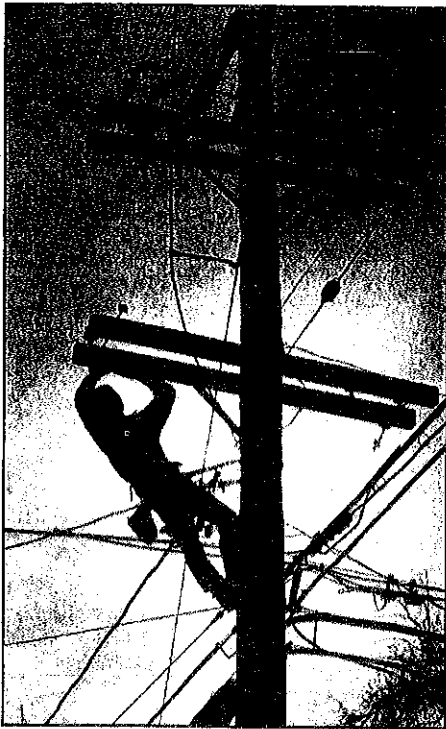


In Search of the Perfect Utility Pole

by Dennis Hayward



Linemen prefer working on wood poles for safety and maneuverability.

For over a century utility managers have searched for and dreamed about the perfect utility pole: a pole that is economical, always in good supply, environmentally friendly, easy to install, strong enough to handle every challenge, and able to last forever with no care or maintenance. The search and dream goes on, but truth be told, there is no perfect pole. However, different materials offer different advantages in different applications and one material, wood, has withstood the test of time and the challenge of alternative materials.

The utility industry estimates that there are over 130 million treated wood poles currently in service in the United States and several million new ones enter into service each year. Alternative materials represent less than one percent of the distribution poles and wood remains a major player in the transmission market.

While treated wood may not have the high tech image promoted for newer materials, sometimes it is just plain hard to improve on Mother Nature and time-proven performance. A recent utility association analysis identified wood poles as "The Electric Utility's Material of Choice" and concluded that "the bottom line is that treated wood offers the most energy-efficient, functional, cost-effective, and practical material for use by electric utilities in providing electrical service to the public."

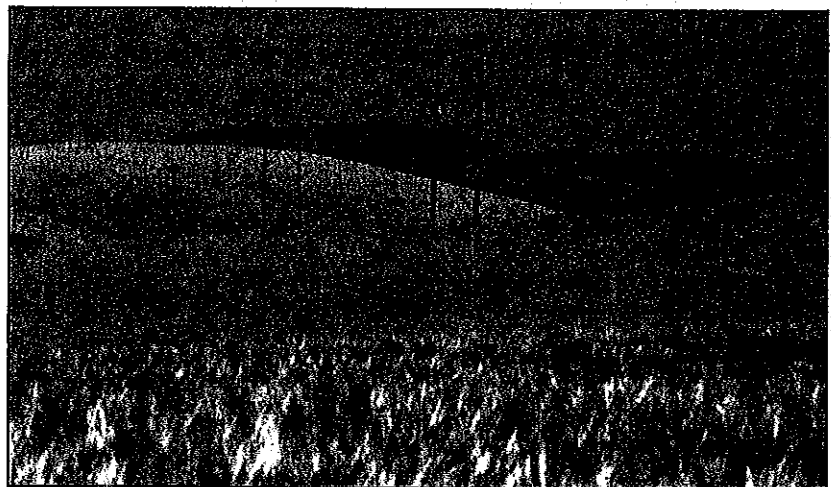
As the search goes on for the perfect pole, challengers are measured against the following characteristics of wood because it is what has set the standards:

Economics. Whether decision criteria consider initial materials and installation, or the full life cycle costs, the economics of wood poles are unsurpassed. The 1996 Competitive Products Research Study evaluated the relative life cycle costs of various products. It showed that wood systems were generally 15 to 25 percent more cost effective than alternatives on a total life cycle basis, a position which has been enhanced by the accelerated cost increases in steel and other high energy consumption products.

Service life. Where poles are not removed prematurely for right of way or capacity change outs, the independent experts have established that it is reasonable to expect a wood pole line that is managed and maintained to have a life of 75 years or more and "there is an increasing body of evidence that average service lives may extend to 80 to 150 years where poles are properly specified and maintained."

Strength. The recently completed review and refinement of the ANSI Wood Pole Standard has affirmed that wood poles are as strong as ever. The preliminary findings of a soon-to-be-released study of over 22,000 individual wood poles of all major species across a full spectrum of sizes clearly demonstrates that today's wood poles are meeting and/or exceeding the dimension, ring count, and strength requirements of the standard.

Installation and maintenance. The strength and resilience of wood, along with the deep penetration of the protective treatment, enable wood poles to withstand considerable abuse when being handled and installed. Unloading is fast; special slings or equipment are rarely needed. Considered safer by linemen, wood poles require no special



Wood poles have provided proven service and reliability for over 100 years.

climbing hardware when bucket trucks cannot be used. Maintenance is simple and can be performed by trained personnel with the pole in place. Installation and modifications are easy with drilling, reframing, and adding/changing hardware on the spot.

Reliable supply. The vast managed forest resources in North America assure an adequate sustainable long-term supply of wood poles. Despite sporadic short-term inventory challenges for some classes, the wood pole industry has met both routine and emergency needs of the utility industry. Faced with national hurricane disasters of unprecedented scale in 2005, the wood pole industry was able to respond effectively, beginning shipments within hours with the over 100,000 needed poles delivered in less than a month.

The environmental leader. Using only seed, soil, water, sunshine, and time, Mother Nature produces new poles on a renewable basis, while converting green house gasses to oxygen and

sequestering carbon in the process. With production that consumes radically lower levels of energy and generates dramatically less air and water pollution than other materials, the wood pole has truly set the green standard. Treated with only EPA-registered preservatives and classed for ultimate disposal as a non-hazardous material, wood represents the most appropriate cradle-to-grave pole material.

While not perfect, the wood pole is the industry standard for the above reasons. For more details and access to an extensive data base of information, visit the North American Wood Pole Council at www.WoodPoles.org. **NWPPA**

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Wood poles and crossarms can provide unique engineering design.