Supplement 1
December 15, 1997
Effective Date: June 1, 1998

Specification for Subsurface Safety Valve Equipment

API SPECIFICATION 14A
NINTH EDITION, JULY 1, 1994

American Petroleum Institute

Supplement 1 to Specification for Subsurface Safety Valve Equipment

This supplement includes editorial corrections previously published in a September 19, 1996 Errata sheet, some additional editorial changes, and revisions approved by letter ballot of the API Subcommittee on Valves and Wellhead Equipment in 1996 and 1997. The revisions are marked by a vertical bar in the margin. These revisions shall be effective on the effective date shown on the cover, but may be used voluntarily from the date of publication.

Page 1, Par. 1.4, Class of Service

Insert the following note under Class 3, Stress Corrosion Cracking Service:

Note: Metallic materials for Class 3C service are dependent of specific well conditions. No national of international standards exist for the application of metallic materials for this class of service.

Insert the following note under Class 4, Weight Loss Corrosion Service:

Note: Metallic materials for Class 4 service are dependent of specific well conditions. No national of international standards exist for the application of metallic materials for this class of service.

Pages 1 -3, Section 3. Make the following changes:

Renumber current definitions as follows:

Change current 3.10 and 3.11 to 3.11 and 3.12

Change current 3.12 to 3.16

Change current 3.13 through 3.26 to 3.18 through 3.32.

Change current 3.27 through 3.33 to 3.34 through 3.40

Insert the following new definitions:

3.10 DESIGN ACCEPTANCE CRITERIA: Defined limits placed on characteristics of materials, products, or services established by the manufacturer to ensure conformance to the product design.

3.13 FIT: (1) The geometric relationship between parts. This would include the tolerance criteria used during the design of a part and its mating parts. (2) The state of being adjusted to or shaped for, this would include the tolerance criteria used during the design of a seal and its mating parts.

3.14 FORM: The essential shape of a product including all its component parts.

3.15 FUNCTION: The operation of a product during service.

3.17 HEAT TREATMENT (Heat Treating): Alternate steps of controlled heating and cooling of materials for the purpose of changing physical or chemical properties.

3.18 INTERCHANGEABLE: Conforms in every detail, within specified tolerances, to both fit and function of a safe design but not necessarily to the form.

3.33 STRESS RELIEF: Controlled heating of material to a predetermined temperature for the purpose of reducing any residual stresses.

Page 2, Table 1, Referenced Standards.
Make the following changes:

Delete references 32, 34, 36, 37 and 38.

Replace reference 25, MIL STD-105E, with ANSI Z1.4, 1993 Edition.

Replace reference 27, MIL STD-45662, with ANSI/NCSL Z540-1-1994

Delete reference 35, ISO/IEC Guide 25 (subject matter is covered in ANSI Z540)

Page 3, Par. 4.1.4.

Revise to read as follows:

4.1.4 Changes to the design acceptance criteria which may affect Verification Test performance or interchangeability of SSSV Equipment shall require requalification, except seals that have passed the applicable Verification Testing requirements of Section 7 are considered interchangeable among the SSSV Equipment of any one Manufacturer for a particular class of service.

Page 4, Par. 5.2.2.

Revise to read as follows:

5.2.2 The mechanical properties specified in 5.2.1 for traceable metal components shall be verified by tests conducted on a material sample produced from the same heat of material. The material sample shall experience the same heat treatment process as the component it qualifies. Material subsequently heat treated from the same heat of material shall be hardness tested after processing to confirm compliance with the hardness requirements of the manufacturer's specifications. The hardness results shall verify through documented correlation that the mechanical properties of the material tested meet the properties specified in 5.2.1. The heat treat process parameters shall be defined in the heat treating procedure. Hardness testing is the only mechanical property test required after stress relieving. Material test reports provided by the material supplier or the manufacturer are acceptable documentation.

Page 4, Par. 5.2.3.

Delete

Page 5, Par. 5.2.4.

Change to 5.2.3.

Page 5, Par. 6.5.1.

Change "accept-ance" to "acceptance".

Page 6, Par. 6.5.2.

Change "accord-ance" to "accordance".

Page 8, Par. 7.1.2.

Change "Figure 5.6" to "Figure 6".

Page 8, Par. 7.2.2.

Change the first paragraph to read as follows (Subparagraphs a, b and c are not changed):

The Manufacturer shall submit a SSSV of most recent manufacture for Verification Testing. Such testing shall qualify SSSVs of the same size, type and model as the tested SSSV. Substantive changes to the Verification Test (specified herein) shall require requalification of a previously qualified SSSV within three years of the effective date of the change.

Page 34, Par. 7.17.2a.

Change "Table 5.1" to "Table 4".

Page 34, Par. 7.17.2b.

Change "Table 1-1" to "Table 4".

Page 35, Par. 7.18.3a.

Change "Table 5.1" to "Table 4".

Page 35, Par. 7.18.3b.

Change "Table 1" to "Table 4".

Page 43, Par. 7.25.2a.2.

Change "(189°C)" to "(260°C)".

Page 47, Appendix A.

Make the following corrections:

Change all commas (,) to periods (.) in all SI unit conversion factors.

Under the "Quantity" column, correct the spelling of "Strength".

Under the "SI Units" column, change the pressure and strength conversion factors from "6,894757 Pa" to "6894.757 Pa".

Page 48, Appendix B.

Delete all references to specific sections of Spec 14A and RP 14B.

[Example: change "Type System (See RP 14B, Section 4.1, 4.2 and 4.4)" to "Type System (See RP 14B)".]

Page 51, Appendix D.

Revise the first paragraph of Section D.2 to read as follows (the second and third paragraphs are unchanged):

D.2

Laboratories desiring license under this Appendix shall have a functional quality program in accordance with the ISO/IEC Guide 25-1982, "General Requirements for the Technical Competence of Testing Laboratories," and the following sections of API Spec Q1: Scope and Field of Application, References, Definitions, Quality System Requirements except requirements related to design, manufacturing and field nonconformance. API shall maintain a list of licensed laboratories, which shall appear in the API Composite List of Manufacturers Licensed for use of the API Monogram. Laboratories desiring licensing under this Appendix shall make application and pay fees as follows:

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