

SKF Reliability Systems



Keeping the power flowing

Teesside power station benefits from SKF condition monitoring services.

When maintaining the continuous operation of a power station, condition monitoring is not an issue that engineers leave to chance. Teesside Power have two condition monitoring systems in place. A traditional protection system is used to monitor all the major turbo generator sets and a more flexible, SKF condition monitoring system is used on all ancillary machines, such as fans, pumps, motors and gearboxes.

The SKF condition monitoring system utilises a state-of-the-art data collector called the SKF Microlog. Data is analysed using SKF PRISM⁴ software, which creates trending, historical and diagnostics graphs, to allow machine faults to be identified and rectified before failure.

The SKF Microlog is extremely useful for collecting real-time data, allowing critical fan shaft imbalance and gearbox problems to be identified.

An example of this is a cooling tower fan where, periodically, the interstage shaft of a three stage gearbox and main bearing had to be replaced. Using the SKF system, it was identified that deterioration of the shaft was causing the bearing failures. Now, the condition of the shaft is closely monitored to predict the time for routine maintenance.

An additional benefit of the SKF condition monitoring system is to verify data collected by the protection system. When plant operators detect vibrations that are accepted by the protection system, but perceived to be unusual, the SKF system is used to confirm that the machine condition is acceptable.

Teesside Power Mechanical Engineer, Jim Shadforth said, *"We get good support from SKF. We needed to confront a variety of new parameters to monitor on cooling tower fans and SKF's experience and knowledge of similar applications was most helpful"*.

Condition monitoring services

Proactive Reliability Maintenance (PRM)

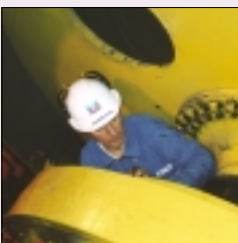
Integrated Maintenance Solutions (IMS)

Maintenance services

Refurbishment services

Engineering solutions

Training courses



■ Proactive Reliability Maintenance (PRM)

- Proactive Reliability Maintenance™
- Fan reliability programme

■ Integrated Maintenance Solutions (IMS)

- Integrated Maintenance Solution™
- Integrated Maintenance Solutions for the paper industry

■ Condition monitoring services

- On-site condition monitoring services
- CoMo-Link remote diagnostics
- Lubrication analysis service
- Keeping the power flowing

■ Maintenance services

- Precision mechanical services
- Bearing installation
- Bearing failure analysis

■ Refurbishment services

- Bearing refurbishment service
- Bearing refurbishment for railway taper bearing units
- The vital link in clip chain refurbishment

■ Engineering solutions

- Getting bearings on the London Eye
- SKF on board the world's largest pipeline laying ship
- Where there's a wheel there's a way
- An open and shut case for SKF
- Customised housings solution
- SKF bearings can stand the heat
- SKF bearing solution gets many fans
- Where there is muck, there is brass
- Design and project engineering
- Technical consultancy

■ Training courses

- Industrial bearing maintenance and service
- Balancing with Microlog™
- Machinery Analysis I
- Machinery Analysis II
- Fundamentals of machine condition
- Intro to PRISM⁴ for Windows™
- Intro to Microlog™ system
- Intro to PRISM⁴ on-line systems
- Intro to Machine Analyst™
- Intro to the MARLIN[®] system

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