

United Electronic Industries & m+p international

WORKING TOGETHER TO FIND SOLUTIONS

m+p international was commissioned to design a data acquisition system for the monitoring of steel pipes at Korea Hydro & Nuclear Power's Wolsong Power Plant using existing MPI Coda data acquisition software. To complete the perfect system solution for Wolsong Power Plant, m+p needed to pair the Coda data acquisition system with hardware that was flexible, reliable, and extremely rugged.

THE IMMEDIATE CHALLENGES

- 1 Inspection of piping systems in nuclear power plants is challenging because of their length and the radioactive environment; m+p was looking for hardware that could guarantee reliable monitoring.
- 2 Since DAQ hardware would be placed directly inside the piping system, it needed to be easy to test and maintain with minimal contact, as well as capable of withstanding severe environmental conditions.



Photo courtesy of IAEA

UEI'S PATHWAY TO SUCCESS FOR M+P

- UEI paired m+p's Coda system with the Ethernet-based PowerDNA Cube, which is compatible with a wide variety of I/O boards and can withstand 5g Vibration, 100g Shock, and -40 to 85 C, more than enough for Wolsong's application.
- In total, 7 UEI PowerDNA Cubes with 6 I/O slots each were installed in the Wolsong piping system, including in the turbine room and in the reactors. They could collect data from multiple inputs, including thermocouples, LVDT (Linear Variable Differential Transformer) sensors, pressure transducers and strain gauge load cells.
- Piping data is monitored in real-time and can be exported to analysis packages for comprehensive analysis and reporting, such as Microsoft Excel or m+p's SO Analyzer e-Reporter, which provides test engineers with extensive capabilities for browsing, viewing, editing, analyzing and reporting data as well as with full ActiveX compliance.

END RESULT UEI'S POWERDNA CUBE WAS THE PERFECT MATCH FOR M+P'S CODA SOFTWARE, PROVIDING A RELIABLE MONITORING SOLUTION FOR WOLSONG'S PIPING SYSTEM.

[WIN] The PowerDNA Cube is seamlessly integrated with m+p's Coda system, allowing for a simple setup process, testing and monitoring capabilities to ensure system soundness, and easy data analysis.

[WIN] Thanks to UEI's rugged hardware, the completed DAQ and monitoring system can withstand the conditions of Wolsong's piping system without sacrificing processing speed or reliability.

[WIN] The completed DAQ and monitoring system helps ensure safe operation of the Wolsong Power Plant.

ASK US HOW UEI CAN DO THE SAME FOR YOUR COMPANY!

