FPL.

May 21, 2015

L-2015-160
10 CFR 50.4

U. S. Nuclear Regulatory Commission
Document Control Desk
Attn: Director, Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Re: St. Lucie Unit 2
Docket No. 50-389
Reactor Vessel Surveillance Capsule 97 Degree Report Submittal

Reference:

1. FPL Letter L-2014-363 dated December 3, 2014, "Request to Extend Reactor Vessel Surveillance Capsule Report Submittal," (Accession No. ML14351A075)
2. NRC Letter dated February 25, 2015, "St. Lucie Plant, Unit No. 2 - Extension of Reactor Pressure Vessel Surveillance Report for Capsule 97 Degrees (TAC NO. MF5353)," (Accession No. ML15043A068)

In Reference 1, Florida Power & Light (FPL) requested approval of an extension request for the submittal of the St. Lucie Unit 2 reactor vessel material surveillance program Capsule 97 degrees technical report, from March 22, 2015 to May 22, 2015. This extension request was approved by the NRC in Reference 2.

In accordance with 10 CFR 50 Appendix H part IV, FPL is submitting this letter to transmit the St. Lucie Unit 2 reactor vessel surveillance Capsule 97 degrees technical report, WCAP-17939-NP, "Analysis of Capsule 97° from the Florida Power & Light Company St. Lucie Unit 2 Reactor Vessel Radiation Surveillance Program." dated May 2015. The enclosed is the summary technical report for the capsule removed on March 22, 2014 from St. Lucie Unit 2.

The following are the conclusions from the results on the testing of capsule 97° from the St. Lucie Unit 2 reactor vessel surveillance program.

1) The data from the surveillance capsule program (capsules 97°, 83° and 263°) meet the credibility requirements of RG 1.99 for determination of adjusted reference temperature (adjusted RT_{NDT}).

2) The current T/S PT limit curves and LTOP analysis remain conservative and valid for the revised 32.63 EFPY period of applicability. In accordance with 10 CFR 50, Appendix H, IV.C, FPL plans to submit a License Amendment Request (LAR) to revise the period of applicability of the T/S PT limit curves and LTOP setpoints to the NRC no later than the end of the fourth quarter of 2016.

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3) The 97° surveillance capsule report (attached) meets the reporting requirements of 10 CFR 50 Appendix H part IV.B, the data required by ASTM E-185-82 as specified in 10 CFR 50 Appendix H part III.B.1 and the results of all fracture toughness tests conducted on the beltline materials in the irradiated and unirradiated conditions.

4) The value of 32.63 EFPY translates to the period of applicability lasting to a minimum of the year 2021, allowing time to prepare a license amendment request.

Please contact Ken Frehafer at (772) 467-7748 if there any questions on this submittal.

Sincerely,

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/kwf

Attachment – Westinghouse Report WCAP-17939-NP, Rev 0, Analysis of Capsule 97° from the Florida Power & Light Company St. Lucie Unit 2 Reactor Vessel Radiation Surveillance Program (253 Pages)

cc: NRC Region II Administrator
NRC Site Resident Inspector