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Lubricant Additive Saves Lab \$60K/Year

By VIRGINIA HINES

SAN ANTONIO, Tex. – The energy manager for a large medical research facility here claims that use of a new refrigerant lubricant additive has saved the complex at least \$60,000 on its annual electricity bill, reduced chiller maintenance costs by 30 percent, and increased chiller capacity by 15 percent.

The product, Frigi-Tech, only costs the Southwest Foundation for Biomedical Research around \$3,000 per year, according to Pete Felts, maintenance superintendent for the 59-building, 250 acre facility. Felts said he was skeptical when he first heard of Frigi-Tech.

“I’m a very hard sell and for me to endorse a product it has to sell itself to me first,” he told EUN. “I’m not just going to take somebody’s miracle witch oil and stick it in my units. They had to do a lot of testing to convince me.”

“Frigi-Tech will never take the place of a good preventative maintenance program, but it will go a long way in enhancing any good energy management program,” he added.

In June 1989, Felts said he first started using Frigi-Tech by adding a half ounce for each ton of cooling in several units that totaled 750 tons. The facility’s overall cooling capacity amounts to 3,000 to 4,000 tons and includes a “hodgepodge” of cooling systems ranging in age from new to 25 years old and in size from 5 tons to 150 tons.

Within a month, Felts related, efficiency and cooling performance in the systems containing Frigi-Tech improved so significantly that he decided to treat the entire cooling system. The installation paid for itself in about two months, he told EUN, and caused an overall reduction of 40 amps.

He said that Frigi-Tech is now routinely added to new chillers.

“We use it in everything. It saves a tremendous amount of energy,” he continued. “I believe it’s extending the life of my units from two to three years. I get a lot colder air without running my units as long.”

He said that at the foundation, Frigi-Tech gives about a 15 percent improvement in chiller capacity with smaller units. In large centrifugal chillers, the capacity gain is only about 5 percent, Felts noted.

He added that because of the nature of the facility, most of the chillers run most of the time. As a preventative maintenance measure, Felts said he changed the lubricant and Frigi-Tech in his largest chillers each year.

Frigi-Tech has been installed in about 500,000 tons of cooling nationwide and that test by users, vendors, utilities, and independent agencies continue in the effort to validate the product’s reputation.