
The information contained in this document is the property of Meggitt Sensing Systems and is proprietary and/or copyright material. This information and this document may not be used without the express authorization of Meggitt Sensing Systems. Any unauthorized use or disclosure may be unlawful.

Information contained in this document is subject to U.S. Export Control regulations, specifically the (choose as appropriate) International Traffic in Arms Regulations and / or Export Administration Regulations. Each recipient of this document is responsible for ensuring that transfer or use of any information contained in this document complies with all relevant (choose as appropriate) International Traffic in Arms Regulations and / or Export Administration Regulations.



Power plant applications

16 May 2012

MEGGITT

Power plant applications

- » Baltimore Gas and Electric company's Brandon Shores electric power plant
 - Two 680 MW coal-fired units



Main turbine

- » Most steam turbines employ proximity probe systems for machine diagnostics and protection

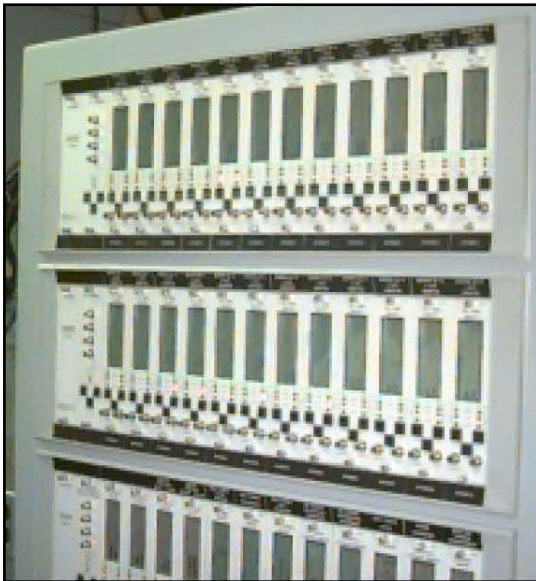


General Electric
680MW turbine

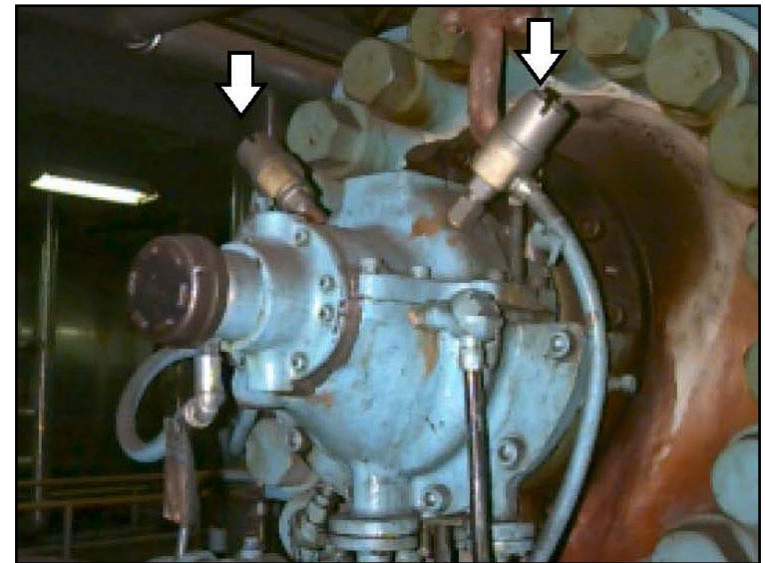
Power plant application Baltimore Power and Electric

Monitoring system for main turbines and pumps

- » Most steam turbines employ proximity probe systems for machine diagnostics and protection



Diagnostic system and alarms



Proximity probes on outboard bearing

Cooling towers – 2 types

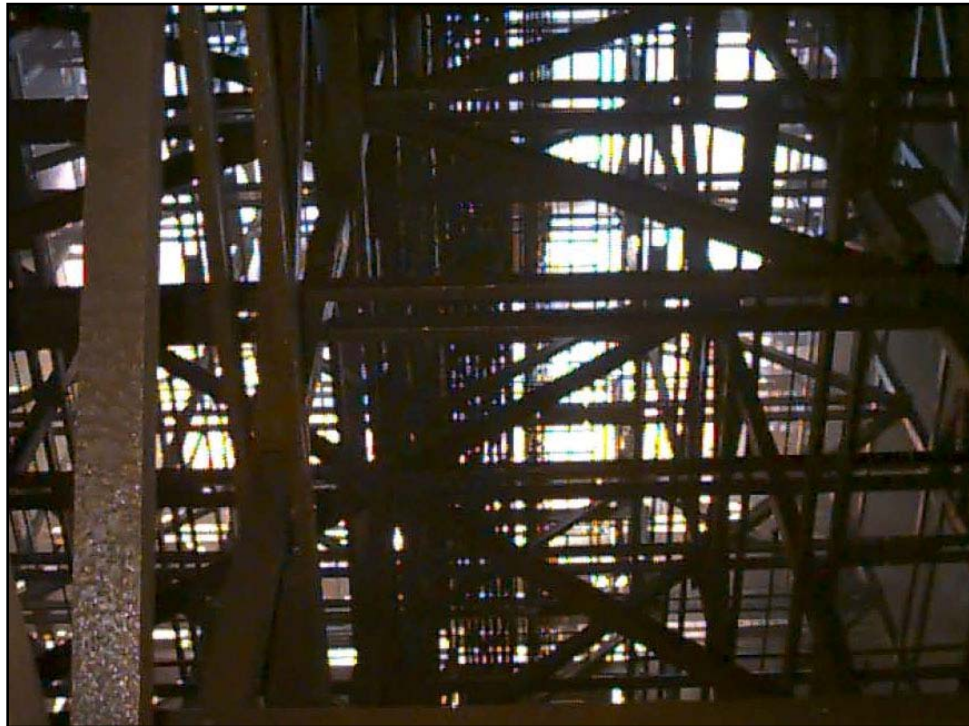


Please note that this type of cooling tower does not have fans.

Power plant application Baltimore Power and Electric

View from bottom of cooling tower

- » Environment is outdoor, ambient temperature with direct water spray.



Power plant application Baltimore Power and Electric

Gearbox and fan blades in top of cooling tower

- » Gearbox is inaccessible and critical. Common application for permanently mounted transducers.
- » 4m blades turn at 135 RPM driven by 150 kW motor.



Induced drift fan

- » Monitoring vibration on outboard motor bearing
- » 4460 kW motor at 600 RPM
- » Fan is critical to unit operation



Coal pulverizer gearbox and motor

- » 660 kW motor turning at 890 RPM
- » Pulverizer is expensive to repair



Power plant application Baltimore Power and Electric

Taking data on pulverizer gearbox bearing



Power plant application Baltimore Power and Electric

Condensate pumps

- » Line of vertical pumps which are critical to plant
- » 7,458 kW motors turning at 1800 RPM



Power plant application Baltimore Power and Electric

Taking data on vertical pumps



Robby Herman, plant technician, obtaining data on motor bearing

Fresh water cooling system pump



150 kW motor at 1180 RPM

Power plant application Baltimore Power and Electric

Pump taking data on cooling system pump



793 sensor on inboard motor bearing

The information contained in this document is the property of Meggitt Sensing Systems and is proprietary and/or copyright material. This information and this document may not be used or disclosed without the express authorization of Meggitt Sensing Systems. Any unauthorized use or disclosure may be unlawful.

The information contained in this document may be subject to the provisions of the Export Administration Act of 1979 (50 USC 2401-2420), the Export Administration Regulations promulgated thereunder (15 CFR 730-774), and the International Traffic in Arms Regulations (22 CFR 120-130). The recipient acknowledges that these statutes and regulations impose restrictions on import, export, re-export and transfer to third countries of certain categories of data, technical services and information, and that licenses from the US Department of State and/or the US Department of Commerce may be required before such data, technical services and information can be disclosed. By accepting this document, the recipient agrees to comply with all applicable governmental regulations as they relate to the import, export and re-export of information.

Thank you

