



Date: 25 January 2016

Owners of Pressure Equipment
Authorised Examiners (Pressure Vessels), and
Interested Parties

SAFETY CIRCULAR – QUICK-OPENING CLOSURES AND PNEUMATIC TESTING

A serious accident occurred during pneumatic testing of a filter separator that was equipped with a quick-opening closure (QOC). We would like to draw your attention to the following information with respect to QOC and pressure test.

Design Requirements for QOC

2. A QOC is a cover that can be opened or closed more quickly than a standard bolted flange connection to access to the contents space of a pressure vessel/equipment. A QOC is required to be designed to an appropriate design code, for example, the American Society of Mechanical Engineers Boilers and Pressure Vessels Code (ASME Code).
3. In accordance with Section VIII Division 1 of the ASME Code, QOC shall be designed such that the locking elements will not disengage until the pressure in the vessel is released. The QOC must also be designed such that the failure of a single locking component while the vessel is pressurised will not:
 - a) cause or allow the closure to be opened or to leak; or
 - b) result in the failure of any other locking component or holding element
4. QOC shall also be designed so that all locking components can be verified to be fully engaged by visual observation or other means prior to the application of pressure to the vessel.
5. Manually operated QOC must be equipped with an audible or visible warning device that will warn the operator if pressure is applied to the vessel before the holding elements and locking components are fully engaged or if an attempt is made to disengage the locking mechanism before

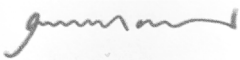


the pressure within the vessel is released. Additional recommendations in the areas of design, installation, maintenance, inspection as stipulated in the code should be adhered to where practicable.

Pneumatic Test

6. Due to the large amount of energy stored in compressed air and the potential hazard of a sudden release of this energy, pneumatic test should be avoided whenever possible. A pneumatic test should only be considered if a hydrostatic test has been carefully reviewed and determined not to be feasible. When pneumatic test is necessary, there are many critical safety precautions that must be considered, for example, code of construction requirements for pneumatic test (e.g., UW-50 for ASME Section VIII Div. 1). Risk assessment must be conducted and effective control measures must be put in place to mitigate the identified hazards. These could include barricading the affected area and having proper procedures for raising and holding pressures for the test.

7. The above information is for your attention, please.



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