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Addendum 1

Section 1 (Scope): The following shall be added after the second paragraph:

Optional requirements to determine limitations on SCIV actuation under combined loading are included in Annex J.

Section 3 (Terms and Definitions): The following term and definition shall be added, and the rest of the section shall be renumbered:

3.1
actuate
actuation
The action of opening and/or closing the SCIV.

Table 1: In the row that begins "J Informative", the annex title shall be changed to the following:

Evaluation of Combined Loading on SCIV Actuation

Table 4: Below the QL1 row, the following row shall be added:

QL2: Standard quality requirements	Quality requirements as summarized in Table 6. QL2 allows sample plan NDE inspections as specified by the supplier/manufacturer.

Section 5.7.4: The title shall be changed to the following:

Additional Evaluations

Section 5.7.4: The section shall be changed to the following:

The user/purchaser may select additional evaluations and/or validation testing performed as defined in Annex G, Annex H, and/or Annex J.

Section 6.3.2.1: The fourth paragraph shall be changed to the following:

Temperature, environment, material properties, and combined loading effects on all materials used in SCIV products shall be considered when establishing the rated pressures, load capabilities, and actuation limitations. The design shall take into account the effects of pressure containment and pressure-induced loads. Where applicable, specialized and/or intermittent conditions, such as pressure testing with temporary test plugs, shall also be considered in the design.

Section 6.3.2.1, the following note shall be added after the fourth paragraph:

NOTE Annex J contains optional requirements for evaluating the actuation of SCIVs during combined loading conditions.

Section 6.5: The following new subsection title shall be added before to the first paragraph:

6.5.1 General

Section 6.5: The following new subsection shall be added:

6.5.2 SCIV Actuation Limitations

An evaluation of SCIV actuation limitations, as specified in Annex J when selected by the user/purchaser, shall be performed either through calculation or testing as agreed upon and documented with the user/purchaser. When Annex J is selected by the user/purchaser, any products in which the performance envelope is validated through testing shall also have the actuation limitations evaluated through testing.

Section 7.8.1: The first paragraph shall be changed to the following:

Inspection, measuring, and testing equipment used by the supplier/manufacturer for acceptance shall be used only within its calibrated range and shall be identified, controlled, calibrated, and adjusted at specific intervals in accordance with procedures that are based on the supplier/manufacturer's standards or on internationally recognized standards, such as ISO/IEC 17025.

Section A.2, first paragraph: The first sentence shall be changed to the following:

For the purposes of this specification, a SCIV is defined as a valve assembly that provides an obstacle or impediment to flow and/or pressure (see 3.59).

Section B.5.2.2: Item b) shall be changed to the following:

Adjust the sand content to 2 % ± 0.5 % by volume by adding 150 µm (100 US mesh) to 180 µm (80 US mesh) sand or by diluting the slurry with city water.

Section G.2.1: Item d) shall be changed to the following:

Allow the debris to settle at static conditions for a minimum period of 12 h. The debris level shall be above the sensing point of the trigger mechanism used to initiate the valve's operation.

Annex J shall be updated with:

Annex J
(informative)

Evaluation of Combined Loading on SCIV Actuation

J.1 General

This annex describes design evaluations performed to determine limitations on SCIV actuation using the primary operating mechanism under defined combined loading scenarios (the combined effects of differential pressure and axial loads on a SCIV design), and is implemented when selected by the user/purchaser. Suppliers/manufacturers shall evaluate the effects of combined loading on the actuation of SCIVs either as calculated or tested actuation limits, as described in J.2 and J.3.

Pressure and load assumptions used during the evaluation of the actuation limitations shall be stated.

More than one graphic/table may be used to illustrate the actuation and non-actuation product ratings as required.

NOTE The user/purchaser can request a specific calculated and/or tested point(s).

J.2 Calculated Actuation Limitations

The results of the actuation evaluation shall be clearly documented and/or included on the calculated performance envelope to indicate the actuation limitations of the SCIV. The point(s) may be on or within the boundaries of the performance envelope.

J.3 Tested Actuation Limitations

When the performance envelope is validated by testing, the test shall include actuation of the SCIV to validate the combined loading limitations under which the SCIV will actuate. The actuation test point(s) may be on or within the boundaries of the performance envelope.

Bibliography: The following reference shall be removed, and the rest of the references shall be renumbered:

ANSI/NCSL Z540.3, *Requirements for the Calibration of the Measuring and Test Equipment*