



STEPPING UP TO THE PLATE: BALLPARK GOES TO BAT FOR THE ENVIRONMENT WITH ITS USE OF ENVIROTEMP FR3 FLUID

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In recent years, hospitality and major entertainment and sporting venues, like many industries, have increasingly been placed under the microscope regarding their environmental impact on the cities and neighborhoods in which they inhabit. Operations managers at these facilities have become highly cognizant of the myriad environmental implications of every action associated with their stadiums' daily operations, often searching for different ways to improve energy efficiency and increase sustainability.

One recent trend that has emerged with professional baseball stadiums is the use of liquid-filled transformers that employ Envirotemp FR3 fluid, a biodegradable, biobased dielectric coolant that offers an improved environmental profile as well as enhanced transformer performance over traditional units insulated with mineral or synthetic oils.

Staying Ahead of the Game

This past winter, Boston's historic Fenway Park reaffirmed its place on the growing list of venues that have recently installed liquid-filled transformers that utilize the Envirotemp FR3 fluid.

In February of 2008, Cooper Power Systems teamed with Granite City Electric in Quincy, MA, to install a pair of Envirotran transformers into the hallowed grounds at Fenway Park. The new transformers, which provide operational voltage for two

individual stadium light towers, were put in as standard stadium upgrades to replace the stadium's existing R-Temp transformers. The installation was the second round in a series of planned replacements for all seven light-tower transformers at Fenway Park, with the initial installation completed in the winter of 2006.

"The existing transformers that are responsible for providing voltage to the lighting units at Fenway Park are in excellent shape," said Neal Doherty, Granite City Electric. "The upgrades to the new transformers are being performed to keep Fenway at the forefront of environmental stewardship."

The new transformers will power the lights at Fenway Park using an environmentally preferred alternative to the more traditional transformers of yesteryear. Filled with the revolutionary Envirotemp FR3 fluid, the new transformers ensure a clean, environmentally sustainable distribution of power.

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FR3 Fluid Becoming a Fan Favorite

Envirotemp FR3 fluid is a unique dielectric coolant whose base oils come from a renewable natural resource—seeds. Specially formulated with performance-enhancing food-grade additives, the essentially non-toxic, readily biodegradable insulating fluid is changing the landscape in the commercial power industry.

“Envirotemp FR3 fluid is quickly becoming a mainstream product, with over 100,000 transformers utilizing the ground-breaking biobased dielectric coolant in service worldwide,” said Patrick McShane, Global Technical Manager at Cooper Power Systems. “In addition, recent tests show that, due to the CO₂-absorbing qualities of the soybean plants used to make the product, FR3 fluid actually produces a negative carbon footprint. There is no question FR3 fluid is truly an industry revolution in the making.”

The Complete Package

In addition to its positive environmental attributes, FR3 fluid offers an exceptionally high flash point of 330 °C (compared to 145 °C for petroleum-based mineral oil), making it considerably less of a fire hazard. Plus, FR3 fluid is listed as a Less-Flammable Dielectric Liquid by Factory Mutual Insurance Company (FM Global®) and Underwriters Laboratories (UL®) for use in complying with the National Electrical Code standards (NEC) and insurance requirements.

These listings can qualify all Cooper Power Systems Envirotran transformers for installation indoors as well as on pedestrian walkways, adjacent to buildings, or even on rooftops, proof that transformers filled with FR3 fluid pose very minor threats as fire hazards. In fact, Miller Park in Milwaukee, Wisconsin, has been powered by six indoor Envirotran transformers since it opened in 2001.

“Virtually all of the stadium’s power is supplied by transformers that use FR3 fluid,” said Roger Bengtson, Market Segment Manager, Cooper Power Systems. “Miller Park was one of the first large-scale venues to enjoy all the benefits of FR3 fluid. The park made a commitment to install the relatively new Envirotran transformers instead of the more traditional dry-type transformers, which, at the time, was very forward-thinking.”

Whether it’s a need for undisputable fire safety in Milwaukee or a commitment to sustainable methods of operation in Boston, it’s clear that more and more venues across the country are seeing the benefits of using Envirotran transformers.

“The benefits of FR3 fluid are immeasurable,” said McShane. “It represents a true commitment to the players and the fans that they are in an environmentally friendlier and sustainable place to work and enjoy a ball game. Envirotran transformers are safer for the environment, as well as the people and buildings they serve.”



An FR3 Fluid-filled transformer is integrated into Fenway Park’s structure.

A Truly GREEN Monster

As with the first project, there were again some challenging obstacles associated with placing two new transformers into a 95-year-old inner-city stadium. Strict electrical codes combined with the many idiosyncrasies associated with the very old ballpark made for a complex assignment that required the experience and insight of proven industry professionals.

“This was far from an ordinary installation,” said Neal Doherty. “Fenway is an old park, in an older, historic city with numerous obstacles around every corner. Add the unfavorable weather associated with a Northeast winter, and you get an idea of the challenges we faced getting these units installed and operating in time for the start of the baseball season.”

The end result of the installation was a grand slam. The new transformers were successfully installed in early February 2008, two months prior to the start of the 2008 season.

“Fenway Park is virtually a national landmark, comparable to other great symbols of history and architectural accomplishment,” said McShane. “The ballpark’s use of Envirotemp FR3 fluid in its new transformers carries with it a strong message of environmental accountability to the fans, players, and employees of the park.”

Since 2006, Fenway Park has equipped four of its seven light towers with Envirotran transformers to provide voltage to light up the field at night. Over

the next three years, there are plans to replace the three other transformers with Envirotran transformers. To many in the industry, Fenway Park’s use of FR3 fluid serves as an illustrative model of responsible, forward thinking. Although this recent installation is just one small gesture towards a more environmentally responsible way of life, it proves to the fans, the players, and the staff in Boston that Fenway Park will remain committed to reducing the environmental impact of its operations. That’s one commitment that fans of any team should be rooting for. ■