

Product: ANALEXrs Oil Condition Sensor

User: Public Power Corporation

Public Power Corporation (PPC) is the main producer of electric power in Greece. With more than 30 power stations PPC not only supplies the mainland but also the Greek Islands. For PPC, the most important factor is reliability of its machinery and power production units.

Electric power production in the mainland is carried out by steam turbines that are powered by steam towers burning coal. This system also includes many large pumps used to transfer the process water. The pumps are driven by motors that which in turn utilise a gearbox for speed switching. The gearboxes are filled with very high quality synthetic oil that must be closely monitored and meticulously maintained.



The cost of changing lubricant too early or the gearbox failing is immense and a solution was needed that could monitor the lubricant condition and as a result, help maintenance engineers ensure the normal operation of the gearbox.

Accurate and comprehensive oil analysis programmes require highly skilled and trained personnel to evaluate results and make necessary actions. PPC engineers were performing oil analysis on a scheduled basis, but in the past laboratory results and advice did not return in time to prevent the damage from occurring.

The Kittiwake proposal was to install a set of ANALEXrs Oil Condition Sensors into the gearbox lubricant line. The technology was developed by Kittiwake in order to detect and monitor the condition of the oil in real time. Detecting changes caused by water and acid levels, using a combination of proven dielectric sensing, combined with smart algorithms to provide a trend provides the engineers information on exactly when to change the oil based on condition, not on historical schedules.

The plant manager stated:
“We are now in a state of preventive maintenance and not just scheduled maintenance which has improved our reliability and also dropped our maintenance costs. Thank you Kittiwake”



About the user

Turnover: € 4,8 Billion

Production/Year: 9000 MW

Year Founded: 1950

Web: www.dei.gr

Benefits

- Early warnings allow instant detect and repair while damage is at a minor level.
- Improved maintenance scheduling and decreased sampling & testing costs.
- The sensor not only detects damage, but also the severity of the damage.
- Multiple outputs enable communication with existing monitoring systems.

Comments

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