The Holistic Approach to Solving GT Lube Oil Varnish

Varnish in gas turbines is a serious problem. Unfortunately, it is also complex and an under-researched area of lubrication. Too often have suppliers announced a simple cure, such as "my new turbine oil formulation will not produce varnish" or "my filter system will solve all of your varnish problems" only to have their claims proven false in the field. Our research has shown that a solution to gas turbine varnish requires a holistic approach. The upside of following this methodology however is that not only will your plant be free from fail-to-start conditions, unit trips and other availability issues caused by varnish, the life and performance of your turbine oil will be optimized.

This presentation is rich with research and case studies on what has worked and what does not work in gas turbines. Learn about what the key condition monitoring tests are, how to select turbine oils, how real spark discharge are and how does this contribute to varnish and the pros and cons of a variety of contamination control technologies designed to address varnish. Much of this data is summarized from the well known 2-day course entitled Varnish University.

Greg Livingstone, Certified Lubrication Specialist
Director of Fluid Technology
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With over 25 published papers dealing with condition monitoring and contamination control, he is recognized as an expert on lubricant degradation and varnish. He has years of experience in solving lubrication issues for power generation, pulp & paper, primary metal manufacturing, and Naval applications. He is the co-developer of the QSA^{SM} test for varnish potential, the Chair of ASTM D02.C01 on Turbine Oil Analysis and Problem Solving, and is Vice Chair of the Society of Tribologists and Lubrication Engineers' (STLE) Power Generation Section. He is also a Certified Lubrication Specialist through STLE.