Mobil SHC™ 824 turbine oil helps natural gas treatment plant extend filter life*

GE Frame 6B gas turbines | Natural gas treatment plant | Wyoming, United States

Situation
A natural gas treatment plant operates three GE Frame 6B gas turbines. Under the plant’s severe operating conditions, the initial turbine oil in use was breaking down quickly, resulting in fuel control valve sticking and outages that made filter changes necessary every 3–8 weeks. In an effort to reduce filter changes and improve equipment reliability, the company approached ExxonMobil to determine an alternative lubricant solution capable of eliminating varnish-related valve failures.

Recommendation
ExxonMobil engineers recommended the plant convert to Mobil SHC™ 824 synthetic turbine oil, designed for severe service with its exceptional resistance to high temperature degradation and a nominal 10,000 hour TOST life. Prior to the conversion, the engineers also recommended the company perform a Varnish Removal Flush, a Mobil Integrated Lubrication Service, and purchase an electronic filtration system to help remove any insoluble particles while in-service.

Impact
The company reports that Mobil SHC 824 synthetic turbine oil has helped them operate more than 40,000 hours without a varnish-related issue. In addition, the rate of filter changes on each turbine has been reduced from every 3–8 weeks to roughly every three years, which has also reduced syngas flaring during filter changes.

Company-estimated average annual savings of $425,000

*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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