Oatman: Computerized Tree Trimming

utilization = \frac{\text{actual trim manhours} + \text{actual removal manhours}}{\text{actual trim M/H} + \text{actual removal M/H} + \text{non-rod. M/H} + \text{travel & dump M/H}}

productivity = \text{efficiency} \times \text{utilization}.

Because estimates were made by different persons in each division and operating center, comparisons of contractors and crews between areas is not possible. We have more than one contractor in each division, however, so we are able to compare contractors within a division of operating center. We are also able to base decisions and actions on the relative productivities of these contractor crews. At some point in the future, we hope to be able to compare contractor productivity on a system basis.

This is our third year into the program and we are now able to tell at any time how much trimming needs to be done at present and each year for the next three years. We now have accurate data which we are using to determine future budget requirements and measure crew and contractor productivity.

Florida Power Company
St. Petersburg, Florida

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PUBLIC RELATIONS IN UTILITY RIGHT-OF-WAY MAINTENANCE

by L. Brian Morris

There are two major reasons for the necessity of increased emphasis on public relations in the area of utility right-of-way maintenance. Primarily, our society is continuing to grow more extensively in urban areas. When individuals are constantly faced with brick walls, asphalt parking lots, rigid time schedules, traffic jams to and from work, and stressful jobs, they will often come to rely on their home and property as a fortress against the jet-set pace of life. They become very protective of everything that lies within their property lines. For a right-of-way maintenance crew to enter the customer’s domain and proceed to trim vegetation that is hindering reliable electric service, is to invite hard feelings against the utility. In many cases it is difficult to identify potential trouble until after the fact.

The second reason for our growing need to concentrate on desirable public relations is the fact that our increasing operating expenses due to fuel costs and inflation have caused customers to question the utility’s operating practices. Without extremely courteous customer contact, the chances of offending a concerned customer are high. We must remain on a personable basis with these individuals and defend our practices sometimes by lengthy explanations of our procedures. Since all of Duke Power Company’s

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1Presented at the annual meeting Southern Chapter, ISA, in Tampa, Florida in February 1980.
Right-of-Way Maintenance is accomplished by contract crews, these explanations are quite often required of them, as well as of our own company supervisors. For this reason, it is important to cultivate crews that are courteous to individuals, present themselves in a professional manner, and also produce quality work which can be easily defended by industry standards.

Basically, the sole reason that problems arise in the area of right-of-way maintenance is that a particular species of tree has been planted in a certain location (or perhaps has grown there on its own volition) that will eventually render an incompatible situation between that particular tree and the electric distribution system. The concept that we must present to our customers is that there are tree species that may be planted in urban situations within our rights-of-way. These species are capable of enhancing the beauty of the customer's property and at the same time never present a threat to reliable electric service. When landscaping, all location factors as well as individual tree species characteristics should be evaluated before deciding on a particular tree for a given area. We refer to this concept of planting the right tree in the right place as "selective landscape planning." The planting of a large growing species in close conjunction to electric distribution lines will eventually mean additional expense to the utility and most probably adverse customer relations when maintenance operations are performed.

Acquainting persons with the final result of improper planning and planting should prove financially beneficial to the tree trimming budget. There are several approaches that can be taken to assist in treating this problem. Like many utilities, Duke Power Company has developed a booklet concerning trees and electric distribution lines. The booklet entitled Trouble-Free Trees gives brief explanations of our policies and procedures as well as the reasoning behind them. Also covered is a partial list of low-growing species that are compatible with electric distribution lines and a list of helpful tree planting hints. Since our contract crews experience the most customer contact, we strongly encourage the crews to maintain a supply of these booklets to distribute to concerned individuals. In addition to the booklets being available through our crews, we also try to keep supplies in each of our 95 retail collection offices. There are also other publications produced by our company which relate to wild flowers, trees and shrubs prevalent in our service area. They are available with one purpose in mind, to improve public relations.

One program that has been implemented by some utilities is a tree replacement program. This program concentrates on "problem trees" that should have been removed during past trimming, but due to customer objections, have remained to be trimmed year after year. In order to obtain customer concurrence, the utility offers a low-growing replacement tree to the customer to replace the "problem tree." Depending on how the program has been set up, the replacement tree may be planted by the customer or the utility. A program of this nature requires close monitoring to ensure that the original objectives are being met and that the program is not being misused. If tight reins are kept on the distribution of the replacement trees, the utility should eliminate the future maintenance expense than would normally be realized.

We accomplish our right-of-way maintenance reclearing in two ways. Both are geared toward keeping good working relations with our customers. The method that we are currently working toward is termed pre-estimation. In this case, a company supervisor will go to the field and lay the groundwork out for the crew to follow. The supervisor is responsible for customer contact and draws up jobs telling the contract crew exactly what work is to be done. In this way our company personnel is responsible for the majority of the public relations work and the crew may concentrate more heavily on the actual trimming to be accomplished. The second method that is used is to simply assign a contract crew an area or particular circuit to trim. In this case the crew self-reports the actual work that is performed, and is also the primary customer contact. During this self-reporting method, the crew will first check with the property owner before beginning trimming on the premises. The purpose for this is to inform the customer that the crew is present and
the purpose of the trimming procedures. Should the property owner not be at home, the crew will proceed with their normal trimming activities, but no trees shall be removed without customer concurrence.

Many times our crews are asked technical questions about numerous aspects of horticulture as well as trees. In most cases these personnel are not qualified to answer such questions. There are services available through State agencies that can be effectively utilized to our benefit in cases such as this. In North Carolina, the Agricultural Extension Service has developed a very interesting program known as the "Extension Teletip." They provide a brochure which contains approximately 750 topics listed along with four digit reference numbers. The subject matter includes gardening, house plants, trees, house care, freezing foods and tax management, in addition to many more. The brochure contains a toll-free telephone number which can only be reached from North Carolina locations. One can dial the toll-free number and ask the teletip operator to play the tape recordings of the subjects he may be interested in. Each tape is about three or four minutes long and contains useful information concerning the subject. The brochures are available free of charge. We make them available to our crews so that they may be distributed to customers when the need arises. Individuals usually find the information appealing and are appreciative of our interest.

Up to this point, we have concentrated primarily upon ways in which we can communicate with individual customers. It is also important for company supervisors to be on good terms with the crews themselves. This is an integral part of a comprehensive public relations program. When a supervisor takes time to be personally interested in the work and personal life of the men working for him, the crew will function better and efficiency will increase. Concentration on a crew’s weak points, with no mention of any of the crew’s strong points, will accomplish nothing except possibly a decrease in efficiency and a demoralized crew.

Right-of-way maintenance supervisors need to stay in close contact and communications with municipal governments and landscaping departments. Many cities and towns are taking note of their vegetative surroundings. City Councils are passing tree ordinances that regulate the trimming and removal of trees as well as where trees may be planted. With cooperation between municipalities and appropriate utility personnel, great strides can be made in assuring that trees will be in desirable locations. The utility should be involved in the formulation of tree ordinances so that unrealistic tree trimming regulations will not be adopted. Most municipalities realize that unsightly conditions will develop if trees are planted without regard to utility rights-of-way. By coordinating efforts with local governments, all concerned can become aware of the total picture. Common goals and objectives of both parties can be realized.

In addition to good rapport with local governments, it is usually beneficial to keep in close communications with State governments. In North Carolina an urban forestry program has been started. A team of forestry experts go into a city or town at the request of city officials and help them to formulate a long range comprehensive tree plan for their city. They will assist in writing up a tree ordinance for the city. By working with these people, one can help insure that the importance and necessity of proper right-of-way maintenance will not be overlooked.

Right-of-way maintenance will be with us in the utility business, at least as long as we have overhead lines. Desirable public relations in this field will become more important as time goes on. By improving communications within our own operations, with our customers, and with local and State governments, we have the capability of manipulating the species of vegetation found on some of our rights-of-way. This, hopefully, will be one way in which right-of-way maintenance expenses can be reduced. But, more importantly, it should show our customers that we advocate aesthetically pleasing landscapes along with reliable electric service.

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