



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

February 13, 1997

L-97-038
10 CFR 50.4
10 CFR 2.790

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

Re: St. Lucie Unit 1
Docket No. 50-335
Proposed License Amendment for Reactor Core Safety Limit;
Clarification of Issues Involving Analytical Model

Ref: (1) FPL Letter L-96-333, J.A. Stall to NRC (DCD), Request for License Amendment, St. Lucie Unit 1 Core Safety Limit, December 20, 1996 (TAC No. M97471).

(2) Telephone conference: L.A. Wiens (NRC)/ E.J. Weinkam (FPL)/ H.D. Curet (SPC), et al; January 23, 1997.

THE ENCLOSURE WITH THIS LETTER CONTAINS
PROPRIETARY INFORMATION PURSUANT TO 10 CFR 2.790(a)(4).

Reference (1) includes a Siemens Power Corporation (SPC) report of an analysis of small break loss of coolant accidents (SBLOCA) for St. Lucie Unit 1, considering up to 30% steam generator tube plugging. The enclosed document is forwarded to the NRC for the purpose of providing clarification of two issues that were discussed during a teleconference on January 23, 1997 (Reference 2), each of which involves the analytical model used to perform that SBLOCA analysis.

The enclosure to this letter contains proprietary information, the disclosure of which would compromise a trade secret or commercial information considered by SPC as privileged or confidential. Pursuant to 10 CFR 2.790(a)(4), FPL requests that the enclosed document be withheld from public disclosure.

Please contact us if there are any questions about this clarification.

Very truly yours,

J. A. Stall
Vice President
St. Lucie Plant

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EXEMPT FROM DISCLOSURE
10 CFR 2.790 INFORMATION

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St. Lucie Unit 1
Docket No. 50-335
Proposed License Amendment for Reactor Core Safety Limit,
Clarification of Issues Involving Analytical Model

L-97-038
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Enclosure:

Siemens Power Corporation Proprietary Letter TMH-97-026, Tim M. Howe (SPC) to R.J. Rodriguez (FPL), Clarification of Input Model Changes for St. Lucie Unit 1 SBLOCA Analysis for 30% Steam Generator Tube Plugging, January 31, 1997, with associated Attachment A, Attachment B, and enclosed Affidavit.

cc (w/o enclosure):

Regional Administrator, Region II, USNRC.
Senior Resident Inspector, USNRC, St. Lucie Plant.
Mr. W.A. Passetti, Florida Department of Health and Rehabilitative Services.

SIEMENS

January 31, 1997
TMH:97:026

Mr. R. J. Rodriguez, JPN-JB
Nuclear Fuels Supply Group
Florida Power & Light Company
700 Universe Blvd.
Juno Beach, FL 33408-0420

Dear Mr. Rodriguez:

Clarification of Input Model Changes for St. Lucie Unit 1 SBLOCA Analysis for 30% Steam Generator Tube Plugging

Reference: Letter from T. M. Howe to R. J. Rodriguez, Transmittal of Report Describing St. Lucie Unit 1 SBLOCA Analysis for 30% Steam Generator Tube Plugging, TMH:96:250, dated December 16, 1997

Attachments A and B of this letter provide clarification regarding the SBLOCA analysis performed to support 30% Steam Generator Tube Plugging operation of St. Lucie Unit 1 (see Reference 1). Attachment A contains information considered proprietary to SPC. Attachment B is a non-proprietary version (proprietary information has been enclosed by brackets and deleted from text).

In accordance with the requirements of 10 CFR 2.790(b), an affidavit executed by Siemens Power Corporation is enclosed to support the withholding of the proprietary information from public disclosure.

The information provided by this letter has received a quality assurance review and approval according to SPC's Quality Assurance Program.

If you have any questions, please let me know.

Very truly yours,

J. M. Howe
Tim M. Howe
Project Manager

/tmh

attachments/enclosure

c: C. A. Pell - St. Lucie Plant Site

Siemens Power Corporation

Nuclear Division
Engineering & Manufacturing

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P.O. Box 130
Richland, WA 99352-0130

Tel: (509) 375-8100
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AFFIDAVIT

STATE OF WASHINGTON)
) ss
COUNTY OF BENTON)

I, R. A. Copeland, being duly sworn, hereby say and depose:

1. I am a member of Product Licensing for Siemens Power Corporation ("SPC"), and as such I am authorized to execute this Affidavit.

2. I am familiar with SPC's detailed document control system and policies which govern the protection and control of information.

3. I am familiar with the Siemens Power Corporation information in TMH:97:026, "Clarification of Input Model Changes for St. Lucie Unit 1 SBLOCA Analysis for 30% Steam Generator Tube Plugging," dated January 31, 1997, referred to as "Document." Information contained in this Document has been classified by SPC as proprietary in accordance with the control system and policies established by SPC for the control and protection of information.

4. The Document contains information of a proprietary and confidential nature and is of the type customarily held in confidence by SPC and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in the Document as proprietary and confidential.

5. The Document has been made available to the U.S. Nuclear Regulatory Commission in confidence, with the request that the information contained in the Document will not be disclosed or divulged.

6. The Document contains information which is vital to a competitive advantage of SPC and would be helpful to competitors of SPC when competing with SPC.

7. The information contained in the Document is considered to be proprietary by SPC because it reveals certain distinguishing aspects of SPC licensing methodology which secure competitive advantage to SPC for fuel design optimization and marketability, and includes information utilized by SPC in its business which affords SPC an opportunity to obtain a competitive advantage over its competitors who do not or may not know or use the information contained in the Document.

8. The disclosure of the proprietary information contained in the Document to a competitor would permit the competitor to reduce its expenditure of money and manpower and to improve its competitive position by giving it valuable insights into SPC licensing methodology and would result in substantial harm to the competitive position of SPC.

9. The Document contains proprietary information which is held in confidence by SPC and is not available in public sources.

10. In accordance with SPC's policies governing the protection and control of information, proprietary information contained in the Document has been made available, on a limited basis, to others outside SPC only as required and under suitable agreement providing for nondisclosure and limited use of the information.

11. SPC policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

12. Information in this Document provides insight into SPC licensing methodology developed by SPC. SPC has invested significant resources in developing the methodology as well as the strategy for this application. Assuming a competitor had available the same background data and incentives as SPC, the competitor might, at a minimum, develop the information for the same expenditure of manpower and money as SPC.

THAT the statements made hereinabove are, to the best of my knowledge,
information, and belief, truthful and complete.

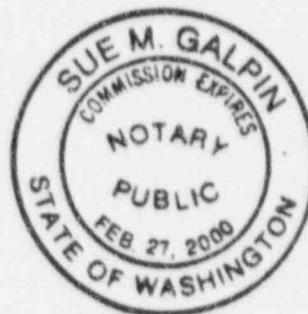
FURTHER AFFIANT SAYETH NOT.

[Signature] _____

SUBSCRIBED before me this 31st
day of January, 1997.

Sue M. Galpin

Sue M. Galpin
NOTARY PUBLIC, STATE OF WASHINGTON
MY COMMISSION EXPIRES: 2/27/00



**ANF-RELAP Model Changes for the St. Lucie Unit 1 Revised
30% SGTP Small Break LOCA Analysis**

The following provides clarification of two changes to the ANF-RELAP input model used to perform the 30% Steam Generator Tube Plugging (SGTP) SBLOCA analysis (Reference 1) relative to the 25% SGTP SBLOCA analysis reported in Reference 2.

Change:

The SIT and SI injection locations were moved [] and to conform to the revised approved SBLOCA methodology (Reference 3).

Discussion:

For the 25% SGTP analysis reported in Reference 2, St. Lucie Unit 1 ANF-RELAP input modeled the ECCS injection location consistent with the methodology documented in Reference 4. A nodalization diagram for the sample plant is presented in Figure 4.1 of Reference 4. This nodalization diagram shows []

In October 1994, the revised SBLOCA methodology (Reference 3) was approved. A nodalization diagram for the sample plant is presented in Figure B.1 of Reference 3. In the Reference 3 sample problem, the cold leg piping is modeled as []. The St. Lucie input model for the 30% SGTP analysis (Reference 1) was updated to be consistent with Figure B.1 of Reference 3.

Change:

Biasing of loop seal clearing.

Discussion:

The revised SBLOCA methodology (Reference 3) prescribes how the SBLOCA calculations are to be performed. Specifically, break spectrum calculations are performed with []. The purpose of the break spectrum calculations are []

].

The original philosophy for the SBLOCA methodology was to [] It has been determined that the prescription for performing SBLOCA calculations may not necessarily produce []

].

In the Reference 2 SBLOCA analysis, the results from the break spectrum calculation showed that for the limiting break size, [

]. At the time the 30% SGTP calculation was performed, it was determined that the PCT for the 25% SGTP analysis (Reference 2) could be []. A sensitivity analysis was performed for the limiting break size from the Reference 2 analysis [

]. The results confirmed that the PCT for St. Lucie Unit 1 is [] in the 30% SGTP analysis (Reference 1).

References:

1. *St. Lucie Unit 1 Small Break LOCA Analysis with 30% Steam Generator Tube Plugging*, EMF-96-176, Revision 1, December 1996.
2. *Siemens Power Corporation - Nuclear Division St. Lucie Unit 1 Small Break LOCA Analysis*, EMF-92-148, Revision 1, May 1994.
3. *Exxon Nuclear Company Evaluation Model Revised EXEMPWR Small Break Model*, XN-NF-82-49(P)(A), Revision 1, Supplement 1 and Correspondence, December 1994.
4. *Exxon Nuclear Company Evaluation Model EXEM PWR Small Break Model*, XN-NF-82-49(P)(A), Revision 1, April 1989.