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NRC Pre-Submittal Meeting

Constellation Fleet Inservice Testing Program Relief Request to Utilize OMN-32

AGENDA

- Relief Request
- Code Case
- 10 CFR and ASME References
- Submittal and Precedent
- Summary
- Questions

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RELIEF REQUEST

- The relief request is for an alternative pursuant to 10 CFR 50.55a (z), *Alternatives to codes and standards requirements,* to utilize ASME Code Case OMN-32, "Alternative Requirements for Range and Accuracy of Pressure, Flow, and Differential Pressure Instruments Used in Pump Tests."

- Code Case OMN-32 provides alternative testing instrument accuracy and range requirements for flow, pressure, and differential pressure instruments used for Group A, Group B, Comprehensive, and Preservice pump tests
  - Instruments used for speed and vibration testing would continue to meet the existing instrument accuracy and range requirements in ASME OM Code.

- Code Case OMN-32 would apply to all pumps in the Inservice Testing (IST) Program at each of Constellation's 21 Nuclear Units.

- Use of Code Case OMN-32 would eliminate the need to install temporary instruments reducing dose and person-hours.

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CODE CASE OMN-32

- Code Case OMN-32 was issued for use by ASME on September 11, 2023

ASME Code Section	Current Requirement	Code Case OMN-32 Alternative
ISTB-3510 (a), *Accuracy*	Instrument accuracy shall be within the limits of Table ISTB-3510-1. If a parameter is determined by analytical methods instead of measurement, then the determination shall meet the parameter accuracy requirement of Table ISTB-3510-1 (e.g., flow rate determination shall be accurate to within ±2% of actual). For individual analog instruments, the required accuracy is percent of full-scale. For digital instruments, the required accuracy is over the calibrated range. For a combination of instruments, the required accuracy is loop accuracy	The analog or digital instrument(s) shall be calibrated within the limits specified in Table 1 for the respective test quantity. For an instrument loop, the required accuracy is instrument loop accuracy as defined in ISTA-2000.
ISTB-3510 (b), *Range*	(1) The full-scale range of each analog instrument shall be not greater than three times the reference value. (2) Digital instruments shall be selected such that the reference value does not exceed 90% of the calibrated range of the instrument.	The analog or digital instrument(s) shall be designed and calibrated in the range for use at the expected reading (e.g., reference value) to be measured or recorded during the test.

	Current Requirement		Code Case OMN-32 Alternative	
Quantity	Group A and Group B Tests, %	Comprehensive and Preservice Tests, %	Group A and Group B Tests, %	Comprehensive and Preservice Tests, %
Pressure	±2	±½	±6	±1 ½
Flow Rate	±2	±2	±6	±6
Differential pressure	±2	±½	±6	±1 ½

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10 CFR AND ASME REFERENCES

- Constellation has reviewed the following applicable provisions of 10 CFR 50.55a and the ASME Code:
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  - 10 CFR 50.55a(b)(3), *Conditions on ASME OM Code*
  - 10 CFR 50.55a(b)(6), *Conditions on ASME OM Code Cases*
  - 10 CFR 50.55a(f)(4), *Inservice testing standards requirement for operating plants*
  - 10 CFR 50.55a(f)(5), *Requirements for updating IST programs*
  - ASME OM-2004, with 2006 Addenda, Section ISTB 3510, *General*
  - ASME OM-2012, no Addenda, Section ISTB 3510, *General*
  - ASME OM-2017, no Addenda, Section ISTB 3510, *General*

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PRECEDENT/SUBMITTAL

- Constellation is targeting submittal by the end of April 2024 with a standard one-year approval period.
- The submittal will be the first in the industry for a relief request to utilize ASME Code Case OMN-32.
- Constellation's submittal will incorporate two comments provided by the NRC during the review and subsequent approval of Code Case OMN-32.
  - The title of the proposed Requirements and the corresponding Table were modified to state, "Required Instrument Accuracy *and Range*."
  - The use of analytical methods may be used provided the parameter determination meets the required OMN-32 accuracy.
- No deviations from OMN-32 are being proposed.

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SUMMARY/KEY TAKEAWAYS

- The relief request is for an alternative pursuant to 10 CFR 50.55a(z) to utilize ASME Code Case OMN-32
- Code Case OMN-32 provides alternative testing instrument accuracy and range requirements for flow, pressure, and differential pressure instruments.
- Constellation is targeting submittal by the end of April 2024; submittal will include each of Constellation's 21 Nuclear Units.
- Constellation's submittal will be the first in the industry for a relief request to utilize ASME Code Case OMN-32.
- The submittal will incorporate two comments provided by the NRC during the review and subsequent approval of Code Case OMN-32.
- No deviations from the Code Case are being proposed.

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QUESTIONS?