



Case Study

Shanghai China

A.R.I.'s air valves successfully prevent blockage and corrosion in cooling systems using sea water, as our project at the Shanghai electricity plant in China showed.

Owned by the second biggest energy group in China, the Shanghai plant is a 790-megawatt (MW) station, and the largest cogeneration facility in Shanghai.

The local 16" combination valves installed in the power station cooling system had a tendency to leak and get clogged. They had also become corroded due to the high salinity and sand content of the seawater flowing through them. Blockages of the air release component caused massive air pocket accumulation, which reduced water flow and further exacerbated the corrosion. All in all, the result was reduced system efficiency and a need for frequent maintenance and replacement of parts.



Following an energy analysis using ARIavCAD, A.R.I. supplied five units of 16" VB-060 vacuum breakers, and a D-025L combination air valve in a specially-designed sea water specification. This solution successfully discharges the huge volume of air entering the system via the pumps and prevents vacuum build up, while an advanced rolling sealing mechanism prevents orifice blockage, venting large air capacities during operation, all while withstanding the harsh water conditions.

Following instalment of the A.R.I. valves, the cooling system has been operating smoothly, with no leakage, and increased flow and efficiency.

