechanically protected from abrasion." This sentence is shown with underlined font in the PRCs reproduced below.

Note: PRC 13 mistakenly indicates that it is proposing, among other things, two new rules identified as Rules 58.3-D(1)(b)(i) and (ii). These two rules already exist as Rules 58.3-D(2)(a) and (b). This mistake is corrected in the PRCs reproduced below.

Note: PRC 14 mistakenly indicates that Rule 81.3-A uses the term "Grade F" construction instead of the correct term "Grade C" construction. This error is corrected (i.e., the term "Grade C" is used) in the PRCs reproduced below.

Note: PRC 24 provides an incorrect rationale for the proposed changes to Figure 84-3. The Rules Committee provided a correct rationale in a document filed on May 6, 2014, at pages 3 - 4, Item 4. The correct rationale is included in the PRCs reproduced below.

Note: PRC 25 omits a rationale for the proposed new Figure 84-4. The Rules Committee provided a rationale for PRC 25 in a document filed on May 6, 2014, at page 4, Item 5. This rationale is included in the PRCs reproduced below.

Note: PRC 26 omits a rationale for the proposed renumbered Figure 84-5. A note is added to the PRCs reproduced below that indicates PRC 26 consists of renumbering the existing Figure 84-4 to Figure 84-5.

Note: The text of the PRCs appended to P.14-02-010 included several non-substantive typographical errors that are corrected in the PRCs reproduced below.

Proposed Rule Change 1 re: Rule 20.9

Strikeout / Underline

20.9 Conductor means a material suitable for: (1) carrying electric current, usually in the form of a wire, cable or bus bar, or (2) transmitting light in the case of fiber optics.

Note: Revised November 21, 1990 by Resolution SU–6.

A. Bundle Conductor means a group of conductors of the same phase and polarity.

B. Lateral Conductor means a conductor extending in a general horizontal direction and usually at an angle of approximately 90 degrees to the direction of the line conductors.

C. Line Conductor means an overhead conductor which extends from the last point of support on one overhead line structure to the first point of support on another overhead line structure.

~~**D. Open Wire Conductors** mean communication conductors separately supported.~~

~~E.~~D. **Unprotected Conductors** mean supply conductors, including but not limited to lead wires, not enclosed in a grounded metal pole or not covered by: a "suitable protective covering" (see Rule 22.8), grounded metal conduit, or grounded metal sheath or shield. Provisions for the use of such types of coverings are specified in certain of these rules.

Proposed Final

20.9 Conductor means a material suitable for: (1) carrying electric current, usually in the form of a wire, cable or bus bar, or (2) transmitting light in the case of fiber optics.

Note: Revised November 21, 1990 by Resolution SU–6.

A. Bundle Conductor means a group of conductors of the same phase and polarity.

B. Lateral Conductor means a conductor extending in a general horizontal direction and usually at an angle of approximately 90 degrees to the direction of the line conductors.

C. Line Conductor means an overhead conductor which extends from the last point of support on one overhead line structure to the first point of support on another overhead line structure.

D. Unprotected Conductors mean supply conductors, including but not limited to lead wires, not enclosed in a grounded metal pole or not covered by: a "suitable protective covering" (see Rule 22.8), grounded metal conduit, or grounded metal sheath

or shield. Provisions for the use of such types of coverings are specified in certain of these rules.

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 2 re: Rule 37, Table 1

Strikeout / Underline

Table 1: Basic Minimum Allowable Vertical Clearance of Wires above Railroads, Thoroughfares, Ground or Water Surfaces; Also Clearances from Poles, Buildings, Structures or Other Objects (nn) (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following This Table)

Case No.	Nature of Clearance	Wire or Conductor Concerned						
		A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers	B Communication Conductors, ~~(Including Open Wire~~, Cables and Service Drops), Supply Service Drops of 0 - 750 Volts	C Trolley Contact, Feeder and Span Wires, 0 - 5,000 Volts	D Supply Conductors of 0 - 750 Volts and Supply Cables Treated as in Rule 57.8	E Supply Conductors and Supply Cables, 750 - 22,500 Volts	F Supply Conductors and Supply Cables, 22.5 - 300 kV	G Supply Conductors and Supply Cables, 300 - 550 kV (mm)
1	Crossing above tracks of railroads which transport or propose to transport freight cars (maximum height 15 feet, 6 inches) where not operated by overhead contact wires. (a) (b) (c) (d)	25 Feet	25 Feet	22.5 Feet	25 Feet	28 Feet	34 Feet	34 Feet (kk)
2	Crossing or paralleling above tracks of railroads operated by overhead trolleys. (b) (c) (d)	26 Feet (e)	26 Feet (e) (f) (g)	22.5 Feet (h) (i) (eee)	27 Feet (e) (g)	30 Feet (g)	34 Feet (g)	34 Feet (g) (kk)
3	Crossing or along thoroughfares in urban districts or crossing thoroughfares in rural districts. (c) (d)	18 Feet (j) (k) (ii)	18 Feet (j) (l) (m) (ii) ~~(aa)~~ (kkk)	19 Feet (hh) (eee)	20 Feet (ii)	25 Feet (o) (ii)	30 Feet (o) (ii)	30 Feet (o) (ii) (kk)
4	Above ground along thoroughfares in rural districts or across other areas capable of being traversed by vehicles or agricultural equipment.	15 Feet (k)	15 Feet (m) (n) (p)	19 Feet (eee)	19 Feet	25 Feet (o)	30 Feet (o) (p)	30 Feet (o) (kk)
5	Above ground in areas accessible to pedestrians only	8 Feet	10 Feet (m) (q)	19 Feet (eee)	12 Feet	17 Feet	25 Feet (o)	25 Feet (o) (kk)
6	Vertical clearance above walkable surfaces on buildings, (except generating plants or substations) bridges or other structures which do not ordinarily support conductors, whether attached or unattached.	8 Feet (r)	8 Feet (r)	8 Feet	8 Feet	12 Feet	12 Feet	20 Feet (ll)
6a	Vertical clearance above non–walkable surfaces on buildings, (except generating plants or substations) bridges or other structures, which do not ordinarily support conductors, whether attached or unattached	2 Feet	8 Feet (yy)	8 Feet	8 Feet (zz)	8 Feet	8 Feet	20 Feet
7	Horizontal clearance of conductor at rest from buildings (except generating plants and substations), bridges or other structures (upon which men may work) where such conductor is not attached thereto (s) (t)	-	3 Feet (u)	3 Feet	3 Feet (u) (v)	6 Feet (v)	6 Feet (v)	15 Feet (v)
8	Distance of conductor from center line of pole, whether attached or unattached (w) (x) (y)	-	15 inches (s) (aa)	15 inches (aa) (bb) (cc)	15 inches (o) (aa) (dd)	15 or 18 inches (o) (dd) (ee) (jj)	18 inches (dd) (ee)	Not Applicable
9	Distance of conductor from surface of pole, crossarm or other overhead line structure upon which it is supported, providing it complies with case 8 above (x)	-	3 inches (aa) (ff)	3 inches (aa) (cc) (gg)	3 inches (aa) (dd) (gg)	3 inches (dd) (gg) (jj)	1/4 Pin Spacing Shown in Table 2 Case 15 (dd)	1/2 Pin Spacing Shown in Table 2 Case 15 (dd)

Rule 37, Table 1 (continued) Strikeout / Underline

Table 1 (Continued)

Case No.	Nature of Clearance	Wire or Conductor Concerned						
		A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers	B Communication Conductors, ~~(Including Open Wire~~, Cables, and Service Drops), Supply Service Drops of 0 - 750 Volts	C Trolley Contact, Feeder and Span Wires, 0 - 5,000 Volts	D Supply Conductors of 0 - 750 Volts and Supply Cables Treated as in Rule 57.8	E Supply Conductors and Supply Cables, 750 - 22,500 Volts	F Supply Conductors and Supply Cables, 22.5 - 300 kV	G Supply Conductors and Supply Cables, 300 - 550 kV (mm)
10	Radial centerline clearance of conductor or cable (unattached) from non-climbable street lighting or traffic signal poles or standards, including mastarms, brackets and lighting fixtures, and from antennas that are not part of the overhead line system.	-	1 Foot (u) (rr) (ss)	15 inches (bb) (cc)	3 Feet (oo)	6 Feet (pp)	10 Feet (qq)	10 Feet (ll)
11	Water areas not suitable for sailboating (tt) (uu) (ww) (xx)	15 Feet	15 Feet	-	15 Feet	17 Feet	25 Feet	25 Feet (kk)
12	Water areas suitable for sailboating, surface area of: (tt) (vv) (ww) (xx)							
	(A) Less than 20 acres	18 Feet	18 Feet	-	18 Feet	20 Feet	27 Feet	27 Feet (kk)
	(B) 20 to 200 acres	26 Feet	26 Feet	-	26 Feet	28 Feet	35 Feet	35 Feet (kk)
	(C) Over 200 to 2,000 acres	32 Feet	32 Feet	-	32 Feet	34 Feet	41 Feet	41 Feet (kk)
	(D) Over 2,000 acres	38 Feet	38 Feet		38 Feet	40 Feet	47 Feet	47 Feet (kk)
13	Radial clearance of bare line conductors from tree branches or foliage (aaa) (ddd)	-	-	18 inches (bbb)	-	18 inches (bbb)	1/4 pin spacing shown in table 2, Case 15 (bbb) (ccc)	1/2 pin spacing shown in table 2, Case 15

References to Rules Modifying Minimum Clearances in Table 1

		Rule
(a)	Shall not be reduced more than 5% because of temperature or loading	37
1	Supply lines	54.4–B1
2	Communication lines	84.4–B1
(b)	Shall be increased for supply conductors on suspension insulators, under certain conditions	37
(c)	Special clearances are provided for traffic signal equipment	58.4–C
(d)	Special clearances are provided for street lighting equipment	58.5–B
(e)	Based on trolley pole throw of 26 feet. may be reduced where suitably protected	56.4–B2
1	Supply guys	56.4–B2
2	Supply cables and messengers	57.4–B2
3	Communication guys	86.4–B2
4	Communication cables and messengers	87.4–B2
(f)	May be reduced depending on height of trolley contact conductors	
1	Supply service drops	54.8–C5
2	Communication service drops	84.8–D5
(g)	May be reduced and shall be increased depending on trolley throw	
1	Supply conductors (except service drops)	54.4–B2
2	Communication conductors (except service drops)	84.4–B2
(h)	May be decreased where freight cars are not transported.	
1.	Trolley contact and feeder conductors.	74.4-B1
2.	Trolley span wires	77.4-A
(i)	May be reduced for trolley contact and span wires in subways, tunnels, under bridges and in fenced areas	
1	Trolley contact conductors	74.4–E
2	Trolley span wires	77.4–B
(j)	May be reduced at crossings over private thoroughfares and entrances to private property and over private property	
1	Supply service drops	54.8–B2
2	Supply guys	56.4–A
3	Communication service drops	84.8–C2
4	Communication guys	86.4–A
(k)	May be reduced along thoroughfares where not normally accessible to vehicles	
1	Supply guys	56.4–A1
2	Communication guys	86.4–A1
(l)	May be reduced where within 12 feet of curb line of public thoroughfares	
1	Supply service drops	54.8–B1
2	Communication service drops	84.8–C1
(m)	May be reduced for railway signal cables under special conditions	84.4–A4
(n)	May be reduced in rural districts	
1	Intentionally left blank	
2	Intentionally left blank	
3	Communication conductors along roads	84.4–A2

References to Rules Modifying Minimum Clearances in Table 1	Rule
(o) May be reduced for transformer, regulator or capacitor leads	
1 Transformer leads	58.1–B
2 Regulator or capacitor leads	58.1–B
(p) May be reduced across arid or mountainous areas	
1 Supply conductors of more than 22,500 volts	54.4–A1
2 Communications conductors	84.4–A1
(q) Shall be increased or may be reduced under special conditions	
1 Supply service drops	54.8–B3
2 Intentionally left blank	
3 Communications conductors	84.4–A3
4 Increased for communication service drops on industrial or commercial premises	84.8–C3a
5 Communication service drops on residential premises	84.8–C3b
(r) May be reduced above roofs of buildings under special conditions	
1 Supply overhead guys	56.4–G
2 Supply service drops	54.8–B4
3 Communication overhead guys	86.4–F
4 Communication conductors and cables	84.4–E
5 Communication service drops	84.8–C4
(s) Also applies at fire escapes, etc.	
1 Supply conductors	54.4–H1
2 Vertical clearances	54.8-B4a
3 Horizontal clearance	54.8–B4b
4 Communication conductors	84.4–E
(t) Special clearances where attached to buildings, bridges or other structures	
1 Supply conductors of 750 - 22,500 volts	54.4–H2
2 Trolley contact conductors	74.4–E
3 Communication conductors	84.4–F
(u) Reduced clearances permitted under special conditions	
1 Supply service drops on industrial or commercial premises	54.8–B4a
2 Supply cables, grounded	57.4–G
3 Communication cables beside buildings, etc.	84.4–E
4 Communication conductors under bridges, etc.	84.4–F
5 Communication service drops	84.8–C4
6 Communication cables passing nonclimbable street light poles, etc.	84.4–D4a
(v) May be reduced under special conditions	
1 Supply conductors of 750 - 7,500 volts	54.4–H1
2 Supply transformer lead and bus wires, where guarded	58.1
(w) May be reduced at angles in lines and transposition points	
1 Supply conductors	54.4–D1
2 Communication conductors	84.4–D5
(x) May be reduced for suitably protected lateral or vertical runs	
1 Supply bond wires	53.4
2 Supply ground wires	54.6–B
3 Supply lateral conductors	54.6–C
4 Supply vertical runs	54.6–D
5 Supply risers	54.6–E
6 Communication ground wires	84.6–B
7 Communication lateral conductors	84.6–C
8 Communication vertical runs	84.6–D
9 Communication risers	84.6–E
(y) Increased clearances required for certain conductors	
1 Unattached conductors on collinear and crossing lines	32.3
2 Unattached supply conductors	54.4–D3
3 Supply service drops on clearance crossarms	54.8–C2
4 Supply service drops on pole top extensions	54.8–C3
5 Unattached supply service drops	54.8–D
6 Communication lines, collinear, conflicting or crossing	84.4–D3
7 Communication conductors passing supply poles and unattached thereto	84.4–D4
8 Communication service drops on clearance crossarms	84.8–D2
9 Communication service drops on pole top extensions	84.8–D3
10 Unattached communication service drops	84.8–E
(z) Special provisions for police and fire alarm conductors require increased clearances	92.2
(aa) May be reduced under special provisions	
1 Supply conductors of 0 - 750 volts in rack configuration	54.4–D5
2 Service supply drops from racks	54.8–F
3 Supply cables and messengers attached to poles	57.4–F
4 Communication conductors on communication poles	84.4–D
5 Communication conductors on crossarms	84.4–D1
6 Communication conductors attached to poles	84.4–D2
7 Communication service drops attached to poles	84.8–B
8 Communication cables and messengers	87.4–D
9 Supply or communication cables and messengers on jointly used poles	92.1–B
~~10 Communication open wire on jointly used poles~~	~~92.1–C~~
~~11~~10 Multiconductor cable with bare neutral	54.10–B1
~~12 Communication conductors across or along public thoroughfares~~	~~84.4–A6~~
(bb) May be reduced for class t conductors of not more than 750 volts and of the same potential and polarity	74.4–D
(cc) Not applicable to trolley span wires	77.4–E
(dd) Special clearances for pole–top and deadend construction	
1 Conductors deadended in vertical configuration on poles	54.4–C4
2 Conductors deadended in horizontal configuration	54.4–D8
(ee) Clearance requirements for certain voltage classifications	54.4–D2
(ff) Not applicable to communication conductors	84.4–D
(gg) Clearance from crossarms may be reduced for certain conductors	
1 Suitable insulated leads to protect runs	54.4–E
2 Leads of 0 - 5,000 volts to equipment	54.4–E
3 Leads of 0 - 5,000 volts to cutouts or switches	58.3–A2
(hh) Reduced clearance permitted from temporary fixtures and lighting circuits 0 - 300 volts	78.3–A1
(ii) Special Clearances Required Above Public and Private Swimming Pools	
1 Supply line conductors	54.4–A3
2 Supply service drops	54.8–B5
3 Communication line conductors	84.4–A5
4 Communication service drops	84.8–C5
5 Supply guys, span wires	56.4–A3
6 Communication guys	86.4–A3
(jj) May be decreased in partial underground distribution	54.4–D2
(kk) Shall be increased by 0.025 feet per kV in excess of 300 kV	

References to Rules Modifying Minimum Clearances in Table 1	Rule
(ll) Shall be increased by 0.04 feet per KV in excess of 300 kV	
(mm) Proposed clearances to be submitted to the CPUC prior to construction for circuits in excess of 550 kV.	
(nn) Voltage shown in the table shall mean line–to–ground voltage for direct current (DC) systems	
(oo) May Be reduced for grounded or multi–conductor cables	
1 Grounded cables	57.4–H
2 Multi–Conductor cables	54.10–B2
(pp) May be reduced to 4 feet for voltages below 7,500 volts	54.4–D3
(qq) May be reduced to 6 feet for voltages below 75 kV	
(rr) May be reduced for supply service drops	54.8–D1
(ss) May be reduced for communications service drops	84.8–E1
(tt) Where a federal agency or surrogate thereof has issued a crossing permit, clearances of that permit shall govern.	
(uu) Or where sail boating is prohibited and where other boating activities are allowed	
(vv) Clearance above contiguous ground shall be 5 feet greater than in cases 11 or 12 for the type of water area served for boat launch facilities and for area contiguous thereto, that are posted, designated or specifically prepared for rigging of sailboats or other watercraft.	
(ww) For controlled impoundments, the surface areas and corresponding clearances shall be based upon the high water level. for other waters, the surface area shall be that enclosed by its annual flood level. the clearance over rivers, streams and canals shall be based upon the largest surface areas of any one–mile long segment which includes the crossing. The clearance over a canal, river or stream normally used to provide access for sailboats to a larger body of water shall be the same as that required for the larger body of water.	
(xx) Water areas are lakes, ponds, reservoirs, tidal waters, rivers, streams and canals without surface obstructions.	
(yy) May be reduced over non–walkable structures	54.8 (Table 10)
(zz) May be reduced to 2 feet for conductors insulated in accordance with	20.9–G
(aaa) Special requirements for communication and supply circuits energized at 0 - 750 volts	35
(bbb) May be reduced for conductor of less than 60,000 volts when protected from abrasion and grounding by contact with tree	35
(ccc) For 22.5 kV to 105 kV, minimum clearance shall be 18 inches.	
(ddd) Clearances in this case shall be maintained for normal annual weather variations, rather than at 60 degrees, no wind.	
(eee) May be reduced to 18 feet if the voltage does not exceed 1000 volts and the clearance is not reduced to more than 5% below the reduced value of 18 feet because of temperature and loading as specified in Rules 37 and 43.	

[Notes (fff) –(jjj), which are not affected by this PRC, are omitted.]

(kkk) For communication conductors across or along public thoroughfares see 84.4–A6

Note: Revised February 1, 1948 by Supplement No. 1 (Decision No. 41134, Case No. 4324); January 2, 1962 by Resolution E–1109; February 7, 1964 by Decision No. 66707; March 29, 1966 by Decision No. 70489; August 9, 1966 by Decision No. 71094; September 18, 1967 by Decision No. 72984; March 30, 1968 by Decision No. 73813; January 8, 1980 by Decision No. 91186; March 9, 1988 by Resolution E–3076; November 21, 1990 by Resolution SU–6; January 21, 1992 by Resolution SU–10; and November 6, 1992 by Resolution SU–15, September 20, 1996 by Decision 96–09–097, October 9, 1996 by Resolution SU-40, January 23, 1997 by Decision 97–01–044 and January 13, 2005 by Decision No. 0501030.

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC #14.)

Reference "aa" is revised by striking Item 10 (a reference to open wire communication conductors) and renumbering existing Item 11 as Item 10.

Case 3, Column B is also revised. Reference "aa-12" was added to Case 3, Column B in error by SU-6 (1990). Prior to SU-6, "aa" was only cited in Cases 8 and 9. The proposed revision strikes "aa-12" and also strikes "aa" from Case 3, Column B. New reference "kkk" is added with the cite to Rule 84.4-A6 and added to Case 3, Column B.

Proposed Rule Change 3 re: Rule 38, Table 2

Strikeout / Underline

Table 2: Basic Minimum Allowable Clearance of Wires from Other Wires at Crossings, in Midspans and at Supports (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following This Table) All Clearances are in Inches

Case No.	Nature of Clearance and Class and Voltage of Wire, Cable or Conductor Concerned	Other Wire, Cable or Conductor Concerned										
					Supply Conductors (Including Supply Cables)							
		A Span Wires, Guys and Messengers	B Trolley Contact Conductors 0 – 750 Volts	C Communication Conductors, ~~(Including Open Wire~~, Cables and Service Drops)	D 0 – 750 Volts (Including Service Drops) and Trolley Feeders (a)	E 750 - 7,500 Volts	F 7,500 - 20,000 Volts	G 20,000 - 35,000 Volts	H 35,000 - 75,000 Volts	I 75,000 - 150,000 Volts	J 150,000 - 300,000 Volts	K (kk) 300,000 - 550,000 Volts
	Clearance between wires, cables and conductors not supported on the same poles, vertically at crossings in spans and radially where colinear or approaching crossings											
1	Span wires, guys and messengers (b)	18 (c)	48 (d, e)	24 (e)	24 (e)	36 (f)	36	72	72	78	78 (gg)	138 (hh)
2	Trolley contact conductors, 0 - 750 volts	48 (d, e)	-	48 (d)	48 (d, h)	48	72	96	96	96	96 (gg)	156 (hh)
3	Communication conductors	24 (e)	48 (d)	24	48 (i)	48 (dd)	72	96	96	96	96 (gg)	156 (hh)
4	Supply conductors, service drops and trolley feeders, 0 - 750 volts (qq)	24 (e)	48 (d, h)	48 (i)	24	48	48	96 (oo)	96	96	96(gg)	156 (hh)
5	Supply conductors, 750 - 7,500 volts (qq)	36 (f)	48	48 (dd)	48	48 (h)	72	96 (oo)	96	96	96(gg)	156 (hh)
6	Supply conductors, 7,500 - 20,000 volts (qq)	36	72	72	48	72	72	96 (oo)	96	96	96 (gg)	156 (hh)
7	Supply conductors, more than 20,000 volts (qq)	72 (g)	96 (g)	96 (g)	96 (g, oo)	96 (g, oo)	96 (g, oo)	96 (g, oo)	96 (g)	96	96 (gg)	156 (hh)
	Vertical separation between conductors and/or cables, on separate crossarms or other supports at different levels (excepting on related line and buck arms) on the same pole and in adjoining midspans											
8	Communication Conductors and Service Drops	-	-	12 (j, rr)	48 (k, l, m, n, pp)	48 (k)	72 (m n)	72 (m)	72	78	87 (gg)	147 (hh)
9	Supply Conductors Service Drops and Trolley Feeders, 0 - 750 Volts	-	-	48 (k, l, m, n, pp)	24 (h, k, m, o)	48 (k, m, p)	48 (k, m, q)	72 (m, nn)	72	78	87 (gg)	147 (hh)

Rule 38, Table 2 (continued) Strikeout / Underline

Table 2 (Continued)

		Other Wire, Cable or Conductor Concerned										
					Supply Conductors (Including Supply Cables)							
Case No.	Nature of Clearance and Class and Voltage of Wire, Cable or Conductor Concerned	A Span Wires, Guys and Messengers	B Trolley Contact Conductors 0 – 750 Volts	C Communication Conductors ~~(Including Open Wire~~, Cables and Service Drops)	D 0 – 750 Volts (Including Service Drops) and Trolley Feeders (a)	E 750 - 7,500 Volts	F 7,500 - 20,000 Volts	G 20,000 - 35,000 Volts	H 35,000 - 75,000 Volts	I 75,000 - 150,000 Volts	J 150,000 - 300,000 Volts	K (kk) 300,000 - 550,000 Volts
10	Supply conductors, 750 – 7,500 volts	-	-	48 (k)	48 (k, m, p)	48 (m, o, r, ee)	48 (m, q)	48 (m, q)	48 (q)	60 (ff)	90 (gg)	150 (hh)
11	Supply conductors, 7,500 – 20,000 volts	-	-	72 (m, n)	48 (k, m, q)	48 (m, q)	48 (m, o, q, r, ee)	48 (m, q)	48 (q)	60 (ff)	90 (gg)	150 (hh)
12	Supply conductors, 20,000 – 75,000 volts	-	-	72 (m)	72 (m)	48 (m, q)	48 (m, q)	48 (o, q)	48 (o, q)	60 (ff)	90 (gg)	150 (hh)
13	Supply conductors, more than 75,000 volts	-	-	72	72	60 (q)	60 (q)	60 (q)	60 (q)	60 (ff)	90 (gg)	150 (hh)
	Vertical clearance between conductors on related line arms and buck arms											
14	Line arms above or below related buck arms (s, t)	-	-	6	12 (u)	18 (u)	18 (u)	24	48	60 (ff)	90 (gg)	150 (hh)
	Horizontal separation of conductors on same crossarm											
15	Pin spacing of longitudinal conductors vertical conductors and service drops (v, w)	-	-	3 (x)	11–1/2 (h, x)	11 1/2 (x)	17–1/2 (x)	24 (x)	48	60 (ff)	90 (gg)	150 (hh)
	Radial separation of conductors on same crossarm, pole or structure—incidental pole wiring											
16	Conductors, taps or lead wires of different circuits (v, y, s)	-	-	3 (x)	11–1/2 (h, x)	11 ½ (x)	17–1/2 (x)	24 (x)	48	60 (ff)	90 (gg)	150 (hh)
16a	Uncovered, grounded, non-dielectric fiber optic cables on metallic structures, in transition (ss)	-	15	15	15	18	18	18	18	24	36	120
17	Conductors, taps or lead wires of the same circuit (v, s, aa)	-	-	3	3	6	6	12	24	60 (ff)	90 (gg)	150 (hh)
	Radial separation between guys and conductors											
18	Guys passing conductors supported on other poles, or guys approximately parallel to conductors supported on the same poles	-	-	3	11–1/2	11–1/2	17–1/2	24	36	36 (ff)	78 (gg)	138 (hh)

Rule 38, Table 2 (continued), Strikeout / Underline

Table 2 (Continued)

		Other Wire, Cable or Conductor Concerned										
					Supply Conductors (Including Supply Cables)							
Case No.	Nature of Clearance and Class and Voltage of Wire, Cable or Conductor Concerned	A Span Wires, Guys and Messengers	B Trolley Contact Conductors 0 – 750 Volts	C Communication Conductors ~~(Including Open Wire~~, Cables and Service Drops)	D 0 – 750 Volts (Including Service Drops) and Trolley Feeders (a)	E 750 - 7,500 Volts	F 7,500 - 20,000 Volts	G 20,000 - 35,000 Volts	H 35,000 - 75,000 Volts	I 75,000 - 150,000 Volts	J 150,000 - 300,000 Volts	K (kk) 300,000 - 550,000 Volts
19	Guys and span wires passing conductors supported on the same poles	(cc)	-	3 (bb)	3	6	9	12	18	24	48 (ii)	86 (jj)
	Vertical and horizontal insulators clearances between conductors											
20	Vertical clearance between conductors of the same circuit on horizontal insulators	-	-	-	-	24	24	24	36 or 48 (ll, mm)	48 (mm)	48 (mm)	48 (mm)
	Vertical clearance above supply and/or communication lines											
21	Antennas and associated elements on the same support structure. (tt, uu)	24 (vv)	48 (vv)	24 (ww)	48 (vv, xx)	72	72	72	120 (vv, yy)	-	-	-

References to Rules Modifying Minimum Clearances in Table 2 **Rule**

(a) The clearances in column D are also applicable to supply cables of any voltage under certain conditions 57.4

(b) Clearances for guys and span wires apply vertically at crossings (see case 18 for radial clearances from conductors)
- 1 Supply guys and span wires from conductors 56.4–C
- 2 Supply guys and span wires from guys and span wires 56.4–D1
- 3 Communication guys and span wires from conductors 86.4–C
- 4 Communication guys and span wires from guys and span wires 86.4–D1

(c) Not applicable between messengers or span wires of the same system
- 1 Supply messengers 57.4–E
- 2 Trolley span wires 77.4–D
- 3 Communication messengers 87.4–G

(d) Protection Required on guys, span wires, messengers and cables where within trolley throw
- 1 Supply guys and span wires 56.4–B2
- 2 Supply messengers and cables 57.4-B2
- 3 Communication guys and span wires 86.4–B2
- 4 Communication messengers 87.4–B2

(e) Not applicable to certain conductors supported on trolley span wires
- 1 Trolley contact and feeder conductors 74.4–G2
- 2 Trolley feeder conductors 78.1
- 3 Trolley system communication conductors 78.2
- 4 Foreign conductors 78.3

(f) Increased clearance required over trolley contact conductors 750 - 7,500 volts 74.4–G2

(g) Shall be increased for voltages above 75,000 as required by Table 2, Columns I, J and K N/A

(h) May be reduced for certain conductors of Class T Circuits of the same system 74.4–C

(i) May be reduced for service drops under special conditions
- 1 Supply service drops and communication line conductors 54.8–C1a
- 2 Supply service drops and communication service drops 54.8–C4
- 3 Communication service drops and supply line conductors 84.8–D1a
- 4 Communication service drops and supply service drops 84.8–D4

(j) May be reduced or shall be increased for certain communication conductors or cables
- ~~1 Open wire conductors, attached to poles, within 3 feet of topmost conductor 84.4C1c~~
- 21 Line conductors of police or fire–alarm circuits and service drops from other communication circuits 84.8–D1b
- ~~3~~2 Cables and messengers attached to poles 87.4–C3

(k) Special clearances for 0 - 750 volts in rack configuration and messengers and cables attached to poles
- 1 Supply conductors of 0 - 750 volts in rack configuration 54.9
- 2 Supply cables and messengers attached to poles 57.4–F
- 3 Communication cables and messengers attached to poles 87.4–C3
- 4 On jointly used poles 92.1

References to Rules Modifying Minimum Clearances in Table 2	Rule
(l) May be reduced for service drops and police and fire–alarm conductors, under special conditions	
1 Supply service drops and communication line conductors	54.8–C1b
2 Supply service drops on clearance arms	54.8–C2
3 Supply service drops on pole–top extensions	54.8–C3
4 Supply service drops and communication service drops	54.8–C4
5 Communication service drops and police, fire–alarm or supply line conductors	84.8–D1b
6 Communication service drops on clearance arms	84.8–D2
7 Communication service drops on pole–top extensions	84.8–D3
8 Communication service drops and supply service drops	84.8–D4
9 Police or fire–alarm conductors	92
(m) May be reduced for lead wires	
1 Supply lead wires above supply conductors	54.4–C6
2 Supply drip loops above communication conductors	92.1–F3
(n) May be reduced for supply conductors and private communication conductors of the same ownership	89.2–B
(o) May be reduced or shall be increased for triangular or vertical configuration or for pole–top construction	
1 Triangular or vertical configuration on crossarms	54.4–C1c
2 deadended on pole in vertical configuration	54.4–C4
(p) May be reduced for supply service drops of 0 - 750 volts	54.8–C6
(q) Shall be increased between circuits where conductors are at pole top	54.4–D8
(r) May be reduced under special conditions	
1 Supply conductors of 750 - 7,500 volts	54.4–C1a
2 Supply conductors of 7,500 - 20,000 volts	54.4–C1b
(s) Does not apply where conductors do not cross	
1 Supply conductors of different phase or polarity	54.4–C2a
~~2 Communication conductors~~	~~84.4–C1a~~
(t) Shall not be applied consecutively both above and below the same supply conductors	54.4–C2a
(u) Shall be increased where conductors of different classification are supported on the same crossarm	
1 Supply conductors of 0 - 750 volts and conductors of 7,500 - 22,500 volts	32.4–A2
2 Supply conductors of 0 - 750 volts and conductors of 750 - 7,500 volts	32.4–A3
(v) Not applicable to certain kinds of conductors	
1 Supply conductors of same phase or polarity	54.4–C3c
2 Insulated supply conductors in multiple–conductor cables	57.4–C
3 Communication insulated conductors or multiple–conductor cables	87.4–C1
(w) Shall apply radially to conductors on brackets attached to crossarms	
1 Supply conductors	54.4–C3b
~~2 Communication conductors~~	~~84.4–C1b~~
(x) Shall be increased between conductors of different classification supported on the same crossarm	
1 Supply conductors of different voltage classification	32.4–A
2 Supply circuits of 0 - 750 volts and communication circuits	32.4–B
3 Supply circuits and private communications circuits	89.2–A
(y) Special clearances for unprotected supply conductors from one level to another level	54.6–A 58.5–B3 92.1–F5
(z) Not applicable to the following:	
1 Clearances between conductors at different levels specified in cases 8 to 13 inclusive	N/A
2 Supply lateral conductors, suitably protected	54.6–C
3 Supply vertical runs, suitably protected	54.6–D
4 Supply risers, suitably protected	54.6–E
5 Communication conductor	87.4–C1
(aa) Not applicable between cables and their supporting messengers	
1 Supply	57.4–D
2 Communication	87.4–F
(bb) May be reduced for guys and communication conductors supported on the same pole	
1 Supply	56.4–C4
2 Communication	86.4–C
(cc) Clearance required between guys	
1 Supply guys, crossing	56.4–D2
2 Supply guys, approximately parallel	56.4–D3
3 Communication guys, crossing	86.4–D2
4 Communication guys, approximately parallel	86.4–D3
(dd) Shall be increased where within 6 feet of a pole	103.5
(ee) May be decreased in partial underground distribution	54.4–C4c
(ff) Shall be increased by 0.40 inch per kV in excess of 75 kV	
(gg) Shall be increased by 0.40 inch per kV in excess of 150 kV	
(hh) Shall be increased by 0.40 inch per kV in excess of 300 kV	
(ii) Shall be increased by 0.25 inch per kV in excess of 150 kV	
(jj) Shall be increased by 0.25 inch per kV in excess of 300 kV	
(kk) Proposed clearances to be submitted to the CPUC prior to construction for circuits in excess of 550 kV	
(ll) 36–inch clearance applies 35 kV to 68 kV. 42–inch clearance applies over 68 kV.	
(mm) Vertical clearances shall be increased by 1/2 inch for each kV over 68 kV	
(nn) The vertical separation between supply conductors and service drops of 0 - 750 volts and supply conductors of 20,000 - 22,500 volts may be reduced to 48 inches	
(oo) May be reduced to 72 inches for conductors of 20,000 - 22,500 volts	
(pp) May be reduced to 36 inches vertically at midspan only when the supply conductors consist of abrasion resistant cable with a grounded metallic sheath or neutral–supported cable as specified in Rules 57 and 54.10.	
(qq) Vertical clearances may be reduced between supply conductors of the same circuit at crossings in spans	54.4–C7
(rr) Can be less than 12" for strand mounted terminals, splice cases and other equipment located 8" or more from centerline of pole but not less than 1" with mutual agreement between affected owners.	
(ss) Requirements for transition of Fiber optic cable facilities	87.10
(tt) For Antennas utilized by utilities for the sole purpose of operating and monitoring their supply system see Rules 54.4-G and 58.6.	
(uu) For clearances below supply and communication lines see Rules 94.4-A and 94.4-B	
(vv) Clearances for exposed associated cables may be reduced by 12 inches.	
(ww) ~~May be reduced to 10 inches for cables owned/installed by Antenna owner/operator.~~	
(ww) Not applicable to cables owned by Antenna owner / operator.	

[Notes (xx) onward, which are not affected by this PRC, are omitted.]

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC-14.)

References "s" and "w" are modified by striking cites to Rule 84.4-C1.

The proposed revision to Table 2 footnote "ww" eliminates the current clearance requirement and allows communication cables owned by the antenna owner/operator to be installed at the same level as the antennas. Requiring cables associated with antennas to be installed at a different level, even as close as ten inches below, is unnecessary because personnel working on such integrated networks receive RF safety training. Further, electric utilities and Communication Infrastructure Providers with communication cables attached to poles that also support an integrated wire/wireless network retain the option of arranging an outage for the antenna site with the responsible owner/operator.

Proposed Rule Change 4 re: Rule 39, Table 2-A

Strikeout / Underline

Table 2–A Minimum Clearances of Wires from Signs Mounted on Buildings and Isolated Structures (a) (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following this Table)

Case No.	Nature of Clearance Type of Sign	A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers, Communication Cables and Communication Service Drops	B Communication ~~Open Wire~~ Conductors Supply Cables Treated as in Rule 57.8 and Supply Service Drops 0 - 750 Volts	C Supply Conductors, Supply Cables of 0 - 750 Volts and Trolley Span Wires	D Supply Conductors and Supply Cables, 750 - 300,000 Volts (b)	E Supply Conductors and Supply Cables, 300 - 550 kV
1	Vertical clearance above all signs upon which men can walk	8 Feet	8 Feet	8 Feet	12 Feet	20 Feet (g)
2	Vertical clearance above all signs upon which men cannot walk	2 Feet	2 Feet	3 Feet	8 Feet	20 Feet (g)
3	Vertical clearance under signs which are illuminated	2 Feet (c)	2 Feet (e)	3 Feet	Prohibited (f)	Prohibited
4	Vertical clearance under signs which are non–illuminated	6" (d)	1 Foot	3 Feet	Prohibited (f)	Prohibited
5	Horizontal clearance from signs which are illuminated	3 Feet (c)	3 Feet (e)	3 Feet	6 Feet	15 Feet (h)
6	Horizontal clearance from signs which are non–illuminated	6" (d)	1 Foot	3 Feet	6 Feet	15 Feet (h)

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 5 re: Rule 51.7

Strikeout / Underline

51.7 Stepping (See Rule 91.3-B)

~~The lowest step on any stepped pole, tower or structure shall be not less than 7 feet 6 inches from the ground line and above this point the spacing between steps on the same side of pole, tower or structure shall not exceed 36 inches.~~

Proposed Final

51.7 Stepping (See Rule 91.3-B)

Rationale

This proposed rule change and associated revisions to Rule 81.6 and 91.3 provide uniform requirements for installing pole steps. Establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures will prevent easy climbing of utility poles.

Proposed Rule Change 6 re: Rule 54.6-E

Strikeout / Underline

54.6 Vertical and Lateral Conductors

E. Risers

(8) Hardware (See Rule 91.4)

Proposed Final

54.6 Vertical and Lateral Conductors

E. Risers

(8) Hardware (See Rule 91.4)

Rationale

This proposed rule change and associated revisions to Rule 91.4 provide uniform requirements for installing riser brackets. Establishing an installation height for the lowest riser support bracket at eight (8) feet, above the ground line or foreign structures, will prevent easy climbing of utility poles.

Proposed Rule Change 7 re: Rule 54.8-D(1)

Strikeout /Underline

54.8 Service Drops, 0 - 750 Volts

D. Clearance from Other Poles

The clearance between service drop conductors and the centerline of any pole not supporting them shall be not less than 22 1/2 inches (Rule 32.3). In case the pole involved in this clearance is within 10 feet of a pole supporting the service drop, this clearance may be less than 22 1/2 inches but shall be not less than 15 inches.

(1) From Nonclimbable Street Lighting or Traffic Signal Poles or Standards: Supply service drops of 0 - 750 volts passing (unattached) nonclimbable street lighting and traffic signal poles or standards including mastarms, brackets and lighting fixtures, shall clear a radial distance of 12 inches ~~as specified in Table 1, Case 10, Column B, except when the drops are mechanically protected from abrasion by materials specified in Rule 22.8~~. This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protection shall extend not less than 15 inches in each direction along the drop from centerline of pole, standard, attaching mastarm or fixture, whether passing above, below or alongside. The drops shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen when changing lamps or maintaining equipment.

Proposed Final

54.8 Service Drops, 0 - 750 Volts

D. Clearance from Other Poles

The clearance between service drop conductors and the centerline of any pole not supporting them shall be not less than 22 1/2 inches (Rule 32.3). In case the pole involved in this clearance is within 10 feet of a pole supporting the service drop, this clearance may be less than 22 1/2 inches but shall be not less than 15 inches.

(1) From Nonclimbable Street Lighting or Traffic Signal Poles or Standards: Supply service drops of 0 - 750 volts passing (unattached) nonclimbable street lighting and traffic signal poles or standards including mastarms, brackets and lighting fixtures, shall clear a radial distance of 12 inches. This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protection shall extend not less than 15 inches in

each direction along the drop from centerline of pole, standard, attaching mastarm or fixture, whether passing above, below or alongside. The drops shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen when changing lamps or maintaining equipment.

Rationale

This proposed rule change and associated revisions to Rules 54.10-B and 57.4-H establish uniform clearance requirements for service drops, certain low voltage multiconductor cables, and messengers or metal sheathed cables passing other structures and/or fixtures.

Proposed Rule Change 8 re: Rule 54.9-C

Strikeout / Underline

54.9 Low Voltage Racks, 0 - 750 Volts (Conductors Less than 15 Inches from Centerline of Pole, But Not Less than 2–1/2 Inches from the Surface of Pole).

C. Conductor Material

All conductors of a rack group in the same vertical plane shall be of the same material. Where conductors are less than 15 inches from centerline of pole, conductors shall have a covering not less than the equivalent of weather–resistant covering.

~~**(1) Urban Districts:** Conductors in rack construction in urban districts shall have a covering not less than the equivalent of weather–resistant covering.~~

~~**(2) Rural Districts:** Line conductors in rack construction in rural districts may be bare conductors provided the vertical separation between conductors is not less than 12 inches and conforms to the requirements of Rule 54.9–D where greater separation is specified~~

Proposed Final

54.9 Low Voltage Racks, 0 - 750 Volts (Conductors Less than 15 Inches from Centerline of Pole, But Not Less than 2–1/2 Inches from the Surface of Pole).

C.Conductor Material

All conductors of a rack group in the same vertical plane shall be of the same material. Where conductors are less than 15 inches from centerline of pole, conductors shall have a covering not less than the equivalent of weather–resistant covering.

Rationale

This proposed rule change creates a consistent "material covering" requirement in GO 95 for racked conductors installed in urban and rural areas.

Proposed Rule Change 9 re: Rule 54.10-B(2)

Strikeout /Underline

54.10 Low Voltage Multiconductor Cable with Bare Neutral, 0 - 750 Volts

B. Conductor Arrangement and Clearances

(2) **Clearance (Unattached) from Nonclimbable Street Lighting or Traffic Signal Poles or Standards**: Multiconductor cables passing (unattached) nonclimbable street lighting and traffic signal poles or standards, including mastarms, brackets, and lighting fixtures shall maintain a clearance of not less than 12 inches. ~~may have a clearance less than 36 inches as specified in Table 1, Case 10, Column D when the conductors are mechanically protected from abrasion by materials specified in Rule 22.8.~~ This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protection shall extend not less than 15 inches in each direction along the cable from centerline of pole, standard, attaching mastarm or fixture whether passing above, below or alongside. The conductors shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen changing lamps or maintaining equipment.

Proposed Final

54.10 Low Voltage Multiconductor Cable with Bare Neutral, 0 - 750 Volts

B. Conductor Arrangement and Clearances

(2) Clearance (Unattached) from Nonclimbable Street Lighting or Traffic Signal Poles or Standards: Multiconductor cables passing (unattached) nonclimbable street lighting and traffic signal poles or standards including mastarms, brackets and lighting fixtures, shall maintain a clearance of not less than 12 inches. This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protection shall extend not less than 15 inches in each direction along the cable from centerline of pole, standard, attaching mastarm or fixture whether passing above, below or alongside. The conductors shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen changing lamps or maintaining equipment

Rationale

This proposed rule change and associated revisions to Rules 54.8-D and 57.4-H establish uniform clearance requirements for service drops, certain low voltage multiconductor cables, and messengers or metal sheathed cables passing other structures and fixtures.

Proposed Rule Change 10 re: Rule 54.12-D

Strikeout / Underline

54.12 Low Voltage Extended Racks, 0 - 750 Volts (Conductors 15 inches or More from Centerline of Pole, But Not Less than 3 inches from the Surface of Pole)

D. Conductor Spacing and Spreader Brackets

(1) Vertical Separation: The vertical separation between conductors, supported as a group in extended rack construction, shall not be less than 8 inches. ~~such separation to be maintained in a span by suitably insulating spreader brackets attached to such line conductors within the span.~~

Note: Spreader brackets may be used to maintain required vertical separations.

(2) Spreader Brackets:

a. Spreader~~s~~ brackets shall be used at points in spans where one or more midspan service drops are attached to and supported by the line conductors.

b. ~~Also,~~ Spreader~~s~~ brackets shall be so spaced as to limit spans between spreaders or between spreaders and poles to not over ~~135~~ 200 feet.

Proposed Final

54.12 Low Voltage Extended Racks, 0 - 750 Volts (Conductors 15 inches or More from Centerline of Pole, But Not Less than 3 inches from the Surface of Pole)

D. Conductor Spacing and Spreader Brackets

(1) Vertical Separation: The vertical separation between conductors, supported as a group in extended rack construction, shall not be less than 8 inches.

Note: Spreader brackets may be used to maintain required vertical separations.

(2) Spreader Brackets:

a. Spreader brackets shall be used at points in spans where one or more midspan service drops are attached to and supported by the line conductors.

b. Spreader brackets shall be so spaced as to limit spans between spreaders or between spreaders and poles to not over 200 feet.

Rationale

This proposed rule change establishes uniform conductor spacing and span length requirements for extended rack and rack construction. Aligning these rules is prudent because the required conductor clearance of three (3) inches (measured from the surface of the pole) in extended rack construction, is only one-half (.5) inch more than the required conductor clearance in rack construction (per Rule 54.9-D).

This proposed rule change also clarifies the required application and use of insulating spreader brackets for mid-span services; promotes the use of spreader brackets to maintain the required conductor separation; and requires the use of spreader brackets where span lengths exceed two hundred (200) feet.

Proposed Rule Change 11 re: Rule 57.4-H

Strikeout /Underline

57 Messengers and Insulated Cables

57.4 Clearances

H. From Nonclimbable Street Lighting or Traffic Signal Poles or Standards

Messengers and metal–sheathed cables which are bonded and grounded as specified in Rule 57.8, passing (unattached) nonclimbable street lighting and traffic signal poles or standards, including mastarms, brackets, and lighting fixtures ~~may have a clearance less than the 36 inches specified in Table 1, Case 10, Column D , but~~ shall ~~have~~ maintain a clearance of not less than ~~15~~ 12 inches~~, except when the conductors are mechanically protected from abrasion by materials specified in Rule 22.8.~~ This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protections shall extend not less than 15 inches in each direction along the cable from centerline of pole, standard, attaching mastarm or fixture, whether passing above, below or alongside. The conductors shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen changing lamps or maintaining equipment.

Proposed Final

57 Messengers and Insulated Cables

57.4 Clearances

H. From Nonclimbable Street Lighting or Traffic Signal Poles or Standards

Messengers and metal–sheathed cables which are bonded and grounded as specified in Rule 57.8, passing (unattached) nonclimbable street lighting and traffic signal poles or standards including mastarms, brackets and lighting fixtures, shall maintain a clearance of not less than 12 inches. This clearance may be reduced provided the cables are mechanically protected from abrasion. Such mechanical protection shall extend not less than 15 inches in each direction along the cable from centerline of pole, standard, attaching mastarm or fixture whether passing above, below or alongside. The conductors shall be installed in such a manner so as not to interfere with light distribution from lighting fixtures and shall not hamper workmen changing lamps or maintaining equipment.

Rationale

This proposed rule change and associated revisions to Rules 54.8-D and 54.10-B establish uniform clearance requirements for service drops, certain low voltage multiconductor cables, and messengers or metal sheathed cables passing other structures and fixtures.

Proposed Rule Change 12 re: Rule 58.1-A(1)

Strikeout /Underline

58.1 Enclosed Equipment (Transformers, Capacitors, Regulators, etc.) (For purposes of this rule, enclosed means encased such as with cases or tanks of equipment operated at greater than 750 volts.)

A. Position on Pole

(1) Multiple Units: Where more than one unit is installed on a pole, they shall be placed on the same side of the pole. Transformers installed on metal mounting brackets shall not extend beyond the vertical plane through the centerline of the pole.

Exception: Units installed on non-climbable poles may extend beyond the vertical plane through the centerline of the pole. (See Rule 22.6-D)

Proposed Final

58.1 Enclosed Equipment (Transformers, Capacitors, Regulators, etc.) (For purposes of this rule, enclosed means encased such as with cases or tanks of equipment operated at greater than 750 volts.)

A. Position on Pole

(1) Multiple Units: Where more than one unit is installed on a pole, they shall be placed on the same side of the pole. Transformers installed on metal mounting brackets shall not extend beyond the vertical plane through the centerline of the pole.

Exception: Units installed on non-climbable poles may extend beyond the vertical plane through the centerline of the pole.

Rationale

This proposed rule change allows equipment brackets installed on non-climbable poles to extend beyond the vertical plane through the centerline of the pole.

The existing rule influences electric utilities to construct a two-pole platform (or "rack") to accommodate the installation of two or three large transformers in combination. Metallic brackets are available that allow two or three large transformers to be installed on a single pole. Although non-climbable poles are not routinely utilized, the application of this rule could reduce the number of double pole platforms.

Proposed Rule Change 13 re: Rule 58.3-D

Strikeout / Underline

58 Miscellaneous Equipment

58.3 Line Switches and Disconnects

D Operating ~~Mechanism~~ Rods

(1) Metallic

~~(1)~~ (a) Grounded metal operating rods which pass through any supply or communication conductor level shall be protected with a suitable protective covering for a vertical distance of 8 feet above and below or 6 feet horizontally from such levels.

~~(2)~~ (b) Ungrounded metal operating rods which pass through only supply or communication conductor level shall:

(i) Have a suitable insulating link or section installed at a point as near as possible to the switch; and

(ii) Have a suitable insulating link or section installed at a point between each conductor level through which it passes.

~~(3)~~ (c) ~~All operating r~~Rods shall be securely held in position by a suitable means to afford clearances as specified in Table 2, Case 18 from conductors of circuits below the switch level.

~~(4)~~ (d) Where line switches are operated from the ground level by means of all–metal control ~~mechanisms~~ rods without suitable insulating links or sections:

(i.) an insulated platform shall be provided ~~unless such operating mechanism is~~, or

(ii) the handle and non-insulated platform shall be bonded and effectively grounded.

(2) Non-Metallic

Rods shall be securely held in position by a suitable means to maintain clearances as specified in Table 1, Case 9 from conductors of circuits below the switch level.

Proposed Final

58 Miscellaneous Equipment

58.3 Line Switches and Disconnects

D Operating Rods

(1) Metal

(a) Grounded metal operating rods which pass through any supply or communication conductor level shall be protected with a suitable protective covering for a vertical distance of 8 feet above and below or 6 feet horizontally from such levels.

(b) Ungrounded metal operating rods which pass through only supply or communication conductor level shall:

(i) Have a suitable insulating link or section installed at a point as near as possible to the switch; and

(ii) Have a suitable insulating link or section installed at a point between each conductor level through which it passes.

(c) Rods shall be securely held in position by a suitable means to afford clearances as specified in Table 2, Case 18 from conductors of circuits below the switch level.

(d) Where line switches are operated from the ground level by means of all–metal control rods without suitable insulating links or sections:

(i) an insulated platform shall be provided, or

(ii) the handle and non-insulated platform shall be bonded and effectively grounded.

(2) Non-Metallic

Rods shall be securely held in position by a suitable means to maintain clearances as specified in Table 1, Case 9 from conductors of circuits below the switch level.

Rationale

The proposed revisions and addition of new subsection (2) aligns this rule with current industry practice and the routine installation of non-metallic operating rods. Additionally, the revision to subsection 1, clarifying the requirements for metallic switch rods, improves worker safety.

Proposed Rule Change 14 re: Rule 81.3

Strikeout / Underline

81.3 Material and Strength

Communication poles shall meet the material and strength requirements specified in Section IV.

~~**A. Replacement of Wood Poles in Grade C Construction**~~

~~Wood poles in Grade C construction shall be replaced or reinforced before the safety factor has been reduced to less than one, except that the circumference of sound solid wood within 18 inches above and below the ground line on such poles before replacement or reinforcement shall not be less than as follows:~~

~~Poles supporting 10 or less open wire conductors~~	~~9 inches~~
~~Poles supporting cable, or more than 10 open wire conductors~~	~~12 inches~~

Note: Revised November 21, 1990 by Resolution SU–6 and January 13, 2006 by Decision No. 05-01-030

Proposed Final

81.3 Material and Strength

Communication poles shall meet the material and strength requirements specified in Section IV.

Note: Revised November 21, 1990 by Resolution SU–6 and January 13, 2006 by Decision No. 05-01-030

Rationale

In the late 1940's "open wire" communication lines were still being installed and maintained, although mainly in rural areas. During the 1950's and continuing through the 1970's open wire lines used for public communication networks were replaced with "cables" and (insulated) service drops.

Open wire public communication lines are no longer designed and are rarely utilized. Modern public communication networks integrate cables comprised of insulated solid copper (hard-drawn and soft drawn) co-axial, and glass filaments, with other cable and antenna (wireless) communication networks. Similarly, open wire lines for private communication networks are no longer designed; however, where utilized as part of a backup network, such lines are still maintained.

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements.

Proposed Rule Change 15 re: Rule 81.6

Strikeout / Underline

81.6 Stepping (See Rule 91.3-B)

~~The lowest step on any stepped pole shall be not less than 7 feet 6 inches from the ground line where supply conductors are supported on the same pole with communication conductors. On poles supporting communication conductors only, the lowest metal step may be placed not less than 6 feet 6 inches above the ground and one wood step may be placed 3 feet 6 inches above the ground.~~

Proposed Final

81.6 Stepping (See Rule 91.3-B)

Rationale

This proposed rule change and associated revisions to Rules 51.7 and 91.3 provide uniform requirements for installing pole steps. Establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures will prevent easy climbing of utility poles.

Proposed Rule Change 16 re: Rule 84.4-C

Strikeout / Underline

84.4 Clearances

C. Between Conductors

The minimum clearances shall be those specified in Rule 38, Table 2 (see also Rule 32.2-D) with the following modifications:

~~**(1) Open Wire**~~

~~**(a) On Related Line and Buck Arms:** The clearance of 6 inches specified in Table 2, Case 14, Column C is not required between conductors on line arm and related buck arm where the conductors supported by such arms do not cross.~~

~~**(b) On Brackets Attached to Crossarms:** The radial clearance for communication line conductors supported on brackets or extensions attached to crossarms at, or outside of, the outer pin or dead-end positions shall not be less than 3 inches from any other communication line conductor supported by the same crossarm as specified in Table 2, Case 15, Column C . Not more than two conductors on the same side of the pole on any crossarm may be supported on brackets within the outer pin position and below conductors normally supported on pins.~~

~~There shall not be less than a 12 inches vertical separation between communication conductors supported on brackets within the outer pin positions on one crossarm and the communication conductors on another crossarm. The vertical clearances specified in Table 2, Cases 1 to 14, Column C shall be provided between the conductor on a bracket and the conductor level of any other conductors not supported on the crossarm to which the bracket is attached.~~

~~**EXCEPTION:** This rule shall not apply to clearances between conductors of the same or similar circuits at points of transposition.~~

~~**(c) Attached Directly to Poles:** On poles which carry no crossarms, open wire conductors which are attached to the sides of poles by means of hooks, knobs or brackets may be placed in any position within the 3 feet next below the topmost conductor on the pole. The vertical separation between conductor supports on the same side of pole in this space of 3 feet shall be not less than 6 inches. Below this point (3 feet below the topmost conductor) conductors shall be attached to one side of pole only, not more than 6~~

~~conductors shall be so attached, and the vertical separation between these conductors shall be not less than 12 inches.~~

~~On poles which carry communication crossarms only, one pair of open wire conductors may be attached to opposite sides of the pole by means of hooks, knobs, or brackets, at a point not less than 2 feet below the lowest level of conductors supported on crossarms. Below this point (2 feet below conductors on crossarm) other conductors which are attached to surface of pole shall be attached to one side of pole only, not more than six conductors shall be so attached, and their vertical separation shall be not less than 12 inches.~~

~~(2)~~ **Duplex, Triplex and Cables:** Insulated single conductors ~~(rubber insulated),~~ duplex, triplex and paired conductors are considered ~~as~~ cables (see definition, Rule 20.4) and the clearances for such conductors are specified in Rule 87.4.

Proposed Final

84.4 Clearances

C. Between Conductors

The minimum clearances shall be those specified in Rule 38, Table 2 (see also Rule 32.2-D) with the following modification:

Duplex, Triplex and Cables: Insulated single conductors, duplex, triplex and paired conductors are considered cables (see definition, Rule 20.4) and the clearances for such conductors are specified in Rule 87.4.

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 17 re: Rule 84.6-A

Strikeout / Underline

84.6 Vertical and Lateral Conductors

~~**A. Open Wire**~~

~~Open wire conductors from one level to another level on a pole or structure shall not pass within the climbing space (see rule 84.7), and shall not pass between conductors of any other circuit except between pole-pin conductor positions.~~

(Subsections B, C, D and E, to be re-numbered to A, B, C, D respectively)

Proposed Final

84.6 Vertical and Lateral Conductors

(Subsections B, C, D and E, to be re-numbered to A, B, C, D respectively)

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 18 re: Rule 84.7

Strikeout / Underline

84.7 Climbing Space and Working Space

A. Climbing Space

Climbing space shall be maintained on one side or quadrant of all poles or structures supporting communications conductors excepting at the level of the one pair of conductors attached to the pole below the lowest crossarm (Rules 84.4–C1c, 84.4–D1 and 87.4–C3) and the top 3 feet of poles carrying communication conductors only which are attached directly to pole in accordance with the provisions of Rule 84.4–C1c.

The climbing space shall be maintained in the same position on the pole for minimum vertical distance of 4 feet above and below each conductor level through which it passes, excepting that where a cable is attached to a crossarm or a pole with the cable less than 9 or 15 inches from the center line of the pole supporting conductors on line arms (no buck arm construction involved) in accordance with the provisions of Rules 84.4–D1 or 87.4-C3, the 4 foot vertical distance may be reduced to not less than 3 feet.

The position of the climbing space shall not be shifted more than 90 degrees around the pole within a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The climbing space shall be kept free from obstructions excepting those obstructions permitted by Rule 84.7–E.

Note: Revised May 22, 1990 by Resolution No. SU–5.

~~A.~~ 1. **Where Line Arms Only are Involved** (See figure 84–3)

The climbing space through the levels of conductors supported on line arms only shall be located so that the center line of the pole is approximately midway on the side of the climbing space and parallel to the crossarms. The horizontal dimensions of the climbing spaces, with widths measured perpendicularly to the conductors, and with depths measured from the center line of the pole and parallel to the conductors, shall not be less than those specified in Rule 84.7–A1 and 84.7–A2.

EXCEPTION: At angles in lines with widths of 18 and 30 inches may be reduced to not less than 16 1/2 and 27 1/2 inches respectively, provided the horizontal separation of pole–pin conductors measured parallel to the crossarm shall not be less than 18 and 30 inches respectively.

~~(1)~~(a) On Poles Which Support Communication Conductors Only: The climbing space for communication conductors shall not be less than 18 inches wide and 30 inches deep.

Note: Revised November 21, 1990 by Resolution SU–6.

~~(2)~~(b) **On Poles Jointly Used with Supply Conductors:** The climbing space through the levels of communication conductors on line arms on poles jointly used with supply conductors, shall be not less than 30 inches in width and not less than 30 inches in depth, except that climbing spaces of the dimensions specified in Rule 84.7–A1 may be used where the only supply conductors supported by the pole are on service drop clearance attachments as permitted by Rules 54.8–C2 and 54.8–C3.

~~B.~~2. **Where** Buck Arms Are Involved
The horizontal dimensions of the climbing space shall be fixed according to the following crossarm combinations of line arms and related buck arms. For this purpose a metal back brace shall be considered as one of the arms of double arm construction and where used the requirements for double arm construction shall be met.

~~(1)~~(a) **Double Line Arm and Double Buck Arm:** Where the combination is double line arm and double buck arm the climbing space shall be not less than 26 1/2 inches square measured horizontally from the center line of pole (see Appendix G, Figure 37).

~~(2)~~(b) **Double Buck Arm and Single Line Arm, or Vice Versa:** Where the combination is double buck arm and single line arm, or vice versa, and the climbing space is left open on the opposite side of pole from the single arm, the climbing space (measured horizontally from center line of pole) shall be not less than 20 inches perpendicular to the single arm, and not less than 26 1/2 inches perpendicular to the double arms (see Appendix G, Figure 36).

~~(3)~~(c) **Single Line Arm and Single Buck Arm:** Where the combination is single line arm and single buck arm and the climbing space is left open on the sides of pole opposite the crossarms, the climbing space shall be not less than 20 inches square measured horizontally from center line of pole (see Appendix G, Figure 35).Rule 84.7-E

~~(4)~~ (d) **Alternative:** Where a combination of a single line arm and a single buck arm or a double line arm and single buck arm (or vice versa) is involved and it is impracticable to locate the climbing space on the side of the pole opposite the single arm or arms, it may be located in another quadrant provided that any arm within such climbing space is treated as one of the arms of a double arm installation and that where a change of quadrant is involved the provisions of Rule 84.7 are observed.

~~C.~~3. **Through Conductors Not on Crossarms**
Where communication conductors are not supported on crossarms, an unobstructed climbing space not less than 30 inches square

(measured from center line of pole) shall be maintained through all conductor levels of such conductors except those levels of similarly supported conductors within 3 feet of the topmost conductor on the pole (see Appendix G, Figure 38).

~~D.~~4. **Through Service Drops Not on Crossarms**
Where hooks, knobs or brackets are used for the support of service drops and other conductors are supported at a higher level on the pole, an unobstructed climbing space 30 inches square shall be maintained through such attachments, and for not less than 4 feet above and below such attachments, using any one of the service drops as one side of the climbing space and having one other side perpendicular to it and tangent to the surface of the pole (see Appendix G, Figure 39).

For clearance of service drop attachments above or below supply conductors see Rule 84.8–D1.

~~E.~~5. **Allowable Climbing Space Obstructions**

a. Vertical conductors, when in a suitable protective covering attached directly to the surface of the pole, and guys, will not be held to obstruct the climbing space provided not more than two guys (provided they are separated at the pole by a vertical distance of not more than 18 inches) and one other of the above named obstructions are installed in any 4-foot vertical section of climbing space.

b. Crossarms and their supporting members are allowed in climbing spaces provided that, where buck arms are involved, any arms within climbing spaces are treated as double arms.

c. A guard arm, a longitudinal run of messenger, cable or insulated wire will not be held to obstruct the climbing space where they are placed in the climbing space because the presence of a building wall or similar obstacle will not permit the cable to be placed on the side of pole opposite the climbing space. Pole steps shall be suitably placed for the purpose of facilitating climbing past the level of terminal box, cable, drop wires and guard arm.

d. Pole restoration ~~techniques~~ materials are allowed in climbing space provided pole steps are placed in the restoration area as part of the process. Pole stepping shall be in accordance with Rule~~s~~ ~~51.7 and~~ 81.6. ~~Hardware for the use of detachable pole steps shall be installed as part of the restoration process from ground line to 7 feet 6 inches.~~

e. Bands limited to 6 inches in total width are allowed in any 24-inch section of climbing space. These limitations are

excluded for pole stubbing and pole splicing bands when pole step provisions are installed.

f. Unnecessary impairment of the climbing space is not permitted by the application of this Rule 84.7-E.

Note: Revised March 9, 1988 by Resolution E–3076 and January 13, 2005 by Decision No. 0501030.

~~F.~~6. Colinear, Conflicting or Crossing Lines (See Rule 84.4–D3)

B. Working Space

Working spaces, unobstructed by facilities except as provided in Rule 84.7-B(3), of the dimensions specified in Rule 84.7-B(1) and/or 84.7-B(2), shall be provided on all poles in such positions that the workings space shall be accessible from the climbing space.

(1) Dimensions for surface mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimension extends 24 inches above the uppermost attachment and 48 inches below the lowermost attachment. (See Figure 84-4.)

(b) The width extends 36 inches from the centerline of the pole in both directions measured horizontally along the plane of the attachments. (See Figure 84-4.)

(c) The depth extends not less than 36 inches as measured perpendicularly to this space boundary from the centerline of the pole. (See Figure 84-4.)

(2) Dimensions for Arm mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimensions are the same as Rule 84.7.B.1.a.

(b) The width dimension is the same as Rule 84.7.B.1.b.

(c) Where arm(s) support cable(s) the working space include the dimensions described above and extends from the center line of the pole to 36" or the outermost cable, whichever is greater.

(3) Allowable Working Space Obstructions:

(a) Arms supporting cable, guard arms, longitudinal runs of messenger cable, and equipment mounted to a cable or a cable attached directly to the pole.

(i) Cable(s) supported on Arm(s) must be 12 inches above any cable attached directly to the pole below the arm (s). No

cable or equipment may be attached directly to a pole above any such arm at less than 4 feet.

(b) Guys, risers, vertical cables and conductors attached directly to the surface of the pole or on a riser bracket, control rods.

(c) Streetlight brackets or fixtures installed in conformance with Rule 92.1.f.5

(d) Equipment supporting class C circuits affixed to the surface of the pole.

(e) Antenna(s) installed in accordance with Rule 94 above cable(s) of the same ownership.

(f) Unnecessary impairment of the working space is not permitted by the application of this Rule 84.7-G(2).

(g) Where installed, pole steps shall be suitably placed to facilitate working around obstructions.

Proposed Final

84.7 Climbing Space and Working Space

A. Climbing Space

Climbing space shall be maintained on one side or quadrant of all poles or structures supporting communications conductors excepting at the level of the one pair of conductors attached to the pole below the lowest crossarm (Rules 84.4–C1c, 84.4–D1 and 87.4–C3) and the top 3 feet of poles carrying communication conductors only which are attached directly to pole in accordance with the provisions of Rule 84.4–C1c.

The climbing space shall be maintained in the same position on the pole for minimum vertical distance of 4 feet above and below each conductor level through which it passes, excepting that where a cable is attached to a crossarm or a pole with the cable less than 9 or 15 inches from the center line of the pole supporting conductors on line arms (no buck arm construction involved) in accordance with the provisions of Rules 84.4–D1 or 87.4–C3, the 4 foot vertical distance may be reduced to not less than 3 feet.

The position of the climbing space shall not be shifted more than 90 degrees around the pole within a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The climbing space shall be kept free from obstructions excepting those obstructions permitted by Rule 84.7–E.

Note: Revised May 22, 1990 by Resolution No. SU–5.

1. **Where Line Arms Only Are Involved** (See figure 84–3)

The climbing space through the levels of conductors supported on line arms only shall be located so that the center line of the pole is approximately midway on the side of the climbing space and parallel to the crossarms. The horizontal dimensions of the climbing spaces, with widths measured perpendicularly to the conductors, and with depths measured from the center line of the pole and parallel to the conductors, shall not be less than those specified in Rule 84.7–A1 and 84.7–A2.

EXCEPTION: At angles in lines with widths of 18 and 30 inches may be reduced to not less than 16 1/2 and 27 1/2 inches respectively, provided the horizontal separation of pole–pin conductors measured parallel to the crossarm shall not be less than 18 and 30 inches respectively.

(a) On Poles Which Support Communication Conductors Only: The climbing space for communication conductors shall not be less than 18 inches wide and 30 inches deep.

Note: Revised November 21, 1990 by Resolution SU–6. Rule 84.7-A2

(b) On Poles Jointly Used with Supply Conductors: The climbing space through the levels of communication conductors on line arms on poles jointly used with supply conductors, shall be not less than 30 inches in width and not less than 30 inches in depth, except that climbing spaces of the dimensions specified in Rule 84.7–A1 may be used where the only supply conductors supported by the pole are on service drop clearance attachments as permitted by Rules 54.8–C2 and 54.8–C3.

2. **Where Buck Arms Are Involved**

The horizontal dimensions of the climbing space shall be fixed according to the following crossarm combinations of line arms and related buck arms. For this purpose a metal back brace shall be considered as one of the arms of double arm construction and where used the requirements for double arm construction shall be met.

(a) Double Line Arm and Double Buck Arm: Where the combination is double line arm and double buck arm the climbing space shall be not less than 26 1/2 inches square measured horizontally from the centerline of pole (see Appendix G, Figure 37).

(b) Double Buck Arm and Single Line Arm, or Vice Versa: Where the combination is double buck arm and single line arm, or vice versa, and the climbing space is left open on the opposite side of pole from the single arm, the climbing space (measured horizontally from center line of pole) shall be not less than

20 inches perpendicular to the single arm, and not less than 26 1/2 inches perpendicular to the double arms (see Appendix G, Figure 36).

(c) Single Line Arm and Single Buck Arm: Where the combination is single line arm and single buck arm and the climbing space is left open on the sides of pole opposite the crossarms, the climbing space shall be not less than 20 inches square measured horizontally from center line of pole (see Appendix G, Figure 35).Rule 84.7-E

(d) Alternative: Where a combination of a single line arm and a single buck arm or a double line arm and single buck arm (or vice versa) is involved and it is impracticable to locate the climbing space on the side of the pole opposite the single arm or arms, it may be located in another quadrant provided that any arm within such climbing space is treated as one of the arms of a double arm installation and that where a change of quadrant is involved the provisions of Rule 84.7 are observed.

3. Through Conductors Not on Crossarms

Where communication conductors are not supported on crossarms, an unobstructed climbing space not less than 30 inches square (measured from center line of pole) shall be maintained through all conductor levels of such conductors except those levels of similarly supported conductors within 3 feet of the topmost conductor on the pole (see Appendix G, Figure 38).

4. Through Service Drops Not on Crossarms

Where hooks, knobs or brackets are used for the support of service drops and other conductors are supported at a higher level on the pole, an unobstructed climbing space 30 inches square shall be maintained through such attachments, and for not less than 4 feet above and below such attachments, using any one of the service drops as one side of the climbing space and having one other side perpendicular to it and tangent to the surface of the pole (see Appendix G, Figure 39).

For clearance of service drop attachments above or below supply conductors see Rule 84.8–D1.

5. Allowable Climbing Space Obstructions

a. Vertical conductors, when in a suitable protective covering attached directly to the surface of the pole, and guys, will not be held to obstruct the climbing space provided not more than two guys (provided they are separated at the pole by a vertical distance of not

more than 18 inches) and one other of the above named obstructions are installed in any 4-foot vertical section of climbing space.

b. Crossarms and their supporting members are allowed in climbing spaces provided that, where buck arms are involved, any arms within climbing spaces are treated as double arms.

c. A guard arm, a longitudinal run of messenger, cable or insulated wire will not be held to obstruct the climbing space where they are placed in the climbing space because the presence of a building wall or similar obstacle will not permit the cable to be placed on the side of pole opposite the climbing space. Pole steps shall be suitably placed for the purpose of facilitating climbing past the level of terminal box, cable, drop wires and guard arm.

d. Pole restoration-materials are allowed in climbing space provided pole steps are placed in the restoration area as part of the process. Pole stepping shall be in accordance with Rule 81.6.

e. Bands limited to 6 inches in total width are allowed in any 24-inch section of climbing space. These limitations are excluded for pole stubbing and pole splicing bands when pole step provisions are installed.

f. Unnecessary impairment of the climbing space is not permitted by the application of this Rule 84.7-E.

Note:Revised March 9, 1988 by Resolution E–3076 and January 13, 2005 by Decision No. 0501030.

6. Colinear, Conflicting or Crossing Lines (See Rule 84.4–D3)

B. Working Space

Working spaces, unobstructed by facilities except as provided in Rule 84.7-B3, of the dimensions specified in Rule 84.7-B1 and/or 84.7-B2, shall be provided on all poles in such positions that the workings space includes the climbing space.

(1) Dimensions for surface mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimension extends 24 inches above the uppermost attachment and 48 inches below the lowermost attachment. (See Figure 84-4.)

(b) The width extends 36 inches from the centerline of the pole in both directions measured horizontally along the plane of the attachments. (See Figure 84-4.)

(c) The depth extends not less than 36 inches as measured perpendicularly to this space boundary from the centerline of the pole. (See Figure-84-4.)

(2) Dimensions for Arm mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimensions are the same as Rule 84.7.B.1.a.

(b) The width dimension is the same as Rule 84.7.B.1.b.

(c) Where arm(s) support cable(s) the working space include the dimensions described above and extends from the centerline of the pole to 36" or the outermost cable, whichever is greater.

(3) Allowable Working Space Obstructions:

(a) Arms supporting cable, guard arms, longitudinal runs of messenger cable, and equipment mounted to a cable or a cable attached directly to the pole.

(i) Cable(s) supported on Arm(s) must be 12 inches above any cable attached directly to the pole below the arm (s). No cable or equipment may be attached directly to a pole above any such arm at less than 4 feet.

(b) Guys, risers, vertical cables and conductors attached directly to the surface of the pole or on a riser bracket, control rods.

(c) Streetlight brackets or fixtures installed in conformance with Rule 92.1.f.5

(d) Equipment supporting class C circuits affixed to the surface of the pole.

(e) Antenna(s) installed in accordance with Rule 94 above able(s) of the same ownership.

(f) Unnecessary impairment of the working space is not permitted by the application of this Rule 84.7-G(2).

(g) Where installed, pole steps shall be suitably placed to facilitate working around obstructions.

Rationale

The proposed revision re-organizes the existing rule, modifies an existing requirement related to pole restoration, and adds new "working space" requirements. Associated changes include modifications of Figures 84-2 and 84-3; and a new graphic depiction for communication workspace dimensions - Figure 84-4. Also, original Figure 84-4 is renumbered as Figure 84-5 with no modification of the graphic depiction.

Although the existing clearance and separation rules in Section III and Section VIII (for communication lines) create "theoretical" working space, inconsistent interpretation and application of existing rules produces inconsistent results and often limits or prohibits the application of safe work methods. The proposed working space rules as supported by revised Figures 84-2, 84-3, and 84-4 will improve worker safety in the near and long term by better defining the work environment for persons responsible for constructing and maintaining communication lines.

Proposed Rule Change 19 re: Rule 84.8-B

Strikeout / Underline

84.8 Service Drops

B. Attached to Surface of Pole

~~**(1) Service Drops from Open Wire Lines Supported on Crossarm:** Attachments, (by means of hooks, knobs, or brackets) on the surface of pole shall be not less than 6 feet below or 4 feet above the level of the nearest unprotected supply conductor supported on the same pole.~~

~~(2)~~ (1) **Service Drops from Cabled Lines**:

(a) Cable Supported on Crossarm: Service drops attached to crossarms supporting cables shall not be less than 15 inches from the centerline of pole as required by Table 1, Case 8, Column B.

(b) Cable without Guard Arm, Supported on Surface of Pole:

1) Attachments shall not be less than 6 feet below the level of any supply conductor of more than 750 volts and shall not be less than 5 feet vertically below the level of any unprotected supply conductor of 0 - 750 volts.

2) Drive hooks shall occupy pole surface areas not more than 8 inches in height and 1 inch in width, and not more than four hooks shall be placed in each of these areas. (See Appendix G, Figure 39)

3) Service drops shall not be attached to more than three sides (there being four sides) while maintaining climbing space.

(c) Cable with Guard Arm, Supported on Surface of Pole: Attachments may be placed on the face, back and bottom of the guard arm not less than 15 inches from the center line of pole, provided the drop wires are below the top surface of the guard arm and the lateral run of the drop wires.

Proposed Final

84.8 Service Drops

B. Attached to Surface of Pole

(1) Service Drops from Cabled Lines:

(a) Cable Supported on Crossarm: Service drops attached to crossarms supporting cables shall not be less than 15 inches from the centerline of pole as required by Table 1, Case 8, Column B.

(b) Cable without Guard Arm, Supported on Surface of Pole:

1) Attachments shall not be less than 6 feet below the level of any supply conductor of more than 750 volts and shall not be less than 5 feet vertically below the level of any unprotected supply conductor of 0 - 750 volts.
2) Drive hooks shall occupy pole surface areas not more than 8 inches in height and 1 inch in width, and not more than four hooks shall be placed in each of these areas.(See Appendix G, Figure 39).
3) Service drops shall not be attached to more than three sides (there being four sides) while maintaining climbing space.

(c) Cable with Guard Arm, Supported on Surface of Pole: Attachments may be placed on the face, back and bottom of the guard arm not less than 15 inches from the center line of pole, provided the drop wires are below the top surface of the guard arm and the lateral run of the drop wires

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 20 re: Rule 84.8-D, Table 15

Strikeout / Underline

84.8 Service Drops

D. Clearances between Conductors

Table 15: Minimum Radial Clearance Between Communications Service Drops and Line Conductors

Radial Distance of Crossing from Supporting Pole (Feet)	Minimum Radial Clearance (Inches)	
	~~From Police and Fire Alarm Line Conductors~~	From Supply Line Conductors
5 or Less	~~6~~	12
10 or Less, but More than 5	~~9~~	18
15 or Less, but More than 10	~~15~~	24
20 or Less, but More than 15	~~21~~	24
More than 20	~~24~~	24

Proposed Final

84.8 Service Drops

D. Clearances between Conductors

Table 15: Minimum Radial Clearance Between Communications Service Drops and Line Conductors

Radial Distance of Crossing from Supporting Pole (Feet)	Minimum Radial Clearance (Inches)
	From Supply Line Conductors
5 or Less	12
10 or Less, but More than 5	18
15 or Less, but More than 10	24
20 or Less, but More than 15	24
More than 20	24

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 21 re: Rule 87.4-C

Strikeout / Underline

87.4 Clearances

C. Between Conductors and Cables

(3) Attached to Poles: On poles which carry no supply conductors or crossarms, communication cables or messengers may be attached to the sides of poles in any position within 3 feet of the top of the pole. ~~provided metal-sheathed cables or messengers are separated from **open wire conductors** in this section of the pole by a vertical distance of not less than 12 inches.~~

On poles where communication conductors are supported on crossarms and no supply conductors (except supply service drop clearance attachments) are attached, apply the provisions of Rule 84.4-D1 ~~and Figure 84–2~~.

Cables or messengers where attached to the surface of poles which support supply conductors, shall not be less than 6 feet vertically below the level of supply conductors.

EXCEPTION: This minimum clearance of 6 feet may be reduced to not less than 4 feet below supply conductors of 0 - 750 volts provided a guard arm is placed above the messenger and cable (or self–supporting cable) in accordance with the provision of Rule 87.7–B (see Rule 21.0–D for guard arm definition). No cable or messenger shall be attached to the surface of such a pole less than 2 feet below the lowest level of communication conductors on crossarms unless a minimum horizontal separation of 30 inches is maintained between the messenger or cable and the communication conductors on the opposite side of pole.

Proposed Final

87.4 Clearances

C. Between Conductors and Cables

(3) Attached to Poles: On poles which carry no supply conductors or crossarms, communication cables or messengers may be attached to the sides of poles in any position within 3 feet of the top of the pole.

On poles where communication conductors are supported on crossarms and no supply conductors (except supply service drop clearance attachments) are attached, apply the provisions of Rule 84.4-D1.

Cables or messengers where attached to the surface of poles which support supply conductors, shall not be less than 6 feet vertically below the level of supply conductors.

EXCEPTION: This minimum clearance of 6 feet may be reduced to not less than 4 feet below supply conductors of 0 - 750 volts provided a guard arm is placed above the messenger and cable (or self–supporting cable) in accordance with the provision of Rule 87.7–B (see Rule 21.0–D for guard arm definition). No cable or messenger shall be attached to the surface of such a pole less than 2 feet below the lowest level of communication conductors on crossarms unless a minimum horizontal separation of 30 inches is maintained between the messenger or cable and the communication conductors on the opposite side of pole.

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 22 re: Rule 87.7-D

Strikeout / Underline

87.7 Covering or Guarding

D. Risers

(3) Hardware (See Rule 91.4)

Proposed Final

87.7 Covering or Guarding

D. Risers

(3) Hardware (See Rule 91.4)

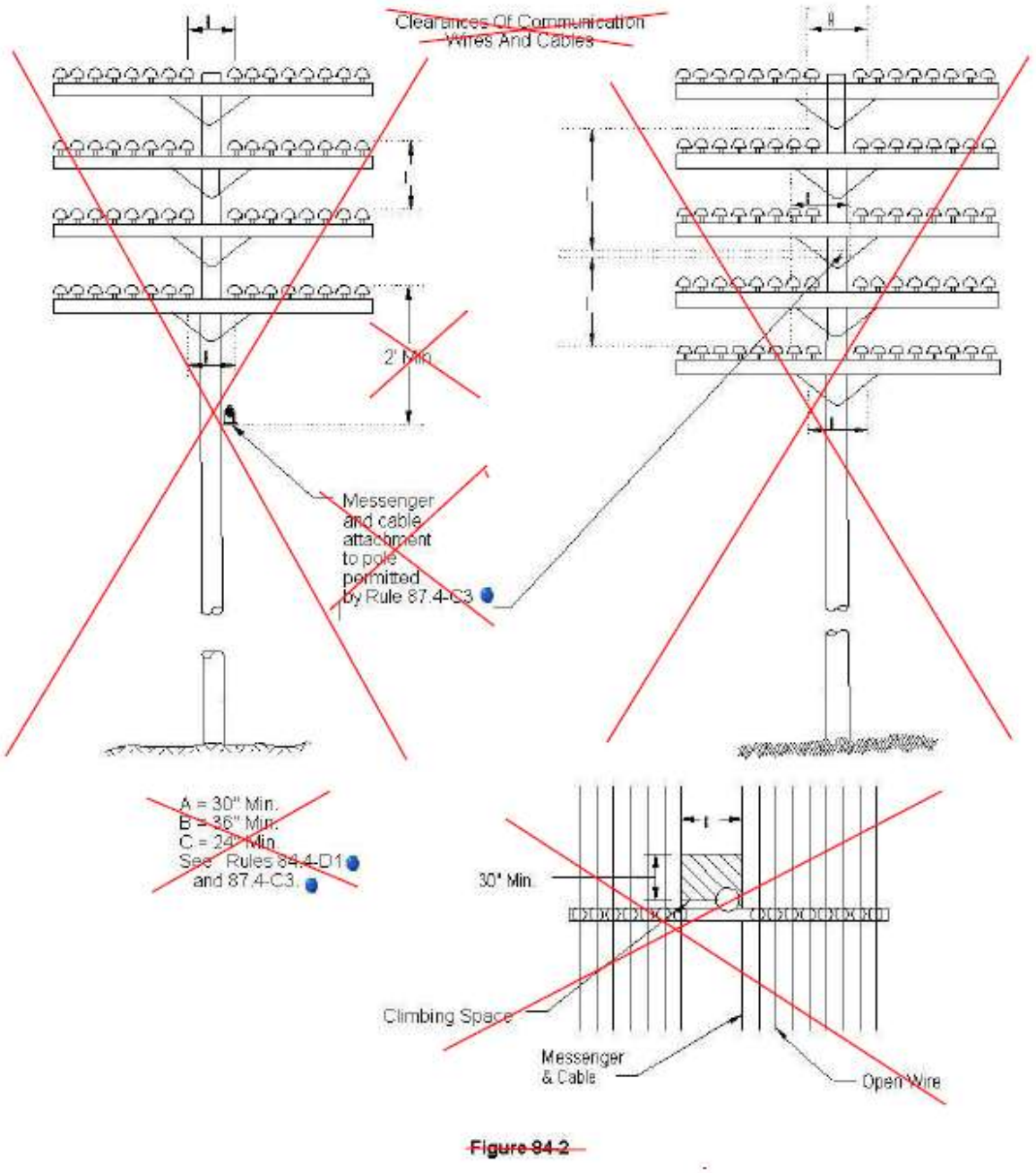
Rationale

This proposed rule change and associated revisions to Rule 91.4 provide uniform requirements for installing riser brackets. Establishing an installation height for the lowest riser support bracket at eight (8) feet above the ground line and foreign structures will prevent easy climbing of utility poles.

Proposed Rule Change 23 re: Figure 84-2

Strikeout / Underline

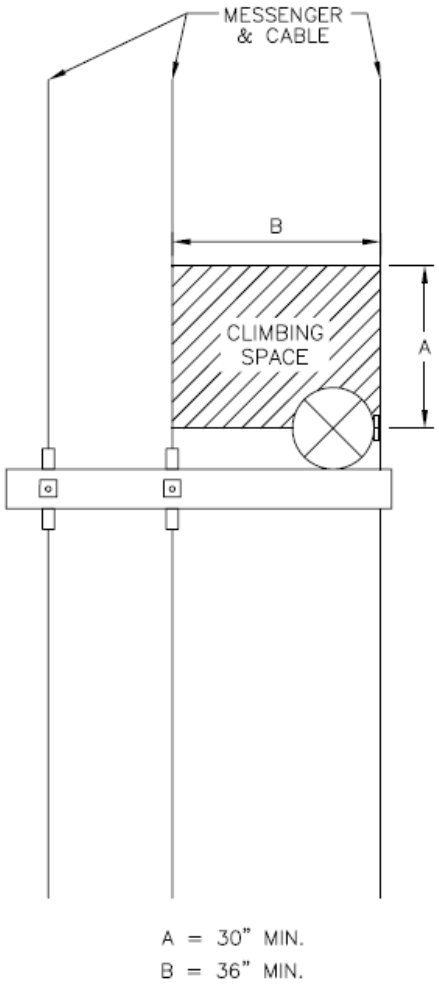
Figure 84-2



~~Figure 84-2~~

Proposed Final

Figure 84-2



Rule 84.4-D(1)

Figure 84-2

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

Proposed Rule Change 24 re: Figure 84-3

Strikeout / Underline

Figure 84-3

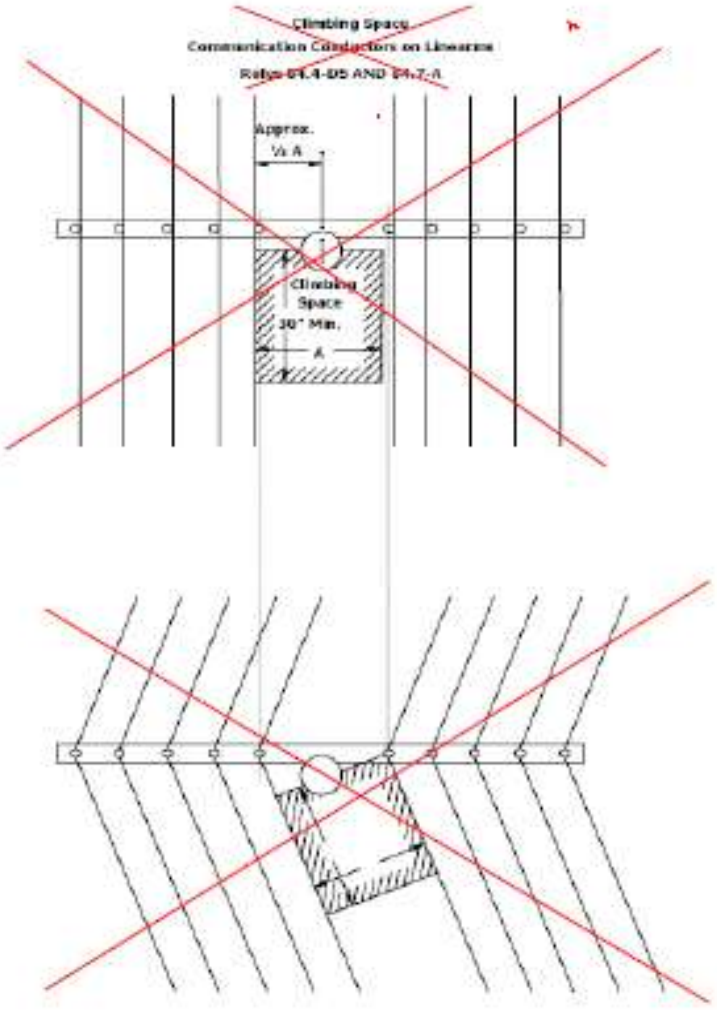
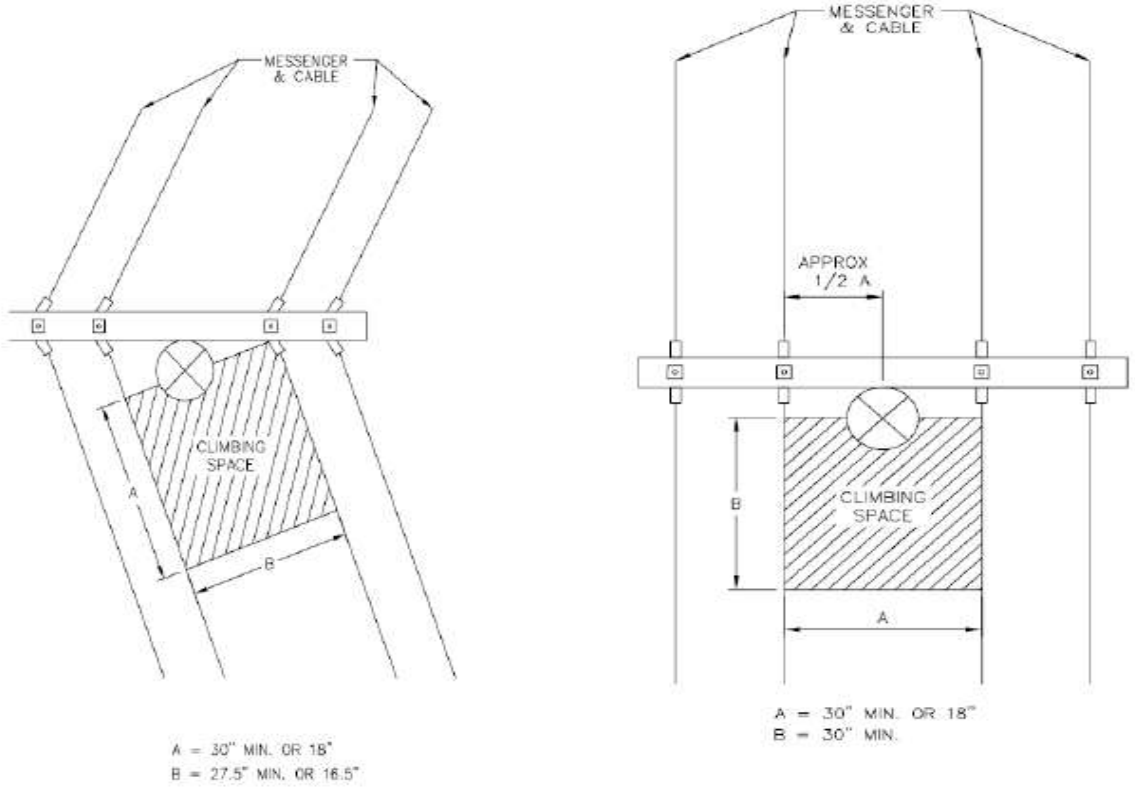


Figure 84-

Proposed Final

Figure 84-3

Climbing Space
Communication Cables on Arms



Rule 84.4-D(5) **Rule 84.7-A**

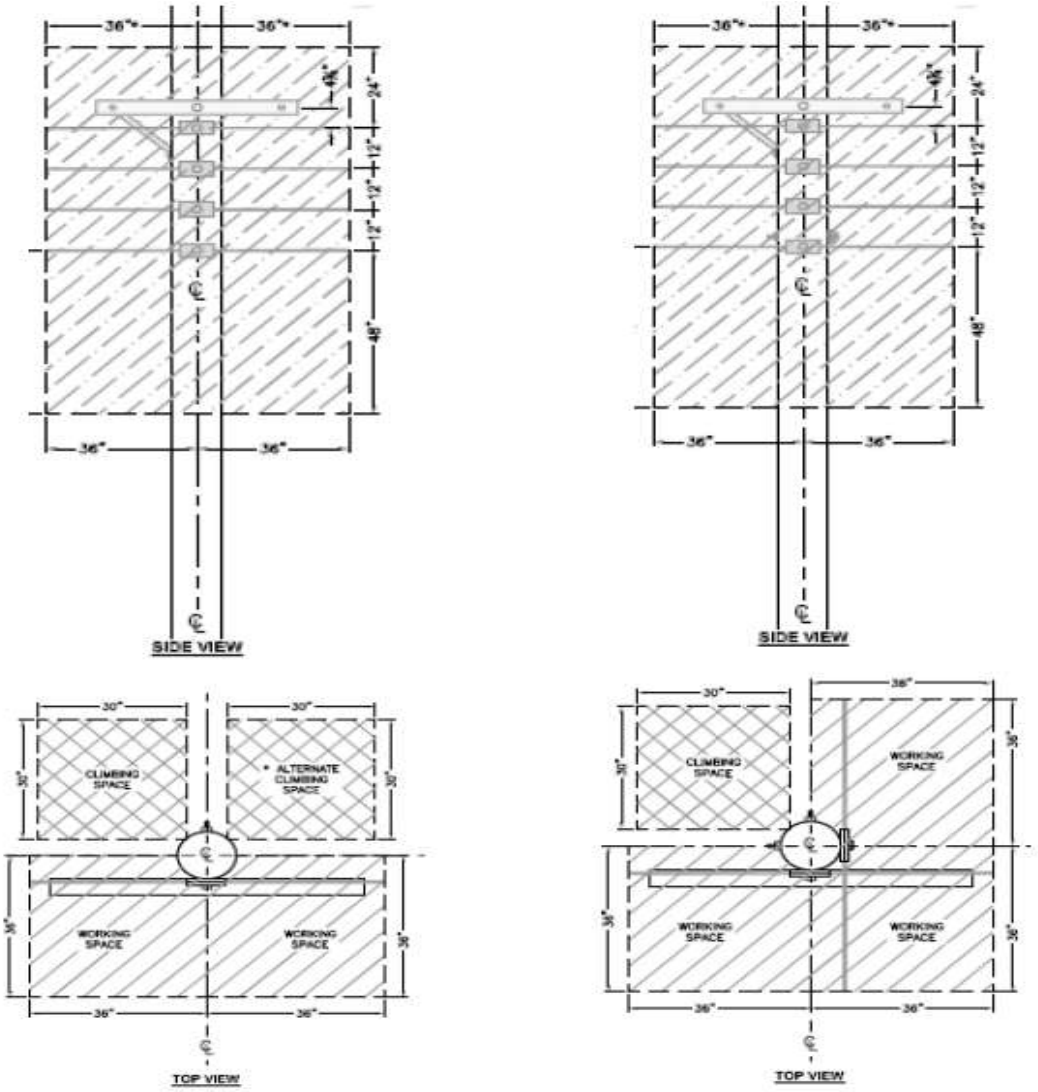
Figure 84-3

Rationale

This revised figure retains the current dimensions for climbing space specified in Rule 84.4-D(5) and Rule 84.7-A but removes the visual depiction of open–wire communication conductors supported on crossarms to reflect a more modern construction practice.

Proposed Rule Change 25 re: New Figure 84-4

Proposed Final



Single Side of Pole Occupied **Two Sides of Pole Occupied**

Rule 84.7-B

Figure 84-4

Rationale

Although the existing clearance and separation rules in Section III and Section VIII for communication conductors create "theoretical" working space, inconsistent interpretation and application of existing rules produces inconsistent results and often limits or prohibits the application of safe work methods. The working space in proposed new Rule 84.7-B as depicted in Figure 84-4 will improve worker safety in the near and long term by better defining the work environment for persons responsible for constructing and maintaining communication lines.

Proposed Rule Change 26 re: Renumbered Figure 84-5

Strikeout/Underline

Figure 84-5

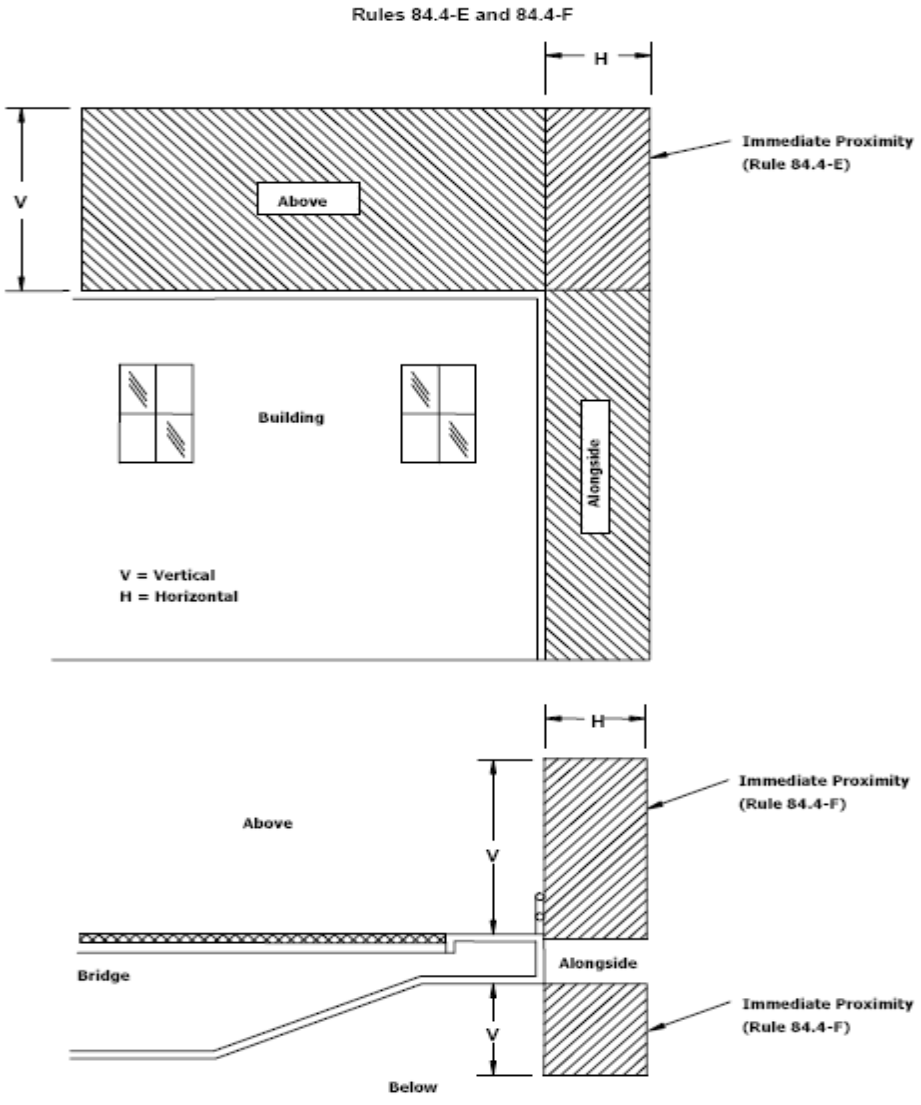


Figure 84-~~45~~

Communication Conductors in Immediate Proximity to Buildings, Bridges or Similar Structures

Note

The previous Proposed Rule Change (PRC) 25 adds a new Figure 84-4. In PRC 26, above, the existing Figure 84-4 renumbered as Figure 84-5. There are no other changes to the renumbered Figure 84-5.

Proposed Rule Change 27 re: Rule 91.3-B

Strikeout / Underline

91.3 Stepping

B. Location of Steps

The lowest step shall be not less than ~~7~~8 feet ~~6 inches~~ from the ground line, or any easily climbable foreign structure from which one could reach or step. ~~and a~~Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain.

Steps or fixtures for temporary steps shall be installed as part of a pole restoration process.

Steps shall be so placed that runs or risers do not interfere with the free use of the steps.

Exception: Steps are not required above the uppermost Class C circuit where an Antenna is affixed above supply conductors.

Proposed Final

91.3 Stepping

B. Location of Steps

The lowest step shall not be less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step. Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain.

Steps or fixtures for temporary steps shall be installed as part of a pole restoration process.

Steps shall be so placed that runs or risers do not interfere with the free use of the steps.

Exception: Steps are not required above the uppermost Class C circuit where an Antenna is affixed above supply conductors.

Rationale

This proposed rule change and associated revisions to Rules 51.7 and 81.6 provide uniform requirements for installing pole steps. Establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures will prevent easy climbing of utility poles.

Proposed Rule Change 28 re: Rule 91.4

Strikeout / Underline

91 Poles, Towers and Structures

91.4 Hardware

Riser standoff brackets on supporting structures shall be arranged so that there is not less than 8 ft between either:

(1) The lowest bracket and ground or other easily climbable surface, or

(2) The two lowest brackets.

Exception: Does not apply when a fence or wall is used as a suitable barrier. See Rule 61.6-B.

For grounded hardware requirements see Rule 54.4–G.

Proposed Final

91 Poles, Towers and Structures

91.4 Hardware

Riser standoff brackets on supporting structures shall be arranged so that there is not less than 8 ft between either:

(1) The lowest bracket and ground or other easily climbable surface, or

(2) The two lowest brackets.

Exception: Does not apply when a fence or wall is used as a suitable barrier. See Rule 61.6 B

For grounded hardware requirements see Rule 54.4–G.

Rationale

This proposed rule change and associated revisions to Rule 54.6 provide uniform requirements for installing riser brackets. Establishing an installation height for the lowest riser support bracket at eight (8) feet above the ground line and foreign structures will prevent easy climbing of utility poles.

Proposed Rule Change 29 re: Rule 92.1

Strikeout / Underline

92.1 Vertical Clearances

~~**C. Communication Open Wire Conductors**~~
~~Open wire Class C communication conductors may be attached by means of hooks, knobs or brackets to one side of poles jointly used with supply conductors provided all of the clearances in Rule 92.1-B are applied, and any guard arm required is installed above the top communication conductor in accordance with the provisions of Rule 87.7-B. Excepted from the provisions of this Rule 92.1-C is the single communication circuit treated in Rule 92.1-D.~~

~~D~~C**. Circuits Serving Same Party**
Supply conductors of 0 - 750 volts and the conductors of one paired (parallel, duplex or twisted) ~~or open-wire~~ communication circuit may be supported on jointly used poles on private property with a clearance of not less than 5 feet between the conductors of the two classifications and without guard arm, provided such circuits are used for service to one (the same) party only. ~~and where open-wire communication conductors are used they shall be placed on one side of pole only.~~

Proposed Final

92.1 Vertical Clearances

C. Circuits Serving Same Party

Supply conductors of 0 - 750 volts and the conductors of one paired (parallel, duplex or twisted) communication circuit may be supported on jointly used poles on private property with a clearance of not less than 5 feet between the conductors of the two classifications and without guard arm, provided such circuits are used for service to one (the same) party only.

Rationale

This proposed rule change removes the reference to "open wire" communication lines and is associated with other proposed revisions to Section III and Section VIII rules. Because historical versions of GO 95 (and GO 128) are available on the CPUC's website, companies relying solely on GO 95 rules to maintain public or private open wire communication lines will still be able to determine the necessary clearances, separations, and strength requirements. (Also see PRC 14.)

(END OF APPENDIX A)

Appendix B: PRCs Included in the Rulemaking Proceeding

Note: The numbering for the proposed rule changes (PRCs) in Appendix B of this Order does **not** correspond to the numbering for the PRCs in Petition (P.) 14-02-010 and Appendix A of this Order.

Note: The rationales for the PRCs in Appendix B of this Order are based on the rationales provided with P.14-02-010, with some modifications to reflect the determinations, findings, and conclusions in the Commission's Order regarding P.14-02-010.

Proposed Rule Change 1 re: Rule 37, Table 1

Proposed Changes Shown with Strikeout / Underline

Table 1: Basic Minimum Allowable Vertical Clearance of Wires above Railroads, Thoroughfares, Ground or Water Surfaces; Also Clearances from Poles, Buildings, Structures or Other Objects (nn) (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following This Table)

Case No.	Nature of Clearance	Wire or Conductor Concerned						
		A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers	B Communication Conductors, (Including Open Wire, Cables and Service Drops), Supply Service Drops of 0 - 750 Volts	C Trolley Contact, Feeder and Span Wires, 0 - 5,000 Volts	D Supply Conductors of 0 - 750 Volts and Supply Cables Treated as in Rule 57.8	E Supply Conductors and Supply Cables, 750 - 22,500 Volts	F Supply Conductors and Supply Cables, 22.5 - 300 kV	G Supply Conductors and Supply Cables, 300 - 550 kV (mm)
1	Crossing above tracks of railroads which transport or propose to transport freight cars (maximum height 15 feet, 6 inches) where not operated by overhead contact wires. (a) (b) (c) (d)	25 Feet	25 Feet	22.5 Feet	25 Feet	28 Feet	34 Feet	34 Feet (kk)
2	Crossing or paralleling above tracks of railroads operated by overhead trolleys. (b) (c) (d)	26 Feet (e)	26 Feet (e) (f) (g)	22.5 Feet (h) (i) (eee)	27 Feet (e) (g)	30 Feet (g)	34 Feet (g)	34 Feet (g) (kk)
3	Crossing or along thoroughfares in urban districts or crossing thoroughfares in rural districts. (c) (d)	18 Feet (j) (k) (ii)	18 Feet (j) (l) (m) (ii) ~~(aa)~~ (kkk)	19 Feet (hh) (eee)	20 Feet (ii)	25 Feet (o) (ii)	30 Feet (o) (ii)	30 Feet (o) (ii) (kk)
4	Above ground along thoroughfares in rural districts or across other areas capable of being traversed by vehicles or agricultural equipment.	15 Feet (k)	15 Feet (m) (n) (p)	19 Feet (eee)	19 Feet	25 Feet (o)	30 Feet (o) (p)	30 Feet (o) (kk)
5	Above ground in areas accessible to pedestrians only	8 Feet	10 Feet (m) (q)	19 Feet (eee)	12 Feet	17 Feet	25 Feet (o)	25 Feet (o) (kk)
6	Vertical clearance above walkable surfaces on buildings, (except generating plants or substations) bridges or other structures which do not ordinarily support conductors, whether attached or unattached.	8 Feet (r)	8 Feet (r)	8 Feet	8 Feet	12 Feet	12 Feet	20 Feet (ll)
6a	Vertical clearance above non–walkable surfaces on buildings, (except generating plants or substations) bridges or other structures, which do not ordinarily support conductors, whether attached or unattached	2 Feet	8 Feet (yy)	8 Feet	8 Feet (zz)	8 Feet	8 Feet	20 Feet
7	Horizontal clearance of conductor at rest from buildings (except generating plants and substations), bridges or other structures (upon which men may work) where such conductor is not attached thereto (s) (t)	-	3 Feet (u)	3 Feet	3 Feet (u) (v)	6 Feet (v)	6 Feet (v)	15 Feet (v)
8	Distance of conductor from center line of pole, whether attached or unattached (w) (x) (y)	-	15 inches (s) (aa)	15 inches (aa) (bb) (cc)	15 inches (o) (aa) (dd)	15 or 18 inches (o) (dd) (ee) (jj)	18 inches (dd) (ee)	Not Applicable
9	Distance of conductor from surface of pole, crossarm or other overhead line structure upon which it is supported, providing it complies with case 8 above (x)	-	3 inches (aa) (ff)	3 inches (aa) (cc) (gg)	3 inches (aa) (dd) (gg)	3 inches (dd) (gg) (jj)	1/4 Pin Spacing Shown in Table 2 Case 15 (dd)	1/2 Pin Spacing Shown in Table 2 Case 15 (dd)

Rule 37, Table 1 (continued)

Proposed Changes Shown with Strikeout / Underline

Table 1 (Continued)

Case No.	Nature of Clearance	Wire or Conductor Concerned						
		A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers	B Communication Conductors, (Including Open Wire,, Cables, and Service Drops), Supply Service Drops of 0 - 750 Volts	C Trolley Contact, Feeder and Span Wires, 0 - 5,000 Volts	D Supply Conductors of 0 - 750 Volts and Supply Cables Treated as in Rule 57.8	E Supply Conductors and Supply Cables, 750 - 22,500 Volts	F Supply Conductors and Supply Cables, 22.5 - 300 kV	G Supply Conductors and Supply Cables, 300 - 550 kV (mm)
10	Radial centerline clearance of conductor or cable (unattached) from non-climbable street lighting or traffic signal poles or standards, including mastarms, brackets and lighting fixtures, and from antennas that are not part of the overhead line system.	-	1 Foot (u) (rr) (ss)	15 inches (bb) (cc)	3 Feet (oo)	6 Feet (pp)	10 Feet (qq)	10 Feet (ll)
11	Water areas not suitable for sailboating (tt) (uu) (ww) (xx)	15 Feet	15 Feet	-	15 Feet	17 Feet	25 Feet	25 Feet (kk)
12	Water areas suitable for sailboating, surface area of: (tt) (vv) (ww) (xx)							
	(A) Less than 20 acres	18 Feet	18 Feet	-	18 Feet	20 Feet	27 Feet	27 Feet (kk)
	(B) 20 to 200 acres	26 Feet	26 Feet	-	26 Feet	28 Feet	35 Feet	35 Feet (kk)
	(C) Over 200 to 2,000 acres	32 Feet	32 Feet	-	32 Feet	34 Feet	41 Feet	41 Feet (kk)
	(D) Over 2,000 acres	38 Feet	38 Feet		38 Feet	40 Feet	47 Feet	47 Feet (kk)
13	Radial clearance of bare line conductors from tree branches or foliage (aaa) (ddd)	-	-	18 inches (bbb)	-	18 inches (bbb)	1/4 pin spacing shown in table 2, Case 15 (bbb) (ccc)	1/2 pin spacing shown in table 2, Case 15

References to Rules Modifying Minimum Clearances in Table 1

		Rule
(a)	Shall not be reduced more than 5% because of temperature or loading	37
1	Supply lines	54.4–B1
2	Communication lines	84.4–B1
(b)	Shall be increased for supply conductors on suspension insulators, under certain conditions	37
(c)	Special clearances are provided for traffic signal equipment	58.4–C
(d)	Special clearances are provided for street lighting equipment	58.5–B
(e)	Based on trolley pole throw of 26 feet. may be reduced where suitably protected	56.4–B2
1	Supply guys	56.4–B2
2	Supply cables and messengers	57.4–B2
3	Communication guys	86.4–B2
4	Communication cables and messengers	87.4–B2
(f)	May be reduced depending on height of trolley contact conductors	
1	Supply service drops	54.8–C5
2	Communication service drops	84.8–D5
(g)	May be reduced and shall be increased depending on trolley throw	
1	Supply conductors (except service drops)	54.4–B2
2	Communication conductors (except service drops)	84.4–B2
(h)	May be decreased where freight cars are not transported.	
1.	Trolley contact and feeder conductors.	74.4-B1
2.	Trolley span wires	77.4-A
(i)	May be reduced for trolley contact and span wires in subways, tunnels, under bridges and in fenced areas	
1	Trolley contact conductors	74.4–E
2	Trolley span wires	77.4–B
(j)	May be reduced at crossings over private thoroughfares and entrances to private property and over private property	
1	Supply service drops	54.8–B2
2	Supply guys	56.4–A
3	Communication service drops	84.8–C2
4	Communication guys	86.4–A
(k)	May be reduced along thoroughfares where not normally accessible to vehicles	
1	Supply guys	56.4–A1
2	Communication guys	86.4–A1
(l)	May be reduced where within 12 feet of curb line of public thoroughfares	
1	Supply service drops	54.8–B1
2	Communication service drops	84.8–C1
(m)	May be reduced for railway signal cables under special conditions	84.4–A4
(n)	May be reduced in rural districts	
1	Intentionally left blank	
2	Intentionally left blank	
3	Communication conductors along roads	84.4–A2

References to Rules Modifying Minimum Clearances in Table 1	Rule
(o) May be reduced for transformer, regulator or capacitor leads	
1 Transformer leads	58.1–B
2 Regulator or capacitor leads	58.1–B
(p) May be reduced across arid or mountainous areas	
1 Supply conductors of more than 22,500 volts	54.4–A1
2 Communications conductors	84.4–A1
(q) Shall be increased or may be reduced under special conditions	
1 Supply service drops	54.8–B3
2 Intentionally left blank	
3 Communications conductors	84.4–A3
4 Increased for communication service drops on industrial or commercial premises	84.8–C3a
5 Communication service drops on residential premises	84.8–C3b
(r) May be reduced above roofs of buildings under special conditions	
1 Supply overhead guys	56.4–G
2 Supply service drops	54.8–B4
3 Communication overhead guys	86.4–F
4 Communication conductors and cables	84.4–E
5 Communication service drops	84.8–C4
(s) Also applies at fire escapes, etc.	
1 Supply conductors	54.4–H1
2 Vertical clearances	54.8-B4a
3 Horizontal clearance	54.8–B4b
4 Communication conductors	84.4–E
(t) Special clearances where attached to buildings, bridges or other structures	
1 Supply conductors of 750 - 22,500 volts	54.4–H2
2 Trolley contact conductors	74.4–E
3 Communication conductors	84.4–F
(u) Reduced clearances permitted under special conditions	
1 Supply service drops on industrial or commercial premises	54.8–B4a
2 Supply cables, grounded	57.4–G
3 Communication cables beside buildings, etc.	84.4–E
4 Communication conductors under bridges, etc.	84.4–F
5 Communication service drops	84.8–C4
6 Communication cables passing nonclimbable street light poles, etc.	84.4–D4a
(v) May be reduced under special conditions	
1 Supply conductors of 750 - 7,500 volts	54.4–H1
2 Supply transformer lead and bus wires, where guarded	58.1
(w) May be reduced at angles in lines and transposition points	
1 Supply conductors	54.4–D1
2 Communication conductors	84.4–D5
(x) May be reduced for suitably protected lateral or vertical runs	
1 Supply bond wires	53.4
2 Supply ground wires	54.6–B
3 Supply lateral conductors	54.6–C
4 Supply vertical runs	54.6–D
5 Supply risers	54.6–E
6 Communication ground wires	84.6–B
7 Communication lateral conductors	84.6–C
8 Communication vertical runs	84.6–D
9 Communication risers	84.6–E
(y) Increased clearances required for certain conductors	
1 Unattached conductors on collinear and crossing lines	32.3
2 Unattached supply conductors	54.4–D3
3 Supply service drops on clearance crossarms	54.8–C2
4 Supply service drops on pole top extensions	54.8–C3
5 Unattached supply service drops	54.8–D
6 Communication lines, collinear, conflicting or crossing	84.4–D3
7 Communication conductors passing supply poles and unattached thereto	84.4–D4
8 Communication service drops on clearance crossarms	84.8–D2
9 Communication service drops on pole top extensions	84.8–D3
10 Unattached communication service drops	84.8–E
(z) Special provisions for police and fire alarm conductors require increased clearances	92.2
(aa) May be reduced under special provisions	
1 Supply conductors of 0 - 750 volts in rack configuration	54.4–D5
2 Service supply drops from racks	54.8–F
3 Supply cables and messengers attached to poles	57.4–F
4 Communication conductors on communication poles	84.4–D
5 Communication conductors on crossarms	84.4–D1
6 Communication conductors attached to poles	84.4–D2
7 Communication service drops attached to poles	84.8–B
8 Communication cables and messengers	87.4–D
9 Supply or communication cables and messengers on jointly used poles	92.1–B
10 Communication open wire on jointly used poles	92.1–C
11 Multiconductor cable with bare neutral	54.10–B1
~~12 Communication conductors across or along public thoroughfares~~	~~84.4–A6~~
(bb) May be reduced for class t conductors of not more than 750 volts and of the same potential and polarity	74.4–D
(cc) Not applicable to trolley span wires	77.4–E
(dd) Special clearances for pole–top and deadend construction	
1 Conductors deadended in vertical configuration on poles	54.4–C4
2 Conductors deadended in horizontal configuration	54.4–D8
(ee) Clearance requirements for certain voltage classifications	54.4–D2
(ff) Not applicable to communication conductors	84.4–D
(gg) Clearance from crossarms may be reduced for certain conductors	
1 Suitable insulated leads to protect runs	54.4–E
2 Leads of 0 - 5,000 volts to equipment	54.4–E
3 Leads of 0 - 5,000 volts to cutouts or switches	58.3–A2
(hh) Reduced clearance permitted from temporary fixtures and lighting circuits 0 - 300 volts	78.3–A1
(ii) Special Clearances Required Above Public and Private Swimming Pools	
1 Supply line conductors	54.4–A3
2 Supply service drops	54.8–B5
3 Communication line conductors	84.4–A5
4 Communication service drops	84.8–C5
5 Supply guys, span wires	56.4–A3
6 Communication guys	86.4–A3
(jj) May be decreased in partial underground distribution	54.4–D2
(kk) Shall be increased by 0.025 feet per kV in excess of 300 kV	

References to Rules Modifying Minimum Clearances in Table 1	Rule
(ll) Shall be increased by 0.04 feet per KV in excess of 300 kV	
(mm) Proposed clearances to be submitted to the CPUC prior to construction for circuits in excess of 550 kV.	
(nn) Voltage shown in the table shall mean line–to–ground voltage for direct current (DC) systems	
(oo) May Be reduced for grounded or multi–conductor cables	
1 Grounded cables	57.4–H
2 Multi–Conductor cables	54.10–B2
(pp) May be reduced to 4 feet for voltages below 7,500 volts	54.4–D3
(qq) May be reduced to 6 feet for voltages below 75 kV	
(rr) May be reduced for supply service drops	54.8–D1
(ss) May be reduced for communications service drops	84.8–E1
(tt) Where a federal agency or surrogate thereof has issued a crossing permit, clearances of that permit shall govern.	
(uu) Or where sail boating is prohibited and where other boating activities are allowed	
(vv) Clearance above contiguous ground shall be 5 feet greater than in cases 11 or 12 for the type of water area served for boat launch facilities and for area contiguous thereto, that are posted, designated or specifically prepared for rigging of sailboats or other watercraft.	
(ww) For controlled impoundments, the surface areas and corresponding clearances shall be based upon the high water level. for other waters, the surface area shall be that enclosed by its annual flood level. the clearance over rivers, streams and canals shall be based upon the largest surface areas of any one–mile long segment which includes the crossing. The clearance over a canal, river or stream normally used to provide access for sailboats to a larger body of water shall be the same as that required for the larger body of water.	
(xx) Water areas are lakes, ponds, reservoirs, tidal waters, rivers, streams and canals without surface obstructions.	
(yy) May be reduced over non–walkable structures	54.8 (Table 10)
(zz) May be reduced to 2 feet for conductors insulated in accordance with	20.9–G
(aaa) Special requirements for communication and supply circuits energized at 0 - 750 volts	35
(bbb) May be reduced for conductor of less than 60,000 volts when protected from abrasion and grounding by contact with tree	35
(ccc) For 22.5 kV to 105 kV, minimum clearance shall be 18 inches.	
(ddd) Clearances in this case shall be maintained for normal annual weather variations, rather than at 60 degrees, no wind.	
(eee) May be reduced to 18 feet if the voltage does not exceed 1000 volts and the clearance is not reduced to more than 5% below the reduced value of 18 feet because of temperature and loading as specified in Rules 37 and 43.	

[Notes (fff) –(jjj), which are not affected by this PRC, are omitted.]

(kkk) For communication conductors across or along public thoroughfares see 84.4–A(6).

Note: Revised February 1, 1948 by Supplement No. 1 (Decision No. 41134, Case No. 4324); January 2, 1962 by Resolution E–1109; February 7, 1964 by Decision No. 66707; March 29, 1966 by Decision No. 70489; August 9, 1966 by Decision No. 71094; September 18, 1967 by Decision No. 72984; March 30, 1968 by Decision No. 73813; January 8, 1980 by Decision No. 91186; March 9, 1988 by Resolution E–3076; November 21, 1990 by Resolution SU–6; January 21, 1992 by Resolution SU–10; and November 6, 1992 by Resolution SU–15, September 20, 1996 by Decision 96–09–097, October 9, 1996 by Resolution SU-40, January 23, 1997 by Decision 97–01–044 and January 13, 2005 by Decision No. 0501030.

Rationale

Resolution SU-6 (1990) purportedly made two errors. First, it added Reference (aa) to Case 3, Column B. Prior to SU-6, Reference (aa) was only cited in Cases 8 and 9. Second, it added "aa-12" to Reference (aa). Proposed Rule Change 1 strikes Reference (aa) from Case 3, Column B, and strikes aa-12 from Reference (aa). New Reference "(kkk)" is added to Case 3, Column B. The new Reference (kkk) consists of a cite to Rule 84.4-A(6) and is the same as the current aa-12.

Proposed Rule Change 2 re: Rule 51.7

Proposed Changes Shown with Strikeout / Underline

51.7 Stepping (See Rule 91.3-B)

~~The lowest step on any stepped pole, tower or structure shall be not less than 7 feet 6 inches from the ground line and above this point the spacing between steps on the same side of pole, tower or structure shall not exceed 36 inches.~~

Proposed Final

51.7 Stepping (See Rule 91.3-B)

Rationale

This proposed rule change and associated revisions to Rule 81.6 and 91.3 provide uniform requirements for installing pole steps. The reason for establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures is to prevent easy climbing of utility poles.

Proposed Rule Change 3 re: Rule 54.6-E

Proposed Changes Shown with Underline

54.6 Vertical and Lateral Conductors

E. Risers

(8) Hardware (See Rule 91.4)

Proposed Final

54.6 Vertical and Lateral Conductors

E. Risers

(8) Hardware (See Rule 91.4)

Rationale

This proposed rule change and associated revisions to Rule 91.4 provide uniform requirements for installing riser brackets. The reason for establishing an installation height for the lowest riser support bracket at eight (8) feet above the ground line or foreign structures is to prevent easy climbing of utility poles.

Proposed Rule Change 4 re: Rule 54.9-C

Proposed Changes Shown with Strikeout / Underline

54.9 Low Voltage Racks, 0 - 750 Volts (Conductors Less than 15 Inches from Centerline of Pole, But Not Less than 2–1/2 Inches from the Surface of Pole).

C. Conductor Material

All conductors of a rack group in the same vertical plane shall be of the same material. Where conductors are less than 15 inches from centerline of pole, conductors shall have a covering not less than the equivalent of weather–resistant covering.

~~**(1) Urban Districts:** Conductors in rack construction in urban districts shall have a covering not less than the equivalent of weather–resistant covering.~~

~~**(2) Rural Districts:** Line conductors in rack construction in rural districts may be bare conductors provided the vertical separation between conductors is not less than 12 inches and conforms to the requirements of Rule 54.9–D where greater separation is specified~~

Proposed Final

54.9 Low Voltage Racks, 0 - 750 Volts (Conductors Less than 15 Inches from Centerline of Pole, But Not Less than 2–1/2 Inches from the Surface of Pole).

C. Conductor Material

All conductors of a rack group in the same vertical plane shall be of the same material. Where conductors are less than 15 inches from centerline of pole, conductors shall have a covering not less than the equivalent of weather–resistant covering.

Rationale

The purpose of the proposed rule change is to create a consistent "material covering" requirement in GO 95 for racked conductors installed in urban and rural areas.

Proposed Rule Change 5 re: Rule 58.1-A(1)

Proposed Changes Shown with Underline

58.1 Enclosed Equipment (Transformers, Capacitors, Regulators, etc.) (For purposes of this rule, enclosed means encased such as with cases or tanks of equipment operated at greater than 750 volts.)

A. Position on Pole

(1) Multiple Units: Where more than one unit is installed on a pole, they shall be placed on the same side of the pole. Transformers installed on metal mounting brackets shall not extend beyond the vertical plane through the centerline of the pole.

Exception: Units installed on non-climbable poles may extend beyond the vertical plane through the centerline of the pole. (See Rule 22.6-D)

Proposed Final

58.1 Enclosed Equipment (Transformers, Capacitors, Regulators, etc.) (For purposes of this rule, enclosed means encased such as with cases or tanks of equipment operated at greater than 750 volts.)

A. Position on Pole

(1) Multiple Units: Where more than one unit is installed on a pole, they shall be placed on the same side of the pole. Transformers installed on metal mounting brackets shall not extend beyond the vertical plane through the centerline of the pole.

Exception: Units installed on non-climbable poles may extend beyond the vertical plane through the centerline of the pole.

Rationale

This proposed rule change allows equipment brackets installed on non-climbable poles to extend beyond the vertical plane through the centerline of the pole.

The existing rule purportedly influences electric utilities to construct a two-pole platform to accommodate the installation of two or three large transformers in combination. Metallic brackets are available that allow two or three large transformers to be installed on a single pole. The purpose of this proposed rule is to reduce the number of two-pole platforms (associated with non-climbable poles).

Proposed Rule Change 6 re: Rule 58.3-D

Proposed Changes Shown with Strikeout / Underline

58 Miscellaneous Equipment

58.3 Line Switches and Disconnects

D Operating Mechanism

(4) Where line switches are operated from the ground level by means of all–metal control mechanisms without suitable insulating links or sections~~,~~:

(a) An insulated platform shall be provided ~~unless such operating mechanism is~~, or

(b) The operating mechanism and non-insulated platform shall be bonded and effectively grounded.

Proposed Final

58 Miscellaneous Equipment

58.3 Line Switches and Disconnects

D Operating Rods

(4) Where line switches are operated from the ground level by means of all–metal control mechanisms without suitable insulating links or sections:

(a) An insulated platform shall be provided, or

(b) The handle and non-insulated platform shall be bonded and effectively grounded.

Rationale

The purpose of the proposed revisions is to clarify the requirements for metallic control mechanisms and to improve worker safety.

Proposed Rule Change 7 re: Rule 81.6

Proposed Changes Shown with Strikeout / Underline

81.7 Stepping (See Rule 91.3-B)

~~The lowest step on any stepped pole shall be not less than 7 feet 6 inches from the ground line where supply conductors are supported on the same pole with communication conductors. On poles supporting communication conductors only, the lowest metal step may be placed not less than 6 feet 6 inches above the ground and one wood step may be placed 3 feet 6 inches above the ground.~~

Proposed Final

81.6 Stepping (See Rule 91.3-B)

Rationale

This proposed rule change and associated revisions to Rule 51.7 and 91.3 provide uniform requirements for installing pole steps. The reason for establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures is to prevent easy climbing of utility poles.

Proposed Rule Change 8 re: Rule 84.4-C(2)

Proposed Changes Shown with Strikeout

84.4 Clearances

C. Between Conductors

(2) Duplex, Triplex and Cables: Insulated single conductors (~~rubber insulated~~), duplex, triplex and paired conductors are considered ~~as~~ cables (see definition, Rule 20.4) and the clearances for such conductors are specified in Rule 87.4.

Rationale

Technical revision.

Proposed Rule Change 9 re: Rule 84.7

Proposed Changes Shown with Strikeout / Underline

84.7 Climbing Space and Working Space

A. Climbing Space

Climbing space shall be maintained on one side or quadrant of all poles or structures supporting communications conductors excepting at the level of the one pair of conductors attached to the pole below the lowest crossarm (Rules 84.4–C1c, 84.4–D1 and 87.4–C3) and the top 3 feet of poles carrying communication conductors only which are attached directly to pole in accordance with the provisions of Rule 84.4–C1c.

The climbing space shall be maintained in the same position on the pole for minimum vertical distance of 4 feet above and below each conductor level through which it passes, excepting that where a cable is attached to a crossarm or a pole with the cable less than 9 or 15 inches from the center line of the pole supporting conductors on line arms (no buck arm construction involved) in accordance with the provisions of Rules 84.4–D1 or 87.4–C3, the 4 foot vertical distance may be reduced to not less than 3 feet.

The position of the climbing space shall not be shifted more than 90 degrees around the pole within a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The climbing space shall be kept free from obstructions excepting those obstructions permitted by Rule 84.7–E.

Note: Revised May 22, 1990 by Resolution No. SU–5.

~~A.~~ 1. **Where Line Arms Only are Involved** (See Figure 84–3)

The climbing space through the levels of conductors supported on line arms only shall be located so that the center line of the pole is approximately midway on the side of the climbing space and parallel to the crossarms. The horizontal dimensions of the climbing spaces, with widths measured perpendicularly to the conductors, and with depths measured from the center line of the pole and parallel to the conductors, shall not be less than those specified in Rule 84.7–A1 and 84.7–A2.

EXCEPTION: At angles in lines with widths of 18 and 30 inches may be reduced to not less than 16 1/2 and 27 1/2 inches respectively, provided the horizontal separation of pole–pin conductors measured parallel to the crossarm shall not be less than 18 and 30 inches respectively.

~~(1)~~(a) On Poles Which Support Communication Conductors Only: The climbing space for communication conductors shall not be less than 18 inches wide and 30 inches deep.

Note: Revised November 21, 1990 by Resolution SU–6.

~~(2)~~(b) **On Poles Jointly Used with Supply Conductors:** The climbing space through the levels of communication conductors on line arms on poles jointly used with supply conductors, shall be not less than 30 inches in width and not less than 30 inches in depth, except that climbing spaces of the dimensions specified in Rule 84.7–A1 may be used where the only supply conductors supported by the pole are on service drop clearance attachments as permitted by Rules 54.8–C2 and 54.8–C3.

~~B.~~2. **Where** Buck Arms Are Involved

The horizontal dimensions of the climbing space shall be fixed according to the following crossarm combinations of line arms and related buck arms. For this purpose a metal back brace shall be considered as one of the arms of double arm construction and where used the requirements for double arm construction shall be met.

~~(1)~~(a) **Double Line Arm and Double Buck Arm:** Where the combination is double line arm and double buck arm the climbing space shall be not less than 26 1/2 inches square measured horizontally from the center line of pole (see Appendix G, Figure 37).

~~(2)~~(b) **Double Buck Arm and Single Line Arm, or Vice Versa:** Where the combination is double buck arm and single line arm, or vice versa, and the climbing space is left open on the opposite side of pole from the single arm, the climbing space (measured horizontally from center line of pole) shall be not less than 20 inches perpendicular to the single arm, and not less than 26 1/2 inches perpendicular to the double arms (see Appendix G, Figure 36).

~~(3)~~(c) **Single Line Arm and Single Buck Arm:** Where the combination is single line arm and single buck arm and the climbing space is left open on the sides of pole opposite the crossarms, the climbing space shall be not less than 20 inches square measured horizontally from center line of pole (see Appendix G, Figure 35).

~~(4)~~ (d) **Alternative:** Where a combination of a single line arm and a single buck arm or a double line arm and single buck arm (or vice versa) is involved and it is impracticable to locate the climbing space on the side of the pole opposite the single arm or arms, it may be located in another quadrant provided that any arm within such climbing space is treated as one of the arms of a double arm installation and that where a change of quadrant is involved the provisions of Rule 84.7 are observed.

~~C.~~3. **Through Conductors Not on Crossarms**

Where communication conductors are not supported on crossarms, an unobstructed climbing space not less than 30 inches square (measured from center line of pole) shall be maintained through all conductor levels of such conductors except those levels of similarly

supported conductors within 3 feet of the topmost conductor on the pole (see Appendix G, Figure 38).

~~D.~~4. **Through Service Drops Not on Crossarms**
Where hooks, knobs or brackets are used for the support of service drops and other conductors are supported at a higher level on the pole, an unobstructed climbing space 30 inches square shall be maintained through such attachments, and for not less than 4 feet above and below such attachments, using any one of the service drops as one side of the climbing space and having one other side perpendicular to it and tangent to the surface of the pole (see Appendix G, Figure 39).

For clearance of service drop attachments above or below supply conductors see Rule 84.8–D1.

~~E.~~5. **Allowable Climbing Space Obstructions**

a. Vertical conductors, when in a suitable protective covering attached directly to the surface of the pole, and guys, will not be held to obstruct the climbing space provided not more than two guys (provided they are separated at the pole by a vertical distance of not more than 18 inches) and one other of the above named obstructions are installed in any 4-foot vertical section of climbing space.

b. Crossarms and their supporting members are allowed in climbing spaces provided that, where buck arms are involved, any arms within climbing spaces are treated as double arms.

c. A guard arm, a longitudinal run of messenger, cable or insulated wire will not be held to obstruct the climbing space where they are placed in the climbing space because the presence of a building wall or similar obstacle will not permit the cable to be placed on the side of pole opposite the climbing space. Pole steps shall be suitably placed for the purpose of facilitating climbing past the level of terminal box, cable, drop wires and guard arm.

d. Pole restoration ~~techniques~~ materials are allowed in climbing space provided pole steps are placed in the restoration area as part of the process. Pole stepping shall be in accordance with Rule~~s~~ ~~51.7 and~~ 81.6. ~~Hardware for the use of detachable pole steps shall be installed as part of the restoration process from ground line to 7 feet 6 inches.~~

e. Bands limited to 6 inches in total width are allowed in any 24-inch section of climbing space. These limitations are excluded for pole stubbing and pole splicing bands when pole step provisions are installed.

f. Unnecessary impairment of the climbing space is not permitted by the application of this Rule 84.7-E.

Note: Revised March 9, 1988 by Resolution E–3076 and January 13, 2005 by Decision No. 0501030.

~~F.~~6. Colinear, Conflicting or Crossing Lines (See Rule 84.4–D3)

B. Working Space

Working spaces, unobstructed by facilities except as provided in Rule 84.7-B(3), of the dimensions specified in Rule 84.7-B(1) and/or 84.7-B(2), shall be provided on all poles in such positions that the workings space shall be accessible from the climbing space.

(1) Dimensions for surface mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimension extends 24 inches above the uppermost attachment and 48 inches below the lowermost attachment. (See Figure 84-4.)

(b) The width extends 36 inches from the centerline of the pole in both directions measured horizontally along the plane of the attachments. (See Figure 84-4.)

(c) The depth extends not less than 36 inches as measured perpendicularly to this space boundary from the centerline of the pole. (See Figure-84-4.)

(2) Dimensions for Arm mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimensions are the same as Rule 84.7.B.1.a.

(b) The width dimension is the same as Rule 84.7.B.1.b.

(c) Where arm(s) support cable(s) the working space include the dimensions described above and extends from the center line of the pole to 36" or the outermost cable, whichever is greater.

(3) Allowable Working Space Obstructions:

(a) Arms supporting cable, guard arms, longitudinal runs of messenger cable, and equipment mounted to a cable or a cable attached directly to the pole.

(i) Cable(s) supported on Arm(s) must be 12 inches above any cable attached directly to the pole below the arm(s). No cable or equipment may be attached directly to a pole above any such arm at less than 4 feet.

(b) Guys, risers, vertical cables and conductors attached directly to the surface of the pole or on a riser bracket, control rods.

(c) Streetlight brackets or fixtures installed in conformance with Rule 92.1.f.5.

(d) Equipment supporting class C circuits affixed to the surface of the pole.

(e) Antenna(s) installed in accordance with Rule 94 above cable(s) of the same ownership.

(f) Unnecessary impairment of the working space is not permitted by the application of this Rule 84.7-G(2).

(g) Where installed, pole steps shall be suitably placed to facilitate working around obstructions.

Proposed Final

84.7 Climbing Space and Working Space

A. Climbing Space

Climbing space shall be maintained on one side or quadrant of all poles or structures supporting communications conductors excepting at the level of the one pair of conductors attached to the pole below the lowest crossarm (Rules 84.4–C1c, 84.4–D1 and 87.4–C3) and the top 3 feet of poles carrying communication conductors only which are attached directly to pole in accordance with the provisions of Rule 84.4–C1c.

The climbing space shall be maintained in the same position on the pole for minimum vertical distance of 4 feet above and below each conductor level through which it passes, excepting that where a cable is attached to a crossarm or a pole with the cable less than 9 or 15 inches from the center line of the pole supporting conductors on line arms (no buck arm construction involved) in accordance with the provisions of Rules 84.4–D1 or 87.4–C3, the 4 foot vertical distance may be reduced to not less than 3 feet.

The position of the climbing space shall not be shifted more than 90 degrees around the pole within a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The climbing space shall be kept free from obstructions excepting those obstructions permitted by Rule 84.7–E.

Note: Revised May 22, 1990 by Resolution No. SU–5.

1. Where Line Arms Only Are Involved (See Figure 84–3)

The climbing space through the levels of conductors supported on line arms only shall be located so that the center line of the pole is approximately midway on the side of the climbing space and parallel to the crossarms. The horizontal dimensions of the climbing spaces, with

widths measured perpendicularly to the conductors, and with depths measured from the center line of the pole and parallel to the conductors, shall not be less than those specified in Rule 84.7–A1 and 84.7–A2.

EXCEPTION: At angles in lines with widths of 18 and 30 inches may be reduced to not less than 16 1/2 and 27 1/2 inches respectively, provided the horizontal separation of pole–pin conductors measured parallel to the crossarm shall not be less than 18 and 30 inches respectively.

(a) On Poles Which Support Communication Conductors Only: The climbing space for communication conductors shall not be less than 18 inches wide and 30 inches deep.

Note: Revised November 21, 1990 by Resolution SU–6. Rule 84.7-A2

(b) On Poles Jointly Used with Supply Conductors: The climbing space through the levels of communication conductors on line arms on poles jointly used with supply conductors, shall be not less than 30 inches in width and not less than 30 inches in depth, except that climbing spaces of the dimensions specified in Rule 84.7–A1 may be used where the only supply conductors supported by the pole are on service drop clearance attachments as permitted by Rules 54.8–C2 and 54.8–C3.

2. **Where Buck Arms Are Involved**
The horizontal dimensions of the climbing space shall be fixed according to the following crossarm combinations of line arms and related buck arms. For this purpose a metal back brace shall be considered as one of the arms of double arm construction and where used the requirements for double arm construction shall be met.

(a) Double Line Arm and Double Buck Arm: Where the combination is double line arm and double buck arm the climbing space shall be not less than 26 1/2 inches square measured horizontally from the centerline of pole (see Appendix G, Figure 37).

(b) Double Buck Arm and Single Line Arm, or Vice Versa: Where the combination is double buck arm and single line arm, or vice versa, and the climbing space is left open on the opposite side of pole from the single arm, the climbing space (measured horizontally from center line of pole) shall be not less than 20 inches perpendicular to the single arm, and not less than 26 1/2 inches perpendicular to the double arms (see Appendix G, Figure 36).

(c) Single Line Arm and Single Buck Arm: Where the combination is single line arm and single buck arm and the climbing space is left open on the sides of pole opposite the crossarms, the climbing space shall be not less than 20 inches square measured horizontally from center line of pole (see Appendix G, Figure 35).

(d) Alternative: Where a combination of a single line arm and a single buck arm or a double line arm and single buck arm (or vice versa) is involved and it is impracticable to locate the climbing space on the side of the pole opposite the single arm or arms, it may be located in another quadrant provided that any arm within such climbing space is treated as one of the arms of a double arm installation and that where a change of quadrant is involved the provisions of Rule 84.7 are observed.

3. Through Conductors Not on Crossarms

Where communication conductors are not supported on crossarms, an unobstructed climbing space not less than 30 inches square (measured from center line of pole) shall be maintained through all conductor levels of such conductors except those levels of similarly supported conductors within 3 feet of the topmost conductor on the pole (see Appendix G, Figure 38).

4. Through Service Drops Not on Crossarms

Where hooks, knobs or brackets are used for the support of service drops and other conductors are supported at a higher level on the pole, an unobstructed climbing space 30 inches square shall be maintained through such attachments, and for not less than 4 feet above and below such attachments, using any one of the service drops as one side of the climbing space and having one other side perpendicular to it and tangent to the surface of the pole (see Appendix G, Figure 39).

For clearance of service drop attachments above or below supply conductors see Rule 84.8–D1.

5. Allowable Climbing Space Obstructions

a. Vertical conductors, when in a suitable protective covering attached directly to the surface of the pole, and guys, will not be held to obstruct the climbing space provided not more than two guys (provided they are separated at the pole by a vertical distance of not more than 18 inches) and one other of the above named obstructions are installed in any 4-foot vertical section of climbing space.

b. Crossarms and their supporting members are allowed in climbing spaces provided that, where buck arms are involved, any arms within climbing spaces are treated as double arms.

c. A guard arm, a longitudinal run of messenger, cable or insulated wire will not be held to obstruct the climbing space where they are placed in the climbing space because the presence of a building wall or similar obstacle will not permit the cable to be placed on the side of pole opposite the climbing space. Pole steps shall be suitably placed for the purpose of facilitating climbing past the level of terminal box, cable, drop wires and guard arm.

d. Pole restoration-materials are allowed in climbing space provided pole steps are placed in the restoration area as part of the process. Pole stepping shall be in accordance with Rule 81.6.

e. Bands limited to 6 inches in total width are allowed in any 24-inch section of climbing space. These limitations are excluded for pole stubbing and pole splicing bands when pole step provisions are installed.

f. Unnecessary impairment of the climbing space is not permitted by the application of this Rule 84.7-E.

Note: Revised March 9, 1988 by Resolution E–3076 and January 13, 2005 by Decision No. 0501030.

6. Colinear, Conflicting or Crossing Lines (See Rule 84.4–D3)

B. Working Space

Working spaces, unobstructed by facilities except as provided in Rule 84.7-B(3), of the dimensions specified in Rule 84.7-B(1) and/or 84.7-B(2), shall be provided on all poles in such positions that the workings space includes the climbing space.

(1) Dimensions for surface mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimension extends 24 inches above the uppermost attachment and 48 inches below the lowermost attachment. (See Figure 84-4.)

(b) The width extends 36 inches from the centerline of the pole in both directions measured horizontally along the plane of the attachments. (See Figure 84-4.)

(c) The depth extends not less than 36 inches as measured perpendicularly to this space boundary from the centerline of the pole. (See Figure 84-4.)

(2) Dimensions for Arm mounted conductor(s), cable(s), and messenger(s):

(a) The vertical dimensions are the same as Rule 84.7.B.1.a.

(b) The width dimension is the same as Rule 84.7.B.1.b.

(c) Where arm(s) support cable(s) the working space include the dimensions described above and extends from the centerline of the pole to 36" or the outermost cable, whichever is greater.

(3) Allowable Working Space Obstructions:

(a) Arms supporting cable, guard arms, longitudinal runs of messenger cable, and equipment mounted to a cable or a cable attached directly to the pole.

(i) Cable(s) supported on Arm(s) must be 12 inches above any cable attached directly to the pole below the arm(s). No cable or equipment may be attached directly to a pole above any such arm at less than 4 feet.

(b) Guys, risers, vertical cables and conductors attached directly to the surface of the pole or on a riser bracket, control rods.

(c) Streetlight brackets or fixtures installed in conformance with Rule 92.1.f.5.

(d) Equipment supporting class C circuits affixed to the surface of the pole.

(e) Antenna(s) installed in accordance with Rule 94 above able(s) of the same ownership.

(f) Unnecessary impairment of the working space is not permitted by the application of this Rule 84.7-G(2).

(g) Where installed, pole steps shall be suitably placed to facilitate working around obstructions.

Rationale

The proposed revision re-organizes the existing rule, modifies an existing requirement related to pole restoration, and adds new "working space" requirements. Associated changes include a new graphic depiction for communication working space dimensions in a revised Figure 84-4. The current Figure 84-4 is renumbered as Figure 84-5 with no modification of the graphic depiction.

Although the existing clearance and separation rules in Section III and Section VIII (for communication lines) do create theoretical "working space," inconsistent interpretation and application of existing rules purportedly produces inconsistent results and often limits or prohibits the application of safe work methods. The purpose of the proposed working space rules in Rule 84.7, as depicted by revised Figure 84-4, is to improve worker safety by better defining the work environment for persons responsible for constructing and maintaining communication lines.

Proposed Rule Change 10 re: Rule 87.7-D

Proposed Changes Shown with Underline

87.7 Covering or Guarding

D. Risers

(3) Hardware (See Rule 91.4).

Proposed Final

87.7 Covering or Guarding

D. Risers

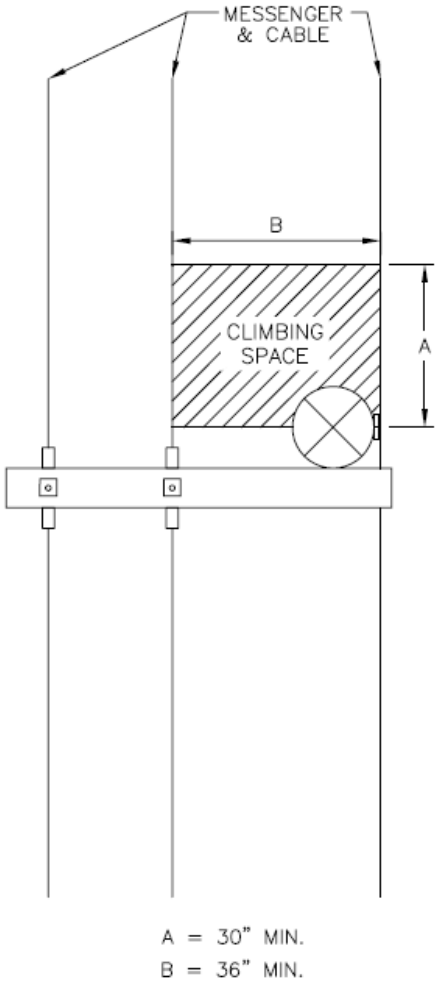
(3) Hardware (See Rule 91.4).

Rationale

This proposed rule change and associated revisions to Rule 91.4 provide uniform requirements for installing riser brackets. The reason for establishing an installation height for the lowest riser support bracket at eight (8) feet above the ground line and foreign structures is to prevent easy climbing of utility poles.

Proposed Rule Change 11 re: Figure 84-2

Proposed Addition to Figure 84-2



Rule 84.4-D(1)

Figure 84-2

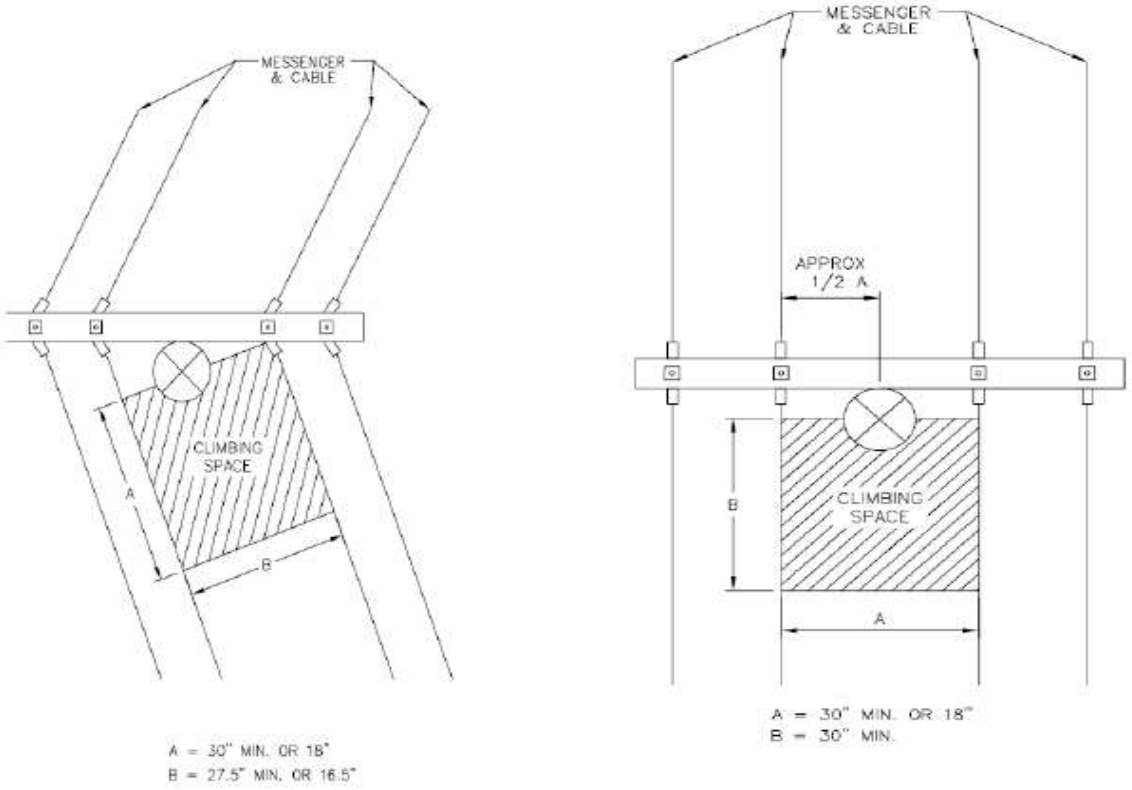
Rationale

This proposed rule change adds a new diagram (shown above) to Figure 84-2 that reflects a modern construction practice. All of the existing Figure 84-2 (including a diagram – not shown above - of open wire communication conductors supported on crossarms) is retained.

Proposed Rule Change 12 re: Figure 84-3

Proposed Addition to Figure 84-3

Climbing Space
Communication Cables on Arms



Rule 84.4-D(5) **Rule 84.7-A**

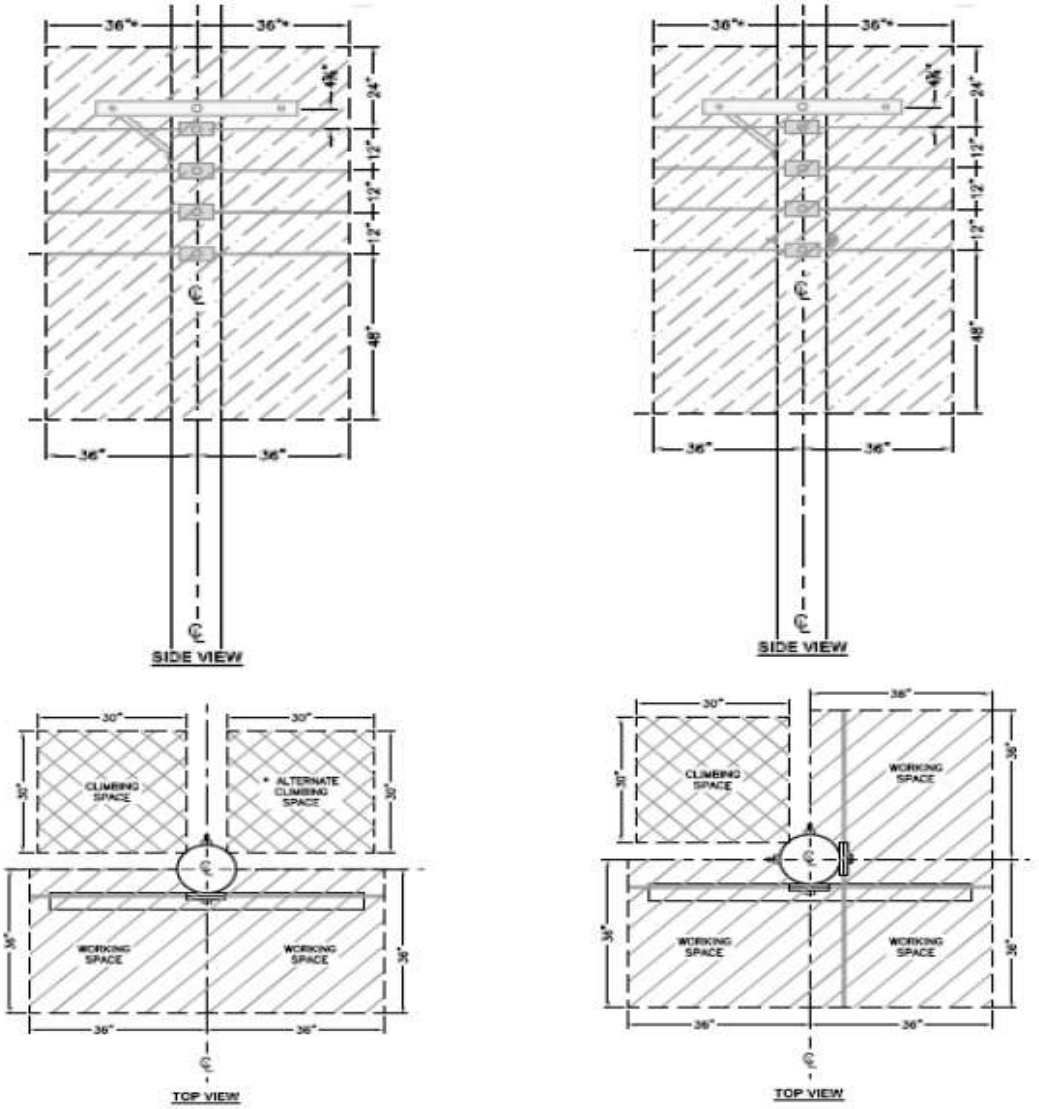
Figure 84-3

Rationale

This proposed rule change adds a new diagram (shown above) to Figure 84-3 that reflects a modern construction practice. All of the existing Figure 84-3 (including a diagram – not shown above - of open wire communication conductors supported on crossarms) is retained.

Proposed Rule Change 13 re: New Figure 84-4

Proposed Final



Single Side of Pole Occupied **Two Sides of Pole Occupied**

Rule 84.7-B
Figure 84-4

Rationale

Although the existing clearance and separation rules in Section III and Section VIII for communication conductors create theoretical "working space," inconsistent interpretation and application of existing rules purportedly produces inconsistent results and often limits or prohibits the application of safe work methods. The working space in proposed new Rule 84.7-B, as depicted in proposed new Figure 84-4 above, is intended to improve worker safety by better defining the work environment for persons responsible for constructing and maintaining communication lines.

Proposed Rule Change 14 re: Renumbered Figure 84-5

Renumbered Figure 84-5

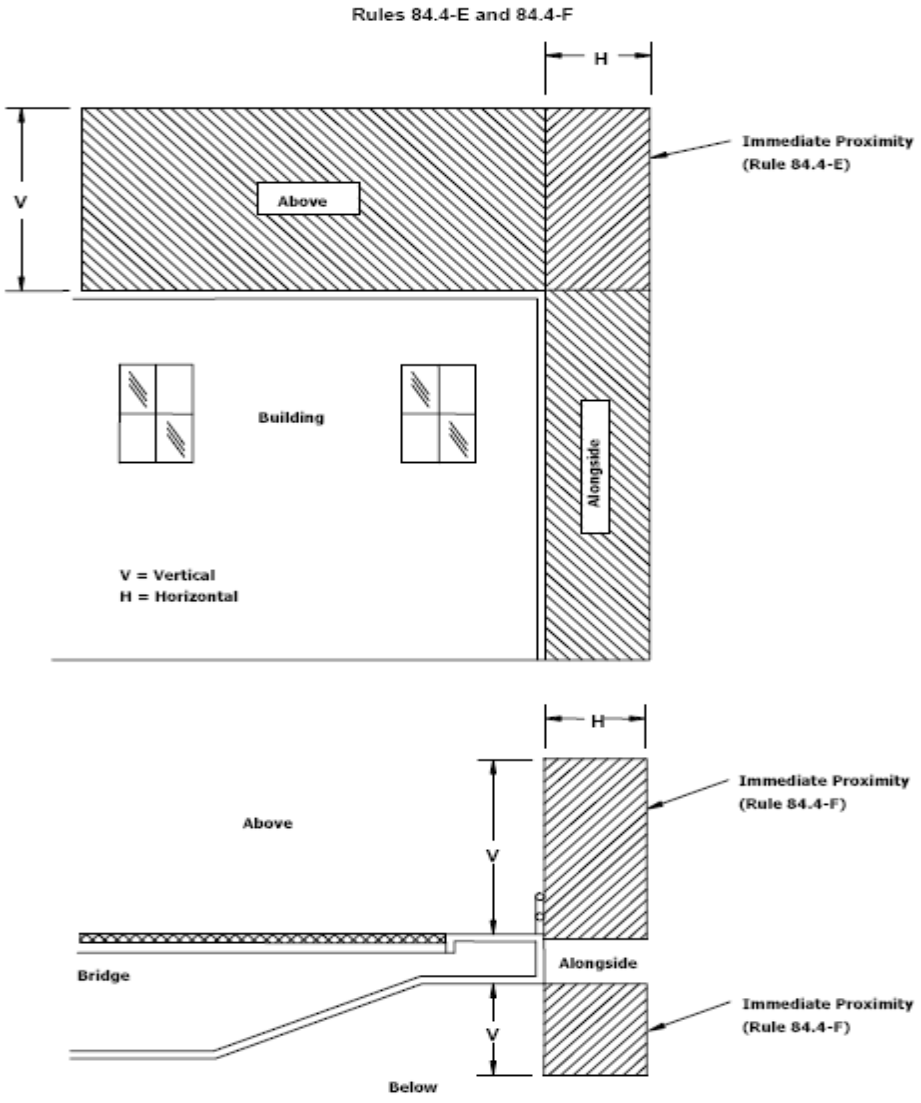


Figure 84-~~4~~5

Communication Conductors in Immediate Proximity to Buildings, Bridges or Similar Structures

Note

The previous Proposed Rule Change (PRC) 13 adds a new Figure 84-4. In PRC 14, above, the existing Figure 84-4 renumbered as Figure 84-5. There are no other changes to the renumbered Figure 84-5.

Proposed Rule Change 15 re: Rule 91.3-B

Proposed Changes Shown with Strikeout / Underline

91.3 Stepping

B. Location of Steps

The lowest step shall be not less than ~~7~~8 feet ~~6 inches~~ from the ground line, or any easily climbable foreign structure from which one could reach or step. ~~and a~~Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain.

Steps or fixtures for temporary steps shall be installed as part of a pole restoration process.

Steps shall be so placed that runs or risers do not interfere with the free use of the steps.

Exception: Steps are not required above the uppermost Class C circuit where an Antenna is affixed above supply conductors.

Proposed Final

91.3 Stepping

B. Location of Steps

The lowest step shall not be less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step. Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain.

Steps or fixtures for temporary steps shall be installed as part of a pole restoration process.

Steps shall be so placed that runs or risers do not interfere with the free use of the steps.

Exception: Steps are not required above the uppermost Class C circuit where an Antenna is affixed above supply conductors.

Rationale

This proposed rule change and associated revisions to Rules 51.7 and 81.6 provide uniform requirements for installing pole steps. The reason for establishing an installation height for the lowest pole step at eight (8) feet above the ground line and foreign structures is to prevent easy climbing of utility poles.

Proposed Rule Change 16 re: Rule 91.4

Proposed Changes Shown with Underline

91 Poles, Towers and Structures

91.4 Hardware

Riser standoff brackets on supporting structures shall be arranged so that there is not less than 8 ft between either:

(1) The lowest bracket and ground or other easily climbable surface, or

(2) The two lowest brackets.

Exception: Does not apply when a fence or wall is used as a suitable barrier. See Rule 61.6-B.

For grounded hardware requirements see Rule 54.4–G.

Proposed Final

91 Poles, Towers and Structures

91.4 Hardware

Riser standoff brackets on supporting structures shall be arranged so that there is not less than 8 ft between either:

(1) The lowest bracket and ground or other easily climbable surface, or

(2) The two lowest brackets.

Exception: Does not apply when a fence or wall is used as a suitable barrier. See Rule 61.6 B

For grounded hardware requirements see Rule 54.4–G.

Rationale

This proposed rule change and associated revisions to Rule 54.6 provide uniform requirements for installing riser brackets. The reason for establishing an installation height for the lowest riser support bracket at eight (8) feet above the ground line and foreign structures is to prevent easy climbing of utility poles.

(END OF APPENDIX B)