L-2023-153
10 CFR 55a(z)(2)
October 26, 2023

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington D C 20555-0001

RE: St. Lucie Nuclear Plant, Unit 2
Docket No. 50-389
Renewed Facility Operating License NPF-16

Response to Request for Additional Information Regarding Pump Relief Request 10 (PR-10), One-Time Request for an Alternative to the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for the Auxiliary Feedwater (AFW) 2C Pump

References:

1. Florida Power & Light letter L-2023-099, Pump Relief Request 10 (PR-10), One-Time Request for an Alternative to the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for the Auxiliary Feedwater (AFW) 2C Pump, **July 26, 2023** (ADAMS Accession No. ML23208A057)

2. Nuclear Regulatory Commission (NRC) electronic memorandum October 10, 2023, Request for Additional Information, Alternative Request PR-10, One-Time Request for an Alternative to ASME OM Code Testing Requirement for Auxiliary Feedwater 2C Pump, Fifth 10-Year Interval Inservice Testing Program, St. Lucie Nuclear Plant, Unit 2, Docket No. 50-389, EPID L-2023-LLR-0039

In Reference 1, Florida Power & Light Company (FPL) requested approval of an alternative to American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code 2004/2006a, Subsection ISTB-6300, Systematic Error, for St Lucie Nuclear Plant Unit 2 (St Lucie). The proposed change would provide on a one-time basis, relief from the ASME OM ISTB-6300 requirement to conduct a retest of the Auxiliary Feedwater (AFW) 2C Pump until plant conditions were appropriate to support a comprehensive pump test in accordance with ASME OM ISTB-3400. The requested relief follows the discovery of a test instrument employed during the previous AFW 2C pump comprehensive test that was subsequently determined to be outside the allowable calibration tolerance.

In Reference 2, the NRC requested additional information determined necessary to complete its review. The enclosure to this letter provides FPL's response to the request for additional information (RAI).

This letter contains no new regulatory commitments.

Should you have any questions regarding this submission, please contact Mr. Kenneth Mack, Fleet Licensing Manager, at 561-904-3635.

Sincerely,

Dianne Strand
General Manager, Regulatory Affairs

Enclosure

St. Lucie Inservice Test Program
Pump Relief Request 10 (PR-10)

Response to Request for Additional Information (RAI)

In an e-mail memorandum dated October 10, 2023 (Reference 1), the NRC staff of the Office of Nuclear Reactor Regulation, Inservice Testing Branch requested the additional information identified below regarding Pump Relief Request 10 (PR-10) for St. Lucie Unit 2 (Reference 2). FPL's response follows:

Inservice Testing Branch (EMIB)-RAI-1:

Section 4, "Reason for Request," of Alternative Request PR-10 reports that the prior comprehensive pump test of the AFW 2C pump was satisfactorily completed on September 26, 2021. Alternative Request PR-10 indicates that the comprehensive test interval for the AFW 2C pump with a 25% grace period allowed by 10 CFR 50.55a(b)(3)(x) will expire on March 24, 2024. The NRC staff notes that the current NRC regulations specify 10 CFR 50.55a(b)(3)(x) as reserved. ASME OM Code Case OMN-20, "Inservice Test Frequency," which allows IST interval grace periods, is addressed in NRC Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," as incorporated by reference in 10 CFR 50.55a. The NRC staff requests the licensee to clarify the basis for the IST interval grace period discussed in Alternative Request PR-10.

FPL Response:

FPL recognizes that the 2017 addition of 10 CFR 50.55a(b)(3)(x) through 82 FR 32934 was rescinded in 2020 through 85 FR 14736 because "with the acceptance of Code Case OMN-20 in RG 1.192, Revision 3, paragraphs (a)(1)(iii)(G) and (b)(3)(x) in § 50.55a accepting Code Case OMN-20 are unnecessary." Therefore, the appropriate grace period is provided by ASME OM Code Case OMN-20 (OMN-20), which is authorized for use by NRC Regulatory Guide (RG) 1.192, Revision 4, "Operation and Maintenance Code Case Acceptability, ASME OM Code," which is incorporated by reference in 10 CFR 50.55a.a(3)(iii).

EMIB-RAI-2:

Alternative Request PR-10 in Section 5, "Proposed Alternative and Basis for Use," in Subsection c, "Performance Monitoring," specifies that during the proposed duration of the alternative request, AFW 2C pump performance will be monitored and trended by quarterly recirculation testing in accordance with ASME OM Code, Subsection ISTB, Table ISTB-3400-1, "Inservice Test Frequency." The NRC staff requests that the licensee describe its plans for vibration monitoring of the AFW 2C pump during the quarterly testing to be performed for the duration of the alternative request.

FPL Response:

Since the fourth IST program update in 2008 to the ASME OM 2001-03 Code, AFW 2C pump vibration data is no longer required during quarterly AFW 2C pump recirculation testing. Accordingly, vibration reference values for the quarterly testing have not been established. The application of pump 'Alert' and 'Required Action' levels based on vibration reference values established for comprehensive pump testing under full-flow conditions would be inappropriate for assessing operational readiness during quarterly recirculation testing. Moreover, as described in Alternative Request PR-10 (Reference 1), AFW 2C pump comprehensive testing has demonstrated satisfactory pump performance with the sole exception of the vibration measurements on March 16, 2023, which can be conclusively attributed to the faulty vibrometer. Following the discovery of the lower than-expected vibration readings, vibration readings were taken during a May 22, 2023, recirculation test which affirmed satisfactory vibration performance despite the elevated levels expected during recirculation testing. Recent quarterly recirculation and biennial comprehensive inservice testing has not identified adverse trends in pump performance and provides reasonable assurance that the AFW 2C pump will perform consistent with

safety analysis assumptions. For these reasons, FPL has no immediate plans to monitor AFW 2C pump vibration while performing quarterly recirculation testing during the proposed period of relief. Should abnormal pump performance become evident during that time, prompt corrective action will be taken along with an assessment of operability as determined appropriate.

References:

1. Nuclear Regulatory Commission (NRC) electronic memorandum October 10, 2023, Request for Additional Information, Alternative Request PR-10, One-Time Request for an Alternative to ASME OM Code Testing Requirement for Auxiliary Feedwater 2C Pump, fifth 10-Year Interval Inservice Testing Program, St. Lucie Nuclear Plant, Unit 2, Docket No. 50-389, EPID L-2023-LLR-0039

2. Florida Power & Light letter L-2023-099, Pump Relief Request 10 (PR-10), One-Time Request for an Alternative to the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for the Auxiliary Feedwater (AFW) 2C Pump, July 26, 2023 (ADAMS Accession No. ML23208A057)