

**REPORT OF THE
STATE CORPORATION COMMISSION ON**

**Tree Trimming
Guidelines for
Utility Line Clearance**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 21

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RICHMOND
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December 1, 1989

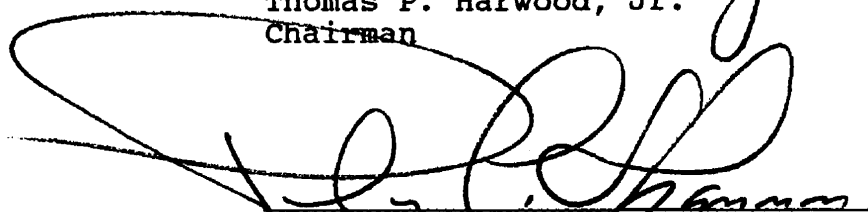
TO: The Honorable Gerald L. Baliles
Governor of Virginia
and
The General Assembly of Virginia

We are pleased to transmit this Report of the State Corporation Commission on Tree Trimming Guidelines for Utility Line Clearance.

The study was initiated and the report prepared pursuant to House Joint Resolution 155 of the 1989 Session of the General Assembly of Virginia.

Respectfully submitted,


Thomas P. Harwood, Jr.
Chairman


Preston C. Shannon
Commissioner

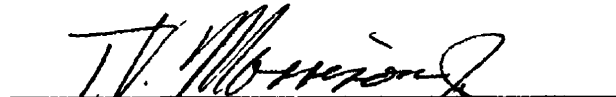

Theodore V. Morrison, Jr.
Commissioner

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EXECUTIVE SUMMARY

Pursuant to 1989 House Joint Resolution No. 155, the Virginia State Corporation Commission was requested to evaluate the need to establish guidelines for the trimming of trees for utility line clearance. During the course of the evaluation, the Commission examined (1) the scope of utilities' existing internal guidelines for tree trimming; (2) the quality of the utilities' tree-trimming programs; and (3) the viewpoints of various interested parties relative to the need for guidelines.

As a result of the lack of uniformity among the utilities' tree-trimming specifications and the absence of a framework of regulation and accountability, the Commission determined that it is in the public's interest to establish guidelines. The purposes of these guidelines are to provide a uniform set of minimum requirements, to supersede some questionable practices in use prior to the establishment of these guidelines, and to establish a regulatory framework and system of accountability. The guidelines are provided at the end of this report.

**COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
GUIDELINES FOR TREE TRIMMING FOR UTILITY LINE CLEARANCE
HJR NO. 155**

1. INTRODUCTION

Pursuant to 1989 House Joint Resolution No. 155 (see Figure 1), the Virginia State Corporation Commission was requested to determine whether it is in the public interest to establish guidelines for the trimming of trees for utility line clearance and, if so, appropriate provisions for such guidelines. HJR No. 155 specifies that any guidelines should "incorporate accepted professional standards, proper regard both for the safety of utility employees and for the health and appearance of the trees, owners' requests, and also to take into consideration tree trimming and pruning during emergency weather conditions or conditions of natural disaster."

In order to determine whether it is in the public interest to establish guidelines for the trimming of trees for utility line clearance, Commission staff established the following objectives:

- (1) To determine the extent of existing internal utility guidelines for trimming of trees.
- (2) To evaluate the quality of utilities' tree-trimming programs since 1985.
- (3) To review any tree-trimming guidelines established in other states.
- (4) To obtain and consider the comments of various interested parties relative to the adequacy of utilities' internal guidelines for tree trimming.

An objectives tree representation of the above listed objectives is provided in Figure 2. The analysis of each of the four major objectives is addressed in subsequent sections.

2. ANALYSIS OF UTILITIES' TREE-TRIMMING PRACTICES

Background

On April 14, 1989, the Division of Energy Regulation requested each investor-owned electric utility and electric cooperative in Virginia to submit written guidelines relevant to the trimming of trees for utility line clearance. A copy of that

GENERAL ASSEMBLY OF VIRGINIA - 1989 SESSION
HOUSE JOINT RESOLUTION NO. 155

Requesting the State Corporation Commission to establish guidelines for the pruning and trimming of trees for utility line clearance.

Agreed to by the House of Delegates, January 26, 1989
Agreed to by the Senate, January 24, 1989

WHEREAS, utility lines are a common sight throughout the Commonwealth; and

WHEREAS, trees may totally or partially hide the unattractive utility lines; and

WHEREAS, keeping utility lines clear of interfering trees and branches is the primary responsibility of the utility companies; and

WHEREAS, basic standards for proper tree pruning techniques have been established by the industry; and

WHEREAS, the State Corporation Commission, which has oversight over the construction and maintenance of such lines, could help ensure that the health and appearance of trees under utility lines are maintained through proper clearance procedures; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the State Corporation Commission, with the aid of the Virginia Extension Service of Virginia Polytechnic Institute and State University, the Virginia Department of Forestry, and the public utilities doing business in Virginia, be requested to determine whether it is in the public interest to establish guidelines for the pruning of trees for utility line clearance and, if so, appropriate provisions for such guidelines. They shall incorporate accepted professional standards, proper regard both for the safety of utility employees and for the health and appearance of the trees, owners' requests, and also take into consideration tree trimming and pruning during emergency weather conditions or conditions of natural disaster. The established guidelines shall be followed by all utility companies doing business in Virginia.

Figure 1. House Joint Resolution No. 155

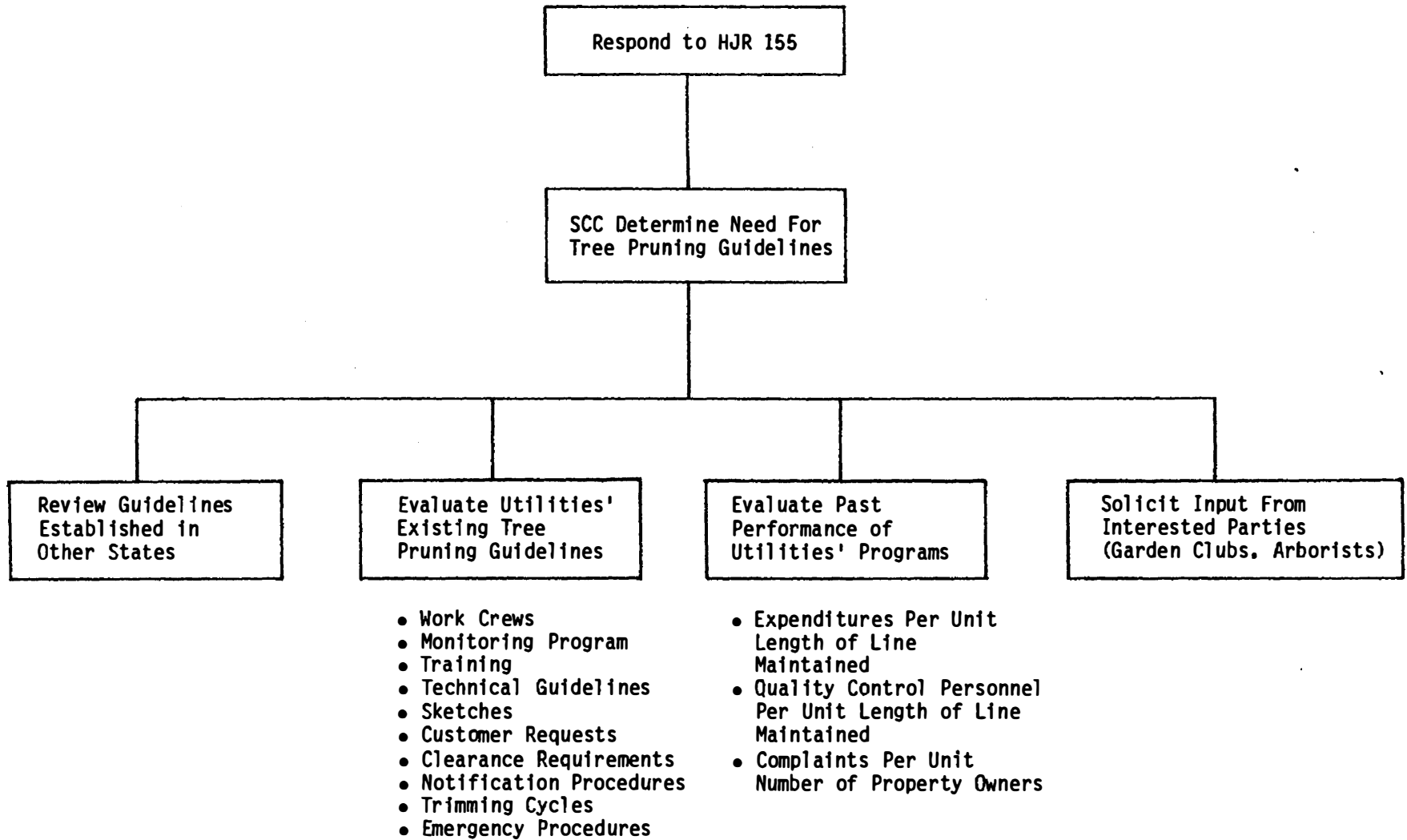


Figure 2: Objectives Hierarchy for HJR 155

letter is provided in Figure 3. On June 1, 1989, the Division of Communications issued a similar request to all 20 telephone companies certificated in Virginia. The objectives of these requests were (1) to enable a comparison among utilities of the breadth and depth of internal tree-trimming guidelines and (2) to enable a performance evaluation of each utility's tree-trimming program. These evaluations are reported in the following sections for investor-owned electric utilities, electric cooperatives, and telephone companies.

Comparison of Investor-Owned Electric Utilities' Specifications

The five investor-owned electric utilities operating in Virginia include Virginia Power, Appalachian Power, Potomac Edison, Delmarva Power, and Old Dominion Power. Each of these utilities provided the information requested by the April 14 data request. The following paragraphs provide a comparative analysis of the information provided by the investor-owned utilities. See Table 1 for a summary of the analysis. The analysis addresses (1) contractor vs. utility-employee work crews, (2) utility monitoring programs, (3) training, (4) required tree-trimming methods, (5) customer waiver of preferred methods of trimming, (6) sketches of trimming methods, (7) line clearance requirements, (8) notification of property owners, (9) trimming cycles, and (10) emergency procedures.

Contractor vs. Utility - Employee Work Crews. All investor-owned utilities employ qualified tree-trimming contractors. The safety of the contract employee is the responsibility of the contractor. The contractors operate in compliance with federal safety standards. Each of the contractors has a training program to instruct its tree trimmers in the proper tree-trimming methods. This training consists of both classroom and hands-on instruction.

Utility Monitoring Programs. All investor-owned utilities monitor contractors' activities. Virginia Power has a system forestry section which writes tree-trimming standards, specifications, and scope of work for contracts. Virginia Power's service area is divided into five divisions. Each has a division forester who monitors trimming activities within the districts in his division. Each district has a district forester or operating person who inspects and approves contractors' work for performance, contract compliance, and quality assurance. System has one senior coordinator-forestry who monitors divisions/districts for contract compliance and consistency. In 1988 Virginia Power had a total of 44 people involved in monitoring, 22 of whom were foresters.

Appalachian Power Company's service area is divided into five operating divisions. Each of the operating divisions at Appalachian Power has one or more line construction and maintenance representatives (LCMR) assigned to monitor the

April 14, 1989

Dear:

Pursuant to House Joint Resolution (HJR No. 155 attached), the Virginia General Assembly has directed the State Corporation Commission (SCC), with the aid of public utilities doing business in Virginia, to determine whether it is in the public interest to establish guidelines for the pruning of trees for utility line clearance. As part of this effort, the SCC is requesting all public utilities conducting business in Virginia to provide a description of any existing guidelines for the pruning of trees for utility line clearance.

Please provide by April 28, 1989, all written guidelines and narrative descriptions of unwritten policies relevant to tree trimming including but not limited to the following:

- Tree-trimming standards.
- Safety of utility employees.
- Right-of-way clearing and maintenance contract guidelines.
- Plans for monitoring or supervising contractors' work.
- Property owner notification procedures and owner requests.
- In-house training programs.
- Complaint-tracking policies.
- Trimming and pruning during emergency weather conditions or conditions of natural disaster.
- Trimming in historic or environmentally protected areas.

The following additional information is needed to evaluate each utility's existing program. Provide data for Virginia only on an annual basis for each year beginning with 1985.

- Total property owners affected by tree trimming operations.
- Number of tree-trimming complaints received.
- Expenditures made on tree-trimming operations and on tree removal.
- Miles of utility lines requiring trimming maintenance.
- Total number of personnel involved in supervising or monitoring the quality assurance of trimming operations and number of these personnel who are foresters.
- Expenditures made on any quality assurance/quality control programs and in-house training.

Figure 3. Letter to Electric Utilities Requesting Tree-Trimming Data

Table 1

Utility Comparison Of Tree-Trimming Guidelines

		Vepco	Apco	Pot. Ed.	Delmarva	Old Dominion
WRITER GUIDELINES	Natural/Lateral Specified	X	X	X	X	X
	Sketches of Trees Included	X	X	X		X
	Sketches of Sawcuts Included	X	X	X		X
WORK CREW'S USED	Utility					X
	Contractor	X	X	X	X	X
Guidelines in Contracts		X	X	X	X	X
MONITORING PROGRAM	QC Personnel Employed	X	X	X	X	X
	Degreed Forester Employed	X	X	X	X	
PROPERTY OWNER NOTIFICATION	Required Policy	X	X	X	X	X
	Door Hang Tags Used	X	X	X		
IN-HOUSE TRAINING	For Utility Staff	X	X	X	X	X
	For Contractors	X			X	
	Attend Conferences	X	X	X	X	X
	Members of Professional Societies	X	X	X	X	X
Complaint Tracking System		X	X	X	X	X
Trimming Cycle Years (Urban/Rural)		3/3	3/5	3/4	2.5/8-10	2/2
CLEARANCES	Based on Trimming Cycle	X	X	X		X
	Based on Tree Growth Rate		X	X		X
	Based on Specific Tree Species			X		

performance of the right-of-way maintenance contractors. General office right-of-way maintenance coordinators periodically spotcheck contractor performance with in-depth audits performed on a biennial basis. Of the 16 employees involved in monitoring, seven are four-year forestry graduates and one has an associate degree in forestry.

Delmarva's Virginia service territory is supervised by one tree foreman who reports to the southern division forester. Delmarva forestry department personnel meet twice each month to review operations. Contractor supervision meets with the forestry department once each month. Delmarva tree foremen visit each contract crew approximately twice each week to monitor quality. They then meet at least once a week with the contractor general foreman to review the operations of each crew.

The Potomac Edison Company's supervisor of forestry has overall responsibility for administering contracts and coordinating right-of-way clearing and tree-trimming activities. Each division has a right-of-way maintenance technician or division forester whose responsibility is to administer and periodically inspect right-of-way maintenance activities. Potomac Edison has a professional forester in each of its two operating areas of Virginia.

The Old Dominion Power Company uses three engineering assistants/inspectors to monitor, schedule, and administer their right-of-way clearing program. None of these employers are foresters by formal education.

Training. While each utility recognizes the importance of training, there is wide variation in the scope of utility training programs among investor-owned utilities. Virginia Power has the most comprehensive program. In 1988 Virginia Power had an outside consultant conduct two different two-day seminars on proper tree-trimming methods which were attended by over 70 Virginia Power and contractor employees. An annual meeting is held to update foresters, as well as contract personnel, on tree-trimming specifications and proper trimming methods. In-house training on proper methods of tree trimming is taught at commercial operations training center to service reps.

At Appalachian Power Company, the general office transmission and distribution forestry section conducts an annual two-day training session. All facets of right-of-way vegetation management are covered, including tree trimming. New innovations as well as review of current methods are discussed. This training is enhanced by the general office right-of-way maintenance coordinator working with the division personnel on an one-to-one basis throughout the year.

Delmarva Power hosts an annual tree-trimming seminar of foresters and contract personnel on tree-trimming specifications and proper trimming methods. Corporate staff foresters from the

Potomac Edison Company periodically present in-house training programs for the operating area foresters. Old Dominion Power Company's engineering assistant/inspectors attend meetings in order to review and update their right-of-way clearing program, which includes safety, contracts, trimming procedures, and administration.

The investor-owned utilities in Virginia also rely on memberships in professional societies to keep current with proper tree-trimming methods. Several societies publish magazines and/or newsletters covering specific utility vegetation management issues. All utilities report having memberships in one or more of the following: the International Society of Arboriculture, Utility Arborists Association, the West Virginia Management Association, the Vegetation Management Association of Kentucky, the Mountain Lake Right-of-Way Council, the Society of American Foresters, and the Delmarva Professional Forester's Association. In addition, personnel who monitor the quality of contract work are sent to conferences and seminars sponsored by the Mountain Lake Right-of-Way Council, the Vegetation Management Association of Kentucky, the West Virginia Management Association, or the International Society of Arboriculture.

Tree-Trimming Methods. The utilities specifications varied widely in their scope, thoroughness, and technical accuracy. All tree-trimming specifications and contracts relative to overhead distribution lines specify the natural or lateral method of trimming to be the preferred method. The name lateral is derived from the method of cutting branches back to the next limb or lateral-growing branch. Reducing the height of a tree or branch by thinning the terminal to a large lateral is called drop-crotching. In the case of a tree growing directly under a distribution line, the terminal leader is removed by drop-crotching to the fork of the tree.

Contracts also specify that trees should not be pollarded or sheared. Pollarding is done by stubbing off major limbs until the tree assumes the desired shape. Shearing involves making cuts on an imaginary plane across the tree resulting in a rounded-over appearance. These methods usually produce many more problems than they solve.

In general, Virginia Power's specifications are quite good, specific, and complete. Virginia Power promotes lateral trimming but uses the term "topping" in one sketch, which could be inferred to mean shearing a tree, or removing part of the crown without regard for its natural limb structure. Delmarva Power and Light includes a very sketchy discussion of tree-trimming specifications, although natural trimming techniques are required. Delmarva Power has indicated that more detailed information is distributed and discussed at their pre-bid meetings.

Potomac Edison includes a technically accurate, thorough discussion of lateral and proper branch trimming. Appalachian Power, in addition to a thorough discussion of line clearing specifications, incorporates the National Arborist Association "Pruning Standards for Shade Trees."

Old Dominion Power provides the best set of specifications from the standpoints of technical accuracy, clarity, and educational value. The specifications also outline tree-climbing techniques which will minimize damage.

Customer Waiver of Natural and Lateral Trimming. Residential customers sometimes prefer to have their trees rounded over. Utilities do not want to trim trees in such a manner and will try to convince customers to allow natural and lateral trimming. While all utilities will ultimately agree to rounding over if the customer insists, only Virginia Power requires the customer to sign a waiver of the natural and lateral tree-trimming method.

Sketches of Trimming Methods. Virginia Power, Appalachian Power, Potomac Edison, and Old Dominion Power Company provide sketches of proper tree-trimming methods in their contract specifications. These sketches illustrate proper saw cuts on limbs and proper trimming methods depending on the proximity of the overhead distribution line to the tree.

Virginia Power's diagrams could lead one to believe that flush-cutting is acceptable though the correct method is specified in text. Old Dominion Power includes excellent graphics of the effects of both good and bad trimming practices.

Line Clearance Requirements. Virginia Power provides line clearance requirements for primary and sole secondary conductors. Ornamentals, yard trees, and municipally-owned trees without 10 feet of primary conductor clearance are to be trimmed (1) to exceed the anticipated growth expected in three growing seasons for conductors above and at the side of trees and (2) to regain original clearance for conductors under or through trees. Sidewalling trees back to the edge of the right-of-way is acceptable for all other trees (rural, urban, etc.). The standard clearance requirement of service conductors directs contractors to trim tree limbs and branches to provide a minimum clearance of one foot radius on service conductors where practical to prevent abrasion.

Appalachian Power requires clearances based on trim cycles and the tree species and growth rate. The contractor's training manual requires a minimum of 2½ years clearance, which corresponds to 3 - 10 feet depending on the type of tree (fast or slow growing) or power lines. Species of fast and slow growing trees are not identified. The company's guidelines require a wire security zone of 10 feet (horizontal clearance between conductor and tree) along rural distribution rights-of-way in

order to provide the necessary clearance during five-year maintenance intervals.

The Potomac Edison Company provides a reference guide to assist trimming crews in deciding the average amount of trimming necessary below primary conductors in order to obtain three-year (urban) and four-year (rural) clearances for 35 varieties of tree species common on the Potomac Edison service area. These clearances range from a minimum of five feet for eastern red cedars in urban areas up to a maximum of 28 feet for alders in rural areas. Service drops are required to have 18 to 20 inches of clearance.

The Old Dominion Power Company recommends minimum clearances that exceed the anticipated growth expected in two growing seasons. The recommended minimum clearance depends on the location of the conductor relative to the tree as well as the rate of tree growth (fast or slow). The recommended minimum clearance ranges from four feet for slow growing trees beside conductors to 10 feet for fast growing trees over or under conductors. Secondaries and services are not to be cleared except when special authorization has been received.

Delmarva Power provides no guidance on clearances for primary or sole secondary conductors. Service drops and street light circuits will only be trimmed to the extent necessary for reliable service (18-36 inches).

Notification of Property Owners. All utilities require efforts to notify property owners of routine line clearance work. Virginia Power's guidelines indicate that verbal notification of the property owner for routine line clearance work is sufficient. If the property owner is not home, a notification card (door hang tag) may be left at the door. Notification cards shall be used only where the owner is likely to be present on site on a regular basis. Any line clearance work done without owner notification must have specific approval of the company's supervisor. Appalachian Power's policy is to contact each property owner prior to trimming or reclearing activities. When trimming involves trees in a yard or other maintained space, the crew supervisor will make a least two attempts to contact the property owner. If the property owner cannot be contacted, an APCO LCMR must give approval for beginning line clearance work. In areas that do not appear to be maintained and in which trimming has been performed in the past, the crew supervisor may proceed with the necessary work after two unsuccessful attempts to contact the property owner. Door knob hangers are being used by the contractor in some instances to assist in property owner notification, and the company has developed a hanger for future use by all contractors.

It is the policy of Potomac Edison to make every reasonable attempt to contact property owners of the rights-of-way to be maintained. In many cases, they have absentee owners, and

contact may be with a tenant or caretaker. In the case of tree trimming, if specific contact with the owner cannot be made, a door hanger is left for the homeowner. If no response is obtained from the first notice delivered to the homeowner, a second notice is left. If no response to this notice is received after two days, the trees are trimmed without making face-to-face contact.

Old Dominion's practice is to confirm their right to maintain clearances, and all property owners are contacted to review proposed maintenance clearing work. In cases where there are absentee property owners or unoccupied parcels, Old Dominion proceeds with the right-of-way clearing program on the basis of prior permission and does not secure new permission each time clearing is performed.

Delmarva attempts customer notification prior to any tree trimming; however, if contact (in the southern division) cannot be made, routine trimming is performed. The company's door knocker card is not used in the southern division.

Trimming Cycles. Overhead distribution lines in residential areas are maintained on two- to three-year cycles. Establishing an optimum trimming cycle requires making tradeoffs among at least two conflicting and incommensurate objectives including (1) minimizing trimming costs and (2) minimizing potential adverse health effects and unsightly trees caused by severe trimming. Virginia Power attempts to maintain a three-year trimming cycle. Appalachian Power trims on a three-year cycle in urban areas and a five-year cycle in rural areas. Potomac Edison employs a three-year cycle in urban areas and a four-year cycle in rural areas. Delmarva reports trimming trees on a 2½ -year cycle in residential yards and trims trees along wooded spans of distribution line on an 8- to 10-year cycle. Old Dominion trims trees on a two-year cycle.

Emergency Procedures. Trimming during emergency weather conditions is sometimes necessary in order to restore electric service. Contractors are expected to comply with proper trimming methods to the extent possible. Policies of contacting each homeowner may not be enforced because of the nature of the work, and clean up of debris under emergency situations is the owner's responsibility in most cases.

Comparison of Electric Cooperatives' Specifications

There are 13 electric cooperatives operating in Virginia that are regulated by the Commission. Only one of these electric cooperatives, Powell Valley Electric Cooperative, did not provide a response to the Division of Energy Regulation's April 14 request.

Among the 12 cooperatives that did respond, all except Prince George use contractors to perform at least some tree trimming. A&N Electric Cooperative uses contractors only on selected occasions where ornamental trees or trees located in landscaped areas might be affected. Although the cooperatives claim to have personnel who monitor the trimming operations of work crews, there is little evidence that these personnel receive any specialized training relative to accepted tree-trimming practices (other than operation of machinery). Shenandoah Valley Electric Cooperative uses training films and slide programs in addition to sending personnel to right-of-way seminars on a regular basis. Rappahannock Electric Cooperative and Northern Virginia Electric Cooperative (NOVEC) employ the only degreed foresters.

All of the cooperatives except NOVEC referenced tree-trimming standards for trimming methods and clearance requirements published by the Rural Electrification Administration (REA). The REA guidelines are sketchy, with confusing diagrams and little regard for tree health. Several practices are suggested which are no longer considered appropriate, including:

- a. Shearing or pollarding: The diagram numbered M22-1 suggests that rounding out the crown of the tree without regard for its branching habit is acceptable. Both illustrations are wrong, as they show branch stubs which have not been trimmed back to a healthy lateral branch, as is recommended in "lateral" trimming.
- b. Flush cutting is promoted on diagram M22-2, which would sever the branch bark collar from the tree and prevent the tree from forming callus tissue over the cuts.
- c. Tree paint is recommended as a wound dressing, while in fact it can promote decay.

Shenandoah Valley asserts that their contractor follows the National Arborist Association (NAA) standards for the trimming of yard trees. However, Shenandoah Valley reports that, as a general rule of thumb (in conflict with NAA standards), round-over type trimming is employed for yard trees while drop-crotch type cutting is not permitted. Only NOVEC and Rappahannock Electric have extensive and technically accurate internal guidelines in addition to the REA standards. These internal specifications outline (1) proper branch trimming, (2) debris disposal, clearance requirements, and trimming cycles for suburban yard trees and municipally owned trees as well as rural and urban trees, and (3) detailed procedures for notifying property owners.

Although all cooperatives other than Central Virginia reported having a policy to notify property owners prior to trimming, only NOVEC and Rappahannock Electric use notification

cards (door hang tags) if the property owner is not home. A&N Electric Cooperative leaves a message on the door if the property owner is not home, but the nature or form of the message was not described.

Comparison of Telephone Companies' Specifications

There are 20 telephone companies operating in Virginia that are regulated by the Commission. Only four of the largest telephone companies, Chesapeake & Potomac Telephone Company of Virginia, Central Telephone Company of Virginia, Contel of Virginia, Inc., and GTE South have company-developed written guidelines for trimming of trees. The remaining 16 companies use either guidelines developed by the National Arborist Association and Rural Electrification Administration or depend on professional tree-trimming companies.

All telephone companies employ professional tree-trimming contractors for major projects. Company employees are used only for incidental small limb trimming on private property. All companies reported that permission from the property owner is obtained prior to tree trimming on private property.

Depending on the size of the project a company foreman is assigned full time with the contractor for monitoring purposes. On small jobs management inspections are made at periodic intervals.

Because of the limited opportunity for tree trimming by employees of the four larger companies, tree-trimming instruction is included as part of the technical training of all outside technicians. The smaller companies rely predominately on contract labor.

3. EVALUATION OF UTILITIES' HISTORICAL PERFORMANCES

Another objective of the April 14, 1989, request to each investor-owned electric utility and electric cooperative was to obtain data needed to evaluate the performance of each utility's tree-trimming program from 1985 to the present. The data requested included the following:

- Miles of overhead distribution lines requiring tree-trimming maintenance
- Residential customers affected by tree-trimming operations
- Expenditures made for tree-trimming maintenance

- Total number of employees involved in supervising or monitoring the quality assurance of tree-trimming operations
- Expenditures made on quality control programs, salaries, and in-house training
- Complaints related to tree-trimming maintenance

In order to make judgments relative to a particular utility's tree-trimming program or to make comparisons of programs among utilities, the data received was used to calculate the following performance attributes:

- (1) Millions of dollars expended on trimming per thousand miles of line maintained
- (2) Dollars expended on quality control and training per mile of line maintained
- (3) Quality Control employees retained per thousand miles of overhead distribution line maintained
- (4) Complaints entered per thousand property owners affected by trimming operations

A review of the received data revealed no significant trends from 1985 to 1988. Therefore, the most recent data from 1988 (see Table 2) was used to make a comparison among utilities rather than attempting to aggregate the data for all four years. It is apparent, after analyzing the data, that the performance of the five investor-owned utilities appears to be satisfactory. (This observation should not be interpreted as a judgment about the potential benefit of guidelines.) In particular, the number of complaints reported is not excessive. Many of the complaints reported by the utilities concern brush removal, excessive clearance, dissatisfaction with the natural and lateral trimming methods, and herbicide use. Only a small percentage of the reported complaints actually concern improper trimming.

The performances of Virginia Power, Appalachian Power, and Potomac Edison, as indicated by the values of the attributes in Table 2, are surprisingly similar. Old Dominion and Delmarva Power have spent more dollars and employed significantly more quality control personnel per mile of overhead distribution line maintained than Virginia Power, Appalachian Power, or Potomac Edison. In addition, Old Dominion and Delmarva received the least number of complaints per 1,000 property owners. This neither proves that Old Dominion and Delmarva are outperforming the other utilities nor indicates that the other utilities can reduce the number of complaints by increasing expenditures or QC personnel. While there is, certainly, some correlation between performance and expenditures or the number of QC personnel employed, the variations among the five investor-owned utilities

Table 2

Tree Trimming Performance Statistics For 1988
Electric Utility Overhead Distribution Lines

	Vepco	Apco	Potomac Edison	Old Dominion	Delmarva
Utility Line Miles Maintained On An Annual Basis	11,810	5,282	1,366	210	252
Tree Trimming Expenditures (\$ Millions)	16.0	4.5	1.7	0.5	0.36
Expenditures on Quality Control (QC) Programs, Salaries and In-House Training, \$	746,000	375,000	76,000	-	-
QC Employees Monitoring Tree Trimming Operations	44	16	5	3	2
Number of QC Employees Who Are Degreed Foresters	22	8	5	0	1
Total Property Owners Affected By Tree Trimming Operations	401,885	60,000	18,268	12,500	6,924
Number of Tree Trimming Complaints Received	198	59	38	1	1
QC Employees Per 1000 Miles of Line Maintained	3.7	3.03	3.66	14.3	7.9
Complaints Per 1000 Property Owners Affected by Trimming Operations	0.49	0.98	2.08	0.08	0.14
Trimming Expenditures Per 1000 Miles of Line Maintained (\$ Millions)	1.36	0.86	1.27	2.43	1.42
QC and Training Dollars Expended Per Mile of Line Maintained	63.44	70.99	55.63	-	-
Routine Audits of ROW Clearing Operations	-	4500 (est.)	1820 (est.)	298	169
Findings of Improper Practices Requiring Corrective Action	-	200 (est.)	12 (est.)	0	0

could be (1) the result of variations among service-area topographics (number of trees) or complaint-tracking methods, or (2) because the statistical population of Delmarva's or Old Dominion's distribution line miles or property owners in Virginia is simply too small to attach a high degree of confidence to the calculated attribute measures. While the data from Table 2 readily enables an analysis of a utility's performance relative to complaints, there are not, unfortunately, any means for evaluating performance of the various utilities tree-trimming programs relative to tree health.

The information provided by several of the electric cooperatives was sketchy and reported inconsistently and thus did not lend itself to a meaningful comparative analysis. Most of the cooperatives could not determine the number of complaints or could provide estimates only.

Only two of the 20 telephone companies recorded any customer appeals relating to tree trimming. Of the six appeals recorded, all involved failure to clean up the area following the trimming activity.

4. OTHER STATES' GUIDELINES

During March, 1988, the Commission contacted the public utility commissions in 49 of the 50 states to determine the extent of tree-trimming regulations in other states. Alaska could not be reached because of telephone communication problems. Each commission was asked if they had promulgated rules relating to tree-trimming in public utility rights-of-way. None of the states reported having rules or guidelines relative to trimming methods or the health and appearance of trees.

Two state commissions (Hawaii and Oregon) have rules which mention right-of-way clearing. In these two cases, as with the other commissions, the emphasis is on safety and reliability of electric service, and neither of the states with written policies has specific guidelines relating to the actual cutting of the trees.

Nineteen of the states require their utilities to follow the National Electric Safety Code guidelines in Section 281. Three states indicated that tree trimming falls under the jurisdiction of another agency. In Arizona, tree trimming falls under the jurisdiction of the city. In Iowa, there are no PUC rules relating to utility trimming for electric utilities; however, railroad right-of-way clearing falls under the purview of the Federal Railroad Association. In Washington, the Bureau of Labor and Industries monitors tree trimming from the standpoint of safety.

In three states the need for tree trimming is determined on a case-by-case basis by commission inspection of the right-of-

way. In Florida, Missouri, and New York inspections and subsequent requirements for trimming may be triggered by complaints of excessive outages. Two states, Pennsylvania and Vermont, have right-of-way clearing policies which specify notification requirements to land owners for the application of herbicides and the use of aerial spraying.

In May, 1989, another, smaller survey of states was made to determine if any changes had been made since the 1988 survey. The survey included nine southern/middle atlantic states, three northwestern states, and four northeastern states. None of these had established any guidelines on tree trimming since the March 1988 survey.

This section is included for informational purposes only. The purpose of the survey was to determine whether any other state had tree-trimming regulations that could serve as a potential model for Virginia. The results of the survey should not be construed as an argument for or against developing guidelines for utilities operating in Virginia.

5. INTERESTED PARTIES' PERSPECTIVES ON TREE TRIMMING

Obtaining various interested parties' viewpoints is essential to understanding the socio-political context within which a particular technology, such as tree trimming, is deployed. The Commission staff determined that understanding the preferences of certain interested parties would be crucial to the development of a well-balanced public policy to regulate tree trimming. The interested parties contacted to comment on proposed guidelines for tree trimming included expert arborists, residential ratepayers, The Garden Club of Virginia, and utility companies. The viewpoints of these groups are presented in the following text. A sample letter of the request for comments, the initially proposed guidelines, and the complete responses are provided in the Appendix.

Expert Arborists/Foresters

Both the Virginia Department of Forestry and Virginia Cooperative Extension Service (VCES) were directed by HJR155 to assist the Commission in determining whether guidelines for the pruning of trees would be in the public interest. On June 13, 1989, the Commission requested the Department of Forestry to review each electric utility's individual guidelines for the trimming of trees. On June 5, 1989, the practices and procedures used by the larger telephone companies were forwarded to the VCES for review and comment.

A district forester with the Department of Forestry determined that the electric utilities' specifications varied widely in their scope, thoroughness, and technical accuracy. One

set of guidelines was characterized as "sketchy, with confusing diagrams and little regard for tree health." The district forester concluded that "given the wide variance of the specifications in terms of their depth and accuracy, it may be appropriate to provide a standardized version for universal application." The district forester recommended the following guidelines should be stressed:

1. "Lateral" pruning should be specified, without exception.
2. The branch bark ridge should be protected by making the final cut just outward from that point. Flushcutting or leaving a branch stub are unacceptable.
3. Wound dressing should be applied only in conjunction with a growth inhibitor, and not for protective or cosmetic reasons.
4. Sufficient latitude should be allowed to address the varying conditions between rural and urban rights-of-way. Some intensive maintenance practice essential in urban line clearing may be unnecessary or not cost-effective in certain rural situations.
5. Tree removal should be encouraged where long term maintenance costs will be high, where property risk is high, or where the extent of pruning necessary will destroy the natural shape of the tree.

Through a concerted public relations program, utility companies can promote planting of slow growing trees which will retain the aesthetic appeal of the location while avoiding line interference and subsequent maintenance costs. The Virginia Cooperative Extension Service and Department of Forestry could be instrumental in making this a palatable alternative to homeowners, through public education and personal contacts.

6. A list of appropriate species for planting under power lines can be provided upon request.

An urban-county forester with the Department of Forestry provided specific recommendations to improve each utility's individual specifications. A few of the recommendations may not be applicable since they were made without the benefit of each utility's complete package of right-of-way clearing specifications. That is, in some instances, the Department of Forestry was provided only those sections of a utility's specifications that addressed tree trimming specifically. In addition to the recommended improvements, the urban-county forester developed an outline of a general set of utility specifications for vegetation management which are in some way

applicable to most utilities. The complete recommendations and specifications are provided in the Appendix. The recommendations and specifications should be reviewed by each utility with the objective of improving its individual guidelines.

Dr. Harry L. Haney, Jr., of the Virginia Cooperative Extension Service, after reviewing the telephone companies guidelines, stated that the guidelines contain "a few minor errors of fact and some of technique." Dr. Haney opined that "the overall usefulness of the guidelines could be improved by rewriting them in plain English, in logical order and including better designed illustrations."

The city arborist from Virginia Beach was contacted for his perspective on the Commission's report and draft of guidelines for tree trimming. In a 1986 letter to Delegate Mitchell Van Yahres of Charlottesville, the city arborist had offered to provide assistance in establishing tree-trimming standards regulating overhead utility work.

The city arborist's primary comment was that trimming standards should not be relaxed in rural areas where trees are adjacent to public rights-of-way or public properties where they are visible. The city arborist's complete response is provided in the Appendix.

The Garden Club of Virginia

The chairman of The Garden Club of Virginia Conservation Committee wrote that the most essential guideline would require notification of property owners prior to trimming. The chairman's complete response is provided in the Appendix.

Residential Ratepayers

Two residential ratepayers (one from Alexandria and one from Boones Mill) were asked to comment on proposed tree-trimming guidelines. Each of these ratepayers had filed complaints with the Commission in 1989 expressing dissatisfaction with right-of-way clearing on private property. Neither ratepayer responded to the request. However, some concerns and suggestions were stated in their initial complaints relative to prior notification, excessive clearing, and establishment of penalties.

Utilities

All of the investor-owned electric utilities and the Association of Electric Cooperatives were asked to comment on a draft of this report and the proposed guidelines. Several of the

investor-owned utilities and a consensus of electric cooperatives opined that the report does not support a need for establishing any tree trimming guidelines. They provided comments relative to the draft report and proposed guidelines. The utilities' complete responses are provided in the Appendix.

6. CONCLUSIONS AND RECOMMENDATIONS

Nearly every utility operating in Virginia has some form of internal guidelines or specifications for the trimming of trees for utility line clearance. The specifications vary widely in scope, thoroughness, and technical accuracy. Clearly, the five investor-owned electric utilities and the two electric cooperatives that employ professional foresters have the highest quality and most complete specifications; however, even among these seven companies' specifications there is a disturbing lack of uniformity. The Commission recommends that each utility review the programs of other utilities and the responses from the Department of Forestry and Virginia Cooperative Extension Service for possible improvements to their right-of-way clearing programs.

The Commission staff could not find any evidence of excessive customer complaints relative to right-of-way clearing. In 1988 such complaints ranged in number from zero to 10 complaints per 1,000 customers affected by trimming operations, and the majority of those were for reasons other than improper trimming, such as brush removal. Valid conclusions cannot be made about the number of complaints because of inconsistent reporting. Furthermore, the numbers of complaints per 1,000 customers affected by trimming operations are artificially low because the utilities did not correct for customers with underground service or for customers with overhead service who have no trees on their property. Nearly every utility employs contractors to perform necessary tree trimming. The number of complaints is, in part, a function of the work crews' quality of work and sensitivity to the public's concerns. The Commission recognizes that the establishment of guidelines will not necessarily result in an improvement in the performance of individual work crews or reduce the number of customer complaints. The performance of work crews depends on the utility's philosophical commitment to professional standards in tree trimming and the adequacy of the utility's quality-control or contractor-oversight programs. Utilities probably would realize substantial benefits by ensuring that the best crews worked specific residential areas where residents are known to have acute concern for the environment. The Commission recommends each utility review and evaluate its own corporate philosophy and oversight program relative to tree trimming to determine if improvements need to be implemented.

During the course of this investigation, the Commission staff requested a substantial amount of data from the utility

companies for the purpose of assessing their tree-trimming programs. In many cases the information was sketchy or not available. Utilities cannot adequately evaluate their programs' performance without the proper attributes and attribute measures. The Commission recommends that utilities begin to collect the following data on an annual basis:

- Total number of customers in Virginia
- Number of residential customers in Virginia
- Percent of residential customers in Virginia who have overhead service
- Percent of residential customers in Virginia who have underground service
- Percent of residential customers with overhead service who are subject to periodic tree trimming because of potential interference with utility line clearance - - exclude residential customers with overhead service who don't have any trees in their yards (estimate as necessary)
- Number of residential customers in whose yards trees were trimmed during the calendar year
- Number of residential yard trees trimmed during the calendar year
- Number of residential yard trees removed during the calendar year
- Number of residential yard trees treated with growth inhibitors during the calendar year
- Miles of overhead distribution lines in Virginia
- Percent of overhead distribution lines in Virginia requiring right-of-way maintenance - - specifically tree trimming and/or removal (estimate as necessary)
- Miles of overhead distribution lines maintained for clearance during the calendar year
- Percent of right-of-way maintenance performed by contractors as opposed to utility employees
- Total number of audits/inspections of tree trimming made by the utility's quality assurance personnel
- Number of audits that detected improper trimming techniques resulting in the need for some corrective action on the part of the contractor (or utility)

- Total number of complaints received and resolved by the contractor
- Total number of complaints received by the utility company (itemize according to brush removal, excessive trimming, stubs left, objection to natural trimming, etc.)
- Total number of degreed foresters on staff
- Total number of personnel involved in quality control/quality assurance of tree-trimming programs
- Expenditures on right-of-way maintenance - - itemize according to tree trimming, tree removal/brush removal, growth inhibitor program, quality control/quality assurance programs (include salaries), training programs (in-house, conferences, etc.).

Companies wanting to itemize certain data, such as miles of overhead distribution lines, according to rural/mountain and suburban classifications, should do so for complaints, expenditures, etc., as well.

As a result of the lack of uniformity among the utilities' tree-trimming specifications and the absence of a framework of regulation and accountability, the Commission has determined it is in the public interest to establish guidelines. The purposes of these guidelines are to provide a uniform set of minimum requirements, to supersede some questionable practices in use prior to the establishment of these guidelines, and to establish a regulatory framework and system of accountability. The guidelines are provided at the end of this chapter. The guidelines are in no way meant to undermine a utility's responsibility to provide for continuity of service to customers and to avoid potential hazards that trees present to the operations of systems and the public if allowed to grow into utility lines.

Each electric utility, electric cooperative, and telephone company under the jurisdiction of the Commission shall submit to the Division of Energy Regulation or Division of Communications, as appropriate, by January 30, 1990, a written report responding to the recommendations in this chapter and containing the following information:

- (1) Changes in specifications incorporated as a result of this report or as a result of the recommendations made by the Department of Forestry and/or Virginia Cooperative Extension Service.
- (2) Results of the review of the company's corporate philosophy or quality-control/contractor-oversight program relative to tree trimming.

- (3) Statement of capability to track previously specified data in order to respond to Commission data requests on an annual basis beginning with the calendar year 1990.
- (4) Statement of intent to implement the Commission's guidelines on tree trimming promulgated by this report.
- (5) Estimated annual increase in expenses for right-of-way clearing and maintenance and data collection as a result of new requirements promulgated by this report.

THOMAS P. HAPWOOD, JR.
CHAIRMAN
PRESTON C. SHANNON
COMMISSIONER
THEODORE V. MORRISON, JR.
COMMISSIONER

COMMONWEALTH OF VIRGINIA



GEORGE W. BRYANT, JR.
CLERK OF THE COMMISSION
BOX 1197
RICHMOND, VIRGINIA 23289

STATE CORPORATION COMMISSION

December 1, 1989

TREE-TRIMMING GUIDELINES

1. Tree-trimming practices shall consider costs, safety, continuity of service, the health and vigor of affected trees, aesthetics, concerns of property owners, wildlife management, and environmental concerns.
2. Tree trimming should be performed in accordance with the pruning standards for shade trees established by the National Arborist Association, unless the property owner insists otherwise. Each right-of-way clearing work crew should be familiar with and have access to those standards and these guidelines. Intensive maintenance practices may be unnecessary or not cost-effective in heavily wooded, rural, and mountainous locations.
3. Each right-of-way clearing work crew should be familiar with and have access to utilities' right-of-way clearing specifications (1) which generally conform to the above noted standards and guidelines and (2) which should include sketches of trimming techniques for trees in close proximity to overhead distribution lines and guidelines addressing proper tree clearances based on both the chosen trimming cycle and tree species.
4. Right-of-way clearing operations must comply with applicable standards published by the Occupational Health and Safety Administration (29 CFR Part 1910 .269(r), "Line-clearance tree-trimming operations"), and the American National Standards Institute (ANSI Z133.1, "Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush - Safety Requirements").
5. Severe pruning in urban areas should be avoided in the summer.
6. In areas where aesthetics are important to the property owner, severe V-notch trimming and sidewalling should be minimized.
7. Trimming and pruning during emergency weather conditions is sometimes necessary in order to restore service. Policies of contacting each homeowner may or may not be enforced because of the nature of the work, and clean up of debris under emergency situations may or may not be performed according to the utility's discretion.
8. Tree removal should be considered where long-term maintenance costs will be high, where property risk is high, or where the extent of trimming necessary will severely alter the shape of the tree.
9. Utilities shall attempt to notify property owners prior to trimming except when prior approval has been obtained from absentee property owners. A written message (e.g. a letter/notification-card/door-hang-tag) is an appropriate alternative when verbal communication is not practical.

APPENDIX

This Appendix contains the following documents:

Complete responses relative to the preliminary draft report and tree-trimming guidelines from the Department of Forestry, Virginia Cooperative Extension Service, Virginia Beach City Arborist, The Garden Club of Virginia, five investor-owned electric utilities, the Virginia-Maryland-Delaware Association of Electric Cooperatives, five electric cooperatives, and five telephone companies.



ES 14 11 87

WILLIAM L. PIERCE
Regional Forester

COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORESTRY

P. O. Box 3306, Portsmouth, Virginia 23701
(804) 683-2354

Shipping Address: 3909 Airline Blvd.
Chesapeake, Virginia 23321

DATE: August 8, 1987

TO: J. W. Garner, Jr., State Forester

FROM: C. W. Allen, District Forester *CWA*

SUBJ: HJR 155, Tree Trimming for Utility Line Clearance

I have had some opportunity to review the line clearing specifications which you forwarded, and have several comments as listed below. In addition, I just discovered that Cindy Zimar, Fairfax County Forester, is well versed in the subject. She worked closely with various utility companies and line clearing contractors while with ACRT, Inc., and I have forwarded the various specifications to her for review as well.

The line clearing specifications reviewed are from six sources:

1. Virginia Power/North Carolina Power
2. Appalachian Power
3. Delmarva Power and Light
4. Potomac Edison Company
5. Old Dominion Power
6. Rural Electrification Administration

The specifications varied widely in their scope, thoroughness and technical accuracy.

1. Virginia Power/North Carolina Power:

Promotes lateral pruning, which is desirable, but uses the term "topping", which could be inferred to mean shearing a tree, or removing part of the crown without regard for its natural limb structure. In addition, no mention is made of preserving the branch bark ridge which is essential for formation of healthy callus tissue over the wound. Instead, diagrams included in the specifications might lead one to believe that flush-cutting is acceptable.



Mission: A Forest Resource to Meet the Needs of the Commonwealth

2. Appalachian Power:

Includes a thorough discussion of line clearing specifications, including BMP's for construction of access roads which consider filter strips, inslope and outslope angles, and drainage systems. Also incorporates the National Arborist Association "Pruning Standards for Shade Trees" as Exhibit B.

3. Delmarva Power and Light:

Includes a very sketchy discussion of tree trimming specifications, although "natural" trimming techniques are required.

4. Potomac Edison:

Includes a technically accurate, thorough discussion of lateral trimming and proper branch pruning. Also indicates the relative growth rates of a number of selected species, to assist in establishing maintenance schedules or choosing appropriate species to replant near power lines.

5. Old Dominion Power:

The best set of specifications from the standpoints of technical accuracy, clarity and educational value, including excellent graphics of the effects of both good and bad pruning practices. Specifically outlines tree climbing techniques which will minimize damage.

6. Rural Electrification Administration:

Guidelines are sketchy, with confusing diagrams and little regard for tree health. Several practices are suggested which are no longer considered appropriate, including:

- a. Shearing or pollarding: The diagram on page M22-1 suggests that rounding out the crown of the tree without regard for its branching habit is acceptable. Both illustrations are wrong, as they show branch stubs which have not been pruned back to a healthy lateral branch, as is recommended in "lateral" pruning.
- b. Flush cutting is promoted, which would sever the branch bark collar from the tree and prevent the tree from forming callus tissue over the cut.
- c. Tree paint is recommended as a wound dressing, while in fact it can promote decay.

Given the wide variance of the specifications in terms of their depth and accuracy, it may be appropriate to provide a standardized version for universal application. Several areas should be stressed:

1. "Lateral" pruning should be specified, without exception.
2. The branch bark ridge should be protected by making the final cut just outward from that point. Flushcutting or leaving a branch stub are unacceptable.
3. Wound dressing should be applied only in conjunction with a growth inhibitor, and not for protective or cosmetic reasons.
4. Sufficient latitude should be allowed to address the varying conditions between rural and urban rights of way. Some intensive maintenance practice essential in urban line clearing may be unnecessary or not cost-effective in certain rural situations.
5. Tree removal should be encouraged where long term maintenance costs will be high, where property risk is high, or where the extent of pruning necessary will destroy the natural shape of the tree.

Through a concerted public relations program, utility companies can promote planting of slow growing trees which will retain the aesthetic appeal of the location while avoiding line interference and subsequent maintenance costs. The Virginia Cooperative Extension Service and Department of Forestry could be instrumental in making this a palatable alternative to homeowners, through public education and personal contacts.

6. A list of appropriate species for planting under power lines can be provided upon request.



31 E. CAMPBELL
Regional Forester

COMMONWEALTH of VIRGINIA
DEPARTMENT OF FORESTRY

P. O. Box Q
Charlottesville, VA 22903
(803) 977-5195

James Garner
State Forester
P.O. Box 3758
Alderman & McCormick Rds.
Charlottesville, VA 22903

Dear Jim:

I apologize for the delay in returning my comments on the utility R-O-W maintenance specifications. In addition, I had my husband review the specifications and assist with the comments. He has more experience in the utility industry and I believe his comments are beneficial.

If you have any questions please feel free to call me.

Cindy M. Zimar
Urban-County Forester

cc: C. Allen, District Forester

/Enclosures

- tree". Problem tree identification is not always obvious, leaving much room for personal interpretation by contract personnel who may or may not be qualified.
- c. Page IV-1 - Wall trimming specifications do not include the use of accepted trimming standards.
- d. Page IV-2 - Chemical treatment has little discussion of what pesticides will be used and under what circumstances.
- 3. General
 - a. These specifications are very vague in relation to environmental awareness, public relations, long term goals, trimming requirements and standards, herbicide use, training and education, etc.
- C. Old Dominion Power Company
 - 1. Section II - Clearing and Maintenance Methods
 - a. Good use of descriptions and diagrams gives clear interpretation of what is expected.
 - 2. General
 - a. These specifications are explicit and well prepared. However, a mention of protecting environmentally sensitive areas, stream crossings, wetlands, etc., would be a good addition. Parts of the last section were missing from this copy.
- D. Potomac Edison Company
 - 1. Tree Trimming Procedures
 - a. Page 1 - Suggested trimming distances in order to meet proposed maintenance cycles are good reference for assuring adequate clearances are achieved.
 - 2. Natural Trimming
 - a. Page 3 - Diagrams used are somewhat obscure.
 - 3. ROW clearing
 - a. Page 2 - Discussion of herbicide use lacks details.
 - 4. General
 - a. Specifications are generally adequate but could use increased emphasis on environment and safety.
- E. Rural Electric Administration
 - 1. Tree Trimming Guide
 - a. Page 1 - Diagram illustrates a round over as being the correct way to prune. This is generally not accepted by the utility industry or arboricultural organization

Summary Comments on Utility
ROW Maintenance Specifications

RF 1000

SEP 27 1993 1. Comments on Specific Companies

- A. Appalachian Power Company (APCO)
 - 1. Windrowing
 - a. Page 7 - Care should be taken when windrowing to avoid the possible creation of a fire hazard. Frequent breaks in the windrows could reduce hazard by reducing fuel continuity.
 - 2. Herbicides
 - a. Page 12 - Specifications allow little control by owner as to what specific herbicides are used on ROWs and for which purposes. Certain herbicides, although approved by regulating agencies, may be inappropriate for use in special circumstances, particularly from public relations and environmental viewpoints.
 - b. Page 13 - Injection is generally accepted as meaning the use of specialized equipment to make precise application of materials at specific locations to a hole drilled into the xylem of a woody stem, particularly for growth regulators and nutrient supplements. What is described is more appropriately termed a frill cut application.
 - 3. Pruning Standards
 - a. Exhibit B - Use of NAA standards are a good approach to insuring the use of accepted pruning techniques and procedures.
 - 4. General
 - a. Specifications are adequate but not exemplary, particularly in regard to herbicides and long range maintenance goals.
- B. Delmarva Power and Light Company
 - 1. Safety
 - a. Page II-8 2:12.12 references Delmarva Power's safety program which is not available in document.
 - 2. Technical Requirements
 - a. Page IV-1 - Tree trimming specifications extremely vague. These would benefit greatly from illustrative examples.
 - b. Page IV-1 - Tree removal specifications need guidelines for determining a "problem tree" as being correct.
 - b. Page 2 - Cuts illustrated as flush with trunk with no regard for branch collar and current practices.
 - 2. Clearing
 - a. Page II-1 - protection of ground cover is good step toward environmental awareness. Increased discussion of sensitive situations would be helpful.
 - 3. General
 - a. These specifications are quite vague, particularly in respect to trimming guidelines, public relations, clearances, cycles, long term goals, and environmental protection. They seem to be outdated and in need of major revision.
- F. Virginia Power
 - 1. Scope of Work
 - a. Page 1 - Appropriate regard for good public relations.
 - 2. Trimming Methods
 - a. Page 4 - Concern for training and education of contractors to insure use of updated techniques
 - 3. Notice to Property Owners
 - a. Page 3 - Best person for notification is member of crew performing work in most circumstances
 - 4. Sidewall
 - a. Page 5 - In removal of dead limbs, it would be better if they could be removed at the branch collar where practical for public safety and public relations even though hazard to conductors can be reduced by indicated procedures.
 - 5. General
 - a. These specifications are generally quite good. They are specific and complete. An increase in discussion of protection in environmentally sensitive areas would be helpful.

11. Utility Specifications for Vegetation Management in General

A. Purpose

1. To insure the safe, efficient, economical, and uninterrupted transmission and distribution of electric services to customers.
 - a. Maintain adequate clearance for minimum cost
 - b. Stabilize or reduce annual maintenance cost in the long run
 - c. Reduce tree caused outages
 - d. Plan maintenance activities based on cycles rather than reacting to crisis
 - e. Maintain good public relations
 - f. Use methods and procedures accepted within the profession
 - g. Maintain environmental integrity
 - h. Reduce all potential electrical hazards to public

D. Methods

1. Trimming and clearing
 - a. Conform to principles and standards established and accepted by the green industry and to the public in general
 - b. Insure the safety of workers
 - c. Prevent degradation of environment
 - d. Specific and concise
 - e. Provide control over field operations
 - f. Specific brush disposal methods
 - g. Cycles depend on the specific characteristics of the utility and the variation of conditions along the ROW
 - h. Specific criteria for removals on and off ROW
 - i. Reduce service requests
 - j. Cooperate with municipalities
 - k. Emphasize early pruning of young trees to prevent tree/wire conflicts
2. Herbicides
 - a. Conform to legal requirements
 - b. Responsibility for proper use should be the utility's
 - c. Describe specific situations where chemicals are appropriate or inappropriate
 - d. Necessary for some management options
 - e. Need careful record keeping, monitoring and evaluation
 - f. Individual chemicals evaluated before use on system
 - e. Specific prescriptions by situation and site

- f. Used safely by registered applicators
- g. Proper precautions specified to avoid site or water contamination
- h. Show concern for environment
- i. Retain compatible species

C. Public Relations

1. Public information
 - a. Educate why vegetation management is needed
 - b. Disclose methods
 - c. Solicit comment and respond
 - d. Notify of intent
2. Provide services
 - a. Trade a tree for removals
 - b. Planting information for species/location
 - c. Solicit possible hazard identification
 - d. Handle service requests
 - e. Listen and respond to complaints
 - f. Cooperate with public agencies
3. Policy
 - a. Establish policy in regard to rights of the utility and remain consistent to them
 - b. Demand quality work and adherence to specifications by contractors

The above outline represents comments on the specifications of utilities operating in Virginia and points on the utility vegetation management specifications in general. It should be noted that each utility operates under a unique set of circumstances requiring its own individually tailored set of specifications. It is very difficult to design a complete set of specifications applicable to all utilities. The points in section II of this outline are in some way applicable most utilities.

VIRGINIA COOPERATIVE EXTENSION SERVICE

VIRGINIA
TECH

304 Cheatham
Blacksburg VA 24061-0324
703 231-7268

VIRGINIA
STATE

August 28, 1989

Mr. William E. Thomas, Jr.
State Corporation Commission
Box 1197
Richmond, Virginia 23209

RE: House Joint Resolution No. 155

Dear Mr. Thomas:

As you requested, I have reviewed the guidelines for trimming trees on right-of-ways used by the major telephone companies in the Commonwealth of Virginia.

In general, the guidelines are accurate with regard to the techniques for pruning, trimming, and shaping trees adjoining telephone right-of-ways. All company guidelines emphasize the need to adequately protect the health and vigor of the affected trees. The guidelines also address aesthetic considerations, the rights of private landowners adjoining the right-of-ways and environmental concerns. Most of the guidelines were drafted from material provided by the National Arbor Association or a similar authority on tree care.

Although the guidelines that you forwarded to me are generally accurate and adequate for the job being performed by telephone companies, there are a few minor errors of fact and some of technique. For example, the practice of painting wounds after trimming is subject to debate. In addition, there are many new herbicides that have been introduced into the market for controlling vegetation and the guidelines may need review with regard to the use of these materials.

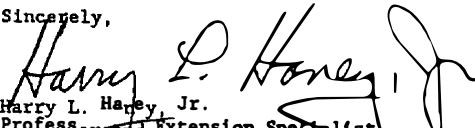
In my opinion the overall usefulness of the guidelines could be improved by rewriting them in plain English, in logical order and including better designed illustrations. The guidelines prepared by C & P Telephone are the most complete; however, all have shortcomings with respect to organization and presentation.

In summary, the tree trimming guidelines are adequate to accomplish the objectives for which they were designed. Concern for the environment, aesthetics and the Chesapeake Bay beneficially suggest that they could be reviewed for accuracy, timeliness, and utility to the using organization.

Virginia Cooperative Extension Service is an Educational Service of the Virginia Polytechnic Institute and State University and Virginia State University, Virginia's Land-Grant Institutions, with U.S. Department of Agriculture and Local Governments Cooperating. Programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, handicap, or political affiliation.
An equal opportunity/affirmative action employer.

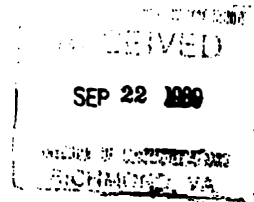
I hope this information will be helpful to your review. Please call me at (703) 231-5212 if you have any questions about my comments or if you need additional information.

Sincerely,


Harry L. Honey, Jr.
Professor and Extension Specialist
Forest Management-Economics

c: J. Hosner
R.E. Adams

jab





City of Virginia Beach

DEPARTMENT OF GENERAL SERVICES
LANDSCAPE SERVICES DIVISION

MUNICIPAL CENTER
VIRGINIA BEACH, VIRGINIA 23456-9002

September 15, 1989

Dr. W. Timothy Lough
Special Projects Engineer
State Corporation Commission
Division of Energy Regulations
Box 1197
Richmond, Virginia 23209

Dear Dr. Lough:

RE: Tree Pruning Guidelines

I had the opportunity to review the referenced subject guidelines and have the following comments:

Paragraph 5 addresses a differentiation between rural and urban areas. Pruning standards, in my opinion, should not be relaxed in rural areas where trees are adjacent to public rights-of-way or public properties where they are visible.

Paragraph 6 utilizes the word "encourage". I have seen areas where tree maintenance costs are high but removal of trees would be unacceptable for a variety of reasons. I would change the wording to "considered" in lieu of "encouraged".

Paragraph 9 is not necessary unless the utility is outside an easement or not on utility property.

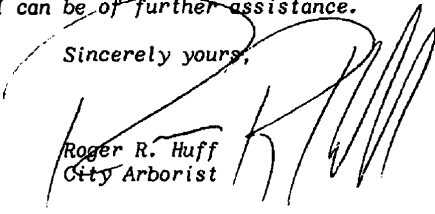
Paragraph 10 -- Is this necessary?

Paragraphs 11 and 12 -- Why get another department involved? You might make a requirement that the utility firms have staff foresters or arborists.

Dr. W. Timothy Lough
Page Two
September 15, 1989

Please contact me if I can be of further assistance.

Sincerely yours,


Roger R. Huff
City Arborist

RRH: jk

The Garden Club of Virginia

MRS. LILBURN T. TALLEY, PRESIDENT
CONSERVATION COMMITTEE
MRS. ROBERT CARTER, CHAIRMAN
1244 ROTHESAY ROAD
RICHMOND, VIRGINIA 23221

Sept. 15th 1985

MRS. CLARKE T. COOPER, JR.
MRS. JOHN J. DEMPSEY
MRS. FRANK T. ELLETT
MRS. JOHN PAGE ELLIOTT
MRS. E. STEWART EPLEY
MRS. JOSEPH W. HAZELGROVE
MRS. WESLEY B. JONES

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MRS. P. WILLIAM MOORE, JR.
MRS. WARREN L. ROMANS
MRS. ERIC J. SORENSON
MRS. WILLIAM T. TUCKER

Dear Mr. Long,

We very much appreciate your keeping the Garden Club of Virginia informed as the subject of tree-removal guidelines for utility line clearance. We very much feel the need for such guide lines.

The option you enclosed is a good beginning. As to paragraph # 7, we feel it is essential to notify property owners, and preferably 48 hours in advance.

Very sincerely,

Bessie Carter

Mrs. Robert Carter



September 26, 1989

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W. Timothy Lough
Page Two

W. Timothy Lough, Ph.D., P.E.
Special Projects Engineer
State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Dear Tim:

SUBJECT: HJR 155 - Guidelines for the Pruning and
Trimming of Trees for Utility Line Clearances

In response to your September 6, 1989 letter on the subject
matter, our comments are as follows:

Additional Data Requests

1. The number of routine monitoring audits of pruning
crews in 1988.

Each of the Division Line Construction & Maintenance
Representatives (LNCRs) assigned to right-of-way
control activities is in the field on virtually
a daily basis routinely observing the contract crews
and checking on the quality and quantity of work
performed. These inspections are not recorded but
a conservative estimate is that approximately 4,500
such inspections were carried out in 1988.

2. The number of audits that detected results of improper
pruning techniques requiring corrective action.

Any need for corrective action that is noted during
the inspections is immediately communicated to the
contractor's field supervisor for implementation.
No record is maintained of such cases but our best
estimate is that approximately 200 inspections re-
sulted in the need for some corrective action on
the part of the contractor.

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2. Tree pruning shall be performed in accordance with
the accepted practices of the National Arborist
Association. Natural and lateral pruning should be
specified, without exception. When pruning branches,
the branch bark ridge should be protected by making
the final cut just outward from that point. Flush-
cutting or leaving a branch stub are unacceptable.

We suggest deleting the phrase "without exception"
in this guideline. It could well be interpreted
to require lateral trimming in all cases, thereby
effectively negating guideline 1 as it relates to
the wishes or rights of the property owner in regard
to trimming methods. We would also suggest changing
the mandatory "shall" in the first sentence to
"should" for the same reason.

A guideline that precludes the property owner from
having an effective voice in the trimming method
to be used on his trees is not going to be effective
no matter how well intentioned.

3. Utilities' internal guidelines and utilities' speci-
fications which are incorporated into contracts
should include sketches of trimming techniques for
trees in close proximity to overhead distribution
lines, graphics of both good and bad trimming techni-
ques, tree climbing techniques which will minimize
tree damage, and tree clearances based on both the
chosen trimming cycle and tree species. Guidelines
should include special requirements for trimming
ornamental yard trees and municipally owned trees.

In our opinion, this guideline would not be helpful
and may, in fact, be counterproductive. Guideline 2
makes clear that the National Arborist Association
(NAA) practices are the preferred techniques. The
requirement for an additional set of specifications,
sketches, etc. has the potential for confusion as
well as possibly perpetuating out-of-date practices.
We would suggest that Guideline 3 be eliminated
as Guideline 2 (modified as per our suggestion)
would appear to already provide a better means of
obtaining the desired results.

Comments on Possible Tree Trimming and Pruning Guidelines

Prior to making any other comments, we would suggest that the
data shown in Table 2 of your evaluation of electric utility
performance indicates option (1) -- no guidelines -- is
the proper choice of the three options presented. The tree
trimming program in APCO is being carried out in a respon-
sible, professional manner with a proper balance being main-
tained between line clearance requirements and property
owner wishes. The quality of the program in APCO as well
as the other listed utilities is apparent from the relatively
few complaints received concerning the trimming operations.
We do not feel that either extensive or general guidelines
are needed in view of present performance by the electric
utilities in Virginia.

In the event the Commission decides there is a need for
guidelines, we would suggest that there is a fourth option
that is compatible with the resolution and one that should
find support with all parties. Such an option would consist
of the following single guideline:

Tree trimming and pruning shall be performed in
accordance with the accepted practices of the
National Arborist Association (NAA) except in
those instances in which the property owner insists
on alternative methods.

In accord with your request for comments on the possible
general guidelines, we submit the following:

1. Tree trimming practices shall consider the health
and vigor of affected trees, aesthetics, rights of
property owners, wildlife management, and environ-
mental concerns.

We would suggest the phrase "wishes of property
owners" be substituted for "rights of property
owners". The electric utility must have the right
to obtain proper clearance of conductors from
trees but consideration is given to the wishes
of the customer.

September 26, 1989
W. Timothy Lough
Page Four

4. Mound dressing should be applied only in conjunction
with a growth inhibitor, and not for protective
or cosmetic reasons.

This is our present practice.

5. Sufficient latitude should be allowed to address the
varying conditions between rural and urban rights-
of-way. Some intensive maintenance practice essen-
tial in urban line clearing may be unnecessary or
not cost-effective in certain rural situations.

We would agree that there is a basis for variance
in certain aspects of the tree trimming operation
as it applies to urban versus rural areas.

6. Tree removal should be encouraged where long term
maintenance costs will be high, where property risk
is high, or where the extent of pruning necessary
will destroy the natural shape of the tree. Such
trees will be replaced at the utility's expense
with slow growing species. A list of appropriate
species for planting under power lines can be pro-
vided by the Virginia Department of Forestry.

We are in agreement that tree removal and replacement
should be encouraged where economically feasible
due to high maintenance costs associated with problem
trees. APCO has such a program in place on a limited
basis. We are not in agreement with the remainder
of the guideline and recommend it be eliminated.

It would certainly be inappropriate for the utili-
ty to assume the cost of tree removal and replacement
because of a property risk to non-utility property
if that is what is intended. The property owner
with a tree that endangers his or his neighbor's
property should be responsible for any removal and
replacement cost.

The portion of the guideline dealing with utility
removal and replacement due to the trimming impact
on the shape of the tree is not workable in our
opinion. The number of trees involved and the sub-
jective nature of a judgment on tree shape has the
potential of creating tremendous costs and/or contro-
versy if such an item were to be included in the
guidelines.

- 7. Utilities shall attempt to notify property owners prior to trimming. A written message (e.g., a door hang tag) shall be left where verbal communication is not possible. Such notification shall include an explanation of pruning methods to be used.

The use of the door hangers for notification is a current APCO policy. We do not believe that any explanation of trimming methods is necessary or feasible as a part of such a notice. The vast majority of the trees to be trimmed will have been trimmed previously and the property owner will be knowledgeable of the methods to be used. The property owner who does desire additional information will find that an "on site" discussion with our right-of-way personnel can address his particular situation in a much better fashion.

- 8. Trimming and pruning during emergency weather conditions is sometimes necessary in order to restore electric service. Policies of contacting each homeowner may not be enforced because of the nature of work, and clean up of debris under emergency situations is the owner's responsibility.

We are in general agreement with this guideline.

- 9. The utility or its designated contractor shall get written permission prior to using herbicides or removing trees.

We have extremely serious reservations about this guideline for the following reasons:

- A. This guideline goes far beyond the resolution which requested the State Corporation Commission to establish guidelines for the pruning and trimming of trees for utility line clearance.
- B. APCO presently has written permission to install and maintain its lines in the form of easements, franchises or permits. These documents provide for the rights of APCO in regard to right-of-way control as well as any restrictions imposed by the grantor of that easement, franchise or permit.

- D. Reforestation operations in rural areas including removal of danger trees would also be made more difficult if the guidelines were to be interpreted to require new written permission. Many of the same logistical problems involved in the aerial herbicide program would be encountered and the guideline makes no provision for a property owner refusal to permit tree removal. There are a large number of trees -- diseased, leaning, shallowly rooted, etc. -- for which the only effective treatment is removal.

- 10. Utilities shall compile and make available any data deemed necessary by the State Corporation Commission to monitor the effectiveness of tree trimming programs.

APCO has been responsive to Commission data requests in the past and would not expect to change its practices in this regard.

- 11. Any inquiries by the utilities or ratepayers relative to appropriate tree trimming techniques shall be directed to the Virginia Department of Forestry for resolution.

APCO feels the Virginia Department of Forestry is well qualified to perform this function.

- 12. If the Department of Forestry, upon inspection of tree trimming work which is the subject of complaint, determines that improper trimming practices were used, reconstructive trimming or replanting will be performed at the utilities' expense.

APCO feels the Virginia Department of Forestry is well qualified to perform this function.

Sincerely,



C. A. Simmons
Vice President
Construction & Maintenance

If the intent of the Commission is to consider the existing easements, franchises and permits as written permission, this guideline will not serve any purpose other than to possibly create ambiguity and controversy between the utility and property owners. If the intent of the Commission, however, is to create a requirement for additional permission, the impact would be devastating to existing right-of-way maintenance programs.

- C. The aerial herbicide application program utilized in rural areas of APCO could not be carried out if the guidelines were to be interpreted to require written permission of existing property owners. The logistics of identifying current property owners, determining current boundaries and marking boundaries of properties for which permission could not be obtained would simply be too great. The identification of property owners could only be done by performing a tremendous amount of courthouse research. Once properties were identified by deed description, boundaries and line relationships would have to be established in the field. The number of miles of line involved and the dynamic nature of property ownership would combine to make such a task virtually impossible.

In APCO in Virginia, the replacement of present aerial herbicide control with conventional reclearing methods would increase costs by approximately \$2 million/year. APCO's aerial herbicide application program has met with a high degree of property owner acceptance and any change which would reduce efficiency and increase costs would be unwarranted.

911 Box 7021
Roanoke, VA 24007 7121
703 986 2300

**APPALACHIAN
POWER**

October 27, 1989

W. Timothy Lough, Ph.D., P.E.
Special Projects Engineer
State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Dear Tim:

SUBJECT: HJR 155 - Guidelines for the Pruning and Trimming of Trees for Utility Line Clearances

We continue to feel the demonstrated quality of the present trimming programs of APCO and the other utilities in Virginia is excellent and there is no need for establishing guidelines. If guidelines are to be established, however, we have no objection to the version attached to your October 20, 1989 letter.

Sincerely,



C. A. Simmons
Vice President
Construction & Maintenance

CAS:psb

c: Mr. John W. Vaughan

**Delmarva
Power**

Southern Division General Office
115 118 Bayshore Mill Road
P.O. Box 1289
Salisbury, MD 21881
(301) 546-1888

September 28, 1989

Dr. W. T. Lough
Special Projects Engineer
State Corporation Commission
Division of Public Utilities
Richmond, Va 23209

Dear Dr. Lough:

You requested the following additional information concerning tree pruning in Virginia during 1988: 1) the number of routine monitoring audits of pruning crews and 2) the number of audits that detected results of improper pruning techniques requiring corrective action.

In answer to your first question, Delmarva Power employed one Company crew for 10 months which was routinely audited 61 times. There were also three different contract crews which worked a total of 16 1/2 months during the year. They were audited by Delmarva Power supervisors 108 times and by contractor supervisors 59 times.

In answer to your second question, all pruning was by the lateral method and none required corrective action.

I would like to clarify a couple of items in your report concerning Delmarva Power's specifications.

On page 11, paragraph 2 you state; "Delmarva Power includes a very sketchy discussion of tree trimming specifications" in its contract.

While we did not include an in-depth discussion in the contract document, the attached Journal of Arboriculture article, "Management Techniques for Utility Tree Maintenance" was distributed and discussed at the pre-bid meeting. You will notice that this article also addresses tree removal and replacement.

On page 14, paragraph 1 you state; "Delmarva Power provides no guidance on clearance for primary or sole secondary conductors". You then go on to recommend that tree clearances be established in your "Tree Pruning Guidelines" suggestion #3.

If a utility states that 10 feet of clearance is recommended for a particular specie of tree to provide for three year's clear-

ance and in two years that tree is contacting the primary conductors, the utility could be held liable for damages should the tree cause an interruption or a person incurs an electrical contact.

A more professional approach is to look for the best lateral branch that can direct the tree's growth away from the conductors. This must be determined by the professional tree trimmer and is seldom a uniform distance from the conductors. This is why a properly laterally trimmed tree has staggered cuts and does not appear to be "rounded over".

I submit these additional comments concerning your proposed "Tree Pruning Guidelines".

- 2) "Natural or lateral pruning should be specified without exception". While this is the ideal, not all property owners will allow their trees to be trimmed laterally. This is in conflict with #1 concerning "rights of property owners".

I would also point out that on inaccessible rights-of-way, particularly transmission high voltage, some utilities use helicopters which lower saw blades, or use boom cutters to side trim encroaching trees. It is not possible to make N.A.A. accepted pruning cuts by these methods. The alternative, climbing and hand cutting, could be safety and cost prohibitive.

- 3) I have previously discussed our exception to specifying tree clearances.

I question why special requirements are necessary for trimming ornamental yard trees and municipally owned trees. If the recommendation is to prune all trees by the lateral method, why differentiate?

- 7) Delmarva Power does attempt to notify property owners prior to trimming, but if no one is home and it is routine maintenance, we trim the tree.

Door hang tags have not proved successful in our Virginia service area because of the numerous absentee owners, especially in the resort areas. If door hang tags are used, they should be followed up with trimming within two days. Otherwise the crew will have to spend too much time backtracking on circuits which will adversely affect productivity.

- 9) Urban tree maintenance and rural tree maintenance are vastly different.

It is common practice for the tree crew to get written permission before a tree is removed from a customer's yard. However, when a rural right-of-way is being reclaimed, thousands of trees must be trimmed, removed, bushhogged or herbicide treated. Since there are few houses to inquire about ownership, and with the absentee owner problem, rural maintenance would require constant tax record research to

determine ownership and hopefully obtain permission.

Should permission be denied, what does the utility do?

Delmarva Power contracts the use of herbicides but not normally in conjunction with tree trimming. Herbicide spraying is performed by specialized crews under the supervision of certified pesticide applicators.

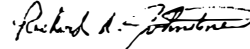
Requiring written permission prior to herbicide treatment indicates that alternative maintenance must be performed should permission be denied. This could adversely affect our right-of-way maintenance budget and conflict with our wildlife management efforts.

We are presently cooperating with the Virginia Game Commission in establishing vegetation plots which provide stream filtration buffers and enhance small game habitat. Proper herbicide use is crucial to this management.

- 10) The types and amounts of data should not be overburdensome, as this could detract from present quality control efforts. We would appreciate the opportunity to comment on any proposed data requirements.

Thankyou for the opportunity to review your report and comment on your proposed guidelines.

Sincerely



Richard A. Johnstone
Supervisor Forestry & Building Services

RAJ/wmb

Attachments

October 30, 1989

Dr. W. T. Lough
Special Projects Engineer
State Corporation Commission
Division of Public Utilities
Richmond, Va 23209

Dear Dr. Lough:

Thankyou for the opportunity to comment on your revised
Tree Pruning Guidelines.

This draft appears to be much more workable, but there
are still a couple areas of concern.

#3 Each right-of-way clearing work crew should be familiar
with and have access to specifications that include sketches of
trimming techniques for trees in close proximity to overhead
distribution lines and guidelines addressing proper tree clearances
based on both the chosen trimming cycle and tree species.

The proper trimming techniques should be the same
as those outlined in guideline #2.

Stating tree clearance guidelines exposes the utility
to liability if the recommended clearance does not prevent
an interruption or a contact accident during the specified
trimming cycle.

I would propose that the Virginia Department of
Forestry publish a list of common tree species found
throughout the state, with average normal growth rates
and sucker growth rates induced by pruning. The crews
could then be instructed to lateral trim the tree and
to make their cuts so as to provide two year's clearance,
or whatever the cycle is, based on expected tree regrowth.

The decision as to how much clearance to obtain is
then left up to the professional tree trimmer doing the
work. This alleviates the utility from accepting un-
necessary liability.

#10 Utilities shall attempt to notify property owners
prior to trimming except when prior approval has been
obtained from absentee property owners. A written message
(e.g. a letter/notification card/door hang tag) is an appropriate
alternative when verbal communication is not practical.

Door hang tags can be used when attempting to trim
a yard tree at a residence.

When attempting to sidetrim and remove trees from
rural rights-of-way where there are no houses, prior
notification would require researching court records to
find the present property owners.

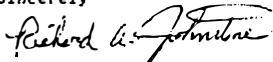
Does the right-of-way agreement constitute "prior
approval... from absentee property owners"? If so,
then the guideline would not pose a problem.

If the right-of-way agreement is not considered
"prior approval", then this guideline would make rural
trimming very cumbersome and expensive.

If property owner approval is necessary before
each trimming; 1) what good is the right-of-way
agreement which supposedly granted the utility
maintenance rights; and 2) if a property owner can
disapprove scheduled maintenance, how can the utility
provide reliable and safe electric service?

Please consider these points when finalizing the guidelines,
and thankyou for your past consideration.

Sincerely



Richard A. Johnstone
Supervisor Forestry & Building Services

RAJ/wmb

OLD DOMINION POWER COMPANY

ONE QUALITY STREET
LEXINGTON, KENTUCKY
40507

September 21, 1989

Mr. W. T. Lough, Ph. D. P.E.
Special Projects Engineer
Division of Energy Regulation
State Corporation Commission
P.O. Box 1197
Richmond, VA 23209

Dear Mr. Lough:

Thank you for your letter dated September 6, 1989 and the copy of the preliminary draft report on HJR 155 and the proposed general tree pruning guidelines.

Old Dominion Power Company has reviewed the preliminary draft report prepared for responding to the Legislature on HJR 155 and agrees with the factual basis of comments concerning ODP.

With regard to the proposed "Tree Pruning Guidelines, Possible Option", ODP has reviewed the twelve items and has several comments it would like to make in general and on certain items as follows:

1) GENERAL COMMENTS

ODP believes its present right-of-way maintenance program sufficiently provides for the safety and well being of all affected parties in an economical manner. The quality, experience, and expertise of the people involved in the program is reflected by the relative non-existence of customer complaints (one in 1988) and lack of any required corrective action from improper pruning techniques. The implementation of the proposed guidelines would unnecessarily add to the costs ODP customers realize for right-of-way clearing. The apparent areas for cost increases are through: 1) aesthetic trimming techniques which would add undeterminable labor time; 2) the replacement of trees including the purchase, planting, nurturing, guarantee of life, and administration; 3) the requirement of written permission before using herbicides or tree removal would increase labor costs when locating out of town property owners, especially on extended rural aerial spraying routes where prior approval had previously been received; 4) increased contractor or crew labor costs when attempting to secure written permission may require retracking trimming routes; and 5) the participation of the Department of Forestry in utility, customer, and SCC matters. There are

numerous unidentified overhead costs that could occur as well. With ODP's proportionately small customer base, the customers would likely realize a higher cost per customer than the other participating electric utilities.

However, should the legislature determine the proposed guidelines necessary, ODP proposes several modifications in the preliminary draft report guidelines. In addition, such guidelines should include a preface identifying the basic requirement for tree trimming -- the responsibility to provide for continuity of service to electrical customers and the avoidance of potential hazards that trees present to the operations of electrical systems and the public if allowed to grow into lines.

2) ITEM 2

ODP believes there should be wording to provide some latitude of flexibility in this guideline rather than a firm, no-exception provision. While every effort would be made to follow proper procedure and practices, there are generally exceptions in isolated instances. Henceforth, ODP recommends, "Tree pruning shall generally be performed in accordance with the accepted practices of the National Arborist Association...".

3) ITEM 3

ODP is unsure of the intent of the last sentence regarding special requirements for trimming ornamental yard trees and municipally owned trees. ODP would generally comply with the practice of the National Arborist Association (Item 2) and does not perform special techniques for aforementioned trees in either rural or urban environments, since the necessity for the trimming is the same (ie. maintenance of service reliability). Therefore ODP recommends that the last sentence be stricken.

4) ITEM 6

ODP does not believe the utilities should be required to pay for the replacement of trees that have been removed from its right of way in urban or rural environments. The utilities have the responsibility to maintain their lines to operate safely, effectively, and efficiently. Any cost of replacement of trees under the conditions listed in Item 6 should be the responsibility of the party other than the utility. The replacement trees would not necessarily have to be a slow growing species, but should be a species that will not grow into conflict with utility lines at maturity. ODP recommends that the last two sentences be stricken.

5) ITEM 7

ODP's contractors presently use the proposed method when direct verbal communications are not possible where property owners are local residents. However, some property owners do not live in the community where the property is located. In these instances the right-of-way clearing is performed based on prior approval. ODP recommends the incorporation of a provision in Item 7 to accommodate those instances where prior approval has been obtained.

6) ITEM 9

The requirement of written permission prior to using herbicides or removing trees is not practical in all instances. For example, aerial spray applications are based on prior approval from property owners and cover inaccessible extended routes which do not lend itself to written permissive contact prior to application. This situation is a common occurrence for ODP with the mountainous terrain of its service area. Also, removal of trees may involve small scrub growth in fence rows, etc., which are removed as routine and written permission is not secured. Consideration should be given when prior approval exists as expressed in Item 7.

7) ITEM 11

ODP believes that inquiries by the utilities or ratepayers relative to appropriate tree pruning techniques should be directed to the SCC. Such a course of action would provide a consistent communication exchange between ratepayers and utilities. In those instances where the SCC requires assistance, the Department of Forestry could be consulted for their input toward an amiable solution for the SCC, utilities, and ratepayers.

8) ITEM 12

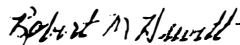
As mentioned in response to Item 11, ODP believes the link between ratepayers and utilities should be the SCC, wherewith there will be a consistent governing body available for the right of due process for the parties involved when appropriate. ODP recommends the following rewritten guide: "If the SCC or its representative upon inspection of right-of-way clearing which is the subject of complaint, determines that improper clearing practices were used, then the utility involved will be contacted by the SCC and be required to present an acceptable solution to the SCC for the property owner."

Additionally, you requested information for 1988 on: 1) the number of routine monitoring audits of pruning crews and, 2) the number of audits that detected results of improper pruning

techniques requiring corrective action. There were 298 audits performed during 1988 without any corrective action required.

Thank you for allowing us the opportunity to comment on the preliminary draft report and the proposed guidelines. If we can be of further assistance in this matter, please let us know.

Sincerely,


Robert M. Hewett
Vice President, Rates,
Budget and Financial Forecasts

WL-je

cc: W. E. Johnson
H. E. Armsey

OLD DOMINION POWER COMPANY

ONE QUALITY STREET
LEXINGTON, KENTUCKY
40507

October 26, 1989

Mr. W. T. Lough, Ph.D. P.E.
Special Projects Engineer
Division of Energy Regulation
State Corporation Commission
P. O. Box 1197
Richmond, Virginia 23209

Dear Mr. Lough:

Thank you for your letter and revised version of recommended Tree Pruning Guidelines dated October 20, 1989.

As stated in our September 21, 1989 letter responding to the preliminary draft report, Old Dominion Power Company (ODP) believes its right-of-way clearing program provides for the essential concerns of costs, safety, continuity of service, the health and vigor of affected trees, the wishes of property owners, wild life management, and the environment. We are hopeful the legislature concludes the proposed Tree Pruning Guidelines are not necessary and thus would avoid increasing the cost of providing service to ODP's customers.

Should the legislature determine the proposed guidelines necessary, ODP proposes modifications as follows:

ITEM 2

ODP recommends that the last part of the first sentence, which reads "unless the property owner insists otherwise," be deleted. The inclusion of this statement may require our crews to perform work contrary to established standards and to our Company's specifications. The responsibility of the final decision should rest with the Company.

Since ODP has established right-of-way clearing specifications, we believe the second sentence should include wording to make work crews familiar with utility procedures as well. ODP recommends the following: "...and have access to utilities' right-of-way clearing specifications, which generally conform to the above noted standards and guidelines."

Mr. W. T. Lough
October 26, 1989
Page 2

ITEM 5

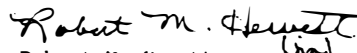
ODP is unsure of the intent of this guideline and suggest that it be deleted. Since we must clear our lines on a systematic schedule, we may be working in an urban area during one of the summer months (months with full leaves on the trees such as May through September) and major limb removal may be required.

ITEM 6

ODP believes this guideline is subject to various interpretations as to what areas are aesthetically important. Generally speaking, most property owners are concerned with the appearance of their property and may have a preference in the tree trimming method to be employed. These interpretation problems would cause conflicts in scheduling, may cause safety problems, and may greatly increase our costs without due benefit. ODP recommends that this guideline be deleted.

We appreciate the opportunity to provide our comments on the proposed guidelines. If we may be of further assistance in this matter, please let us know.

Sincerely,


Robert M. Hewett
Vice President, Rates,
Budget and Financial Forecasts

RMH:jm

cc: H. E. Armsey

September 20, 1989

Mr. W. Timothy Lough
Special Projects Engineer
State Corporation Commission
Division of Energy Regulation
Commonwealth of Virginia
Box 1197
Richmond, VA 23209

Dear Mr. Lough:

Re: Tree Trimming Guidelines, Possible Option

We are in receipt of your September 6, 1989 guidelines. After reviewing the guidelines Potomac Edison has several comments.

Paragraph 2

Natural and lateral pruning should be specified without exception.

We would suggest that this sentence be changed to: "Natural and lateral pruning should be specified unless the individual property owner requires otherwise."

It is not uncommon to encounter an individual property owner who would prefer to have his tree pollarded. Many property owners are often quite insistent that trees be trimmed according to their perceived concepts of what a trimmed tree should look. We go along with the property owners' desires after trying to convince him that pollarding is not good for the tree.

Flesh cutting or leaving a branch stub are unacceptable. I would agree that leaving a branch stub is unacceptable in the urban setting or where a tree is the visual focal point in a landscape. However, in many remote areas where trees are grouped into a wooded situation they are functional as a entity rather than as individual specimen tree. The use of mechanical trimming equipment such as a Jarraff, Kershaw Cutter, or aerial side trim is often used in the remote areas. These mechanical methods of trimming are quite inexpensive and do little harm to the tree except that a branch stub is left.

- 2 -

The value gained by not leaving branch stubs is not commensurate with the cost. To side trim a tree manually or with an aerial device cost approximately \$7 per tree. The use of mechanized equipment reduces the cost per tree to approximately \$1.25. In situations where we use this mechanical equipment, the cost differential of aesthetic trimming cannot be justified. For example, Potomac Edison aerial side trimmed on George Washington National Forest. In the Forest Service opinion, the areas that we worked has value for its aggregate aesthetic value and timber values were not an issue. The US Forest Service felt in this case, the aerial side trim outweighed the benefits of not leaving branch stubs because of reduced cost, decreased worker exposure to electric lines, decreased possibility of fire caused by tree trimming activities and decreased environmental disruption from ground equipment. We would suggest that mechanized tree trimming and leaving of branch stubs is appropriate, in situations where specimen trees of high aesthetic value are not an issue. These areas are generally limited to wooded situations in remote, rural and mountain areas.

We think that the proposed guidelines allude to our concerns in paragraph 5. Paragraph 5 states that some intensive maintenance practice is essential in urban line clearing but may be unnecessary and not cost effective in certain rural situations. This is the thrust of our concern for the last sentence of paragraph 2. It may be wise to combine paragraph 2 and paragraph 5. This would address our concerns.

Paragraph 3

Sentence 1, Tree climbing techniques which minimize tree damage. The most important consideration in tree climbing techniques is one of safety. The utility cannot and should not specify any work practice. We employ tree contractors as independent contractors and tree experts. As independent contractors we cannot specify work practices without assuming liability.

In addition, the voluntary standard ANSI Z-133 addresses the issue of tree climbing techniques. For the utility to specify anything except ANSI Z-133 would be in contradiction with an accepted voluntary standard of the industry. Also an OSHA standard 29 CFR Part 1910 is being developed which will address tree climbing techniques. We cannot supersede the authority of the federal government.

Paragraph 6

We suggest the last sentence be changed to: a list of appropriate species for planting under power lines can be provided by the Virginia Department of Forestry or approved by the Virginia Department of Forestry. This would give the utility more latitude in dealing with tree species to plant under our lines.

Paragraph 8

We like this paragraph, however, We are not sure that our customers will accept the responsibility of cleaning up debris when we are operating under emergency situations. During emergencies most of our customers have been very understanding in allowing us to leave debris until after the emergency is lifted. However, after the emergency, if we receive a request from a customer to come back and clean up debris we will do so. We think we will be hard pressed to tell our customer it is his responsibility to clean up our debris.

Paragraph 9

We have some reservations concerning written permission for herbicides and tree removal. We question if this paragraph could be interpreted as a herbicide regulation. The regulation of herbicides is the responsibility of the Virginia Department of Agriculture.

Requiring written permission for herbicides or tree removal is not needed because of language in our right of way agreement with the property owner. The Right-Of-Way Agreement gives us the right to apply herbicides and remove trees. This requirement would restrict the language of our rights of way agreements.

As we are sure you are aware, rights of way agreements transfer with property. Often property changes ownership without our knowledge. To notify individual property owners in such situations would be extremely difficult and expensive. To secure written permission would require a title search of all lines prior to herbicide application or tree removal.

It should also be noted that when practical we are verbally notifying a property owner of our intent to apply herbicides or remove trees.

Also, tree removal written permission may not be possible under emergency storm conditions.

A tree must be defined if this paragraph is to stay intact. When does brush become a tree and therefore require permission? This sentence could lead to a great deal of confusion. Conceivably a customer could demand written permission to use mechanical clearing equipment if he perceives brush as being a tree.

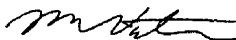
Also, under the definition of herbicides, would tree growth regulators and maintenance pole treating chemicals be included? If written permission is required for growth regulators and pole treating chemicals the cost and administration problems would be large.

We offer the following on your request for additional data:

1. Routine monitoring audits = 1820/yr. (Estimate)
2. Audits requiring corrective action = 12/yr. (Estimate)

The majority of corrective actions was for additional tree trimming or removal. That is, the contractor did not meet our minimum specifications.

very truly yours,



M. R. Watson
Supervisor, Forestry



Downsville Pike
Hagerstown, MD 21740

October 25, 1989

W. Timothy Lough
Special Projects Engineer
Commonwealth of Virginia
State Corporation Commission
Box 1197
Richmond, Virginia 23209

Dear Mr. Lough:

Re: Tree Pruning Guidelines

I have reviewed your October 20, 1989 Tree Pruning Guidelines. The guidelines are acceptable to Potomac Edison.

Sincerely yours,



M. R. Watson
Supervisor, Forestry

September 22, 1989



Dr. W. Timothy Lough
September 22, 1989
Page 2 of 2

Virginia State Corporation Commission
Division of Energy Regulation
Attention: Dr. W. Timothy Lough
P. O. Box 1197
Jefferson Building - Room 918
Richmond, Virginia 23209

RE: GUIDELINES FOR TREE PRUNING FOR UTILITY LINE
CLEARANCE - HOUSE JOINT RESOLUTION NUMBER 155

Dear Tim:

Pursuant to your request, the draft of the report responding to House Joint Resolution Number 155 has been reviewed. Your inquiry has found that each of the five investor-owned utilities has taken the responsibility of establishing comprehensive written guidelines for the monitoring of trimming, notification of property owners, training, tracking of complaints, and establishment of trimming cycle years. As such, the report does not support a need for establishing any tree pruning guidelines.

Specific comments to the report are as follows:

- (1) Reference is made in Paragraph 2, page 11, to Virginia Power's use of the term "topping", which could be inferred to mean shearing a tree. The only place that we find the word "topping" is the sketch on Exhibit B showing before and after "topping". The diagram of after "topping" illustrates only natural and lateral tree trimming, not shearing. The sketch used was reproduced from a publication of the Utility Arborists Association. In addition, in the same paragraph, the report indicates that Virginia Power does not mention "preserving the branch bark ridge which is essential for formation of healthy callus tissue over the wound." In Attachment C, A. Trimming Methods, Paragraph 1 of the Virginia Power/North Carolina Power Distribution Tree Trimming Specifications, the Company requires that "All cuts shall be made sufficiently close to the trunk or parent limb without cutting into the branch collar or leaving a protruding stub. Clean cuts shall be made at all times. Care should be taken to prevent splitting or peeling the bark."

- (2) Guideline #6 - Due to placement of trees and power lines, it is frequently necessary to trim a tree for line clearance thus causing a part of the natural shape to be destroyed. Requiring total removal in such circumstances may be too severe a requirement. The standard would also require that utilities maintain an active tree replacement program. Before such a requirement is implemented, a thorough cost/benefit analysis should be performed.
- (3) Guideline #9 - The standard would require utilities to obtain written permission prior to removing trees whether or not they are covered by existing easement agreements allowing such removal. If such permission is to be included, it should only be required in the absence of preexisting agreements.

In addition, in your transmittal letter, you requested that information be submitted if available regarding: (1) the number of routine monitoring audits of pruning crews and (2) the number of audits that detected results of improper pruning techniques requiring corrective action. Such information is not available.

Virginia Power, as well as the other four investor-owned utilities, recognizes the importance of the tree trimming process. For this reason, we have established our own stringent requirements in order to ensure that all work is properly performed.

If you have any questions or if you need further information, you may contact me at 771-3063.

Sincerely,

John E. Cunningham

Post Office Box 26666
Richmond, Virginia 23261



October 27, 1989

Virginia State Corporation Commission
Division of Energy Regulation
Attention: Dr. W. Timothy Lough
P. O. Box 1197
Jefferson Building - Room 918
Richmond, Virginia 23209

RE: GUIDELINES FOR TREE PRUNING FOR UTILITY LINE
CLEARANCE - HOUSE JOINT RESOLUTION NUMBER 155

Dear Tim:

After reviewing your proposed tree trimming guidelines dated October 20, 1989, I would refer you to the Company's comments dated September 22, 1989, in which we respectfully suggested that the current procedures for tree trimming followed by Virginia's utilities were felt to be more than adequate to protect the rights of property owners. This is currently done without unduly burdening electric ratepayers with unnecessary costs. I would again urge careful consideration of the cost consequences of establishing such standards before a final recommendation is made.

The proposed guidelines retain a general quality. This may lead to clarifying complaints if adopted. We offer no other specific comments.

The Company appreciates the opportunity to provide comments. If you have any questions or if you need further assistance, you may contact me at 771-3063.

Sincerely,

John E. Cunningham

September 26, 1989

VIRGINIA
MARYLAND
DELAWARE



ASSOCIATION
OF ELECTRIC
COOPERATIVES

Dr. Tim Lough
Virginia State Corporation Commission
P. O. Box 1197
Richmond, Virginia 23209

Dear Tim,

Thank you for the opportunity to comment on the draft report and the possible option of general guidelines for utility line clearance. I have asked our cooperatives to review the report and guidelines, and while all responses have not been received, I am summarizing the responses presently on hand and will forward any additional comments to you as they are received.

The overwhelming consensus of our cooperatives is that there is no basis to support the need for state-imposed guidelines mandating utility line clearing practices. We would ask for the opportunity to further discuss the cooperatives' work in this area in a meeting with you as soon as your schedule would permit. I will contact you next week to discuss the possibility of scheduling this appointment.

Please call me if you have any questions.

Sincerely,

Thomas A. Dick
Director Government Affairs

SPECIFIC COMMENTS ON TREE PRUNING GUIDELINES

Guideline 1. This provision fails to consider public and employee safety, quality/availability of power to consumers, and line loss. From a utility perspective, these are paramount and must be given the highest possible priority and should be included.

Guideline 2. We strongly believe that the owner should have the final say on how his trees will be trimmed. Sentence #1 should be amended to include the phrase "unless the owner directs otherwise". We would note that natural and lateral pruning will be much more costly in the heavily wooded areas found in cooperative service territories.

Guideline 3. These guidelines should be applied to urban and suburban areas and ornamental year trees.

Guideline 4. No problem.

Guideline 5. It is essential that there be a clear distinction between urban and rural right of way. This guideline should specifically exempt rural right of way.

Guideline 6. We have serious problems with this guideline for several reasons. If removal of the tree is the most cost effective approach, cooperative member/owners should not be forced to bear the additional cost involved in planting trees. If the property owner prefers removal, he should not be required to have additional trees planted. Required removal may not be cost effective for the utility. Raising a downed power line through any tree, slow growing or not, is difficult. We have major cost concerns.

Guideline 7. Substantial flexibility is required. In some situations the property owner may be a non-resident or difficult to locate. We would note that not all property has a dwelling on it and that property may be transferred without the knowledge of the utility. General notice of right of way clearing in *Rural Living* magazine should be an acceptable alternative. We question the need to note pruning methods. Door tags would likely be more useful when other than routine trimming is required for yard trees. Major cost impact.

Guideline 8. No problem.

Guideline 9. We would have serious objections to this measure. In many instances private easements have been obtained and already grant the right to spray or remove trees. This is simply not practical.

Guideline 10. We would hope that any request for data be based on a demonstrated need for the information.

Guideline 11. We have serious concerns about SCC abrogating its authority to any third party.

Guideline 12. Improper trimming, as defined by the Department of Forestry, is sometimes insisted on by the property owner. The owner could later decide the job is improper and, under this provision, require replacement at the utilities expense. Allowances should be made for complying with the property owners requests, which may run counter to Department of Forestry techniques.

October 31, 1989



Dr. Tim Lough
 Virginia State Corporation Commission
 P. O. Box 1197
 Richmond, Virginia 23209

Dear Tim,

Thank you for the opportunity to comment on the revised version of the Tree Pruning Guidelines which we received on October 23, 1989. Before I address these guidelines, however, I want to express on behalf of the Association our appreciation for the time you recently spent meeting with our representatives in Western Virginia. I believe that the trip was mutually beneficial.

With respect to the guidelines generally, we continue to believe that there is no basis to justify state imposed guidelines mandating utility line clearing practices. However, concerning the revised recommended tree pruning guidelines we offer the following specific comments, which should be read in conjunction with, rather than separate from, the comments that were submitted regarding the original tree pruning guidelines.

1. No comment at this time;
2. The National Arborist Association (NAA) standards for shade trees may not allow the use of climbing spurs in live trees. If this is true, then every live tree that is pruned in a non-rural location must be climbed using a rope and saddle. The cost of such an operation would be prohibitive. Further, the NAA shade tree standards apparently will not allow the use of a mechanical side trimming machine. At least one of our cooperatives has invested over \$150,000 for such a machine. The use of this machine has increased productivity, decreased cost and has been well received by the general public. Finally, it is our recommendation that the word "remote" be deleted from this guideline since it seems to be redundant and confusing. In other words, rural areas are by definition remote, distant locations.
3. No comment at this time.
4. No comment at this time.
5. For purposes of clarity, we suggest that "severe pruning" be defined. In addition, the disallowance of summer pruning may adversely affect the availability of trimming crews.

Dr. Tim Lough
 October 31, 1989
 Page Two

6. Severe V-notch pruning and sidewalling should not be minimized because to do so could result in the increased risk of contact by persons working or children playing in trees.
7. Where a tree has fallen due to circumstances beyond the control of the utility, it is the responsibility of the utility to restore electric service and to clean up only that debris preventing the restoration of service. The property owner is responsible for cleaning up the remaining debris.
8. No comment at this time.
9. No comment at this time.
10. As you may know, the Association publishes Rural Living magazine. It is received in Virginia by every consumer of electric cooperative power except Central Virginia Electric Cooperative. In every monthly issue of Rural Living each cooperative has at least two pages devoted to news regarding that particular cooperative. We believe that through our magazine the notification requirement of this guideline can be met. Clarification of this guideline should be made to allow for this notice.
11. Improper trimming, as defined by the Department of Forestry, is sometimes insisted upon by the property owner. The owner can later decide the job is improper and, under this provision, require that the utility implement an acceptable solution. Therefore, allowances should be made for complying with the request of property owners which may run counter to the standards of the Department of Forestry. Additionally, it is our understanding that according to this guideline, right-of-way clearing will be inspected only upon the receipt of a complaint and the complaint must originate with the property owner.

In conclusion, the overwhelming consensus of our cooperatives is that there is no basis to support the need for these proposed tree pruning guidelines. However, we again thank you for the opportunity to comment.

Please call me if you have any questions regarding this matter.

Sincerely,

Thomas A. Dick
 Director Government Affairs

November 16, 1989

VIRGINIA
MARYLAND
DELAWARE



ASSOCIATION
OF ELECTRIC
COOPERATIVES

Mr. Dave Hall, Assistant Director
Division of Energy Regulation
Virginia State Corporation Commission
P. O. Box 1197
Richmond, Virginia 23209

Dear Dave,

On behalf of our electric cooperative leadership, I want to express our appreciation for the opportunity to discuss with you, Tim Lough and Marta Davis the proposed tree trimming guidelines. We recognize that a great deal of effort has gone into this and we are thankful for the opportunity to comment further.

We believe that the proper pruning of trees is important both to maintain right-of-ways and to preserve the aesthetics of the environment. Our commitment to this belief is reflected in the relatively few number of complaints filed by consumers against electric cooperatives for improper tree trimming practices.

We continue to believe that the need for regulations in this area has not been demonstrated. Therefore, we strongly urge that the Commission decide against promulgating tree trimming guidelines. However, should the Commission decide that guidelines are necessary, it would be our hope that each individual cooperative be permitted to adopt its own tree trimming guidelines.

To follow up on our Tuesday, November 14, 1989 meeting, attached is a summary of our comments regarding the modifications required to clarify the Commission's November 1, 1989 proposed guidelines.

We greatly appreciate your willingness to work with us on this matter and look forward to working with you in the future.

Sincerely,

Charles C. Jones, Jr.
Executive Vice President

VIRGINIA MARYLAND & DELAWARE ASSOCIATION OF ELECTRIC COOPERATIVES

SUMMARY OF CHANGES TO NOVEMBER 1 DRAFT GUIDELINES

- Guideline 1 should read "consideration or concerns of property owners" rather than "wishes of property owners".
- Guideline 2, in the last sentence, the phrase "remote rural and mountainous locations" should be replaced with "heavily wooded, rural, and mountainous locations."
- Guideline 7 should be re-worded so that it is clear that it is the discretion of the utility whether to clean up debris.
- Guideline 9 should be deleted altogether or at least made a part of Guideline 8, so that the public will not be misled into believing that certain approved trees are to be planted under power lines.

SHENANDOAH
VALLEY
ELECTRIC
COOPERATIVE



P.O. Box 8
Dayton, VA 22821-0008
Telephone 703-829-2551

DISTRICT OFFICES
STAUNTON
TELEPHONE 888-8871
DAYTON
TELEPHONE 878-2651
MT JACKSON
TELEPHONE 477-3148

Serving The Valley Since 1936

November 22, 1989

Mr. Dave Hall, Assistant Director
Division of Energy Regulation
Virginia State Corporation Commission
P.O. Box 1197
Richmond, VA 23209

Dear Dave,

I would like to express some concerns our Cooperative has on the need for the SCC to promulgate tree-trimming guidelines for the State of Virginia. But, first, we are very appreciative of the cooperation of your staff for meeting with our people, and for Dr. Tim Lough's willingness to incorporate the changes we recommended in the proposed guidelines. Dr. Lough has given us a chance to review and comment on each draft of the guidelines.

A further comment on the draft of November 1, 1989 concerning Guideline Number 9 is that we do not feel that trees of any kind should be promoted under power lines. This is not to say that we don't have many trees under power lines, but I don't think we should have a statement that gives the impression that trees should be planted under power lines. The trees under power lines are the reason these guidelines are even being considered now.

On thing that has been brought to our attention during the several months that we have been working on this is our need to formulate into written form our tree-trimming policies. We work very closely with our right-of-way contractors and consumers on the tree-trimming practices. We just do not get complaints on our trimming methods. We do have some consumers who do not want anything trimmed, which we all know is not feasible. I don't believe you would find that the SCC is receiving complaints on our tree-trimming practices. We plan, though, to develop written guidelines and, in fact, our guidelines will incorporate the majority of those Dr. Lough has proposed.

Mr. Dave Hall

2

November 22, 1989

I think that if written guidelines were developed by ourselves and others who do not presently have them, there would be no need for the SCC to have guidelines.

Dr. Lough points out in his report that the Commission contacted the public utility commissions in 49 of the 50 states to determine the extent of tree-trimming regulations in other states. "None of the states reported having rules or guidelines relative to trimming methods or the health and appearance of trees."

We do not feel that there is any solid basis for the need to regulate tree-trimming. I think you would be justified in requiring each cooperative to develop its own tree-trimming guidelines.

Again, we appreciate your willingness to work with us.

Very truly yours,

W. R. Fleming
Executive Vice President

WRF:srb

RAPPAHANNOCK ELECTRIC COOPERATIVE .

P.O. Box 7388
Fredericksburg, Virginia 22404-7388
Telephone (703) 898-8500

BOWLING GREEN DISTRICT
P.O. Box 308
Bowling Green, Virginia 22427-0308
Telephone (804) 633-5011



CULPEPER DISTRICT
P.O. Box 392
Culpeper, Virginia 22701-0392
Telephone (703) 825-8373

A N E C
A & N ELECTRIC COOPERATIVE
PARKSLEY, VIRGINIA 23421

P.O. BOX 1128

804-686-6116

November 21, 1989

November 24, 1989

Honorable Thomas P. Harwood, Jr., Chairman
State Corporation Commission
Jefferson Building - 13th Floor
Governor and Bank Streets
Richmond, Virginia 23219

John D. Hall, Jr., Assistant Director
Division of Energy Regulation
State Corporation Commission
Box 1197
Richmond, Va. 23209

Dear Chairman Harwood

Dear Dave:

Subject: Proposed tree-trimming guidelines

We appreciate the opportunity for our forester, Eugene Crisp, to meet with members of your staff concerning the proposed tree-trimming guidelines. The meeting on November 14, was with your Tim Lough, Mahta Davis, and Dave Hall.

I am writing in regard to the proposed regulations on tree trimming. It is my opinion regulations should be adopted if there were a high number of member complaints or dissatisfaction of the general public. To my knowledge, neither of the above cited conditions exist. In fact, I think you will find that A & N, in particular, and Co-ops in general, are doing a very good job in pleasing the general public with our current trimming standards.

We remain committed to being good and qualified custodians of all of the property that our power lines cross. We believe that we are successful in this endeavor as evidenced by the small number of complaints concerning tree trimming and other property-related incidents. Therefore we feel that tree trimming regulations are unnecessary. However, if the Commission finds that such regulations are in the public interest, we suggest that tree trimming be handled under the filed Terms and Conditions of Service of each utility. At the present time, Rappahannock has in effect its own tree-trimming guidelines, which we would be pleased to submit for filing if necessary.

A & N has spent a great deal of money in purchasing specialized right-of-way equipment. The equipment produces a very attractive right-of-way at a very reasonable cost. The proposed guidelines as written would prohibit A & N from using our present equipment. The end result would be a less attractive right-of-way at a much higher cost.

If we can furnish further information on this subject we will be happy to do so.

There is an old saying we hear often, "if it ain't broke don't fix it". I would strongly encourage the Commission to follow this advise and not imlement regulations defining tree trimming standards.

Sincerely

Thank you for considering this information in your final decision.

Cecil E. Viverette, Jr.
Cecil E. Viverette, Jr.
Executive Vice President
and General Manager

Very sincerely yours,

A & N ELECTRIC COOPERATIVE

Vernon M. Brinkley
Vernon M. Brinkley
Executive Vice President

CENTRAL VIRGINIA ELECTRIC COOPERATIVE
P O BOX 211
LOWINGSTON, VIRGINIA 22949
804-81-8134

October 24, 1989



B A R C ELECTRIC COOPERATIVE

P O BOX 264

MILLBORO, VIRGINIA 24460-0264

"Owned by those we serve"

November 21, 1989

Dr. W. Timothy Lough, P.E.
Special Projects Engineer
State Corporation Commission
Division of Energy Regulation
Box 1197
Richmond, Virginia 23209

Mr. Dave Hall, Assistant Director
Division of Energy Regulation
Virginia State Corporation Commission
P.O. Box 1197
Richmond, Virginia 23209

Dear Dr. Lough:

Dear Dave: Re: Tree Trimming Guidelines

Thank you for your letter of October 20, 1989.

I have personally discussed the tree trimming guidelines with Dr. Tim Lough.

Many years ago I heard Judge Hooker make the statement, "The SCC does not get involved with right of way." He thought it best then. I think it best now.

Of course, we oppose any additional regulation and probably always will. Given the number of acres (percentage basis) of tree inhabited right-of-ways, we feel that this problem is not as important as many think it is. Therefore, we respectfully request that the Commission not adopt guidelines until a greater need is demonstrated.

I can see all kinds of problems with a regulating agency entering a controversy, which is a legal matter between the holder of an easement and a property owner.

I personally feel that governments should set goals, reward those who exceed the goals, penalize those who do not meet goals and leave the management of how to attain the goals to the utility. In this case, if tree trimming is truly a problem, my suggested approach would be for the Commission to set a complaint ratio of, say one complaint per 1000 meters per year as a goal. Over that, Commission guidelines would apply. If management stays under the pre-determined goal, then the problem would be determined to be minor.

Very truly yours,

W. L. Tucker, Jr.
W. L. Tucker, Jr.
General Manager

Thanks for reviewing this and be assured that we will work with you, the Staff and the Commission in the future.

Sincerely,

Hugh M. Landes
Hugh M. Landes
General Manager

WLT/jsp

pac
cc: Tom Dick
Dr. Tim Lough

MILLBORO 997-9124

LEWINGTON 463-5125

WEE SPRINGFIELD 804-2455



Amelia
Telephone Corporation

NOV 3 1989

November 2, 1989

State Corporation Commission
P. O. Box 1197
Richmond, VA 23209

Dear Mr. Wickham:

In response to your letter dated October 19, 1989, pertaining to the need for establishing guidelines for the trimming of trees along right-of-ways.

Please be advised that Amelia Telephone Corporation foresees no difficulty in abiding by the guidelines dated October 20, 1989 and attached to the above referenced letter.

Please accept my apology for the tardiness of this response.

Sincerely,
Raymond L. Eckels
Raymond L. Eckels
Vice Pres./Gen. Mgr.

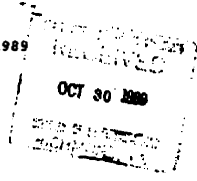
Central Telephone Company

CENTEL

A Centel Company
2307 Hydraulic Road
P.O. Box 6788
Charlottesville, VA 22906
Telephone 804 871-2357

Elizabeth R. Johnson
Government and Industry Relations Manager - VA

October 30, 1989



Mr. Alan R. Wickham
Manager - Operations
State Corporation Commission
P. O. Box 1197
Richmond, Virginia 23209

Dear Alan:

Centel has reviewed the proposed tree pruning guidelines as requested. We are of the opinion that our current guidelines, as previously furnished, are sufficient. However, the eleven (11) guidelines generally do not appear burdensome.

Sincerely,
Elizabeth R. Johnson
Elizabeth R. Johnson

Centel of Virginia, Inc.
1100 Four Horse Street
Suite 1100
Richmond, VA 23278
804 775 2864
804 775 4848

CENTEL Telephone Operations

October 30, 1989

Mr. Alan R. Wickham
Manager Operations
State Corporation Commission
P. O. Box 1197
Richmond, Virginia 23209

Dear Mr. Wickham:

This will have reference to your letter of October 19, 1989 enclosing proposed guidelines for pruning of trees for utility line clearance. Additions have been made to the following items as indicated:

Item 5 - Severe pruning in urban areas should be avoided in the summer when possible.

Item 6 - In areas where aesthetics are important to the property owner, severe V-notch pruning and sidewalling should be minimized except when assessments provide otherwise.

Item 7 - Trimming and pruning during emergency weather conditions is sometimes necessary in order to restore electric and telephone service. Policies of contacting each homeowner may not be enforced because of the nature of the work, and clean-up of debris under emergency situations is performed at the utility's discretion.

If you have any questions, please give me a call.

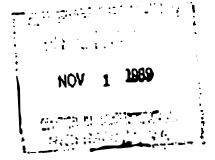
Sincerely,
Dallas H. Reid
Dallas H. Reid, Director
Regulatory/Industry Relations

DHR:jbw

SCC Scott County Telephone Co-Op

P. O. Box 487 - WOODLAND STREET - 703/452-9119 - GATE CITY, VIRGINIA 24251 - JAMES W. MCCONNELL, MANAGER

October 27, 1989



Mr. Alan R. Wickham
Manager - Operations
Virginia State Corporation Commission
Box 1197
Richmond, Va 23209

RE: HJR NO. 155

Dear Mr. Wickham:

This correspondence is in response to your letter dated October 19, 1989, concerning guidelines for tree trimming. The Scott County Telephone Cooperative has studied the tree pruning guidelines which have been prepared by the State Corporation Commission and concur with all the provisions you have indicated.

I commend you on this common sense approach in the handling of this delicate nature. We will work with you in accordance with the guidelines provided. Our goal is to provide a safe working environment and not destroy the aesthetics of trees and shrubs.

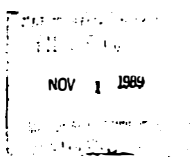
Cordially,

SCOTT COUNTY TELEPHONE COOPERATIVE

James W. McConnell
James W. McConnell
Manager

JWMC/lgmc

cc: RAB
MPD



GTE South

210 Broad Street
P.O. Box 4338
Blacksburg, West Virginia 24701-1838
304.325.1216

J. Michael Swatts
State Manager - External Affairs

Mr. Alan R. Wickham
Manager - Operations
State Corporation Commission
P. O. Box 1197
Richmond, VA 23209

October 30, 1989

Alan:

In response to your October 19 letter, listed below are brief comments concerning the recommended tree pruning guidelines.

Item 7 - The first sentence should read, "to restore electric and/or telephone service."

Reference is made to standards established by the NAA (Item 2), OSHA and ANSI (Item 4) and approved tree species (Item 9). Will the Commission make these standards/lists available to the telcos?

Item 10 - In the first sentence, does prior notification include recorded easements which grant authority to trim trees on a going forward basis? Sentence two could use further clarification regarding the written message, i.e., is the letter/notification card required in advance? If so, how far in advance? Does this apply only to scheduled tree trimming?

Please call if you have any questions.

JMS
J. M. SWATTS

JMS:hs

