

FIELDVUE™ DVC6200 Instrument Improves Reliability and Monitoring of Critical Valve in Liquid-Ammonia Service

RESULTS

- Improved valve monitoring and reliability
- Saved thousands of dollars by avoiding repairs and downtime
- Improved workers' safety by enabling them to avoid trips into areas with ammonia vapors



APPLICATION

Liquid-ammonia service

CUSTOMER

Orica Mining Services' Kooragang Island facility

CHALLENGE

Orica Mining Services is a leading supplier of commercial explosives and blasting systems for the mining and construction industries and a long-time user of Fisher® equipment. The Orica facility at Kooragang Island is one of the largest in the world producing ammonium nitrate. The process includes complex chemical reactions, absorption processes, and the careful handling of nitric acid.

The site has standardized on Fisher control valves and FIELDVUE DVC6000 instruments with Performance Diagnostics, which are applied in processes involving complex and sometimes hazardous chemical reactions. The plant also uses the 375 Field Communicator and AMS™ Device Manager with ValveLink™ SNAP-ON™ applications software as part of its calibration, valve-monitoring, and predictive maintenance system.

Orica personnel worked with the local Emerson sales office to improve the performance of a Fisher valve in liquid ammonia service. The valve's high-cycle service conditions and the ammonia atmosphere in which it operates represent one of the most severe environments in any process plant.

Using basic hand tools, Orica's Instrument Technician Richard Fielding installed a FIELDVUE DVC6200 digital valve controller. "The device was easy to install, program and setup," he said. "Operating trouble-free, the device enables this critical, hazardous-service valve to provide accurate and repeatable response throughout its range of travel."



SOLUTION

Vazrik Bandarian of Southern Controls (the LBP) and Hunkoy Kung of Fisher-Singapore initiated a field trial using the FIELDVUE DVC6200 instrument with linkage-less, non-contact feedback technology for the harsh application.

Using basic hand tools, Orica's Instrument Technician Richard Fielding installed the FIELDVUE DVC6200 instrument on the ammonia-service valve. He is pleased with its trouble-free performance. "The reliability of the FIELDVUE DVC6200 instrument, plus its on-line monitoring capabilities, enables our operators to avoid manual checks and valve repairs into areas filled with ammonia vapors," he said.

RESULT

Since installing the FIELDVUE DVC6200 instrument, Orica has not experienced any production losses due to valve failures. "This single instrument application has saved us thousands of dollars," Fielding said.

Orica plans to order 30 new Fisher® valves with the FIELDVUE DVC6200 digital valve controllers for an upgrade at the Kooragang ammonia plant.



The new FIELDVUE DVC6200 digital valve controller, shown above, makes linkage-less, non-contact feedback technology available in an explosion-proof, flame-proof, and intrinsically-safe package.

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