

Decision 97-10-056 October 22, 1997

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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)

(See Appendix B for Appearances.)

O P I N I O N

Introduction and Summary

This decision addresses all outstanding issues in our comprehensive review of the tree trimming practices of electric utilities within our jurisdiction, and closes Investigation (I.) 94-06-012. Our order concludes Phase II of the proceeding and, as specified in Decision (D.) 97-01-044, addresses the issues pertaining to the work of three subcommittees of participants in a series of workshops which were organized to review compliance with our tree trimming rule, identify ways to improve the operation of that rule, and suggest the means to implement such changes.

As required by the order instituting investigation (OII), we have reviewed the historical tree trimming practices of California's electric utilities. In response to events which transpired during the pendency of this proceeding, we have already amended the tree trimming rule, and we have adopted a timetable for the utilities to comply with the amended rule. We now complete the work of this investigation by addressing related aspects of the OII.

As reflected in the language of the amended order that initiated this proceeding, we have been guided throughout this process by the overarching principle that our task is to carry out the intent of Rule 35 of General Order (GO) 95, which governs tree trimming. Conversely, we have taken care to avoid the subject matter of several other

proceedings that deal with concerns about related aspects of electric utility operations, in order to prevent inconsistent results and unfair surprise to the participants in this proceeding.

Background and Procedural History

In view of overlaps which have occurred in the sequence of events in this proceeding, we believe it will be helpful if we review the chronology of those events in order to provide the context for today's decision. This should lessen any confusion about the nature of the actions we are taking here.

We initiated the original OII on June 8, 1994, after a farmworker was electrocuted as he worked beneath a San Diego Gas & Electric Company (SDG&E) line. We issued our order based upon our investigative staff's allegation that SDG&E's failure to comply with Rule 35 of GO 95 had substantially contributed to the injury. One month later we issued D. 94-07-033, which amended the original OII by expanding the scope of the investigation to include a review of the tree trimming practices of the other major investor-owned electric utilities in California. The second order also divided the subject matter of the proceeding into two phases: Phase I, examining only the incident involving SDG&E, and Phase II, encompassing a review of the tree trimming practices of all electric utilities. The order further required each respondent utility to file in Phase II all records and information concerning its tree trimming practices for the most recent five-year period, commencing as of 1989.

On August 10, 1994, the assigned Administrative Law Judge (ALJ) held a prehearing conference (PHC). To effectuate the purpose of Phase II he required the respondents to submit compliance filings describing their respective tree trimming programs, and directed workshops to be held in Phase II. The ALJ delegated the conduct of these workshops to the Commission's Utilities Safety Branch (USB).

Two complaint proceedings, Bereczky v. Southern California Edison Company (Case (C. 95-05-020) and Bailey v. Pacific Gas and Electric Company (C. 94-11-044) were also coordinated with this investigation. The first of these involved the issue of an affected property owner's rights in a dispute over a utility tree trimming incident, and

the other involved the question of the environmental effects of a utility's tree trimming practices, particularly in sensitive environments. Eventually both complaints were dismissed, but, at the ALJ's urging, the respective complainants participated in this proceeding as intervenors to assert their positions on the issues they had raised by filing their complaints. Their concerns have been taken into consideration in fashioning our order today.

On August 11, 1995, we issued our first interim decision, which approved a settlement proposed by USB and SDG&E that concluded Phase I of the proceeding. (D.95-08-054.) Among the actions that were taken under this order were a conductive tool handle exchange program and a public awareness program by SDG&E under USB's supervision. The order also specified further actions to be taken with respect to Phase II.

In April 1996 the participants filed their report on the workshops they had conducted under the aegis of USB. The report explained that the participants had formed four subcommittees to address various aspects of the entire tree trimming issue, namely, equipment (Subcommittee I), access (Subcommittee II), public awareness (Subcommittee III), and Rule 35 of GO 95 (Subcommittee IV). The report described the work of these four subcommittees and set forth the recommendations of each with respect to its particular area of inquiry.

Several major storm-related outages during the months preceding the issuance of the workshop report had aroused the Legislature's desire to assure that adequate tree trimming rules were in force, principally to prevent such outages. This resulted in a legislative directive in the 1996-97 Budget Report that such rules be adopted by the beginning of 1997, requiring us in turn to accelerate consideration of the workshop participants' investigation and proposal for revision of Rule 35. The urgency of this task was amplified by the occurrence of a major power outage and a catastrophic fire in mid-1996, both of which were determined to have been caused by contacts between tree limbs and utility power lines. Consequently, we isolated our consideration of the workshop report's recommendation concerning the trimming rule, and adopted our

final standards for trimming trees in proximity to overhead electric lines in D. 97-01-044 (January 24, 1997).

The rule now mandates minimum standards for clearances that must be maintained at all times between conductors and surrounding vegetation, and sets forth additional guidelines for establishing clearances at the time of trimming, where practicable, between vegetation and energized conductors and other live parts of overhead lines. A minimum clearance of eighteen inches was established for lines of lower voltages, with greater clearances being required as voltages increased, as set forth in the appendix to the rule.

D. 97-01-044 also established a schedule for further steps to be taken to address the remaining aspects of our investigation. These aspects include the 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 (including rules and practices for trimming around service drops); and public awareness and education programs relating to tree trimming and overhead line safety issues. It is this blueprint, with certain related additions, that we have followed in preparing this final decision.

The additional issues are occasioned by the subsequent filing by Pacific Gas & Electric Company (PG&E) of a petition to modify D. 97-01-044. PG&E asks the Commission to exempt utilities from adhering to the adopted 18-inch minimum clearance standard with respect to the trunks of large, established trees that do not currently meet such a standard, and for trees which have been "directionally pruned" away from utility conductors. PG&E also asks us to enlarge the two-year period adopted in that order for accomplishment of full compliance with the new standards, by an additional eighteen months. Because of the relationship of these requests to the other issues in this concluding phase and the imminent occurrence of the evidentiary hearing (EH), the ALJ shortened the response time for comments on the petition to enable the parties to consider the request before filing their prepared testimony, and permitted evidence on these topics to be introduced at the EH.

A three-day EH commenced April 21 in accordance with the Commission's directive in D.97-01-044, and the proceeding was submitted May 27, 1997, following the filing of concurrent briefs.

The Workshop Report

The workshop report contains descriptions of the tree trimming programs of Southern California Edison Company (SCE), PG&E, SDG&E, Sierra Pacific Power Company, and Pacific Power and Light Company (PPL), California's largest investor-owned electric utilities, based upon the September 1994 compliance filings. These descriptions generally reflect that the major utilities at that time had inspection and trimming cycles which varied from an actual figure of 14.3 months for SCE to a goal of 3.5 years for PG&E, with a somewhat longer cycle (four to five years) for PPL, whose lines are principally in rural territory under the jurisdiction of other agencies which regulate tree trimming. The report also contains a table summarizing the programs of thirteen municipal utilities, reflecting that they observe a range of one to three years for the pruning cycles under their programs.

The workshop report also contains the report of each subcommittee, describing its task, the projects it undertook as part of the workshop process, and its recommendations. In lieu of repeating the substance of that portion of the report here, it is reproduced verbatim as Appendix A to this decision.¹

Petition to Modify

Clearances for Major Trunks and Limbs

PG&E seeks to modify Rule 35 to the extent of exempting old established trees whose trunks are more than six, but less than eighteen inches, from an overhead line from the literal application of its clearance requirements. PG&E says that there are numerous examples of such trees throughout its service territory, and it appears that many of them are located in aesthetically sensitive communities such as Carmel, and in

parks or rural areas where large species such as redwood, pine, and mature eucalyptus trees are growing in proximity to power lines. PG&E argues that these trees have safely coexisted with overhead lines for decades, and that their removal (as would arguably be required under Rule 35) would be expensive and destructive. PG&E also seeks exemption of so-called “directionally pruned” trees whose major branches have historically been trimmed to grow away from the conductor, but are less than 18 inches from it, yet allegedly pose no safety problem.

Collectively, PG&E estimates that these two types of trees constitute about 54,000 of the 1.7 million trees subject to pruning requirements under our rules. At an estimated removal cost of roughly \$4,000 per tree, it would cost \$216 million over a four-year compliance period for PG&E to eliminate these trees if Rule 35 were strictly applied. PG&E argues that this expense would be unjustifiable in view of the absence of a safety hazard, and that such action would have a deleterious effect upon the aesthetics of many locations. Other solutions may also be available, such as undergrounding or the use of alley arms or specially protected wire, but each of these presents problems of practicality or expense.

Thirteen potentially affected local government bodies wrote to the Commission in support of the exemption, which is also supported by SCE and SDG&E, the state’s other two largest electric utilities.² It is also supported by Local 1245, International Brotherhood of Electrical Workers, AFL-CIO (Local 1245), whose comments suggest that even the most elastic mature tree trunks do not move appreciably during severe wind storms.

USB opposes the petition on the grounds that the terms “large, established trees” and “directionally pruned trees” are not adequately defined. Intervenors John Sevier

¹ It is important that the reader refer to Appendix A for a clear understanding of the following section of this decision.

² SCE’s brief reflects an understanding that the exemption would apply to trees whose large woody trunks have grown past conductors. This is not necessarily the case with directionally

Footnote continued on next page

(Sevier) and William P. Adams (Adams) also oppose the exemption on the basis that there is always a potential for trunks to move, and that special attention needs to be given in the rule to trees which, by reason of their limbs and texture, are “readily climbable.”

We agree with PG&E that an exception should be made in the rule for instances where the configuration of older, established trees is such that the proximity of a conductor presents no material hazard. The record reflects that the two hazards with which we were concerned in adopting the revised rule in D.97-01-044 were arcing and contact. The rigidity of the types of trees contemplated in the petition justifies carving out an exception in view of the considerations of cost, employee safety, aesthetic harm, and environmental disruption raised by the parties, but only if this is accomplished with care to insure that the potential hazards remain minimal.

In D. 97-01-044, we adopted a minimum clearance of eighteen inches to insure that the separation between conductors and tree components was not only sufficient to prevent arcing and direct contact, but also to provide reasonable visibility and maneuvering room for persons who, like the farmworker whose demise occasioned this proceeding, work in the vicinity of conductors. The originally proposed minimum clearance, six inches, was twice as great as that provided by the existing standard,³ and was generally acknowledged to be more than sufficient to prevent arcing. We believed that the greater separation of eighteen inches was necessary to prevent direct contact during storms such as those which caused severe outages in 1995 and 1996, where high winds displaced the flexible limbs of trees. But eighteen inches of separation are not required to prevent direct contact where the tree is not flexible, as in the instance of a woody trunk or major limbs of a mature tree, where the probability of direct contact is essentially no greater in a windstorm than at other times. However, we share USB’s

pruned trees, nor does it resolve problems presented by lateral branches from the large woody trunks that may encroach above or below the conductor.

³ GO 95, Table 1, Case 9, up to 35,000 volts.

concern that the definition of exempted trees remains unclear. Therefore, we require utilities who wish to use such exemptions to file, within six months, objective criteria specifying when tree limbs, either large or directionally pruned, will be routinely considered of adequate strength and stability to prevent contact with lines. For a vertical tree trunk, for example, such criteria might specify, for a given trunk diameter, the maximum height from the ground for which movement in high winds would not reduce the clearance to less than six inches. Such criteria would likely vary according to the species of tree and the weather in each locality. We recognize that some situations may meet these criteria but still present a material hazard of tree-line contact; utilities retain the obligation to exercise judgment where necessary to protect the public.

We are not prepared to go so far as to adopt special requirements for “readily climbable” trees, because of the element of subjectivity involved. Adams and Sevier propose a definition of such a tree as one “having sufficient handholds and footholds to permit an average person to climb easily without using a ladder or other special equipment.” This definition not only lacks objective clarity, but fails to target those persons (who may in fact have greater than average climbing ability) most likely to climb trees, i.e., children. We have no record to support the creation of a special rule which would safeguard against the occurrence of harm to children from such contacts, and we believe that prevention through public awareness is a far more effective approach to the problem than trying to fashion a clear and workable additional tree trimming requirement. Consequently, that is where we have chosen to place our emphasis.

Enlargement of the Compliance Period

The petition also asks us to enlarge the period within which the utilities must attain full compliance with the new rule from the current two years to three and one-half. PG&E justifies this request on the grounds that the enlarged time would conform to its normal tree-trimming cycle (which has been in effect at least since its 1994 compliance filing), that there are insufficient qualified workers to perform the work, that eighteen months’ training are required to train a qualified worker, and that

the use of overtime and novice employees will create an employee safety hazard. These arguments are echoed to various degrees by Davey Tree Surgery Company (Davey), Asplundh Tree Expert Co., and Arbor Tree Surgery, Incorporated, California's largest line-clearance contractors, and by Local 1245.

We are rather mystified by this request, inasmuch as the two-year compliance deadline was proposed to us and adopted in response to a request by the workshop participants. Moreover, in their comments on the interim decision promulgating that deadline, the parties' only request was for clarification of the manner of measuring percentage of accomplishment, e.g., by mileage of line versus number of trees, but no party claimed that a two-year compliance deadline was too strict.

PG&E's petition is the sole request for enlargement of this time. The compliance filings confirm that virtually all of the other private and municipal utilities have trimming cycles of three years or less. In PG&E's case, the trees to be trimmed under our rules are but 1.7 million of its total of 5.4 million in its inventory, and are in the more populous areas which are not under the jurisdiction of the California Department of Forestry.⁴ Of all the affected utilities, recent events indicate that PG&E has the greatest need to utilize its ingenuity to attain compliance quickly, and no other utility has asked for this extraordinary relaxation of the rule.

No ground exists to change the rule on the basis of changed circumstances. The only circumstance that has changed since the original two-year deadline was proposed is that the *minimum* clearance has been enlarged from six to eighteen inches. This does not alter the guidelines for establishing the outside limits of clearance when the actual trimming is done. The testimony of Davey is that the only effect of the twelve-inch difference will be to require faster-growing trees to be retrimmed on a cycle that is one month shorter than originally contemplated in order to maintain them outside of the

⁴ We also note that the burden of trimming or removing problematic trees will be reduced greatly as the result of our decision to exempt mature trees as discussed in the previous section.

minimum clearance. (Testimony of Larry Abernathy, Tr. 233.) We recognize that the need to retrim will be accelerated, but a one-month difference is not material.

Both the utilities and their contractors have testified that the reason for the acute problem with attaining compliance is that the existing qualified workforce is working at capacity, i.e., there are no more qualified personnel available, either in California or

elsewhere, and this workforce is chronically working overtime, increasing the probability of fatigue and accidents. However, the prepared testimony of Local 1245 candidly admits that its fears about mishaps are speculative, and admits that there is another reason why the existing workforce is not being augmented, namely, long-term job security. It appears that both the employers and the union are reluctant to hire and train a large group of new employees because it is expensive, and because many of these employees will have to be laid off once full compliance is attained. Local 1245 believes that the lack of job security will make it difficult to attract potential employees.

We believe that any such concerns about the expense and attractiveness of shorter term employment are both speculative and self-serving, and are far outweighed by the substantial interests in safety and system reliability that we are entrusted with protecting. The request is tantamount to an admission that PG&E and other parties would like to satisfy the requirement for extraordinary line clearance with a normal maintenance workforce. But the need is urgent, and we simply cannot afford to stretch out the compliance period to accommodate the proponents' desire to conduct business as usual in recognition of the risk to public safety.

PG&E and the other utilities have had more than ample notice that there is a serious deficiency in their recent tree trimming programs, and that stringent new regulation was coming. Indeed, for a period of eighteen months, they formulated what basically became the new regulation through the workshop process. They proposed the two-year compliance deadline as part of that process. If that was not a clarion call to action, we have little sympathy now. We presume that the utilities have been doing whatever is necessary to hire and train the required workforce with that goal in mind, at least since the workshop report was issued more than a year ago. If this is not the case, they will simply have to redouble their efforts to get the job done within the required period, even at added effort and expense.

We will not grant PG&E's request to nearly double the deadline for all utilities to comply with the rule in order to conform to PG&E's normal trimming cycle. Of all utilities, PG&E should be most aware of the urgent priority of this task, based upon its

own recent experience with fires and service reliability problems, and their legal and financial consequences, since the workshop report was released. However, we do not want our insistence upon meeting the mandated deadline to be at the expense of the safety of those who do the work. The record makes it clear that line clearance must be performed by qualified workers, and that additional qualified workers are needed to accomplish the increased work necessary to meet the deadline. California regulations require workers to have a minimum of eighteen months of training before they can do the work. Thus, it may be necessary to give employers adequate time to augment, train, and qualify their workforce before the line clearance can be performed at the rate required to meet the deadline. We will therefore adjust the interim milestones contained in D.97-01-044 to afford that opportunity. Rather than requiring 50 percent and 75 percent compliance, respectively, by the one-year and eighteen-month anniversaries of the order, Ordering Paragraph 3 will be modified to specify a new compliance schedule as follows:

“Each utility shall comply with the standards promulgated in D.97-01-044 by trimming to the extent of:

- “33 1/3% of the total number of trees requiring trimming by the 12-month anniversary of that order;
- “66 2/3% of the total number of trees requiring trimming by the 18-month anniversary of the order; and
- “100% compliance by the two-year anniversary of the order.”

This means that the utilities will be able to defer their line clearance activity to the extent that one-third will not have to be accomplished until the final quarter of the compliance period, affording a larger window of opportunity to train and bring qualified workers to the front lines.

Subcommittee Recommendations

As reported in the workshop report, the Equipment Subcommittee unsuccessfully participated in an effort to sponsor legislation which would have banned

the manufacture and sale of long-handled conductive tools. Absent the success of this effort, SCE suggests that there be an effort to require all conductive tools six feet or longer to be labeled, much in the manner currently required for conductive ladders. Although the enactment of such legislation is not within our control, we find that the suggestion is meritorious in that it could prevent accidents of the type which caused us to open this proceeding. We will refer this suggestion to USB and our Office of Governmental Affairs for analysis and possible Commission action.

The Access Subcommittee developed the outline for a utility vegetation management reference manual for governmental agencies and local governments to use in connection with the adoption of ordinances, and the issuance of permits, that affect utility tree trimming for line clearing. The Subcommittee recommends that the completion of this manual be performed under the direction of the GO 95/128 Rules Committee at meetings which will be open to the public. The workshop report estimates that six months will be required to complete this manual.

We believe that the development and dissemination of such a manual would be valuable to local and state governmental entities in formulating their policies on matters which relate to tree trimming, and that it might reduce the level of conflict which apparently exists between those entities and the utilities. We attempt to give recognition to the interests of those other governmental entities in formulating rules to carry out our regulatory responsibilities, as we have done in the instance of the rule exemption for established trees granted in this decision. However, we regard the problem addressed by the manual as primarily that of the utilities, and not that of the Commission, whose rules carry out the purpose of safeguarding the safety and reliability of electric service. Hence, we believe that the utilities should be called upon to compile this manual through the aegis of the GO 95/128 Committee, which is an industry group entity. We will, however, authorize USB to participate in that process, and direct it to report to the Commission from time to time about the nature and progress of its work.

The Commission's staff has asked that the issue of trimming around utility service drops be addressed in this proceeding. Adams and Sevier suggest that there is a potential ambiguity in Rule 35 relative to the responsibility for trimming around service drops, and that the rule should be clarified. We do not find this to be the case. As adopted in D.97-01-044, Rule 35 imposes upon the utility the responsibility to slacken or rearrange the drop, trim the tree, or place mechanical protection on the conductors whenever it has actual knowledge (through normal operating practices or notification) that the drop shows strain or abrasion from tree contact. We will not impose an additional duty of inspection of each service drop upon the utility beyond what our current regulations require, as we believe that routine observation and maintenance of landscaping to prevent the occurrence of hazards is more within the customer's control, and the problem is more reasonably addressed through efforts to create public awareness by such measures as including brochures and flyers with bills. We also expect that the utilities' efforts in this regard will be directed toward public education, as developed by Subcommittee III, to enable customers to prevent hazards and determine when they should call upon the utility to rectify a potentially unsafe condition.⁵

Subcommittee III, the Public Awareness subcommittee, recommends that the Commission support a change to California Code of Regulations, Title 8, Section 3439.1, the effect of which would be to require agricultural orchard owners and operators to provide warning to workers of overhead power lines in proximity to harvestable trees, and appropriate education of employees about the hazards and proper practices for

⁵ To the extent that Electric Rule 16 (Service Extensions) of the various utilities' tariffs may contain provisions that conflict with Rule 35 as Adams and Sevier claim, we direct them to insure that the tariffs on file are revised, as necessary, to eliminate any such inconsistency.

performing work in such areas. Such measures might have prevented the accident that initiated this investigation, and we believe that the suggestion is meritorious.⁶

Cal OSHA apparently requires our support in order to accomplish such a rule change, and we will therefore refer the matter to USB for the drafting of an appropriate resolution for our consideration. However, in deference to the independent discretion of our sister agency, that resolution should not specify the precise measures for accomplishing its goals, as the subcommittee proposes. The Public Awareness Subcommittee also recommends that the utilities continue and expand as necessary their existing public awareness programs and customer communication efforts” and that they, or “any interested parties, print and distribute the homeowners/utilities shared responsibility brochure and utilize the CPUC’s Outreach Program as a public awareness and communication resource.” (Appendix A, p. 7.) We endorse this recommendation in concept. In order to give it practical effect, we direct USB to maintain contact with the pertinent parties and furnish a report to the Commission on the status of these efforts and a statistical comparison of reported incidents since the issuance of the workshop report, including the dates and locations of any incidents. We ask USB to submit this report to us not more than 90 days after the twenty-four month anniversary of our order.

Other Issues

Several other issues were raised by the parties in their briefs. Some of these relate directly to the subject matter of this proceeding, while others do not. This section addresses these additional issues.

⁶ We do not believe, as Adams and Sevier suggest, that the utilities should be responsible for posting warning signs in orchards. The trees in commercial orchards are the property of their owners, and the utility in our view has no responsibility to furnish such warning signs for workers on behalf of the employer, any more than it has the responsibility to conduct agricultural pruning for the employers’ commercial benefit.

USB has asked us to revise the accident reporting requirements that were recently adopted in D. 96-09-045 in I. 95-02-015. The changes USB seeks to make would require the utilities to report all accidents involving trees in the vicinity of power lines, rather than more selectively reporting the major incidents. USB claims that this will better enable it to monitor the effectiveness of the new tree trimming standards adopted in this proceeding in D. 97-01-044.

SDG&E and SCE oppose USB's request, and SDG&E suggests that if a change is considered, it should be accomplished by modifying D. 96-09-045. We agree. It would not be appropriate to disturb the comprehensive reporting requirements adopted in that decision, particularly because we have no record of the impacts that this change would entail. USB's proposal may have merit, but it should be pursued by filing a petition to modify that decision.

USB has also asked us to require all investor-owned utilities in California to adopt a conductive handle exchange program on the theory that this is likely to save lives. SDG&E's witness Marsman testified that utility's handle exchange program, which was instituted under the settlement and order in Phase I of this proceeding, "From the standpoint of the number of poles changed out, . . . can be called successful." Some 200 handles were exchanged by SDG&E under that program. (Prepared testimony, p.2.) But the program is relatively expensive, and its effectiveness may be only transitory if new tools continue to be sold with conductive handles. Unless we develop a stronger record to support the imposition of this expense on the utilities, we prefer to support the tool labeling proposal and public education efforts set forth earlier in this decision as a more cost-effective response to the hazards associated with conductive tool handles.

Testimony was presented at the EH concerning the use of tree wire, a type of abrasion-resistant conductor, in places where trimming is not practical. PG&E argues that tree wire is exempt from the clearance requirements of Rule 35 under Exception 1 of that rule, and seeks affirmation of its position in this order. Adams and Sevier

oppose this request, and seek revision of the rule to specify that the use of tree wire be limited to conductors of less than 22,000 volts.

We believe that the current version of the rule adequately addresses this issue. Exception 1 allows variation from the specified clearances for conductors of up to 60,000 volts, where 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. The record is insufficient to enable us to determine conclusively whether or not tree wire is such a suitable material or, if so, up to what maximum voltage. In any event, we believe that this decision should be left to the utility. The technology of transmission and distribution hardware is subject to change over time as new materials and configurations become available, and we have no desire to micromanage utility operations to the extent of specifying what type of protective wire is appropriate at specific locations. We view our proper role as that of establishing and enforcing minimum standards, including exceptions from dimensional clearance standards where a general class of protective hardware can afford an equal or greater level of safety.

Comments

The ALJ issued his proposed decision (PD) on August 25, 1997. Comments were submitted by SDG&E, SCE, USB, and Adams. SDG&E, PG&E, and Adams submitted reply comments. We have incorporated various editorial and nonsubstantive revisions in this final decision in response to those comments.

USB's comments suggest that it would be erroneous to grant an exemption to the minimum clearance requirements for established and directionally pruned trees, because such an exemption would conflict with our objectives of improving visibility and maneuverability. However, USB's contention overlooks the fact that the exemption is based upon the reduced need for visibility and maneuverability because of the relationships which exist between the conductor and the trunk or major limbs, and the fact that other concerns outweigh the desirability of maintaining a uniform minimum clearance. We have therefore retained the exemption.

SDG&E contends that the parties' workshop proposal to adopt a two-year compliance deadline was predicated upon the assumption that we would also adopt a six-inch minimum clearance. The PD characterizes the difference between that minimum and the adopted eighteen-inch minimum as immaterial. SDG&E has offered no cogent reason why the trimming cycle would be materially affected if the extent of the actual trimming is adjusted to compensate for the increased minimum standard. We will not extend the compliance deadline on these grounds.

Findings of Fact

1. In response to the directive of the ALJ at the first PHC, four subcommittees were formed to accomplish the work involved in the Phase II workshops. Subcommittee I was responsible for equipment matters; Subcommittee II was responsible for access matters; Subcommittee III was responsible for public awareness matters; and Subcommittee IV was responsible for matters relating to Rule 35 of GO 95.

2. The workshop participants formally issued their report of the workshop proceedings in April 1996.

3. The workshop report sets forth a summary of each respondent's tree-trimming program and activities from 1989 through 1994, as furnished in its compliance filing; the task of each of the workshop subcommittees; the projects undertaken by each subcommittee; and the recommendations of each subcommittee to the Commission.

4. As reported in the workshop report, at least 10 reported tree pruning accidents during the study period involved the use of conductive handled tools.

5. As reported in the workshop report, the major California electric utilities prune trees along their lines on a cycle which generally varies from 14.3 months to 3.5 years. Municipal utilities prune trees along their lines on a cycle which varies from one to three years.

6. Established trees with mature, woody trunks, and mature trees with directionally pruned major limbs may pose a minimal risk of contact with overhead conductors. Removal of such trees would be prohibitively expensive in relation to the risk of contact that they present, the risk to employee safety which would attend their

removal, and the aesthetic and environmental harm which would occur if they were removed.

7. Public awareness and education are the most reasonable means of preventing persons of any age from risking contact with overhead lines, including contact which occurs as the result of climbing trees in the vicinity of overhead electric lines.

8. There is no change in circumstances since the issuance of D. 97-01-044 which would justify any extension of the deadline for full compliance with the clearance requirements mandated by that order.

9. Appropriate labeling of conductive tools with handles greater than six feet in length could prevent accidents such as that which caused us to initiate this proceeding.

10. Utility vegetation reference manuals of the type described in the workshop report would be a valuable tool for governmental agencies and local governmental entities to use in formulating policies on matters which relate to tree trimming, and could assist in lessening potential conflicts between those entities and utilities carrying out their tree trimming responsibilities.

11. Some utilities' Electric Rule 16 (Service Extensions) may be inconsistent with Rule 35 of GO 95.

12. If agricultural orchard owners, their tenants, and their contractors were required to provide appropriate warning and instruction to workers concerning the hazards of working in proximity to utility power lines, accidents of the type which caused us to institute this proceeding might be prevented.

13. The record in this proceeding does not support the adoption of a mandatory conductive handle exchange program by the utilities we regulate.

Conclusions of Law

1. Established trees with mature, woody trunks, and mature trees with directionally pruned major limbs should be exempt from the 18-inch minimum clearance requirement mandated by D.97-01-044, if the proximity of the conductor presents no material hazard of contact between the conductor and the tree, as determined by application of objective criteria.

2. The Commission should not adopt a special rule pertaining to the trimming of “readily climbable” trees.

3. The Commission should not grant any extension of the final deadline for attaining full compliance with the clearance requirements set forth in D.97-01-044.

4. The Commission should support the development of the utility vegetation reference manual described in the workshop report.

5. The Commission should not adopt a rule which would require utilities to inspect customers’ service drops. Whenever the utilities have actual knowledge (through normal operating practices or notification) that the service drop shows strain or abrasion from tree contact, they are responsible for appropriate trimming.

6. Any utility whose Electric Rule 16 (Service Extensions) is inconsistent with Rule 35 of GO 95 should conform its Electric Rule 16 to be consistent.

7. The Commission should consider the adoption of a resolution which would support revision of the California Code of Regulations to require agricultural orchard owners, and their tenants and contractors, to provide warnings and instruction to workers concerning the hazards of working in proximity to utility power lines.

8. The Commission should facilitate the continuation and expansion of public awareness and education programs concerning the hazards associated with the proximity of trees and vegetation to overhead power lines.

9. No change in the accident reporting requirements adopted in D.96-09-045 should be ordered in this proceeding.

10. The Commission should not require investor-owned utilities in California to adopt a conductive handle exchange program.

O R D E R

IT IS ORDERED that:

1. The following exemption is added to Rule 35 of General Order (GO) Number 95:

“4. Mature trees whose trunks and major limbs are located more than six inches, but less than eighteen inches, from primary distribution

conductors are exempt from the 18-inch minimum clearance requirement under this rule. The trunks and limbs to which this exemption applies shall only be those of sufficient strength and rigidity to prevent the trunk or limb from encroaching upon the six-inch minimum clearance under reasonably foreseeable local wind and weather conditions. The utility shall bear the risk of determining whether this exemption applies, and the Commission shall have final authority to determine whether the exemption applies in any specific instance, and to order that corrective action be taken in accordance with this rule, if it determines that the exemption does not apply.”

Any respondent which intends to avail itself of the provisions of this exemption shall, within 180 days after the effective date of this order, file with the Commission and serve upon the other respondents objective criteria specifying when tree limbs, either large or directionally-pruned, will be routinely considered if adequate strength and stability to prevent contact with lines.

2. Ordering Paragraph 3 of Decision (D.) 97-01-044 is amended as follows:

“Each utility shall comply with the standards promulgated in D.97-01-044 by trimming to the extent of:

- “33 1/3% of the total number of trees requiring trimming by the 12-month anniversary of that order;
- “66 2/3% of the total number of trees requiring trimming by the 18-month anniversary of the order; and
- “100% compliance by the two-year anniversary of the order.”

3. The question of whether conductive tools with handles at least six feet long should be labeled concerning the hazards associated with use near overhead electric lines is referred to the Commission’s Utilities Safety Branch and Office of Governmental Affairs for analysis and a recommendation as to the appropriate course of action by the Commission.

4. Any respondent electric utility whose Electric Rule 16 (Service Extensions) requires revision in order to conform to Rule 35 of GO 95 shall file within 20 days an advice letter revising Electric Rule 16 (Service Extensions) to conform with Rule 35 of

GO 95, and shall serve a copy of its advice letter upon other parties in this proceeding. The advice letter shall require a resolution of the Commission for approval.

5. The Utilities Safety Branch is authorized to participate in the efforts of the GO 95/128 Committee of the utility industry with respect to the development of the utility vegetation reference manual described in the workshop report, and to report to the Commission from time to time about the nature and progress of those efforts, until the production and distribution of that manual is complete. Members of the public shall be entitled to attend and observe meetings of the Committee in which Utilities Safety Branch personnel participate.

6. The Utilities Safety Branch is directed to draft for the Commission's consideration an appropriate resolution concerning revision of the California Code of Regulations to require agricultural orchard owners, and their tenants and contractors, to warn workers of the hazards of working near overhead power lines.

7. The Utilities Safety Branch is directed to maintain contact with utilities and other interested parties concerning the development and expansion of programs to increase public education and awareness of the hazards of the proximity of trees and vegetation to utility overhead power lines. The Commission's Outreach Program shall be available to assist in these efforts. The Utilities Safety Branch shall furnish a report of the status of these efforts, and a statistical comparison of reported incidents of tree trimming injuries involving the use of conductive-handled tools since the issuance of the workshop report (including the locations and dates thereof) , not later than 90 days after the second anniversary of the issuance of this order.

8. Investigation 94-06-012 is closed.

This order is effective today.

Dated October 22, 1997, at San Francisco, California.

P. GREGORY CONLON
President

JESSIE J. KNIGHT, JR.
HENRY M. DUQUE
JOSIAH L. NEEPER
RICHARD A. BILAS
Commissioners

I.94-06-012 ALJ/VDR/sng*

(SEE FORMAL FILES FOR APPENDICES A & B)