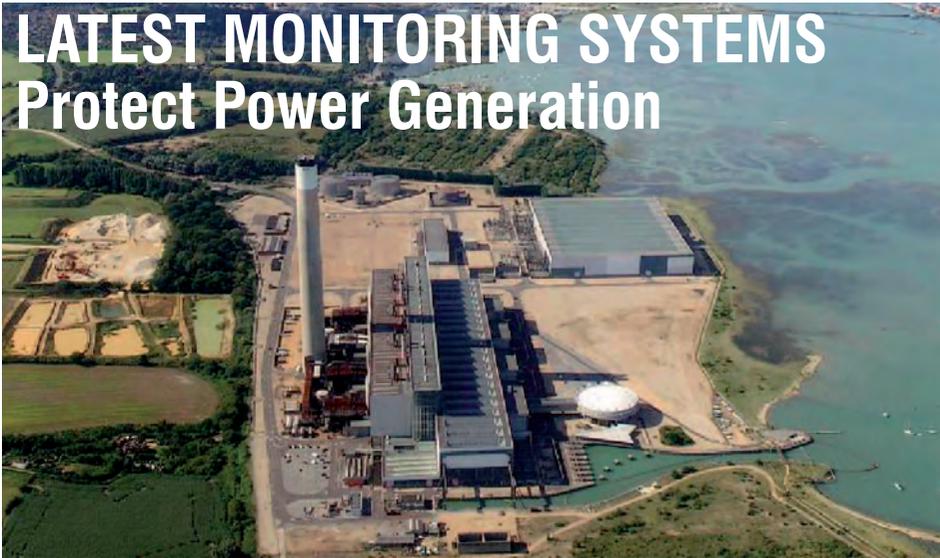


Welcome to our latest newsletter, keeping our customers and partners up-to-date with the latest developments at Sensonics. New projects, new products and case-studies, all helping to protect your critical rotating plant.

## LATEST MONITORING SYSTEMS Protect Power Generation



Updating to the latest monitoring systems for more reliable, more accurate data and eliminating time consuming physical overspeed tests associated with mechanical systems. These were the important benefits achieved at Fawley Power Station, following the installation of SENSONICS monitoring equipment. The RWE Npower facility is an oil fired power station providing 1000MW of generating capacity and a key facility within the UK's power generation network.



A wide range of Sensonics equipment was selected to provide the essential function of monitoring and protecting the condition of the key operational rotating plant. Original monitoring systems replaced included the turbine supervisory equipment and vibration

monitoring devices which were installed when the turbines were first commissioned. New mechanical overspeed protection systems for the steam driven boiler feed pumps were also supplied.

Fawley's investment in the latest monitoring systems focused on the turbine supervisory equipment for measurement of differential expansion, shaft position and bearing vibration on the two 500MW steam turbine sets. A high integrity electronic overspeed system for each of the main boiler feed pumps was also included.

The project included; Sentry monitors with proximity sensors for measuring rotor / case differential expansion utilising the proven mark-space technique (unique to Sensonics), shaft eccentricity with dual measurement modes (barring and normal running speed), case expansion, thrust and speed. A separate overspeed system was also installed which employs robust 2 of 3 voting for high integrity protection in conjunction with an excellent spurious trip performance.

Commenting on the main problems that were occurring, Andy Millard, Instrument Engineer at Fawley Power Station, said, 'Obsolescence was a key issue regarding the existing monitoring systems, we needed to update to

modern systems, the pump and steam turbine had to be regularly de-coupled for physical overspeed tests and this was a very resource intensive activity'. Andy confirmed, 'The main Sensonics TSE equipment has proven very reliable and accurate with the electronic overspeed equipment functioning very well.'

This successful upgrading of condition monitoring equipment is another example of Sensonics position as a leading supplier of turbine supervisory and high integrity protection equipment. Sensonics offer over 30 years experience in providing vibration, displacement and speed instrumentation solutions for demanding environments.

## Product Focus Cost-Effective Vibration Monitoring



The Vibcheck is a pocket sized vibration meter with a hand-held accelerometer probe, ideal for checking the condition of rotating plant. The unit displays absolute vibration levels in either velocity or acceleration units to the ISO10816 standard. There is also a very useful facility to verify the functionality of ICP type accelerometers, by means of a bias voltage check. The Vibcheck kit retails for less than £500.00 and includes; the meter, a handheld accelerometer, interconnection cable, contact spike, carry case and instruction booklet, with tips on the use of vibration monitoring.

# New ATEX Product Approvals

The Sonsonics VEL-G range of self generating velocity transducers are now approved to the highest standard for intrinsic safety (ATEX Ex ia) with a TAMB operation up to 100°C. These sensors are primarily designed for Turbine Protection applications and can be provided as a direct replacement for the now obsolete VEL/BT range historically utilised on a range of ST and GT packages.



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In addition to the above our established range of PZS accelerometers, have been recertified to allow an even wider scope of applications as a result of approval to the same standard.

The PZS performance has now been extended to include operation up to 100°C and with a maximum safe use loaded capacitance rating of 47nF, equivalent to over 400m of connecting cable.

## Latest Maintenance Technologies and Trends

Sonsonics will be exhibiting at the Maintec 2009 exhibition held at the NEC Birmingham 17-19 March (stand 33). Come and see our latest range of products. Also, our experienced team of sales engineers will be on hand to discuss any condition monitoring applications you may have.

**Sonsonics 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.**

## High Instrumentation Demand in China



*Sonsonics with Star Royal at Miconex 2008 in Beijing.*

During November we joined our Chinese agents, Star Royal Industry and Engineering, for our second year of exhibiting at the Miconex exhibition, held in Beijing. This event represents China's largest instrumentation fair covering most industrial sectors.

Sonsonics Managing Director, Russell King spent two weeks visiting and talking to Chinese customers and prospects said,

*"The Sonsonics brand is becoming more recognised throughout South East Asia through these events and our participation demonstrates our commitment to the region and in-country partner. We were pleasantly surprised by the quality and quantity of visitors to our stand and with a number of follow-up contacts now arranged for the months ahead we are hopeful of securing further business".*

## Vibration Transducer Calibration

Periodic calibration of vibration transducers is essential to ensure both the sensitivity and frequency response of the device is as expected for both machine protection and condition monitoring applications.

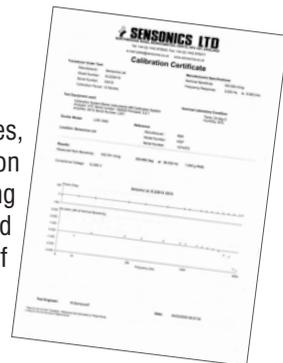
Sonsonics transducer calibration facility is an accurate and fully integrated system that performs UKAS traceable calibrations for all types of accelerometers as well as velocity transducers.

We offer a competitive, fast turnaround and flexible service on both Sonsonics and other

manufacturer's devices, providing a calibration certificate displaying the full frequency and phase response of each transducer.

With the additional support of our experienced site team we can offer a full turn key service for your outage requirements.

**for further information contact  
Sonsonics Sales**



## RECENT CONTRACT AWARDS

- Seismic Monitoring System Upgrades for Nuclear Power Facilities. **Location UK**
- Volume Accelerometer supply for material processing machinery. **Location Germany**
- Steam Turbine Vibration Monitoring System. **Location UK**
- Volume dual channel vibration monitors and accelerometers for fan monitoring in steel plant. **Location China**

 **SONSONICS LTD**

Tel: +44 (0) 1442 876833

Email: [sales@sonsonics.co.uk](mailto:sales@sonsonics.co.uk)

[www.sonsonics.co.uk](http://www.sonsonics.co.uk)