

# Valve Repair and Quick Ship Service Avoids a Unit Shutdown and Potential Cost of \$1M USD Per Day

## RESULTS

- Prevented the unplanned shutdown of a critical unit
- Avoided lost production costs of \$1 million per day
- Delivered parts, including a new actuator, in three days
- Scheduled and conducted an on-site valve repair that minimized risk and downtime



## APPLICATION

A control valve actuator in separator letdown service

## CUSTOMER

A hydroprocessing unit in a Texas refinery

## CHALLENGE

The hydroprocessing unit within this refining complex is critical to overall production. It has a variety of Fisher™ control valves operating under severe service conditions such as separator letdown, sour water letdown, and flash drum applications. The performance of these valves is critical to the unit's availability and throughput.

One of the control valves, a Fisher™ 461 valve with a CL2500 pressure rating, Alloy 6 trim, and a 585C actuator was operating in separator letdown service with dirty fluids. In this severe service application, temperatures may reach 450 degrees Fahrenheit and pressure drops may be greater than 2000 psig. The valve's actuator wasn't responding as it should to control system inputs. Its lack of response caused output levels to fall below 50 percent. That means, plant profits fall 50%.

Operators had to manually control the process using a hand-operated valve. If this manual process failed, the resulting unplanned shutdown could potentially cost the refinery \$1 million per day.

After checking the assembly, the unit's maintenance team noticed that the actuator had been damaged, possibly by something falling from the contact tower above. They could not see any debris that would prevent the valve from closing, and the thickness of the valve wall prevented an x-ray. Because of the valve's importance, they decided to call their local Fisher product experts for help.

***“Emerson’s local repair team and the parts they expedited helped us avoid a costly outage. The application expertise and service Emerson technicians provided improved the reliability of a critical valve.”***

Automation & Electrical Category Manager  
Texas Refinery

### SOLUTION

Working together, application engineers from Vinson Process Controls in Odessa, Texas, and Emerson-certified technicians from the service center in Longview, Texas, facilitated an emergency repair. First, they decided what parts and tools they'd need to conduct an OEM-quality valve check and repair. Next, they contacted Emerson's supply chain for sourcing options and expedited delivery of the new trim and actuator in three days. Using Quick Ship resources enabled them to get the parts weeks ahead of the standard lead time.

Meanwhile at the refinery, Emerson personnel worked with the plant's maintenance team to schedule a planned shutdown that would manage risks and minimize downtime. An Emerson-certified technician delivered the parts, assisted refinery personnel with the on-site repair, and got the valve back in service, as scheduled.

The damaged actuator was sent to the local Emerson service center in Longview. Technicians repaired and returned it to the refinery, where it will be kept on hand as a spare.



### RESOURCES



**Flyer: Avoid Downtime with Fisher Quick Ship!**

[http://www.documentation.emersonprocess.com/groups/public/documents/brochures/d351917x012\\_aq.pdf](http://www.documentation.emersonprocess.com/groups/public/documents/brochures/d351917x012_aq.pdf)

### RESOURCES



**Flyer: Certified control valve repair services help you maximize your uptime.**

<http://www.documentation.emersonprocess.com/groups/public/documents/brochures/d350981x012.pdf>

 <http://www.Facebook.com/FisherValves>

 <http://www.YouTube.com/user/FisherControlValve>

 <http://www.Twitter.com/FisherValves>

 <http://www.Linkedin.com/groups/Fisher-3941826>

© 2016 Instrument & Valve Services d/b/a Fisher Lifecycle Services. All rights reserved.

Fisher is a mark owned by one of the companies in the Emerson Process Management business unit of Emerson Electric Co. Emerson Process Management, Emerson, and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

#### Emerson Process Management

Marshalltown, Iowa 50158 USA  
Sorocaba, 18087 Brazil  
Cernay, 68700 France  
Dubai, United Arab Emirates  
Singapore 128461 Singapore  
[www.Fisher.com](http://www.Fisher.com)

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, nothing herein is to be construed as a warranty or guarantee, express or implied, regarding the products or services described herein or their use, performance, merchantability or fitness for a particular purpose. Individual results may vary. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice. Responsibility for proper selection, use and maintenance of any product or service remains solely with the purchaser and end user.

**FISHER™**

  
**EMERSON™**  
Process Management