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Decision 97-01-044 January 23, 1997

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ORIGINAL

Investigation on the Commission's)
 own motion and Order to Show Cause)
 to determine if San Diego Gas &)
 Electric Company should be held in)
 violation of the Commission's)
 General Order 95 for failure to have)
 exercised reasonable tree trimming)
 practices and procedures.)

I.94-06-012
(Filed June 8, 1994)

O P I N I O N

1.0 Summary of Decision

In this interim decision we adopt final standards for trimming trees which are in proximity to overhead electric lines of utilities within our jurisdiction. Our decision follows a notice-and-comment procedure adopted in Decision (D.) 96-09-097 (September 20, 1996) for considering a proposal for specific, measurable, and enforceable standards for system maintenance and operations, to ensure system reliability and minimize or prevent service interruptions due to storms, earthquakes, fires, and other disasters. These standards mandate minimum distances that must be maintained at all times between conductors and surrounding vegetation, and provide additional guidelines for clearances that should be established at the time of trimming, where practicable, between vegetation and energized conductors and other live parts of the overhead lines. Both the mandatory minimum distances and the suggested minimum trimming radii vary with the voltage level and protective features of the conductors.

In adopting these standards we also decide the motion by intervenor Gary Bailey, made pursuant to Rule 17.2 of our Rules of Practice and Procedure, for a determination of whether this proceeding involves a project subject to, or exempt from, the California Environmental Quality Act (CEQA), Public Resources Code

Section 21000 et seq. In our estimation, adoption of specific standards defining what constitutes "a reasonable amount of tree trimming. (to) be done in order that the wires may clear branches and foliage"--our standard until now under General Order (G.O.) 95, Rule 35--will produce no adverse environmental effects as measured against the baseline of tree trimming that should have been accomplished to maintain reasonable minimum clearances all along. Moreover, the activities of maintaining landscaping and native growth around utility facilities are clearly within categorical exemptions (1)(A) 3. and 4. of Rule 17.1(h). We determine, therefore, that CEQA review is not required here.

Finally, in order to simplify and expedite Phase II of this proceeding and bring it to a prompt conclusion, in this order we establish a schedule for further steps to define and address all other aspects of our investigation.

2.0 Background

In D.96-09-097 we adopted interim standards governing tree trimming by approving a written settlement agreement (Settlement) entered into by a number of the parties, and fixed an implementation schedule for attaining compliance with the standards that were articulated as part of that decision. The order also established a procedure to adopt final tree trimming standards by receiving initial and reply comments concerning the interim standards from parties and members of the general public. The order specified that comments could urge adoption of the proposed standards, or alternatively could urge that standards now contained in the Public Resources Code or some other standard be adopted. Finally, the order also set forth a procedure for concluding Phase II (and thus the entirety) of this proceeding by holding evidentiary hearings on all other issues encompassed by the amended Order Instituting Investigation (OII).

2.1 The Settlement

The operative language is contained in Paragraph A of the Settlement, which recommends that G.O. 95 be changed in three respects. Specifically, the parties agreed to recommend to the Commission certain changes to Rules 35 and 37 and Table 1 of G.O. 95. The proposed changes were included as Attachment A to the Settlement, which was reproduced in D.96-09-097 for comment as described above.¹ The proposed standards, which were adopted as our governing interim standards pending the adoption of final standards, would make several significant clarifications to the rules, standards, and guidelines which are contained in the current version of G.O. 95.

First, Rule 35, which is titled "Tree Trimming", would be expanded to provide specific direction for trimming so that the risk of contact with nearby vegetation would be reduced to a level deemed acceptable by the settling parties. Modification of the rule would be accomplished by adding "Case 13" to Table 1, a tabular matrix of clearances now found under Rule 37.² The

¹ The standards proposed for consideration are those contained in "Proposed Rule 35, Proposed Rule 37, Proposed Change to Table 1, and Proposed - Appendix E", which comprise pages 12 through 15 of Appendix C to D.96-09-097. The rest of the Settlement is immaterial, as D.96-09-097 approved and adopted it in its entirety pursuant to Rule 51. Therefore, it is the sponsoring parties' agreement to propose these specific changes to G.O. 95 to which we are responding in this decision by taking the further step of acting upon the proposal.

² Rule 37 is titled, "Minimum Clearances of Wires Above Railroads, Thoroughfares, Buildings, Etc." Table 1 bears the title, "Basic Minimum Allowable Vertical Clearance of Wires Above Railroads, Thoroughfares, Ground or Water Surfaces; Also Clearances from Poles, Buildings, Structures or Other Objects [note omitted]." Adding Case 13 to this table under Rule 35 is apparently suggested as an expedient method for articulating minimum clearances between

(Footnote continues on next page)

proposed Case 13 would require the following minimum radial clearances of bare line conductors from tree branches or foliage: 6 inches from trolley contact, feeder and span wires, 0 - 5,000 volts; 6 inches from supply conductors and supply cables, 750 - 22,500 volts; 1/4 pin spacing from conductors and supply cables, 22.5 - 300 kilovolts (kV); and 1/2 pin spacing from supply conductors and supply cables, 300 - 550 kV.

The proposed revisions to Rule 35 contain a parenthetical sentence which directs the reader to Appendix E for tree trimming guidelines. Appendix E sets forth "minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts where practicable."³ These minimum radial clearances are 4 feet from conductors of 2,400 to 72,000 volts; 6 feet from conductors from 72,000 volts to 110,000 volts; 10 feet from conductors from 110,000 to 300,000 volts; and 15 feet from conductors in excess of 300,000 volts.

The proposed Rule 35 would continue to impose an obligation upon the utility to remove dead, rotten, and diseased

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any overhead wires and neighboring vegetation. Caveat, however, that the note to the title states, "Voltage shown in the table shall mean line-to-ground voltage for direct current (DC) systems." All standards adopted here must be understood to apply as well to alternating current (AC) systems, which comprise the state's transmission and distribution system.

3 The text of Appendix E also observes that vegetation management practices may make it advantageous to obtain greater clearances than those listed.

trees or portions of trees that overhang or threaten to fall into a span, when the utility has actual knowledge of the condition. It also contains newly created exceptions from tree trimming requirements for conductors that carry less than 60,000 volts and have adequate separation and protection from abrasion if trimming is impracticable; where the utility has unsuccessfully made a good faith effort to obtain permission to trim; and in unusual circumstances beyond the utility's control.⁴

Finally, the proposal would make some minor revisions to Rule 37, which is titled, "Minimum Clearances Above Railroads, Thoroughfares, Buildings, Etc.," to take into account the addition of Case 13 to Table 1.

2.2 The Implementation Schedule

The Settlement expressed the parties' agreement that immediate implementation of the revision would present a substantial hardship to the utilities and their ratepayers, and therefore recommended that the requirements established in Table 1, Case 13, should commence two years after the effective date of the Commission's decision approving the Settlement. In D.96-09-097 the Commission specified that this term be construed to require compliance to the extent of 25% by the six-month anniversary date; 50% after 12 months; 75% by the 18-month anniversary; and full compliance by the two-year anniversary.

3.0 Comments and Replies

Joint comments submitted by the Commission's Utilities Safety Branch (Branch) staff counsel were received on behalf of the California Municipal Utilities Association; the International Brotherhood of Electrical Workers, Local 1245; Northern California

⁴ In the latter instance, the proposed rule nevertheless expressly recognizes that the utility may be directed by this Commission to take prompt remedial action.

Power Agency; Pacific Gas and Electric Company (PG&E); Pacific Power and Light Company; San Diego Gas & Electric Company (SDG&E); Sierra Pacific Power Company (Sierra Pacific); Southern California Edison Company (Edison); Southern California Public Power Authority; and Branch (Joint Comments). PG&E also separately submitted concurring comments. Additional comments were received separately from Gary Bailey, John Sevier, Emil Berezcky, and William P. Adams. Comments in the form of correspondence were received from three members of the public.

Replies to the comments of Bailey, Adams, Berezcky, and Sevier were received from the aforementioned joint parties. PG&E, SD&E, Edison, and Sierra Pacific separately replied to Bailey's comments. Separate reply comments were also received from Branch and Adams.

The Joint Comments support the adoption of the Settlement proposal as the final version of the new standards. They posit that the clearances which would be established in the proposed Table 1, Case 13, which would have to be maintained at all times, are double those called for by the current Case 9, and are adequate to prevent arcing and make the clearance more visible from ground level. On the other hand, the Joint Comments express disfavor with adopting the trimming standards set forth in the Public Resources Code, as this would entail a \$400 million one-time compliance cost as well as \$150 million in additional annual maintenance costs in urban areas. The Joint Comments state that this would not represent a proper balance between cost and safety considerations, and would be very deleterious to the aesthetics of the urban landscape and the interests of property owners.

The Joint Comments ask for clarification of the implementation schedule, specifically with respect to whether the percentages refer to the number of trees, line-miles, circuits, grids, or customers served. In addition, the Joint Comments call

for some way to deal with the problem of local agency tree trimming restrictions.

PG&E's concurring comments also urge the Commission to adopt the Settlement proposal as the final tree trimming rule, and request a declaration of this Commission's jurisdiction over utility tree trimming practices in California to defeat local restrictions on tree trimming.

Bailey urges that adoption of the revisions to the rule requires review under CEQA, and also proposes the addition of language that would require all utilities to enter into a programmatic agreement with the California Department of Fish and Game (F&G), within one year of the issuance of this decision, regarding tree trimming and removal in riparian areas and other sensitive habitats to insure compliance with applicable resource laws. His comments also identify issues which he proposes to have included among those to be considered in the subject of the upcoming hearings.

Sevier's comments are brief: he opposes the six-inch minimum clearance standard, and calls for the development of evidence on this topic at a hearing or other public forum.

Bereczky is concerned about a standard which would allow the utilities to overlook the interests of individual property owners. He reiterates his position that the maximum allowable clearance should be six inches plus two years' growth for different varieties of trees.

Adams urges the Commission to adopt the minimum clearances set forth in Public Resources Code Section 4293 in lieu of those proposed by the Settlement. He also suggests that the wording of Rule 35 be changed by deleting the words "a reasonable amount of" before "tree trimming", and adding the phrase, "by a reasonable distance" to the end of the first sentence.. He believes that this would have the effect of clarifying that the clearance

resulting from the trimming, rather than the amount of trimming per se, must be reasonable.

The Joint Parties' Reply opposes the adoption of Public Resources Code standards as being too complex to administer, and too radical for the developed areas where the standards would principally be applicable. It also expresses disagreement with Adams' recommended change of wording to Rule 35, and addresses the letters opposing the settlement which were received from members of the public Quinley and Kirchem.

The Joint Parties' Reply also disagrees that revision of the standards is a "project" within the meaning of CEQA, and objects to any requirement of programmatic agreements with DFG as being overly burdensome and unjustified by the law, which is concerned with obstruction of stream flow where wildlife exists. Finally, this Reply criticizes Bereczky's comments for failing to articulate a usable alternative standard.

Branch's Reply expresses disfavor with the notion of the Commission issuing a declaration of its jurisdiction, preferring instead a case-by-case determination whether local action is inconsistent with the Commission's exercise of jurisdiction.

Finally, Adams' Reply contends that the six-inch minimum standard assumes the existence of a rigid overhead line structure and immobile vegetation, which is not the case where windy conditions can cause significant deflection of tree limbs and trunks. He therefore believes that this standard is inadequate. He also proposes various areas of inquiry for the hearing stage of the proceeding.

4.0 Discussion

The degree of tree trimming appropriate around utility lines can become a highly technical determination. It requires us to set minimum clearance standards which depend upon the degree of hazard in relation to the voltage level carried by the line and the consequent potential for arcing, and the possibility of abrasion of

wires from direct contact. We do not need to determine what the appropriate maximum clearances should be, but we do have to determine the minimum safe clearances and a reasonable level of expense for the utility to maintain such clearances. Ratepayers should not be required to pay unreasonably high rates because the utility trims trees on a cycle that cannot be justified. This means that, to the extent that we promulgate any guidelines that may later be claimed to be a standard for reasonableness, we must act with a restrained hand. We must also temper our determination with aesthetic and environmental considerations to discourage ham-handed trimming by utilities. In short, we must make a cost/benefit analysis to obtain the proper result.

Unfortunately, the record in this proceeding does not provide the tools to make an intricate analysis, and we must instead rely upon the compliance filings of the utilities, which contain relatively scanty information; a meager workshop report; the Settlement, which contains little factual material upon which to base a standard; and the comments received in response to D.96-09-097, which consist in large measure of opinion and argument, rather than hard data. Given this state of affairs, we must resort to an approach which does not rely upon an extensive administrative record and a rigorous cost/benefit analysis, but relies instead upon everyday experience to reach a rational result.

We are guided by a few basic principles. First, the existence of a reliable electric transmission and distribution system is assumed to be essential to our way of life. We simply cannot do without it, and this State's experience with recent power outages underscores how much we need to insure that it operates without interruption. Next, safety--of utility workers, others who work around the lines, property owners whose lives and property are vulnerable to fire hazards, and the general public who may come into contact with power lines--is of the first importance in operating that system: if we accept the reality that we must have

a reliable system, it must also be safe for all who live, work, or play near it. Finally, we must be certain that our efforts to insure safe and reliable service cause as little disruption to the natural environment and the aesthetics of affected property as possible, to the extent that we offer guidance about trimming beyond specified minimum clearances.

Although some of the comments request that we conduct evidentiary hearings concerning the adoption of these standards, we decline to do so. The process to date approximates that for a rulemaking under our Rules, and interested persons have had an adequate opportunity to comment upon the proposed standards.⁵ We must act now to insure that adequate tree trimming standards are in place, because efforts by the utilities are already underway to ameliorate the rising incidence of fires and outages due to contacts between tree limbs and electric lines. We therefore address these comments and issue our final standards at this juncture, rather than going through another procedural step before doing so.

4.1 Case 13 Clearance Requirements

Although we understand that the settling parties gave a great deal of consideration to the minimum clearances proposed in Table 1, Case 13, we are troubled by the six-inch minimum. Although the arcing distances at the indicated voltages may be well within the six-inch standard, movement of tree branches and the overhead lines could close this gap, causing direct contact. Common experience also suggests that at the heights at which overhead lines are hung, a separation of six inches is simply too

⁵ Rule 14.1 defines a Commission rulemaking as "a formal Commission proceeding in which written proposals, comments, or exceptions are used instead of evidentiary hearings." Applying this standard, the procedure we have followed is almost exactly that which would have been followed in a rulemaking proceeding.

close to be discerned from ground level, making monitoring and enforcement difficult. Finally, six inches also seems too close for maneuvering common hand tools, such as the pruning device involved in the fatal accident which produced this investigation.

We cannot enlarge the six-inch minimum standard to a limit that would insure that absolutely no contact ever occurs between tree branches and wires, as such a standard would require clear-cutting of limbs and branches a great distance away from any overhead wires. Even then, tall trees well away from the utility right-of-way could fall against wires and structures, coming into contact with conductors. A more reasonable approach is to require the maintenance of a minimum separation that will be generally visible from the ground, sufficient to enable persons working around the wires to maneuver themselves and their tools away from danger, and likely to prevent the majority of contacts.

We do not believe that the standards incorporated in the Public Resources Code are appropriate to adopt here. Those standards, which in some instances would require drastic trimming, are not appropriate for application in more urbanized environments, and would be unreasonably expensive to implement and maintain. We therefore reject those standards for adoption as part of our rule, although, of course, they remain in force wherever required under the Public Resources Code. Our own standards, on the other hand, fill the interstices where the Public Resources Code does not specify minimum clearances at certain voltages.

Relying again upon ordinary experience, we believe that a distance of 18 inches, triple the proposed minimum clearance, is sufficient to obviate the most frequent hazards. It is a physical separation that can be observed easily at overhead line height, and is six times as great as that under Case 9 for rigid structures. We will therefore adopt this standard as the one to incorporate into Table 1, Case 13.

4.2 The Implementation Schedule

Given the fact that the hazard we are addressing is that of interference between trees and overhead wires, the only meaningful measurements of progress which reflect the degree of reduction of that hazard are those which use the number of trees or

miles of wire which could come into contact with them. However, measuring the line-miles of wire along which tree trimming has been accomplished would encourage priority-setting that would not reflect the Commission's primary concern that the areas of greatest potential hazard be trimmed first. We seek to insure that the fewest potential contacts occur between lines and trees, and to do so as quickly as possible. Consequently, saving the worst for last--that is, the lines where tree growth is the most dense--would only prolong the most dangerous conditions. Measurement by line-mile would encourage that result. Measurement of the percentages we have adopted must instead be based upon the number of trees requiring trimming. As the compliance filings and Workshop Report reflect that such measurements are now being made, this is a workable approach that assures the accomplishment of compliance efforts in direct proportion to the actual extent of hazardous conditions.

4.3 Applicability of CEQA

In response to the comments by intervenor Gary Bailey, we revisited our initial determination that the clarification of what is a "reasonable" amount of tree trimming does not require review under CEQA. Our determination has not changed.

The mandatory standards we are adopting are minimum clearances. They are based upon prudent tree trimming practices, and interpret the meaning of the term, "reasonable amount of tree trimming," as it has been used in Rule 35 up to this point. The mere adoption of a standard which interprets that term does not expand the obligation that utilities have had all along to keep foliage sufficiently trimmed to prevent it from coming into contact with energized lines. As the workshop participants stated in their report, "Minimum clearances will be integrated into existing utility pruning programs." (Workshop Report, p. 16.) How drastically the utilities elect to prune, or on what cycle, is not

mandated as a part of this proceeding; we are simply concerned that the specified minimum distance be maintained.

Rule 17.1(h) (A) of our Rules of Practice and Procedure identifies among the specific projects within the classes exempted by the Secretary for Resources from the Environmental Impact Report requirements of CEQA, the following:

- "3. The maintenance of landscaping around utility facilities.
- "4. The maintenance of native growth around utility facilities."

We need look no farther for authority that CEQA never intended to require any review of a change in the nature of implementation of our tree trimming rule. It is obvious that the statute recognizes the essential nature of these activities, and assumes that they will be conducted irrespective of any adverse environmental impact they may have. By exempting the entire subject from the CEQA process, the Secretary for Resources afforded this Commission broad latitude in setting standards which must be met by the utilities.

We will deny the motion of intervenor Bailey for environmental review.

4.4 Jurisdiction of the Commission

Our action today does not limit or mandate the maximum limits of tree trimming, or specify the manner in which trimming activities must be accomplished. We are selecting a safe minimum standard to insure system safety and reliability, but we are not adopting comprehensive rules and procedures to specify how the minimum obligation of the utilities must be accomplished.

In recognition of this circumstance, we will decline to adopt a declaration of our jurisdiction as part of our order. In our view, such a course would be fraught with the danger of acting outside of our authority in this proceeding. We also note that examination of tree trimming and pruning restriction issues imposed by local ordinances are part of the task of Subcommittee II, the

Access subcommittee. We will therefore defer any consideration of this issue until the next stage, when issues other than tree trimming standards are to be considered.

4.5 Programmatic Agreements with DFG

We agree with the Joint Parties that imposing a requirement upon the utilities to enter into programmatic agreements with DFG would be burdensome and unnecessary. The utilities are already under the obligation to comply with legal requirements enforced by DFG concerning obstruction of streambeds. We are concerned here with keeping overhead lines free of vegetation, which is another subject entirely. The fact that overhead lines cross riparian areas does not alter the basic clearance requirement, which may necessitate some trimming within riparian areas, but would not normally affect streambeds. We perceive no need to require the utilities to take the extra step suggested by Bailey, and we decline this request.

4.6 Phrasing of Rule 35

The change in the wording of Rule 35 suggested by Adams is consistent with the purpose of our order, which is to articulate what a reasonable minimum distance is between conductors and trees. We will adopt his suggested wording of the rule.

5.0 Conclusion

In Phase I we concluded our investigation of the incident which caused the Commission to open this proceeding. In this order we conclude part of Phase II by adopting tree trimming standards which will insure system safety and reliability by fixing minimum clearances between conductors and vegetation. As observed in the Workshop Report, establishing a safe distance between vegetation and energized wires in Rule 35 will prevent arcing between vegetation and the wires; energizing the vegetation through contact with the wires; and grounding of the circuit through the trees. (Workshop Report, page 16.) This will implement the work of

Subcommittee IV and narrow the remaining areas of inquiry to the issues addressed by the other subcommittees.

The issues to be addressed in concluding this proceeding will be those which pertain to the work of the remaining three subcommittees. These include the issues of relationships between tools used near overhead lines and the occurrence of line contact accidents; relationships between county and local ordinances, adjacent owners' property rights and obligations, and the conduct of tree trimming by utilities; and public awareness and education programs relating to tree trimming and overhead line safety issues. At the request of the Commission's Energy Division, examination of the property rights issue will encompass the rules and practices for trimming around service drops to keep them free of vegetation.

The order fixes a procedural schedule for conducting the remainder of this proceeding.

Findings of Fact

1. In D.96-09-097 we issued interim standards for trimming trees which are in proximity to overhead electric lines of utilities within our jurisdiction. Our order in that decision established a notice-and-comment procedure to consider whether the interim standards should become final, or whether other standards should be adopted.

2. Pursuant to the procedure adopted in D.96-09-097, the following timely comments and replies were received by the Commission's Branch staff counsel were received on behalf of the Commission:

The California Municipal Utilities Association; the International Brotherhood of Electrical Workers, Local 1245; Northern California Power Agency; PG&E; Pacific Power and Light Company; SDG&E; Sierra Pacific; Edison; Southern California Public Power Authority; and Branch (Joint Comments). PG&E also separately submitted concurring comments. Additional comments were received separately from Gary Bailey, John Sevier, Emil Bereczky, and William P. Adams. Comments in the form of

correspondence were received from three members of the public.

- Replies to the comments of Bailey, Adams, Bereczky and Sevier were received from the aforementioned joint parties. PG&E, SDG&E, Edison, and Sierra Pacific separately replied to Bailey's comments. Separate reply comments were also received from Branch and Adams.

3. We have considered the comments and responses concerning the interim standards, and have modified those interim standards in accordance with our determination of the merits of the comments we received.

Conclusions of Law

1. No environmental review should be conducted pursuant to CEQA.
2. The standards attached as the Appendix to the order should be adopted.
3. The standards under Rule 37, Table 1, Case 13, should be implemented by mandating trimming to the extent of:
 - 25% of the total number of trees requiring trimming by the six-month anniversary of this order
 - 50% of the total number of trees requiring trimming by the 12-month anniversary of this order
 - 75% of the total number of trees requiring trimming by the 18-month anniversary of this order
 - 100% of the total number of trees requiring trimming by the 2-year anniversary of this order
4. Future proceedings should be conducted to conclude Phase II of this proceeding expeditiously.

O R D E R

IT IS ORDERED that:

1. Intervenor Gary Bailey's request for environmental review is denied.
2. The standards attached as the Appendix to this order are adopted as our final tree trimming standards, by modifying General Order (GO) 95 as indicated.
3. Each utility shall comply with the standards under Rule 37, Table 1, Case 13 by trimming to the extent of:
 - 25% of the total number of trees requiring trimming by the six-month anniversary of this order
 - 50% of the total number of trees requiring trimming by the 12-month anniversary of this order
 - 75% of the total number of trees requiring trimming by the 18-month anniversary of this order
 - 100% of the total number of trees requiring trimming by the 2-year anniversary of this order
4. Within 10 days after the effective date of this decision, each respondent utility shall file a plan with the Energy Division and the Consumer Services Division, describing the specifics of how the utility will comply with Ordering Paragraph 3. This plan must include a current estimate of the total number of trees which require trimming in order to comply with the standards adopted by this order.
5. The Commission staff shall monitor the respondents' compliance with the standards applicable under this order and promptly take all investigatory and enforcement action it deems appropriate.

6. The assigned Administrative Law Judge shall convene a prehearing conference within 30 days after the effective date of this order to identify the issues to be considered in concluding this proceeding; the evidence to be taken thereon; and to fix the date of the evidentiary hearing. The evidentiary hearing shall commence not later than 90 days after the effective date of this order.

This order is effective today.

Dated January 23, 1997, at San Francisco, California.

P. GREGORY CONLON

President

JESSIE J. KNIGHT, JR.

HENRY M. DUQUE

JOSIAH L. NEEPER

RICHARD A. BILAS

Commissioners

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PROPOSED RULE 35

35. Tree Trimming

Where overhead wires pass through trees, safety and reliability of service demand that tree trimming be done in order that the wires may clear branches and foliage by a reasonable distance. The minimum clearances established in Table 1, Case 13, measured between line conductors and vegetation under normal conditions, shall be maintained. (Also see Appendix E for tree trimming guidelines).

When a utility has actual knowledge, obtained either through normal operating practices or notification to the utility, dead, rotten, and diseased trees or portions thereof, that overhang or lean toward and may fall into a span, should be removed.

Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of limbs and foliage, in new construction and when circuits are reconstructed or repaired, whenever practicable. When a utility has actual knowledge, obtained either through normal operating practices or notification to the utility, that any circuit energized at 750 volts or less shows strain or evidences abrasion from tree contact, the condition shall be corrected by slacking or rearranging the line, trimming the tree or placing mechanical protection on the conductor(s).

Exceptions:

1. Rule 35 requirements do not apply to conductors, or aerial cable that complies with Rule 57.4-C, energized at less than 60,000 volts, where trimming or removal is not practicable and the conductor is separated from the tree with suitable materials or devices to avoid conductor damage by abrasion and grounding of the circuit through the tree.

2. Rule 35 requirements do not apply where the utility has made a "good faith" effort to obtain permission to trim or remove vegetation but permission was refused or unobtainable. A "good faith" effort shall consist of current documentation of a minimum of an attempted personal contact and a written communication, including documentation of mailing or delivery. However, this does not preclude other action or actions from demonstrating "good faith." If permission to trim or remove vegetation is unobtainable and requirements of exception 2 are met, the utility is not compelled to comply with the requirements of exception 1.

3. The Commission recognizes that unusual circumstances beyond the control of the utility may result in nonconformance with the rules. In such cases, the utility may be directed by the Commission to take prompt remedial action to come into conformance, whether or not the nonconformance gives rise to penalties or is alleged to fall within permitted exceptions or phase-in requirements.

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PROPOSED RULE 37

37. Minimum Clearances of Wires Above Railroads, Thoroughfares, Buildings, etc.

Clearances between overhead conductors, guys, messengers or trolley span wires and tops of rails, surfaces of thoroughfares or other generally accessible areas across, along or above which any of the former pass; also the clearances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1, at a temperature of 60°F. and no wind.

The clearances specified in Table 1, Case 1, Columns A, B, D, E, and F, shall in no case be reduced more than 5% below the tabular values because of temperature and loading as specified in Rule 43. The clearances specified in Table 1, Cases 2 to 10 inclusive, shall in no case be reduced more than 10% below the tabular values because of temperature and loading as specified in Rule 43.

The clearances specified in Table 1, Case 1, Column C (22 1/2 feet), shall in no case be reduced below the tabular value because of temperature and loading as specified in Rule 43.

The clearances specified in Table 1, Cases 11, 12, and 13, shall in no case be reduced below the tabular values because of temperatures and loading as specified in Rule 43.

Where supply conductors are supported by suspension insulators at crossings over railroads which transport freight cars, the initial clearances shall be sufficient to prevent reduction to clearances less than 95% of the clearances specified in Table 1, Case 1, through the breaking of a conductor in either of the adjoining spans.

Where conductors, dead ends, and metal pins are concerned in any clearance specified in these rules, all clearances of less than 5 inches shall be applicable from surface of conductors (not including tie wires), dead ends, and metal pins, except clearances between surface of crossarm and conductors supported on pins and insulators (referred to in Table 1, Case 9) in which case the minimum clearance specified shall apply between center line of conductor and surface of crossarm or other line structure on which the conductor is supported.

All clearances of 5 inches or more shall be applicable from the center lines of conductors concerned.

PROPOSED CHANGE TO TABLE 1

Case No.	Nature of Clearance	A	B	C	D	E	F	G
		Span Wires (other than trolley span wires) overhead guys and messengers	Communication conductors (including open wire, cables and service drops), supply service drops of 0-750 volts	Trolley contact, feeder and span wires, 0-5,000 volts	Supply conductors of 0-750 volts, and supply cables treated as in Rule 57.8	Supply conductors and supply cables 750-22,500 volts	Supply conductors and supply cables 22.5-300 kv	Supply conductors and supply cables 300-550 kv (mm)
13 (See Note 1)	Radial clearance of bare line conductors from tree branches or foliage. (aaa) (ddd)	-----	-----	18 in. (bbb)	-----	18 in. (bbb)	1/4 pin spacing shown in Table 2, Case 15 (bbb) (ccc)	1/2 Pin Spacing shown in Table 2, Case 15

(aaa): Special requirements for communication and supply circuits energized at 0-750 volt.....Rule 35

(bbb): May be reduced for conductors of less than 60,000 volts when protected from abrasion and grounding by contact with the tree.....Rule 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).

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PROPOSED APPENDIX E

APPENDIX E

The following are guidelines to Rule 35.

The radial clearances shown below are minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts where practicable. Vegetation management practices may make it advantageous to obtain greater clearances than those listed below:

- A. Radial clearance for any conductor of a line operating at 2,400 or more volts, but less than 72,000 volts 4 feet
- B. Radial clearance for any conductor of a line operating at 72,000 or more volts, but less than 110,000 volts 6 feet
- C. Radial clearance for any conductor of a line operating at 110,000 or more volts, but less than 300,000 volts 10 feet
- D. Radial clearance for any conductor of a line operating at 300,000 or more volts 15 feet

(END OF APPENDIX)