



August 27, 1996

L-96-211
10 CFR 50.4

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
Generic Letter 92-08
Plan and Schedule Update

The Florida Power and Light Company (FPL) plan and schedule update for resolving the use of Thermo-Lag 330-1 at St. Lucie is attached. The original St. Lucie response to Generic Letter (GL) 92-08, *Thermo-Lag 330-1 Fire Barriers*, was submitted by FPL letter, L-93-96 on April 16, 1993, and supplemented in response to your requests for additional information (RAI) dated December 20, 1993, August 9, 1994 and December 28, 1994, by FPL letters, L-94-33 dated February 11, 1994, L-94-104 dated April 29, 1994, L-94-275 dated November 4, 1994, L-95-101 dated March 28, 1995, L-95-286 dated October 27, 1995, and L-96-28 dated February 12, 1996.

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

Very truly yours,

A handwritten signature in black ink, appearing to read 'J. A. Stall'.

J. A. Stall
Vice President
St. Lucie Plant

JAS/GRM

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

9609040374 960827
PDR ADOCK 05000335
F PDR

St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
L-96-211 Attachment Page 1

I. OUTSTANDING THERMO-LAG ISSUES

A. AMPACITY DERATING

FPL provided the plan to resolve ampacity derating issues in letter L-96-28 dated February 28, 1996.

Current Status:

- 1) FPL has verified ampacity derating calculations and evaluations performed to date to ensure methods and assumptions remain valid considering new information that became available. This verification effort is documented in FPL calculation, PSL-OFJE-96-001¹. The results of this calculation show that the most limiting ampacity derating margin is in excess of 38%.
- 2) FPL has compared the St. Lucie Plant installed Thermo-Lag to the Texas Utilities tested configurations and has determined that the testing bounds the St. Lucie configurations with some analytical adjustments as documented in FPL calculation, PTN-BFJM-96-005². These adjustments have been applied to calculations using credible analytical methods to ensure that ampacity derating factors remain conservative. No further testing is required.

B. RADIANT ENERGY SHIELDS

FPL provided the activities to resolve the use of Thermo-Lag in radiant energy shields in letter L-95-286 dated October 27, 1995.

Current Status:

FPL will be using stainless steel sheet metal as radiant energy shields for the purpose of satisfying the electrical separation criteria in 10 CFR 50 Appendix R. The sheet metal will be installed as conduit wrap and as stand-alone wall-type shields in the containments of St. Lucie Units 1 and 2. Thermo-Lag was determined to be an unacceptable choice of material as documented in FPL evaluation, PSL-FPER-96-006³, and will no longer be relied upon in applications requiring radiant energy shields.

C. Regulatory Guide 1.75 (Unit 2 Only)

FPL provided the activities to resolve the use of Thermo-Lag in applications related to Regulatory Guide 1.75 in letter L-95-286 dated October 27, 1995.

St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
L-96-211 Attachment Page 2

Current Status:

FPL has determined that Thermo-Lag is acceptable for the purposes of satisfying the electrical separation criteria of Regulatory Guide 1.75 as documented in FPL evaluation, PSL-SEES-96-059⁴. FPL will continue to maintain Thermo-Lag as an electrical separation barrier on St. Lucie Unit 2.

D. Thermo-Lag Walls

FPL provided the activities to resolve the use of Thermo-Lag in wall type configurations in letter L-95-286 dated October 27, 1995.

Current Status:

FPL has completed the qualification of wall-type configurations for Unit 2 based on the 'one-hour' and 'three-hour' tests. This qualification is documented in FPL evaluation, PSL-FPER-96-005⁵. In addition, FPL has identified the repair methodology and locations for repair for Unit 2 wall-type configurations, as documented in FPL evaluation, PSL-FPER-96-002⁶. The repairs will include reinforcement panels that do not end on structural steel, framing that requires bolting and replacement of Thermo-Lag with ceramic fiber and sheet metal where appropriate. These repairs will be completed on Unit 2 consistent with the schedule for implementation of modifications as stated under Section III below.

FPL is currently performing a similar effort for qualifying and identifying repairs for wall-type configurations on Unit 1. This effort is expected to be completed by our previous commitment date of January 31, 1997.

II. EXEMPTION REQUESTS AND EVALUATIONS

FPL committed to address exemptions and evaluations on or before August 30, 1996 for Unit 2 and April 30, 1997 for Unit 1 in letter L-95-286 dated October 27, 1995.

Current Status:

FPL has reviewed the safe shutdown analysis and has determined that it will not seek exemptions under 10 CFR 50.12. Rather, the safe shutdown analysis will be revised using evaluations that address the modifications and upgrades necessary for compliance to NRC fire protection regulations. The schedule for these evaluations remains as stated in FPL's letter L-95-286 October 27, 1995.

St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
L-96-211 Attachment Page 3

III. UPDATED SCHEDULES FOR IMPLEMENTING MODIFICATIONS

FPL provided a schedule that included final implementation, closure of all Thermo-Lag material issues, and submittal of a summary report within 180 days after these respective unit refueling outages (SL2-10 and SL1-15) in letter L-95-286 dated October 27, 1995.

Current Status:

FPL may accelerate the schedule for the steam generator replacement outage (SL1-15) on Unit 1 to the Fall of 1997 from the Spring of 1998. FPL expects that final implementation, closure of all Thermo-Lag material issues, and submittal of a summary report for Unit 1 will be concluded 180 days after this outage. The schedule for Unit 2 remains unchanged from the FPL letter L-95-286 dated October 27, 1995.

IV. ENDNOTES

1. FPL Calculation, PSL-OFJE-96-001, "Cable Derating in Conduits with Fire Barrier Coatings", Rev 0, August 12, 1996.
2. FPL Calculation, PTN-BFJM-96-005, "Barrier Ampacity Correction Factors - Extrapolation of Test Results for 3 Hour Barrier", Rev 0, April 16, 1996.
3. FPL Evaluation, PSL-FPER-96-006, "St. Lucie Unit 2 Radiant Energy Shields in Containment", Rev 0, May 23, 1996.
4. FPL Evaluation, JPN-PSL-SEES-96-059, "St. Lucie Unit 2 Regulatory Guide 1.75 Thermo-Lag Application Evaluation", Rev 0, August 16, 1996.
5. FPL Evaluation, PSL-FPER-96-005, "St. Lucie Unit 2 Fire Protection Evaluation for TSI Walls, Floors and Ceilings Acceptability Overview", Rev 0, May 23, 1996.
6. FPL Evaluation, PSL-FPER-96-002, "St. Lucie Unit 2 Fire Protection Evaluation for TSI Walls, Floors and Ceilings Acceptability Overview", Rev 0, June 27, 1996.