TURBINE OIL SYSTEM CARE AND MAINTENANCE

TOP TIPS TO KEEP YOUR TURBINES OPERATING AT MAXIMUM EFFICIENCY

1 CLEANLINESS

Contamination may result in the formation of deposits and varnish. This can significantly reduce bearing and gear life, affect servo valve operation and promote system foaming

WHAT CAN YOU DO? Inspect your system frequently and ensure your filtration system is in full working order

2 WATER CHALLENGES

Water can promote rust and corrosion and speed up the rate of oil oxidation. Free water or an oil-in-water emulsion can interfere with the oil film which supports the loads carried by the bearings

WHAT CAN YOU DO? Use a good oil analysis programme to monitor water levels. Water contamination limits should be checked against manufacturers' recommendations but, in general, water levels should be kept below 500 ppm for gas turbines and 1,000 ppm for steam turbine

3 ELIMINATE LEAKAGES

It is critical to trace oil leaks to their source and eliminate then rapidly. Common culprits include bearing seals, oil-supply lines, valve connections and cooler tube joints

WHAT CAN YOU DO? Understand the key potential areas for leaks – often the hot areas - and minimise risk. Always ensure that provision is made to collect the oil in a safe location

ACCURATE RECORDS WILL FLAG CHANGES TO HELP PREVENT POTENTIAL EQUIPMENT ISSUES

TEMPERATURE MEASUREMENTS

- ☑ Oil and water to and from the coolers
- ☑ Oil in reservoirs
- ☑ Oil return from main bearings
- ☑ Oil inlet to purification equipment

OPERATIONAL MEASUREMENTS

- ☑ Turbine operating hours
- ☑ Oil condition, laboratory results and service hours
- ☑ Time and amount of make-up oil added to system
- ☑ Time of filter changes
- ☑ Repairs or replacements