



Success Story

Sycamore Co-generation Power Plant, Kern County, California

Oil life maximized, sludge and varnish minimized in Siemens Frame 7 gas turbines running in high-temp conditions.



"Our target was for the oil to last until our next major cycle, about 48,000 hours. The coupons look good. We are in great shape for our next outage."

Mike Chang, Operations Engineer

The Situation

Sycamore Cogen powers thousands of homes and businesses in the southern California desert, where summer temperatures routinely reach 115°F (46°C). The facility relies on multiple Siemens Frame 7 gas turbines to keep the electricity flowing. One of the greatest factors in achieving this uptime is proper lubrication.

Power plant operators typically want to run a turbine oil that will last the full interval between planned maintenance shutdowns, usually between 3-5 years. Sycamore was not even coming close. The plant used an oil that broke down under high operating temperatures, which caused sludge and varnish deposits in the equipment. Oil service life was barely 16,000 hours, expensive turbine components were compromised, and the threat of catastrophic failure was always looming.

The Solution

During the plant's scheduled turnaround in 2012, Chevron lubrication specialists assessed the situation and offered recommendations. Drawing from our extensive expertise in the power generation industry, we worked closely with the plant's maintenance team to design a comprehensive lubrication program for the plant. As part of that plan, the turbine reservoirs were drained of the previous lubricant and filled with Caltex GST Advantage™ RO 32 with VARTECH™ Technology Turbine Oil (old name GST Premium XL 32) Turbine Oil – a lubricant that is specifically designed to perform reliably under harsh operating conditions.

The Results

Oil life exceeded expectations and sludge and deposits were minimized throughout the turbine system, including the reservoirs, filters, solenoid valves, enclosed gears and bearings. The threat of unscheduled downtime and the associated repair costs and lost revenue have been minimized. Sycamore Cogen was able to operate with optimal uptime assurance.



GST Advantage™ RO with VARTECH™ Technology Turbine Oil

- Reduces sludge and varnish
- Maximizes oil life
- Provides thermal stability

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