Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

October 31, 2011

L-2011-475
10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Re: St. Lucie Plant Unit 1
Docket No. 50-335
Renewed Facility Operating License No. DPR-67

Response to NRC Containment and Ventilation Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request

References:

(1) R. L. Anderson (FPL) to U.S. Nuclear Regulatory Commission (L-2010-259), "License Amendment Request for Extended Power Uprate," November 22, 2010, Accession No. ML103560419.
(2) Email from T. Orf (NRC) to C. Wasik (FPL), "St. Lucie U1& U2 EPU draft RAIs -- Containment and Ventilation (SCVB)," October 11, 2011.

By letter L-2010-259 dated November 22, 2010 [Reference 1], Florida Power & Light Company (FPL) requested to amend Renewed Facility Operating License No. DPR-67 and revise the St. Lucie Unit 1 Technical Specifications (TS). The proposed amendment will increase the unit's licensed core thermal power level from 2700 megawatts thermal (MWt) to 3020 MWt and revise the Renewed Facility Operating License and TS to support operation at this increased core thermal power level. This represents an approximate increase of 11.85% and is therefore considered an extended power uprate (EPU).

By email from the NRC Project Manager dated October 11, 2011 [Reference 2], additional information related to use of the CEFLASH-4A computer code was requested by the NRC staff in the Containment and Ventilation Branch (SCVB) to support their review of the EPU License Amendment Request (LAR). The request for additional information (RAI) identified one question for St. Lucie Unit 1. The response to this RAI is provided in the attachment to this letter. In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the designated State of Florida official.

This submittal does not alter the significant hazards consideration or environmental assessment previously submitted by FPL letter L-2010-259 [Reference 1].

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NRR

This submittal contains no new commitments and no revisions to existing commitments.

Should you have any questions regarding this submittal, please contact Mr. Christopher Wasik, St. Lucie Extended Power Uprate LAR Project Manager, at 772-467-7138.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on 31-October-2011

Very truly yours,

Richard L. Anderson
Site Vice President
St. Lucie Plant

Attachment

cc: Mr. William Passetti, Florida Department of Health

Response to NRC Containment and Ventilation Branch Request for Additional Information

The following information is provided by Florida Power & Light (FPL) in response to the U. S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI). This information was requested to support the Extended Power Uprate (EPU) License Amendment Request (LAR) for St. Lucie Unit 1 submitted to the NRC by FPL via letter L-2010-259 dated November 22, 2010 (Accession Number ML103560419).

In an email dated October 11, 2011 from NRC (T. Orf) to FPL (C. Wasik), "St. Lucie U1 & U2 EPU draft RAIs -- Containment and Ventilation (SCVB)," the NRC staff requested additional information regarding FPL's request to implement the EPU. The RAI consisted of one question from the NRC's Containment and Ventilation Branch, RAI SCVB-22. This RAI question and the FPL response are documented below.

SCVB-22

In the EPU license amendment request letter dated November 22, 2010, Attachment 5, Section 2.6.3.1.2.1.1 it is stated that the blowdown phase of the LOCA is simulated using the CEFLASH-4A code to calculate the M&E releases from postulated reactor coolant system pipe ruptures. Please describe the impact of the CEFLASH-4A code error, identified by Westinghouse, on the EPU LOCA peak containment pressure and on any other EPU results of containment analyses.

Response

The CEFLASH-4A/FII code error referred to in the RAI was actually an input deficiency. Analyses performed in the early 1990s used a print interval for tables of Mass and Energy (M&E) that was too coarse to capture the peak values of M&E releases in the first half-second of Reactor Coolant System (RCS) blowdown for a large break Loss of Coolant Accident (LOCA). Consequently, a large amount of M&E released in the containment on an integrated basis was not accounted for in the containment response portion of the analysis and, therefore, containment peak pressure and temperature were under predicted.

This code input deficiency was identified prior to completion of the St. Lucie Unit 1 EPU analysis. The EPU analysis used a fine print interval to generate the M&E table and confirmed that the peak values of M&E calculated in the CEFLASH-4A/FII code were used in the containment response analysis.