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

August 26, 2002

L-2002-176
10 CFR 54

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

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Supplemental Response to NRC Request for Additional Information Related to the Staff's Review of Severe Accident Mitigation Alternatives for St. Lucie Units 1 and 2

By letter dated June 25, 2002, FPL provided its response to the NRC Requests for Additional Information (RAIs) regarding the St. Lucie Units 1 and 2 License Renewal Application (LRA) Environmental Report Severe Accident Management Alternatives. Due to an administrative error in Table 1-1, "Breakdown in Internal CDF Sorted by Initiating Events," FPL's response to Question1.c has been revised. Attachment 1 to this letter contains the revised response to Question 1.c. FPL has evaluated the revision to Table 1-1 and determined that there was no impact on the validity of the SAMA studies.

Should you have any further questions, please contact S. T. Hale at (772) 467-7430.

Very truly yours,

D. E. Jernigan
Vice President
St. Lucie Plant

DEJ/STH/hlo
Attachment (1)

A089

St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389

Supplemental Response to NRC Request for Additional Information Related to the Staff's Review of Severe Accident Mitigation Alternatives for St. Lucie Units 1 and 2

STATE OF FLORIDA )
) ss
COUNTY OF ST. LUCIE )

D. E. Jernigan being first duly sworn, deposes and says:

That he is Vice President – St. Lucie of Florida Power and Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

D. E. Jernigan

Subscribed and sworn to before me this

26 day of August, 2002.

Leslie J. Whitwell

Leslie J. Whitwell
Name of Notary Public (Type or Print)

D. E. Jernigan is personally known to me.

Leslie J. Whitwell
MY COMMISSION # DD020212 EXPIRES
May 12, 2005
BONDED THRU TROY FAIN INSURANCE, INC.

cc: U.S. Nuclear Regulatory Commission, Washington, D.C.

Program Director, License Renewal and Environmental Impacts
Project Manager – St. Lucie License Renewal
Project Manager - St. Lucie

U.S. Nuclear Regulatory Commission, Region II
Regional Administrator, Region II, USNRC
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**ST. LUCIE UNITS 1 AND 2**
**DOCKET NOS. 50-335 AND 50-389**
**ATTACHMENT 1**
**SUPPLEMENTAL RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION TO THE STAFF'S REVIEW OF THE SEVERE ACCIDENT MANAGEMENT ALTERNATIVES (SAMA) FOR ST. LUCIE UNITS 1 AND 2**

**QUESTION 1.c**

The SAMA analysis appears to be based on the current version of the "living" PSA model for internal events, which is a modification to the original Individual Plant Examination (IPE) that was reviewed by the U. S. Nuclear Regulatory Commission (NRC). Please provide the following:

c. a breakdown of the internal event CDF for each unit by initiating event, specifically, Loss of Offsite Power (LOOP), General Transients, Station Blackout, ATWS, Loss-of-Coolant Accidenta (LOCAs), Interfacing System LOCA (ISLOCA), and Steam Generator Tube Rupture (SGTR), and other internal events initiators (please specify). Also, confirm the total of $2.99 \times 10^{-5}$ per reactor year for Unit 1 and $2.44 \times 10^{-5}$ per reactor year, for Unit 2, respectively.

**Response to Question 1.c**

This response supercedes the response to Question1.c provided in FPL Letter L-2002-124 dated June 25 in its entirety.

c. Individual sequences associated with various Plant Damage States (PDSs) were quantified separately and then totaled, yielding frequencies of 2.99E-05 per reactor year and 2.44E-05 per reactor year (including ISLOCA) for Unit 1 and Unit 2, respectively. An alternate quantification based on an "OR" gate containing all PDS sequences produced frequencies of 2.86E-05 per reactor year and 2.43E-05 per reactor year, respectively. The following is based on the one-top PDS results. The individual sequence for various PDSs were used for Level 3 analysis.

**Table 1-1**
**Breakdown of Internal CDF Sorted by Initiating Events**

| Initiating Event | Frequency (per Year) | |
|---|---|---|
| | Unit 1 | Unit 2 |
| Loss of Offsite Power/Station Blackout [1] | 4.63E-06 | 2.67E-06 |
| Transients [2] | 4.55E-06 | 1.84E-06 |
| Anticipated Transient Without Scram | 8.23E-07 | 3.31E-07 |
| Loss-of-Coolant Accident | 8.22E-06 | 7.82E-06 |
| ISLOCA | 2.89E-06 | 5.64E-06 |
| SGTR | 9.58E-07 | 2.78E-07 |
| Internal floods | 5.00E-07 | 5.00E-07 |
| Others [3] | 6.03E-06 | 5.22E-06 |
| Total CDF | 2.86E-05 | 2.43E-05 |

Notes:

1. Loss of Offsite Power sequences are predominantly Station Blackout sequences.
2. General Transients include Reactor Trip, Loss of Main Feedwater, and Excessive Feedwater.
3. See list of other initiators below.

Other initiators include:

Loss of 4KV Bus 1A2
Loss of 4KV Bus 1B2
Loss of 6.9KV Bus 1A1 As Initiator
Loss of 6.9KV 1B1 As Initiator
Loss of Component Cooling Water (CCW)
Loss of DC Bus 1A
Loss of DC Bus 1B
Loss of Instrument Air
Loss of Intake Cooling Water (ICW)
Loss of 120VAC Instrument Bus 1MA
Loss of 120VAC Instrument Bus 1MB
Loss of 120VAC Instrument Bus 1MC
Loss of 120VAC Instrument Bus 1MD
Seal LOCA Initiating Event (IE) (Loss of CCW Not Related to LOCCWIE or LOICWIE) - All RCPs
Seal LOCA IE (Loss of CCW Not Related to LOCCWIE or LOICWIE) - One RCP
Steamline Break Upstream of SG A Main Steam Isolation Valve (MSIV)
Steamline Break Upstream of SG B MSIV
Steamline Break Downstream of the MSIVs
Spurious Main Steam Isolation Signal
Spurious Safety Injection Actuation Signal
Transient Induced by Power Operated Relief Valve (PORV) Opening with Pressurizer (PRZR) Transmitter (XMTR) Failing Hi PORV 1404
Transient Induced by PORV Opening with PRZR XMTR Failing Hi PORV 1402
Loss of Turbine Cooling Water (TCW)