



November 23, 2011

L-2011-512
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 Mechanical and Civil Branch Request for Additional
Information RAI EMCB-1; 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 1 EPU draft Mechanical and Civil RAIs (EMCB)," July 27, 2011.
- (3) R. L. Anderson (FPL) to U.S. Nuclear Regulatory Commission (L-2011-361), "Response to NRC Mechanical and Civil Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request," September 23, 2011, Accession No. ML11271A030.
- (4) R. L. Anderson (FPL) to U.S. Nuclear Regulatory Commission (L-2011-435), "Response to NRC Mechanical and Civil Branch Request for Additional Information Number 23; Regarding Extended Power Uprate License Amendment Request," October 21, 2011, Accession No. ML11299A006.
- (5) R. L. Anderson (FPL) to U.S. Nuclear Regulatory Commission (L-2011-458), "Response to NRC Mechanical and Civil Branch Request for Additional Information RAI EMCB-1; Regarding Extended Power Uprate License Amendment Request," October 27, 2011, Accession No. ML11304A185.

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 July 27, 2011 [Reference 2], additional information related to mechanical and civil engineering topics was requested by the NRC staff in the Mechanical and Civil Engineering Branch (EMCB) to support their review of the EPU License Amendment Request (LAR). By letter L-2011-361 dated September 23, 2011 [Reference 3], FPL provided a response to all of the questions with the exception of RAI EMCB-23 and the hot leg injection modification portion of the response to RAI EMCB-1. By letter L-2011-435 dated October 21, 2011 [Reference 4], FPL provided a response to EMCB-23. By letter L-2011-458 dated October 27, 2011 [Reference 5], FPL provided an update on the status of proposed modifications related to hot leg injection and noted that a subsequent update would be provided to the NRC by November 30, 2011. This letter provides that update.

As noted in Attachment 7 of the Reference 1 LAR, FPL committed to implementing modifications to accommodate the simultaneous hot and cold leg injection requirements for EPU conditions as described in LAR Attachment 5, Section 2.8.5.6.3. Section 2.8.5.6.3 does not specifically discuss hot leg injection flow paths; however, Sections 1.0 and 2.11 of LAR Attachment 5 state that, since the flow path through the auxiliary spray line can not provide the required hot leg injection flow rate for EPU conditions, the flow path is being eliminated and the remaining two paths will be used. As a result of design development, FPL intends to modify rather than eliminate the auxiliary spray flow path to meet EPU hot leg injection flow requirements. Development of this modification is currently in progress. With respect to completion of the response to RAI EMCB-1, FPL plans to provide the requested piping and pipe support analysis information for the hot leg injection modification by March 16, 2012 or alternatively provide a proposed license condition to provide this information prior to operation at EPU conditions.

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].

This submittal contains no new 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 23 - November - 2011

Very truly yours,

A handwritten signature in black ink, appearing to read "Richard L. Anderson", with a long horizontal flourish extending to the right.

Richard L. Anderson
Site Vice President
St. Lucie Plant

cc: Mr. William Passetti, Florida Department of Health