

## 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](mailto: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 Experts are Rodney Roth, Strategic Account Manager/ Stationary Equipment – A.W. Chesterton & Foster Voelker, Project Manager – Stationary Equipment – A.W. Chesterton.



### Q What is driving the need for Certified Low Leaking Valve Technology and Certified Low Leaking Packing Technology?

**A** The US Environmental Protection Agency is continuing to negotiate Consent Decrees with HPI and CPI facilities requiring them to install Certified Low Leaking Valves and Packing to meet the requirements of the CD which currently require both valves and packing to remain at leakage levels below 100 ppm for five years.

### Q What are some of the historic factors impacting the improvement of Low Emission valve packing?

- A**
- 1) The replacement of Asbestos Packing with Flexible Graphite packing products
  - 2) Clean Air Act of 1990, which actually defined a list of chemicals and leakage values
  - 3) PERF (Petroleum Environment Research Forum), which was a collaboration between end users to define emission performance for packing in a valve
  - 4) LDAR
  - 5) Consent Decree's
    - LDAR
    - Enhanced LDAR
  - 6) API 622 Rev 2, which is a packing test exclusive of any valve.
  - 7) API 624, which is a valve type test to certify new valves to less than 100 ppm performance.
  - 8) The development of API 641 to test Quarter Turn valves for Low Emission performance. The standard is still in the Task Group stage and has yet to be published.

### Q What is the most recent definition of Certified Low Leaking Valve Packing Technology?

**A** A valve packing product, independent of any specific valve, for which the manufacturer has issued a written warranty that the packing will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the product; provided however, that no packing product shall qualify as "Low-E" by reason of written warranty unless the packing first was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty.

### Q What is the most recent definition of Certified Low Leaking Valve Technology?

**A** A valve (including its specific packing assembly) for which the manufacturer

has issued a written warranty that it will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the valve; provided however, that no valve shall qualify as "Low-E" by reason of written warranty unless the valve (including its specific packing assembly) either: (1) First was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty; or (2) Is an Extension of another valve that qualified as "Low-E".

### Q What are some recent additions to Consent Decrees that have not been used in the past?

**A** Pro-Active Valve Tightening Work Practices Relating to each New Valve

that is installed and each Existing Valve that is repacked. Facility Owner shall undertake the following work practices with respect to each new valve that is installed;

a. Upon installation (or re-installation in the case of repacking), ensure the valve's packing gland nuts or their equivalent (e.g., pushers) are tightened to the manufacturer's recommended gland nut or packing torque or any appropriate tightness that will minimize the potential for fugitive emission leaks of any magnitude. This practice shall be implemented prior to the valve's exposure (or re-exposure, in the case of repacking) to process fluids.

b. Except for control valves, not less than 3 days nor more than 17 days after a new valve that has been installed or an Existing Valve that has been repacked first is exposed to process fluids at operating conditions, user shall ensure the packing gland nuts or their equivalent (e.g., pushers) are or were tightened to the manufacturer's recommended gland nut or packing torque any appropriate tightness that will minimize the potential for fugitive emission leaks of any magnitude.

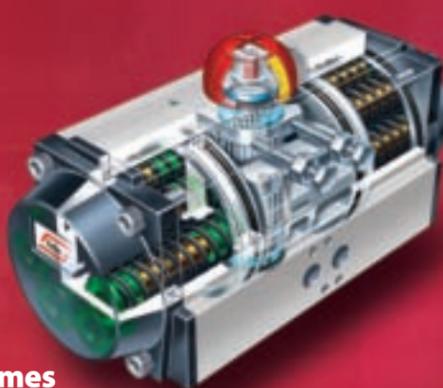


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