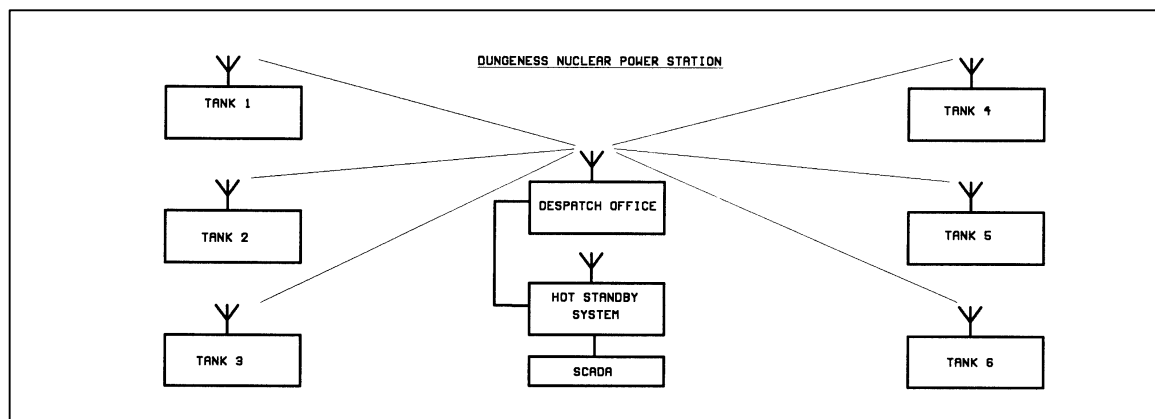


Overview

British Energy needed to monitor the levels of 6 oil tanks at the Nuclear Power Station at Dungeness. Using radio telemetry meant that the installation cost were very low and the system could be commissioned within the annual outage period.

The 6 oil tanks were located at a radius of 1Km around the central generating hall. Real time data had to be sent to a dispatch office and displayed on a SCADA system so that both instant and historic trends could be obtained. Dual redundancy was also required so that if the node manager failed a second unit would automatically take over.

System Specification

A TX7100 XNET transmitter was installed at each of the 6 outstations. Two analogue inputs were used to measure fluid level in each tank. A node number was assigned to each of the 6 outstation and these analogue inputs were programmed to appear as outputs at the TX7100 XNET receiver.

Hence the following hardware was specified:

6 off TX7100 Transmitter with 8 DI, and 2 AI

Two RX7100 XNET receivers were used at the base station in such a way that if one failed the other would automatically take control of the network. A SCADA system running under Windows NT was connected to the RX7100 receivers via their serial gateways.

Real time data was displayed on a customised mimic. In addition trends over time could be selected by the operator and displayed.

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The following hardware was specified:

2 off RX7100 Receivers with 8 DO, and 2 AO and a Serial Gateway.

The complete system was installed and commissioned with 7 man days.

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