



**Edmund (Ed) Baniak, PhD**

Senior Standards Associate,  
Upstream & Pipeline Standards

Standards  
1220 L Street, NW  
Washington, DC 20005-4070

USA  
Telephone 202-682-8135  
Fax 202-962-4797  
Email baniak@api.org  
www.api.org

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Jerry W. Longmire  
Vice President - QHSE  
Wood Group Pressure Control  
3250 Briarpark Drive, Suite 100  
Houston, Texas 77042

E-mail: jerry.longmire@woodgroup.com

Request for Interpretation  
API Spec 6A, 19th Edition, 2008, Section 10.16 Actuators

**Background information:** We were presented with a request to provide low pressure pneumatic "Retained Fluid Powered" actuators (less than 375 PSIG) for assembly to Gate Valves manufactured and certified per the requirements of API Spec 6A with the API Monogram. The actual application involves using a low pressure actuator (less than 375 PSIG) to operate a gate valve with line gas filtered and regulated down below 375 PSIG as the pressure source for the actuator and control system.

Upon review of the requirements in Section 10.16 for Retained Fluid Powered Actuators, the requirements appear to be intended to address actuators operating with well bore pressures as the supply source. Paragraph 10.16.6.1(a) Hydrostatic Testing of Retained Fluid Powered Actuators states "The test pressure shall be determined by the working pressure rating for the valve or choke to which the actuator is attached. Tests shall be conducted in accordance with the hydrostatic body test (see 7.4.9) for the applicable PSL."

In reviewing this paragraph, it would appear that the actuator would have to be designed to withstand the test pressure equal to the valve or choke to which the actuator is attached.

**Question:** Given the lowest rate valve in API 6A has a 2,000 PSIG working pressure, can a low pressure pneumatic actuator (less than 375 PSIG) be classified as a Retained Fluid Powered Actuator?

**Response:** No. A retained fluid power actuator as covered in API Spec 6A clause 10.16 is an actuator designed to operate with retained fluid used at the full rated valve pressure. As such, it cannot be designed at a lower operating pressure.

Note: API Spec 6A does allow (clause 10.16.3.2) *pneumatic actuators* to be operated with well fluids so long as they are designed for both pressure and fluid compatibility. As such, the manufacturer should have the documentation to show that the materials of the pressure-containing parts and seals used in the actuator are compatible with the fluid and consistent with the materials class and temperature rating of the valve.

Sincerely,

Edmund Baniak