Ask the Expert

The Ask The Expert column will give readers the opportunity to have their valve concerns addressed, find out the answers to their pressing valve challenges and ask for feedback on application issues. If you have a questions that you need answered, please feel free to contact s.bradley@kci-world.com with the email subject: Ask The Expert.

If you are an individual with extensive valve expertise that you believe the Valve World readership could benefit from, please contact our Editor-in-Chief to become a future featured Expert.

This month our Expert is Rodney Roth, Strategic Account Manager/Stationary Equipment – A.W. Chesterton & Bronson Pate, Executive Leadership/LDAR SME – Sage Environmental Consulting L.P., USA.

Q What is LDAR and why would we need to discuss it in a valve newsletter?

A LDAR is an acronym for Leak Detection and Repair and relative to valves is the base component of every Consent Decree negotiated and put in place by the US EPA. In order to see the importance of discussing LDAR in this newsletter, it is important to understand that when the US EPA performs audits, they find that more than 60% of the leaks found are valve packing leaks, thus the driving factor for this discussion.

Q How long has LDAR been around?

A LDAR has been around for forty to fifty years. However, more intensive use of LDAR and the need for compliance following the release of the “Clean Air Act of 1990”. Additionally, in 1999, the US EPA estimated that 40,000 tons of VOC’s are emitted from valves in petroleum refineries alone.

Q What does “Prevention” really have the potential to do for the “Modernization of LDAR”?

A By preventing leaks, we will naturally reduce the needs for Repair. With the reduction in the need for “Repair”, we can eventually completely eliminate the “R” in LDAR. Prevention also will help us eliminate the “D” in LDAR, because if we do not have leaks to “Repair” we will not have leaks to “Detect”.

Q Are there additional things to consider when attempting to maintain valves when “Modernizing LDAR”?

A a) End users define “Repair” is typically seen as work done in a shop or the need to actually repair or replace valve components. 

b) The LDAR definition of “Repair” Re-torqueing/Re-tightening of gland flange studs. However, in reality, these actions are actually valve maintenance and should be considered maintenance and not “Repair”.

to “Modernize LDAR” was to completely drop the LDAR acronym by changing it to LMAP (Leak Monitoring and Prevention). Justification for this change can be better understood when considering the word “Repair” as “Negative and Reactive” while the word “Prevention” should be seen as “Proactive”. Additionally the word “Repair” is defined differently by end users than it is as part of LDAR:

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Q How are some ways we will be able to move to “LMAP” from “LDAR”? 

A a) Maintain the “Certified Low Leaking Valve Technology” as outlined by the valve manufacturer’s as part of their provided “Low E” warranty documents.

b) Maintain “Certified Low Leaking Packing Technology” as outlined by the valve packing manufacturers as part of their provided “Low E” warranty documents.

c) Verify required torque needed to ensure the packing area of the valve is properly loaded before the valve is placed into operation at process pressure and temperatures.

Q Is there any discussion to look for ways to modernize LDAR?

A The US EPA is currently looking to “Modernize LDAR”. At the 4C Conference recently held in Austin, a forum was held that was titled “The Modernization of LDAR” and include members of the environment enforcement community for all of the US, including; Oklahoma, Michigan, Colorado, Washington.

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