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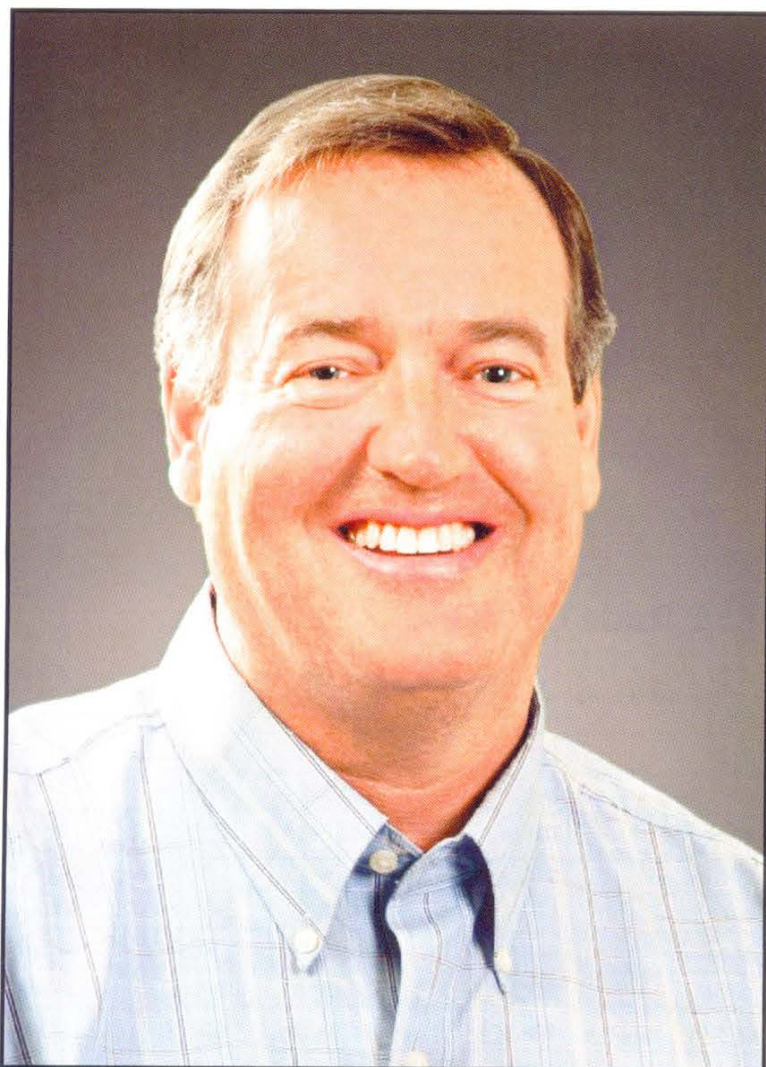
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# “The USP of this technology is that it is totally eco-friendly and sustainable”

In an interview with *Monica Chaturvedi Charna*, Dave Roesser, GM, Cargill speaks about the working and USP of Envirotemp™ FR3™ dielectric fluid, the company's innovation for distribution transformers and its recent collaboration with Tata Power in India...



**K**indly elaborate on the working and USP of Cargill's natural ester (Envirotemp™ FR3™) dielectric fluid for distribution transformers.

FR3 fluid is a vegetable based dielectric fluid for transformers. It is part of the insulation system in the transformer and helps to keep it cool. It also helps maintain the electrical properties in the transformer so that it operates properly. Cargill has been working with FR3 fluid for the last 15 years and 3 years ago, we purchased the business from a partner customer in the US. Hence, the technology and business, globally, is a Cargill entity now. In India, most recently, we worked with some utilities including Tata Power to bring this technology to India.

The USP of this technology is that it is totally eco-friendly and sustainable, and has a good carbon footprint. From the safety perspective, it has a high fire point, meaning the temperature at which it can sustain a fire is very high. It is to be noted that petroleum-based oils used in this application have a fire point of 160 degrees centigrade, while FR3 fluid's fire point is 360 degrees centigrade. So, the chances of a transformer catching fire comes down drastically.

**Tell our readers about the collaboration with Tata Power.**

Our association with Tata Power in the last few years has been very positive. The company is our innovation partner in India, which has helped us in driving this technology by incorporating the FR3 fluid technology in their transformers across the grid. Based on our experience with Tata Power, we are very keen on expanding our business in India and are expanding our plant in Pune to manufacture this product in India.

**Besides Tata Power, are you in talks with other Indian utilities and transformer manufacturers for the FR3 fluid product?**

We are in different stages of discussions with a number of utilities in India, primarily in Chennai, Kolkata, and some other cities. On the OEM side, we are working with several OEMs in India, both at the distribution transformer side as well as manufacturers of utility power transformers.

**What is the primary difference between FR3 fluid and Envirotemp 200™?**

FR3 is a natural ester vegetable-based oil whereas, Envirotemp 200 is a synthetic ester, which can be used in applications requiring high performance under extreme temperature conditions.

**How do you see the future of FR3 fluid in India?**

The Indian market is a very exciting market for Cargill. On an annual basis, the market for new dielectric fluid is 14 million gallons/year, and the market is growing significantly. We are looking at a 5-7 per cent penetration in the Indian market in the next 5 years. We are excited to see how various Indian utilities and OEMs are adopting the technology.

**Who do you see as your major competitors in the market of dielectric fluids?**

The main competition comes from the petroleum fluid supplying companies which occupy 85-90 per cent of the market and not from the vegetable oils segment. However, over time, I firmly believe that vegetable oils will replace mineral oils in the Indian market. And, as we develop this market, I am sure there will be more players in the ester oils space.

**What is Cargill's marketing strategy to further penetrate the Indian market and besides India, which other countries are you targeting?**

We have formed a team that knows dielectric fluids like nobody else does from both the technical as well as commercial standpoint. Going forward, it will be very important for us to help, educate and drive the market in India, and make them understand the value propositions of FR3 fluid ester oils. Also, we have a very strong brand which we plan to bring in India for quality and technical support. Another aspect of our market strategy is to have a local presence in India i.e. to have the sales, commercial, marketing, technical and operations right here in India to support the market. Innovation is another area that we will focus on and drive the process of developing next generation products.

**“We have formed a team that knows dielectric fluids like nobody else does from both the technical as well as commercial standpoint. Going forward, it will be very important for us to help, educate and drive the market in India, and make them understand the value propositions of FR3 fluid ester oils. Also, we have a very strong brand which we plan to bring in India for quality and technical support.”**

**Do you have any manufacturing centres in India?**

We are in the final stages of expanding our plant in Pune, Maharashtra, to manufacture FR3. We expect it to be up and running by the end of the calendar year 2014.

**What are your plans regarding exploring the Asian and African market?**

We are currently working on strategies to explore the Asian market and are in the process of identifying distributors, and channels to be used for the supply of products. In Africa, we will make a foray into the mining and utility space starting from South Africa. So, we have just started to develop a market in the continent. Having said this, the African market is much behind the Indian market.

**Do you currently have an established channel for distribution of products in India?**

As of now, we don't have a distribution channel and the products are going directly, but I expect to have a fully developed channel in the country, in the coming years.

**About Envirotemp™ Dielectric Fluids**

Envirotemp™ fluids are designed for use in new transformers and for retro filling existing mineral oil transformers. These high performance fluids increase reliability, improve fire safety, extend insulation life and increase overload capacity. Available in both natural and synthetic ester formulations, Envirotemp™ fluids provide maximum application flexibility for both power and distribution transformers.

**The Envirotemp™ FR3™ Fluid**

Envirotemp FR3 fluid is a natural ester derived from 100% renewable vegetable oils – providing improved fire safety, transformer life/loadability and environmental benefits that are superior to mineral oil and unsurpassed by any other dielectric coolants.

Some of the salient features are:

- Ultimately biodegradable as designated by the EPA
- Reduced carbon footprint – 56x less carbon emissions than mineral oil
- Carbon neutral
- Non-toxic
- Contains no petroleum, halogens, silicones or sulfurs