

Solvancer®† technology helps New Jersey power plant reduce turbine oil change out time by more than 70%



GE 7EA gas turbine

Cogeneration plant

New Jersey, USA

Situation

Using Mobil™ DTE 932 GT, a New Jersey cogeneration power plant achieved its extended overhaul-to-overhaul goals of more than 57,000 hours for two GE Frame 7EA gas turbines without any varnish. As the plant neared its change out cycle, the maintenance team wanted to find a way to reduce time and costs associated with the process. Previously, the plant had been using a system cleaner to treat used oil at a 7% treat rate and let it circulate for 48-72 hours. The used oil was then drained before adding a flush oil to remove any residual system cleaner. Finally, the flush oil was drained, the system cleaned, and new oil added. In total, this process took approximately 108 hours per turbine.

Recommendation

The Mobil Serv™ Engineering Team and its Integrated Services (ILS) partner, RIG, recommended using an oil soluble cleaner in lieu of the previous system cleaner to prepare the turbines for the oil change. The team recommended that the plant add a Solvancer®-based technology that was fully compatible with Mobil turbine oils, at a 5% treat rate, to the in-service oil one month prior to oil change and to continue operating the system under normal operating conditions during this time. At change out, the turbines were low point drained, reservoirs cleaned, and final filled at 16/14/12 particle count with Mobil DTE 932 GT oil.

Impact

Using Mobil's bundled services simplified the change-out process. Leveraging a Solvancer-based technology developed by Fluitec® helped reduce time and cost to serve enabling the cogeneration operator to realize considerable efficiencies including reducing their maintenance hours by 72% (more than 3 days per turbine), reducing waste by 2,400 gallons, and generating more than \$100k in cost efficiencies while maximizing productivity.

Benefit

In addition to reducing oil change out time by more than 70% and reducing waste oil by more than 25%, using the Solvancer-based technology helped deliver more than \$100,000 in estimated cost savings.

Company reported savings of

**\$104,438
USD**

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*This Proof of Performance is based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.

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† Solvancer is a component for oil soluble cleaning technology developed by Fluitec.