SUBJECT 1477

OUTLINE OF INVESTIGATION

FOR

COMPRESSED GAS SHUTOFF VALVES

Issue Number: 3

APRIL 15, 2011

Summary of Topics

This third issue of the Outline of Investigation for Compressed Gas Shutoff Valves, Subject 1477, includes changes to the Moist Ammonia Air Stress Cracking Test and a revision to clarify the test procedure in paragraph 13.2 of the External Leakage Test.

New and revised requirements in paragraphs 7.10, 11.2.1, and Section 20 will require retesting. Effective dates have been added for these requirements. All other changes become effective upon publication. See the Second Issue for the current requirements until the effective date is met.

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INTRODUCTION

1 Scope

1.1 These requirements cover manually operated shutoff and metering valves used in compressed and fuel gas piping systems, including manifolds, and with equipment and appliances as defined herein, other than those for anhydrous ammonia and are usually designated as gas-line service valves.

1.2 Shutoff valves covered by these requirements are for use in systems and facilities where complete shutoff is required. Metering type valves are used in piping and equipment systems where complete shutoff is not required.

1.3 Shut-off valves of the type commonly referred to as ″cylinder valves″ used on containers constructed under Department of Transportation (DOT) or Transport Canada (TC) Specifications are covered by the requirements in the Standard for Cylinder Valves, UL 1769.

1.4 Gas-line shut-off valves for use with liquefied petroleum gases, within the scope of NFPA 58, LP-Gas Code, or anhydrous ammonia within the scope of Safety Requirements for the Storage and Handling of Anhydrous Ammonia, ANSI/CGA G-2.1 (ANSI 61.1K) are covered by the requirements in the Standard for Flow Control Valves for Anhydrous Ammonia and LP-Gas, UL 125.

1.5 Automatic shutoff valves that would use pressure, temperature (heat) or electricity or combination of such for operation and self-closing types are covered by the requirements in the Standard for Valves for Flammable Fluids, UL 842 or the Standard for Electrically Operated Valves, UL 429.

1.6 These requirements do not apply to valves for compressed gases for use in refrigerated storage systems.

1.7 Except for such observations as are required to ascertain performance characteristics, the assigning of flow capacity ratings are not within the scope of these requirements.

2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this outline shall comply with the requirements for that component.

2.1.2 A component is not required to comply with a specific requirement that:

a) Involves a feature of characteristic not required in the application of the component in the product covered by this outline, or

b) Is superseded by a requirement in this outline.

2.1.3 A component shall be used in accordance with its rating established for the intended conditions of use.