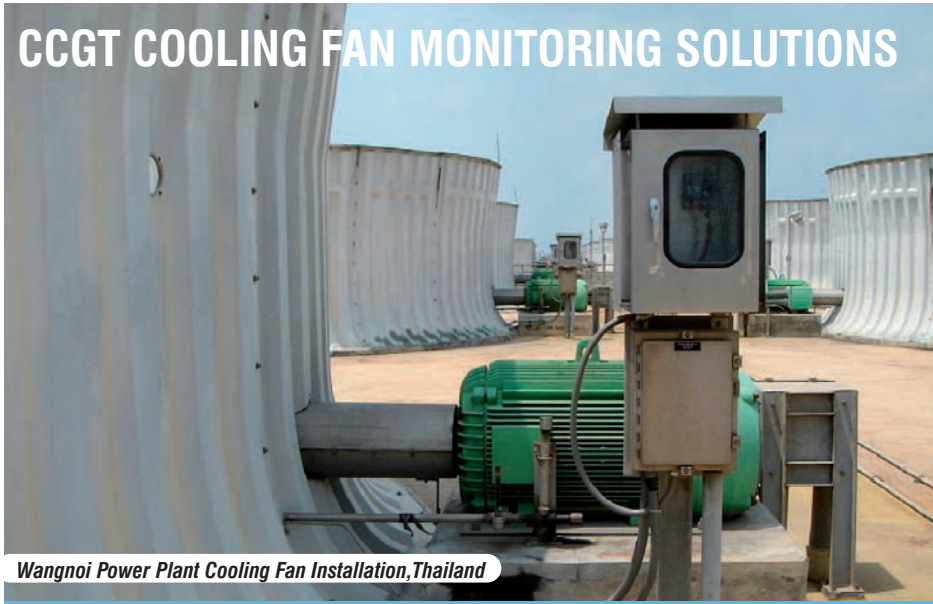


Welcome to our latest newsletter, keeping our customers and partners up-to-date with the latest developments at Sensonics. New projects, new products and case-studies, all helping to protect your critical rotating plant.

CCGT COOLING FAN MONITORING SOLUTIONS



Wangnoi Power Plant Cooling Fan Installation, Thailand

Modern cooling fan arrangements utilised on CCGT power stations are a compact solution for the removal of unwanted energy from the combined cycle process. They also play a critical role in the overall generation process, with fan failure resulting in potential lengthy downtime and an associated reduction in power plant generating capacity. Fans are typically arranged in groups of eight and above - facing vertically on raised platforms - driven through a motor and gearbox combination. The operational environment is severe, being hot and humid; this is exacerbated in coastal locations where corrosion can also have a major impact.

Gearbox failure is common, through general wear and the imbalance produced through the fan rotation which can be exacerbated by deterioration of the carbon fibre / composite blades. Trending of vibration levels on the gearbox drive end and non-drive end bearings enables plant engineers to understand the overall health of the fan assembly. With baseline measurements and a trending knowledge base in place, intuitive decisions can be made and the inspection & maintenance plans actively managed.

Providing shutdown protection in the event of excessive vibration or catastrophic failure is also a key requirement for minimising damage in the event of blade failure. Sensonics' DN2601 dual vibration monitor fulfils both the protection and trending requirements and has been utilised for this purpose at EGAT's Wangnoi power plant in Thailand.

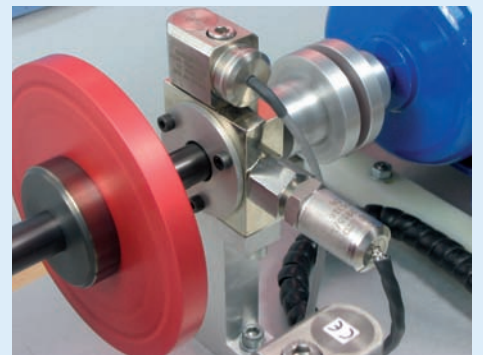
The Wangnoi site consists of three 600MW combined cycle blocks, each with eight cooling fans. A single DN2601 is used to monitor vibration levels on each fan in combination with ICP type accelerometers. The dual level alarm facility in the monitor provides both warning and shutdown alarm facilities. Each channel vibration level is reliably transmitted via a 4-20mA current loop to the plant wide DCS for long term trending and alarming.



DN2601 compact vibration protection monitor

The Din rail mountable unit provides a local display of vibration level as well as a buffered transducer output to assist with more detailed fault analysis through the use of a portable analyser (i.e. FFT). Installed and commissioned by Sensonics' Thailand partner 'Advance Siam Tech Co. Ltd' in 2007 the system is now providing valuable fan condition monitoring data to assist the station in maintaining high levels of availability and efficiency.

ATEX CERTIFICATION



Sensonics established range of PZS accelerometers have been recertified to allow a wider scope of operational scenarios. Utilised throughout industry for machine vibration monitoring in potentially explosive atmospheres, current applications include motors, pumps and power turbines. The recertification now permits use on an extended range of gas turbine sets.

The PZS range approval is to the highest standard for intrinsic safety (EEx ia) with safe operation maintained in the event of two component failures in a hydrogen gas atmosphere. This has now been extended to include operation up to 100°C with a maximum loaded capacitance rating of 47nF for Class IIC environments in a 28.5V circuit. Applications for the PZS now include cable runs in excess of 400m in the hazardous area from the accelerometer to the intrinsically safe barrier.

Please feel free to contact Sensonics to discuss your hazardous area requirements. We can provide advice and recommendations based on our 30 years of experience in operating in this field.

NEW TRANSDUCER CALIBRATION FACILITY

Further investment at Sensonics in the UK has resulted in a new vibration transducer calibration facility being brought on line during Q1 of this year.



The Beran 475 series of equipment was selected for this application. The Beran equipment has an established track record in the calibration industry. This in combination with its measurement facilities and intuitive software made it the right choice.

The new system will allow Sensonics to increase production capacity and at the same time offer faster turnaround on transducer calibrations to national traceable standards. Contact Sensonics sales for all your calibration needs.

A BUSY TIME AT THE POWER STATIONS

It is the time of year when the Sensonics site team are particularly busy supporting the power station outages that peak during the summer months. Working directly with the station or prime contractor engineers our remit is usually the maintenance and calibration of the essential turbine supervisory equipment.

The challenge for our site based business is to be available at the right time during the turbine strip down and more importantly the rebuild to set up the instrumentation in a timely fashion to fit in with the overall outage plan.

For 30 years Sensonics have been involved in this process and our expertise is reflected through the technical support we provide and our ability to respond at short notice as plans change.

Our approach and experience significantly de-risks this element of the overall outage works.

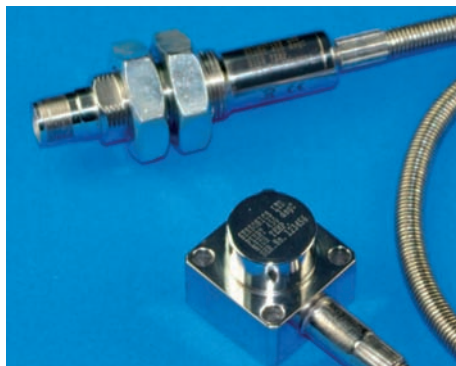


SENSONICS AT THE NEC – MAINTEC 2008

During March of this year we participated at the Maintec exhibition which spotlights condition monitoring equipment for the maintenance of plant and factory equipment. We received interest in our products from across the industrial sector, from dockyard cranes to process mixing equipment users, all looking for permanent vibration monitoring solutions.

The highlights on the Sensonics stand included our newly released 450°C accelerometer. The unique feature of this product is the built-in calibration function which offers a full mechanical check of the piezoelectric arrangement. The transducer can be configured to allow the user to excite the sensing element in a vibratory fashion to confirm sensitivity and frequency response.

Ideal for gas turbine applications where the high



temperature vibration sensors are positioned in hard to reach or in non-serviceable parts of the turbine making regular calibration checks extremely difficult. The product offers an evolution for accelerometers with the ability to confirm calibration in situ.

RECENT CONTRACT AWARDS

- Turnkey supply and installation of two turbine generator AVR systems for hydroelectric power station.
Location UK
- Supply of four complete systems of hydroelectric turbine supervisory equipment including stator / rotor gap monitoring.
Location Romania
- Supply of 28 seismometers for monitoring mining activities.
Location Poland
- Turnkey supply and installation of turbine supervisory and bearing vibration monitoring equipment for 500MW steam turbine set.
Location UK

Sensonics are a leading supplier of turbine supervisory and high integrity protection equipment to industry. With 30 years experience in providing vibration, displacement and speed instrumentation solutions in demanding environments, not only do they supply a full range of sensors and API 670 compliant measuring and protection equipment, but also offer design through to installation & commissioning services.



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