



For **Severe Service** Control Solutions, Turn to Fisher Technology and Innovation

FLORIDA POWER PLANTS FEATURE TURBINE BYPASS VALVE TECHNOLOGY

Two combined-cycle power plants in Florida have each installed five turbine-bypass valves from the Fisher Valve Division. The valves incorporate the latest technology available for turbine bypass applications including superior noise attenuation and long-lasting tight shutoff. The valves' optimized actuation system promotes tight control and effective, consistent temperature control—both critical to the proper operation of a bypass system.

The flow-up valve's design is optimal for noise attenuation. Field-proven Whisper Trim® technology provides as much as 15 dB greater noise attenuation than other quiet-valve designs.

The valves' Bore Seal™ technology addresses thermal expansion effects and tight shutoff. Because it is suspended within the valve body, the trim accommodates thermal expansion and enables smooth, continuous operation. The patented shutoff design eliminates the need for pilot or pressurized seating—a traditional design prone to operational instabilities. The balanced trim construction simplifies maintenance, making it easy to remove the trim.

Valve operation is especially critical during startup and emergency events. The actuation system, therefore, was designed to optimize valve performance. Non-linear components were removed from the actuation system, simplifying setup and tuning. Tuning a typical turbine bypass valve takes an average of 12 hours. The Fisher® optimized actuation system reduces tuning time to as little as 15 minutes.

By adding a FIELDVUE® Digital Valve Controller to the assembly, plant personnel gain the ability to monitor and diagnose valve performance on-line in real time. The instrument's diagnostic capabilities enable operators to spot emerging performance problems, pin-point a probable cause, and take corrective action—potentially without leaving the control room.

For more efficient and effective temperature control, the valves utilize variable geometry spray nozzles, which can inject a fine mist into the downstream flow pattern. The nozzles, strategically placed around the valve's outlet, ensure a complete mixing and rapid vaporization of spray water.

All these features provide an optimal solution for a difficult application, helping these valves perform well long after installation.

For more severe service solutions, see us at www.fishersevereservice.com.



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