



Compliance with 10 CFR 50.55a(b)(3)(xi) OM Condition: Valve Position Indication

10 CFR 50.55a(b)(3)(xi) OM Condition

- Valve Position Indication. When implementing paragraph ISTC–3700, "Position Verification Testing," in the ASME OM Code, 2012 Edition through the latest edition and addenda of the ASME OM Code incorporated by reference in paragraph (a)(1)(iv) of this section, licensees shall verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable instrumentation to provide assurance of proper obturator position for valves with remote position indication within the scope of Subsection ISTC including its mandatory appendices and their verification methods and frequencies.

OM Code Purpose and ISTC-3700

- OM Code assess operational readiness of components AFTER they have met all requirements of the construction code (reference OM Code, ISTA-1100 and ISTA-1200). Specifically, periodic Inservice Testing requirements of OM Code commence after a component is known to be operating acceptably (e.g., meets design requirements). OM Code acceptance criteria for most Inservice Testing activities establish a range of acceptable performance using baseline data obtained during construction code testing, preservice testing, or post-modification/ maintenance testing. All subsequent periodic Inservice Testing data is compared to this acceptable range of performance. This approach monitors component performance degradation and ensure corrective actions are taken before the component degrades to a point where it can no longer perform its safety function. With few exceptions (e.g., MOVs), the intent of the OM Code is not designed to perform design basis testing because it is a component testing code and not a system testing code.
- ISTC-3700 – Position Verification Testing

Valves with remote position indicators shall be observed locally at least once every 2 yr. to verify that valve operation is accurately indicated. Where practicable, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. These observations need not be concurrent. Where local observation is not possible, other indications shall be used for verification of valve operation.

Position verification for active MOVs shall be tested in accordance with Mandatory Appendix III of this Division.

Problem Statement:

- NRC and Licensees have a different understanding regarding the implementation of ISTC-3700 and 10 CFR 50.55a(b)(3)(xi) ASME OM Condition “Valve Position Indication” as it applies to:
 1. When compliance with 10 CFR 50.55a(b)(3)(xi) is required and the frequency of the supplemental testing
 2. The application of concurrent testing
 3. Whether the condition does or does not add new testing requirements

Compliance Timing

NRC Position

- NRC contends compliance is tied to completion of actions to comply with ISTC-3700 that started in the previous 10 year interval
- 10 CFR 50.55a(b)(3)(xi) is a condition on existing OM Code, ISTC-3700, therefore compliance with the condition is required concurrent the existing periodic scheduling of ISTC-3700

Licensee Position

- Compliance with 50.55a(b)(3)(xi) is required within 2 years (24 months) of the start of the interval that incorporates the 2012 Edition of OM Code or later
- The condition itself, states “When implementing paragraph ISTC–3700, “Position Verification Testing,” in the ASME OM Code, 2012 Edition through the latest edition...”
- “The NRC has revised this condition to indicate that it is associated with implementation of the 2012 Edition of the ASME OM Code. As such, nuclear power plant licensees will be required to implement the condition when adopting the 2012 Edition of the ASME OM Code as their code of record for the 120-month IST interval.”

Concurrent Testing

NRC Position

- 10 CFR 50.55a(b)(3)(xi) and NUREG-1482 do not specify that the supplemental position verification observation(s) be concurrent with the valve indicating lights testing, nor does the condition prohibit the ISTC-3700 provision that the observations need not be concurrent.

Licensee Position

- ISTC-3700 states, “These observations need not be concurrent,” providing the ability to comply with supplemental observation requirement imposed by the condition separately from the local stem observation
- Implementation of ISTC-3700 is dynamic and controlled by site specific testing procedures which are scheduled to comply with the 2 year frequency requirement
 - In many cases, local observation of stem travel for compliance with ISTC-3700 will be accomplished in different procedures and different plant configurations/alignments than the supplemental position verification activities for compliance with 10 CFR 50.55a(b)(3)(xi)

New Testing Requirement

NRC Position

- 10 CFR 50.55a(b)(3)(xi) does not add new test requirements
- Final Rulemaking (Federal Register, Vol 82, No 136, Tuesday, July 18, 2017), Section IX, Backfitting and Issue Finality, regarding addition of 10 CFR 50.55a(b)(3)(xi) states, "...this condition emphasizes the OM Code requirements for valve position indication and is not a change to those requirements. As such, this condition is not a backfit"

Licensee Position

- 10 CFR 50.55a(b)(3)(xi) adds new test requirements that are not included in ISTC-3700 by the phrase "where practicable"
- The condition changed the language of ISTC-3700 regarding supplemental position verification from a "should" to a "shall" which equates to a new requirement and contradicts OM Interpretation 12-01 (Record 11-913)
- Public comments on the draft rulemaking from Utilities, ASME, and IST Owners Group all noted 10CFR50.55a(b)(3)(xi) was a new requirement adding significant changes

Conclusions

- Compliance with 10 CFR 50.55a(b)(3)(xi) OM Condition: Valve Position Indication, is required upon licensee adoption of the 2012 Edition of the ASME OM Code as their code of record for the 120-month IST interval
- 10 CFR 50.55a(b)(3)(xi) nor NUREG-1482 require concurrent testing and ISTC-3700 clearly states that the observations of valve indicating lights and the supplemental position indication need not be concurrent
- 10 CFR 50.55a(b)(3)(xi) imposed new generic requirements that required modification of procedures to operate plants, therefore meeting the definition of backfitting (10 CFR 50.109(a)(1))