IMI
Critical Engineering

Case Study

Customer
Combined Cycle Power Plant
Region
Americas

Engineering GREAT Solutions

IMI CCI provides low noise solution for air-cooled condenser

The challenge

In the United States, two sister 640MW 2x1 combined cycle power plants received approval to modernise their facilities. Both plants will convert from water-cooled condensers to air-cooled condensers, eliminating the use of ocean water for cooling. However, the conversion to air-cooled condensers was not without risk. Stringent far-field noise requirements associated with the neighbouring residential areas represented a significant hurdle. To complete their modernisation plan, the plant owners needed a low noise solution for the turbine bypass valves located upstream of their new air-cooled condensers.

The solution

The IMI CCI sales and application engineering team collaborated closely with the end user, EPC, and OEM to define the complex engineering requirements of the air-cooled condenser system and the recommended system solution to meet the plant's stringent noise requirements. The IMI CCI solution provided multi-stage DRAG® technology to eliminate the valve trim noise and an under-the-plug configuration to mitigate the potential for low frequency seat bore jet recombination and valve outlet expansion noise.

In addition, the stringent far-field noise requirements necessitated multi-stage DRAG® technology be applied to the critical and typically noisy start-up vent applications.

This is an excellent example of IMI CCI's experience, expertise, and global capability delivering an exceptional solution to the customer.

IMI CCI 100DHP DRAG®
Control Valve

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