

Aberthaw

PROTOR monitoring a coal fired power station

Aberthaw was a coal-fired power station. The station began full operation in 1971 and was located to the west of Cardiff, in the Vale of Glamorgan, on the north bank of the Bristol Channel. It ceased generation in early 2020.

Aberthaw could generate around 1555MW of electricity for the National Grid System. This is enough power to meet the needs of some 1.5 million households - equivalent to the total population of five cities the size of Cardiff.

Aberthaw Power Station was designed to burn semi-anthracitic, low-volatile coal. A high percentage of this coal was locally sourced coal, mined in Wales and transported to the power station by rail.

A PROTOR1 system was first installed at Aberthaw in 1992. It has gone through various upgrades over the years.

In 2000 the system was upgraded to PROTOR3 and a single chassis monitored vibration signals for the three main steam turbines and generators.

In 2007 the system was partially upgraded to PROTOR4. The system was unitized with new PROTOR4 P4700 units installed for two units and the old PROTOR3 unit retained for one. A new P4700 unit was also installed to monitor the three Main Boiler Feed Pumps. Each system monitors a mixture of both shaft proximity and bearing vibration signals.

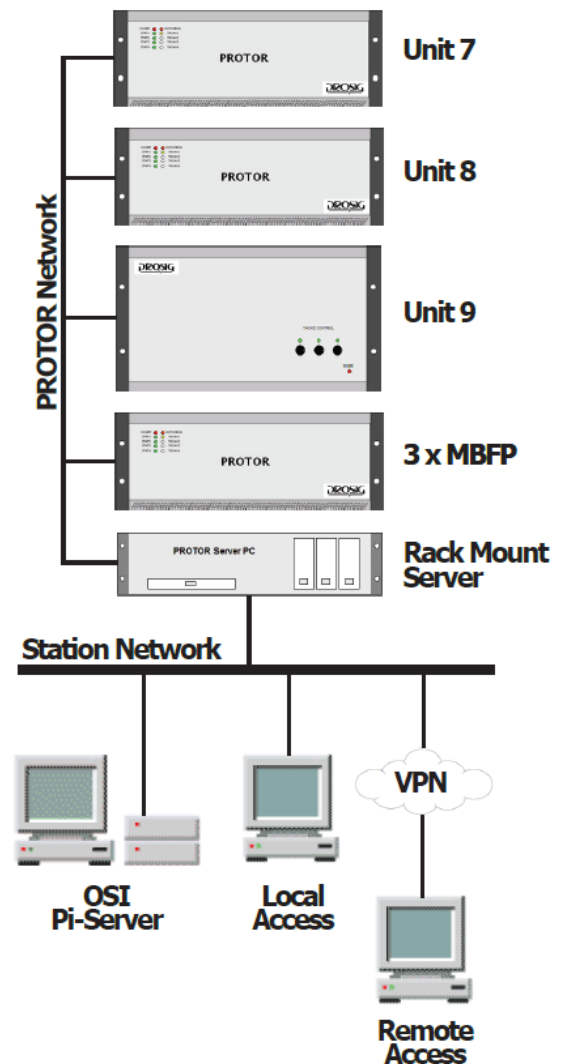
A rack-mount PROTOR server collects data from all units and provides the main user interface for realtime displays, alarm processing and interface to local data historian (OSI/PI).

Local users can access PROTOR through the station network and remote access is provided via VPN.

Prosig's commitment to support and continuous evolution means that PROTOR has been collecting data at Aberthaw for over 20 years. Data has remained compatible over a variety of platforms. Where possible systems are backwards compatible as shown by the current mixture of PROTOR3 and PROTOR4 hardware.

The flexibility of the new PROTOR4 hardware means that the same hardware can be used in a variety of configuration such as monitoring a single steam turbine or multiple Main Boiler Feed Pumps.

When Aberthaw closed the PROTOR system was re-configured to be recommissioned elsewhere in the RWE fleet.



About Prosig

Prosig is a UK company specialising in the testing and monitoring of complex machinery, vehicles and structures within the advanced engineering, automotive, aerospace, and industrial sectors. The company offers a wide range of system capabilities, experience and innovation, with a particular focus on advanced vibration and acoustic monitoring and analysis techniques. Prosig is part of Condition Monitoring Group Ltd, an international group, with headquarters in the UK and subsidiaries in three USA, Germany and Italy.

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