

The Near-Perfect Utility Pole  
*Seattle City Light Teams With J.H. Baxter for Environmentally Preferred Utility Pole*

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"With the unique combination of the best wood, an environmentally friendly preservative, and the Biotrans Field Liner, we feel we have the near perfect wood utility pole," says Brad Combs, a senior Pole Engineer for Seattle City Light.

If this sounds like a pretty bold statement, don't discount the history of one of the nation's largest municipally owned electric utilities. In the 1970's Seattle City Light was one of the first utilities in the U.S. to use poles treated with Copper Naphthenate (CuNap), a more environmentally friendly, non-restricted use wood treatment chemical. Now, over 20 years later, Seattle City Light is once again at the forefront of the industry specifying Copper Naphthenate thermal butt-treated Western Red cedar utility poles with polywrap liners to help bring power to their 345,000 customers.

Here's the winning combination as Combs sees it — an environmentally preferable preservative chemical, Copper Naphthenate; the most efficient treatment procedure, thermal butt-treatment; and extra reassurance with the poly wrap Biotrans Field Liners. The Biotrans Field Liners are designed to prevent leaching into the surrounding soil by keeping the preservative in the wood, and increase the lifespan of the pole. Seattle City Light uses Western Red Cedar for all poles 60 feet or less. Poles longer than that are full-length treated Douglas fir.

The cedar poles are manufactured, treated and wrapped at J.H. Baxter's treating plant in Arlington, WA. In 2000, Combs presented a challenge to J.H. Baxter and others: "If you can meet AWWA standards for penetration and retention with this product, we'll change our material specification and put a new pole contract out for bid." A pilot project was undertaken at Baxter to determine the feasibility of producing Copper Naphthenate thermal butt-treated poles with liners. JH Baxter was able to meet all applicable standards with this process and went on to become the successful bidder for that contract. "We're pleased and proud to be part of this environmental breakthrough." Says Georgia Baxter, JH Baxter president and CEO.

Although official field tests have not been concluded on the new poles, a great deal of anecdotal data shows positive effects of this new type of pole. Previous poles that were used have decayed more rapidly and have damaged vegetation surrounding them. Copper Naphthenate butt-treated poles have shown no signs of early decay and as a result of the applied liners, vegetation grows right up to the base of the poles, according to Combs.

Combs has done his homework. He rejected the alternate materials of concrete, steel and fiberglass for several reasons, but mostly because of his line crews. "This would turn their world upside down," says Combs, referring to the necessary changes in work practices and needed equipment. "Now we have a pole that we expect will prove to be as inert to the environment as steel, concrete or fiberglass at one-fourth the cost, while linemen are still able to use their normal gear and our equipment and practices stay the same."

"There is every indication that the Cu-Nap butt-treated wood is doing exactly what we want it to do. With the applied liners, the preservatives will penetrate further into the wood over time and therefore increase its durability and lifespan, while remaining extremely safe to our environment," said Combs.

Seattle City Light started with a public vote in 1902 to construct a dam and generator on the Cedar River. Seattle City Light was established as a utility in 1910 by the City of Seattle and looks upon environmental stewardship as a core value. They approved an Environmental Policy Statement early on. The language in this historic document is powerful, naming among their many objectives to "perform beyond strict regulatory compliance" and to "seek the commitment of all employees to environmental stewardship."