



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

FISHER DIGITAL VALVES AND Whisper® TRIM IMPROVE CONTROL AND REDUCE NOISE, VARIABILITY AND MAINTENANCE FOR POWER PLANT

PowerSeraya supplies 30% of Singapore's energy needs and, like other power plants, deals with its share of maintenance problems. Fisher® digital valves with customized trim and diagnostic capabilities, however, are helping them monitor and reduce valve-performance problems before they become costly failures.

A physical inspection of a competitor's valve installed at the site indicated that the bottom 20% of its cage had deteriorated. The damaged cage affected valve travel between the 0 - 19% mark and contributed to high friction and variability. (The cage was made up of 22 stacks of noise trims, and the bottom four had deteriorated.)

Fisher sales personnel in Singapore conferred with members of the Severe Service team in Marshalltown (USA) and recommended replacing the deteriorated cage with Whisper® III trim. Whisper trim provides up to 30 decibels of noise attenuation. It lowers valve noise by utilizing multiple orifices of special shape, size, and spacing. These orifices break up turbulent fluid streams and thereby reduce noise-producing interactions. The trim shifts acoustic energy to higher frequencies that are not readily absorbed by downstream piping. At high frequencies, the piping radiates much less sound in the audible range, reduces strain energy, and combats piping fatigue.

Besides the Whisper trim, Fisher supplied 25 new Design EH, ET, and V500 valves for steam pressure, feedwater, and limestone slurry flow applications at the PowerSeraya site. All of these valves were equipped with FIELDVUE® DVC6000 instruments with Performance Diagnostic (PD) capabilities. The plant previously used Japanese-manufactured valve positioners in its auxiliary steam supply area. Operating under ambient temperatures of 60-70° Celsius, the competitor's units could not reduce variability and oscillation to less than 4 bar. After applying DVC6000-PD positioners to the steam-control valves, however, the variability dropped significantly, from 4 Bar to 1.9 Bar—a 200% improvement.

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



Severe Service