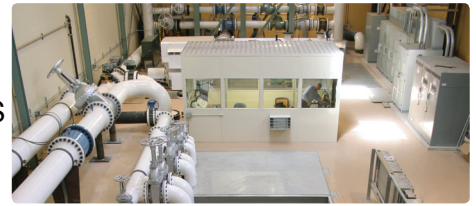


PUMP Test REPORT

PROVEN RESULTS FOR ENGINEERED UPGRADES

MARCH 2015



Certified Performance Test for Safety Related Nuclear Pump

Hydro's Test Lab worked with Hydro's nuclear aftermarket services group, HydroAire Services, to measure the performance of a rebuilt Bingham HSA pump. The test measured the actual performance of the pump's hydraulics versus the design's predicted performance. The workscope required the repair of highly eroded hydraulic parts and the redesign of various hydraulic components.

Hydro provided a Certified Performance Test (CPT) over the full flow range of the pump while maintaining its rated speed. Overall vibration amplitudes were continuously monitored throughout the test. The plotted performance curve showed that the pump was operating with a larger impeller diameter than was required. In order to save on overall power consumption, and meet the duty requirements of the pump, the impeller was trimmed to the designated diameter.

Testing doesn't interrupt our business. It is our business.

INDUSTRY	Nuclear Power Generation
APPLICATION	Essential Service Water Pump
MANUFACTURER	Bingham
TYPE	Single Stage, Axially Split, Between Bearings Pump (BB1)
MODEL	HSA
SIZE	24x30-30
STAGES	1
IMP. DIA. (IN.)	28.25



Hydro was able to develop the testing procedures, engineer the design and perform the test.



PTR1502