- 4) An additional brush hog is needed on a full-time basis in one division.
- 5) Our present tree conditions predict a variance in work load from year to year. The sample indicated a shift of 1975 work into 1976 as expected by the crew reductions. This will cause our work loads to peak in 1979, 1981, 1984, etc. Hopefully we can smooth or balance out our peak work load during the next five years.

Although we feel we have come a long way toward successful management of our distribution right-of-way maintenance by creating assemblies and using sampling techniques for forecasting, Duke Power Company has only begun to meet our goals of improving our maintenance work. By using these new tools to monitor our work, we will in the future be continually evaluating in more detail subjects such as crew complements, equipment usage, contractors, and our organization for

supervision. Research needs to be done to find better ways to schedule work assignments and measure or audit the quality of our right-of-way maintenance work.

We are all familiar with the high degree of professionalism given to the art of trimming and shaping our trees. We at Duke Power Company have attempted to retain this professionalism by establishing similar production techniques used by other areas of industry to monitor the production and quality of their product. Right-of-way maintenance by our Company is considered an important area which affects the environment in which we live. For this reason we will be continually upgrading where possible our own production techniques.

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## **ABSTRACTS**

KEMMERER, H. 1979. Transplanting large trees. Grounds Maintenance 14(9): 22-24, 58.

The best way to have large trees in the landscape without waiting is to preserve existing trees during landscape development. Barring this, transplanting has merit. Trees of suitable size and quality can be purchased from nurseries, collected from the countryside or moved from another area within the grounds. There are several techniques for moving trees. A tree spade digs, lifts, transports, and replants the tree with a ball of earth in one operation. A more conventional approach is to dig the ball separately; burlapping, lifting, transporting, and replanting are completed as separate techniques. Another procedure is to grow the plant in a container (usually a box) in the nursery. When it is ready to be planted, it is transported to the site and placed in the hole; the box is removed and the hole filled.

NATIONAL ARBORIST ASSOCIATION. 1979. **Safe chain saw use linked to technique, size.** Weeds, Trees and Turf 18(8): 16-18.

Although chain saws have made the work of the arborist easier, improper use can result in personal injury. The potential for accidents seems to have increased in direct proportion to chain saws decreasing in weight. When using a chain saw, personal protective equipment must be worn. This includes work gloves, hard hat, and safety shoes. Ear protection should be worn if there will be prolonged exposure. A chain saw operator should never work alone. Only experienced personnel should use a chain saw aloft in a tree. Most chain saw accidents are a result of the saw kicking back. This can occur if the chain suddenly hits a solid object or takes too large a cut. The chain stops for an instant transferring the engine torque to the bar and engine. Proper hand holds and stance can prevent an accident from kickback. Each chain saw operator has a responsibility to himself to function safely. Carelessness can and will result in injury.