Inquiry: What alternative valve position verification approach may be used to satisfy paragraph ISTC-3700 in the ASME OM Code, Subsection ISTC, for valves that are not susceptible to stem-disk separation?

Reply: It is the opinion of the Committee that the following approach may be used to satisfy the valve position verification requirements in ASME OM Code, Subsection ISTC, paragraph ISTC-3700, for valves that are not susceptible to stem-disk separation:

Applicability: See Applicability Index

1 ALTERNATIVE VALVE POSITION VERIFICATION APPROACH TO SATISFY ISTC-3700 FOR VALVES NOT SUSCEPTIBLE TO STEM-DISK SEPARATION

1.1 Determination of Applicable Scope

The valves covered by this Code Case are those stem-disk separation non-susceptible valves with remote position indication within the scope of Subsection ISTC including its mandatory appendices and their verification methods and frequencies, in accordance with regulatory requirements. Valves with remote position indication within the scope of ASME OM Code, Subsection ISTA, paragraph ISTA-1100, not satisfying the scope and provisions of this Code Case shall meet the valve position verification requirements in ASME OM Code, Subsection ISTC-3700, in accordance with regulatory requirements.

1.2 Supplemental Definition

stem-disk separation non-susceptible valve: A valve with a documented justification that the stem-disk connection has been determined to not be susceptible to separation based on the internal design, service conditions, applications and evaluation of the stem-disk connection using plant-specific and industry operating experience, and vendor recommendations.

1.3 Categorization of Valves Not Susceptible to Stem-Disk Separation

To categorize a valve as not susceptible to stem-disk separation, the valve shall have a documented justification that the stem-disk connection is not susceptible to separation based on the internal design, service conditions, applications and evaluation of the stem-disk connection using plant-specific and industry operating experience, and vendor recommendations. For example, some valves with a threaded stem-disk connection are susceptible to stem-disk separation based on industry operating experience. A valve without such documented justification shall be categorized as a stem-disk separation susceptible valve and outside the scope of this Code Case.

1.4 Position Verification Testing Requirements for Valves Not Susceptible to Stem-Disk Separation

Valves with remote position indicators that are not susceptible to stem-disk separation shall be verified to accurately represent valve operation, open and closed. This verification shall include the following:

(a) observation of evidence, such as changes in system pressure, flow rate, level, or temperature, that represent valve operation;
(b) local observation of valve operation where practicable; and

(c) stem-disk separation evaluation shall be documented and available for regulatory review demonstrating that the stem-disk connection is not susceptible to separation.

For active valves not susceptible to stem-disk separation, these observations shall be performed at least once every 12 yr. These observations need not be concurrent.

For passive valves not susceptible to stem-disk separation, these observations shall be performed whenever the valve is stroked from its passive position or every 12 yr., whichever is greater.

1.5 Unsuccessful Valve Position Verification Test

In the event of an unsuccessful position verification test per para. 1.4 of this Code Case, the failure shall be entered into the Owners Corrective Action Program, and the cause of the condition determined. If the result of the failure is due to stem-disc separation, the valve shall not be considered a stem-disk separation non-susceptible valve and will no longer be within the scope of this Code Case along with any other valves impacted by the extent of condition review. The valve(s) will remain out of scope of this Code Case unless a valve-specific test interval up to 12 years is justified and documented based on the cause of the failure. This Code Case may be re-applied to those valves that have undergone corrective action to demonstrate that the valve is a stem-disk separation non-susceptible valve and meet the requirements of Section 1.3 of this Code Case.