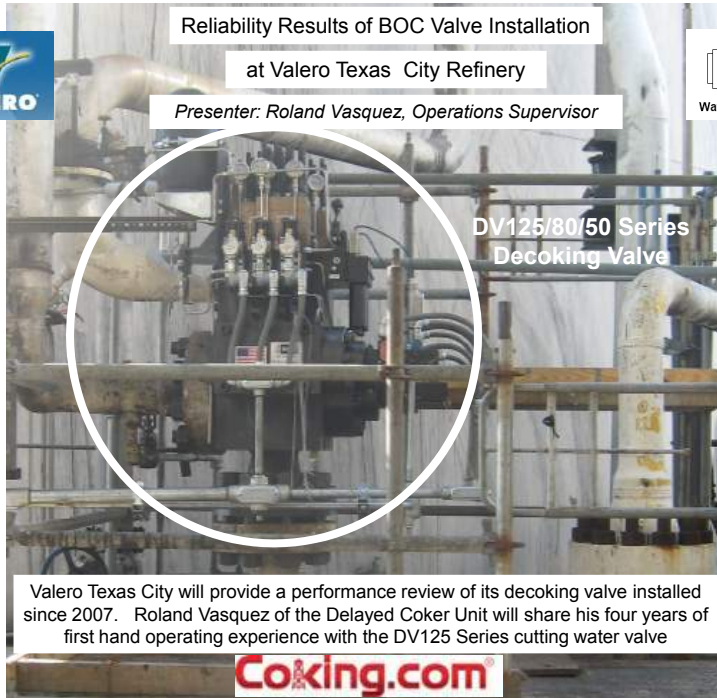




Reliability Results of BOC Valve Installation

at Valero Texas City Refinery

Presenter: Roland Vasquez, Operations Supervisor



DV125/80/50 Series
Decoking Valve

Valero Texas City will provide a performance review of its decoking valve installed since 2007. Roland Vasquez of the Delayed Coker Unit will share his four years of first hand operating experience with the DV125 Series cutting water valve



The Valve Performed Exceptionally Out of the Box . . . Developing a Track Record of Reliability



From: Summa, Calvin (TCRF) [mailto:Calvin.Summa@valero.com]

Sent: Thursday, November 08, 2007 9:15 AM

To:

Subject: FW: Maze Extension & Clarifier Specs - REVISION

The valve continues to be flawless. See below for info on the water fines condition. We cut three 28ft ID drums every 24hrs. We have only changed the filters once I think, but the switching has not slowed down so the filters have been a non-issue. We are at 4 weeks run time or 84 cuts and the bypass amp draw has not changed so wear appears to be non-existent. I continue to get e-mails from people I don't know about this valve. I love it. Hope all is well with you. Cold I bet.

From: Summa, Calvin (TCRF) [mailto:Calvin.Summa@valero.com]

Sent: Monday, October 19, 2009 10:45 AM

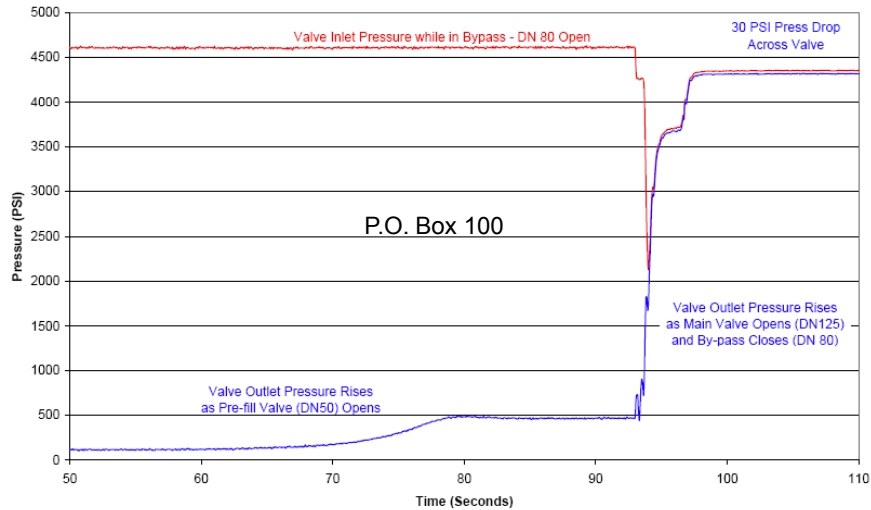
To:

Subject: hey

Just a quick note on our 3-way valve. We have just completed our second year of operation of your newer designed valve. Never looked back, never will. Thanks for your support the few times we have needed it. This equipment has saved this unit literally millions in production losses that were avoided. Hope all is going at least okay in these downturn times. We have been cut back for a while but are now back up to almost full out. Later



The Valve Crisply Transitions Between Operating Modes



3



The Valve has Required Little Maintenance Since Installation



Valve Installation – Late Summer – 2007

Jan 2008 – Pilot filter related equipment and service tools

Dec 2008 – Spare pilot valves – rebuild units out of service

Feb 2009 – Complete valve rebuild, add upgrades to valve body***

Sep 2010 – Upgrade pilot filtration system to stainless steel

Feb 2011 – Replace accumulator bladder

*** Only major service event where valve was upgraded with hardened stainless in wear areas.

Roland Vasquez - roland.vasquez@valero.com
Todd Olson - todd.olson@bocwaterhydraulics.com

4