

# **Specification for Validation of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service**

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# Specification for Validation of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service

## 1 Scope

This specification establishes design validation requirements for API 6A surface safety/underwater safety valves (SSV/USV) and associated valve bore sealing mechanism(s) for Class II and Class III. These classes are intended for use if substances such as sand can be expected to cause an SSV/USV valve failure. Class III adds requirements for the validation of the valve bonnet assembly inclusive of stem seals and may be selected by the user/purchaser. Validation to Class III also validates the same SSV/USV for Class II.

NOTE Previous editions of this document included reference to and requirements for verification to PR1, standard service (Class I).

## 2 Normative References

The following referenced documents are indispensable for the application of this specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*API Manual of Petroleum Measurement Standards (MPMS) Chapter 10.4, Determination of Sediment and Water in Crude Oil by the Centrifuge Method (Field Procedure)*

*API Specification 6A, Specification for Wellhead and Christmas Tree Equipment*

*API Recommended Practice 13B-1, Recommended Practice for Field Testing Water-based Drilling Fluids*

## 3 Definitions and Abbreviations

### 3.1 Definitions

The definitions below are related specifically to surface safety and underwater safety valves and are presented to define the terminology used in this specification.

#### 3.1.1

##### **failure**

Improper performance of a device or equipment item that prevents completion of its design function.

#### 3.1.2

##### **SSV/USV actuator**

Device that causes the SSV/USV valve to open when power is supplied and to automatically close when power is lost or released.

#### 3.1.3

##### **SSV/USV valve**

Subassembly of the SSV/USV that contains the wellstream and shuts off the flow when closed.

#### 3.1.4

##### **substantive change**

Change identified by the manufacturer that affects the performance of the product in the intended service.