Florida Power & Light Company, 9760 SW 344 St., Fla City, FL 33035

DEC 17 2001

L-2001-282
10 CFR 54

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
License Renewal Safety Evaluation Report Open Item And Confirmatory Item Responses And Revised License Renewal Application Appendix A

By letter dated August 17, 2001, the NRC issued the Safety Evaluation Report with Open Items Related to the License Renewal of Turkey Point Nuclear Plant, Units 3 and 4. In letter No. L-2001-236, FPL provided responses to the open items and confirmatory items identified in the Safety Evaluation Report. Attached to L-2001-236 was a revised Appendix A to the Turkey Point Units 3 and 4 License Renewal Application (LRA) entitled, "Updated Final Safety Analysis Report Supplement."

Based on NRC comments on the information transmitted with L-2001-236, Attachment 1 provides FPL's revised responses to Safety Evaluation Report Confirmatory Item 3.0-1, FSAR Items 4.2-1 and 4.3-1, and Attachment 2 provides revised pages A-30, A-45, and A-50 of Appendix A to the LRA incorporating the revised responses and a comment from the NRC related to page A-30.

Should you have any further questions, please contact E. A. Thompson at (305)246-6921.

Very truly yours,

John P. McElwain
Vice President - Turkey Point

JPM/EAT/hlo
Attachments (2)

A084

Rec'd 01/23/02

Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251

Response to Request for Additional Information for the Review of the Turkey Point Units 3 and 4, License Renewal Application

STATE OF FLORIDA)
) ss
COUNTY OF MIAMI-DADE)

John P. McElwain being first duly sworn, deposes and says:

That he is Vice President - Turkey Point 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.

John P. McElwain

Subscribed and sworn to before me this

17th day of December, 2001.

Olga Hanek

OLGA HANEK
MY COMMISSION # CC 926970
EXPIRES: June 18, 2004
Bonded Thru Notary Public Underwriters

OLGA HANEK
Name of Notary Public (Type or Print)

John P. McElwain is personally known to me.

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

Chief, License Renewal and Standardization Branch
Project Manager - Turkey Point License Renewal
Project Manager - Turkey Point

U.S. Nuclear Regulatory Commission, Region II
Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

Other

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ATTACHMENT 1
REVISED RESPONSES TO CONFIRMATORY ITEM 3.0-1,
FSAR ITEMS 4.2-1 AND 4.3-1 IDENTIFIED IN
SAFETY EVALUATION REPORT RELATED TO LICENSE RENEWAL OF
TURKEY POINT NUCLEAR PLANT, UNITS 3 AND 4

Confirmatory Item 3.0-1:

FPL Revised Response to FSAR Item 4.2-1:

LRA Appendix A, Subsection 16.3.1.3 is revised to address items identified in the NRC Safety Evaluation for Turkey Point Technical Specification Amendments 208/202, issued October 30, 2000. Specifically, this change will ensure that chemistry factor ratio adjustment for the reactor pressure vessel weld, as discussed in Regulatory Guide 1.99, Revision 2, Position 2.1, is considered in submittal of the 48 EFPY Pressure-Temperature curves. Also, this subsection is being revised to ensure that reactor vessel circumferential weld (heat number 72442) is tracked and considered in future submittals.

FPL Revised Response to FSAR Item 4.3-1:

a. LRA Appendix A Subsection 16.3.2.5 is revised to include the options identified in the evaluations of the pressurizer surge lines. The last paragraph of Subsection 16.3.2.5 will be replaced with the following:

   "For the pressurizer surge lines, FPL will inspect all surge line welds on both units during ASME Section XI inservice inspection plan fourth interval, and prior to entering the extended period of operation. The results of these inspections will be utilized to assess fatigue of the surge lines. In addition to these inspections, environmentally assisted fatigue of the surge lines will be addressed using one or more of the following approaches:

   1. Further refinement of the fatigue analysis to lower the CUF(s) to below 1.0, or
   2. Repair of the affected locations, or
   3. Replacement of the affected locations, or
   4. Manage the effects of fatigue by an NRC approved inspection program."

b. LRA Appendix A Subsection 16.3.2.5 is revised to include the options identified in the evaluations for the reactor pressure vessel outlet nozzles and the reactor pressure vessel shell at the core support pads. Subsection 16.3.2.5 will be revised to

include the following:

"Since actual projected cycle counts were utilized in the reactor pressure vessel outlet nozzles and the reactor pressure vessel shell at the core support pads evaluations, FPL will either:

1. Modify the Fatigue Monitoring Program to limit transient accumulations to the values used in the evaluations, or
2. Perform a more refined evaluation for the reactor pressure vessel outlet nozzles and the reactor pressure vessel shell at the core support pads to show acceptable CUFs for 60 years, or
3. Track CUF values in addition to cycle counts to ensure CUF values remain acceptable."

c. LRA Appendix A Subsection 16.3.2.5 is revised to include the options identified in the evaluations for the pressurizer spray nozzles. Subsection 16.3.2.5 will be revised to include the following:

"Since actual projected cycle counts were utilized in the pressurizer spray nozzle evaluations, FPL will either:

1. Modify the Fatigue Monitoring Program to limit transient accumulations to the values used in the evaluations, or
2. Perform a more refined evaluation for the pressurizer spray nozzles to show acceptable CUFs for 60 years, or
3. Track CUF values in addition to cycle counts to ensure CUF values remain acceptable."

REVISED PAGES A-30, A-45, AND A-50
TURKEY POINT LICENSE RENEWAL APPLICATION
APPENDIX A

The neutron absorber rack design includes a poison verification view-hole in the cell wall so that the presence of poison material may be visually confirmed at any time over the life of the racks. Upon completion of rack fabrication, such an inspection was performed. This visual inspection, coupled with the Westinghouse quality assurance program controls and the use of qualified Boraflex neutron absorbing material, satisfies an initial verification test to assure that the proper quantity and placement of material was achieved during fabrication of the racks.

The aging management review performed on the spent fuel storage racks for license renewal determined that the boraflex inserts required aging management for the aging effect of change in material properties (including shrinkage, gap formation, and dissolution). The program credited for managing aging of the boraflex inserts is the Boraflex Surveillance Program. See Subsection 16.2.2 for a description of this aging management program.

16.3.1.2 UPPER-SHELF ENERGY

The requirements on reactor vessel Charpy upper-shelf energy are included in 10 CFR 50, Appendix G. Specifically, 10 CFR 50, Appendix G requires licensees to submit an analysis at least 3 years prior to the time that the upper-shelf energy of any reactor vessel material is predicted to drop below 50 ft-lb., as measured by Charpy V-notch specimen testing.

A fracture mechanics evaluation was performed in accordance with Appendix K of ASME Section XI to demonstrate continued acceptable equivalent margins of safety against fracture through 48 effective full power years. The analysis associated with upper-shelf energy has been projected to the end of the period of extended operation in accordance with the requirements of 10 CFR 54.21(c)(1)(ii).

16.3.1.3 PRESSURE-TEMPERATURE LIMITS

The requirements in 10 CFR 50, Appendix G, ensure that heatup and cooldown of the reactor pressure vessel are accomplished within established pressure-temperature limits. These limits specify the maximum allowable pressure as a function of reactor coolant temperature. As the reactor pressure vessel becomes embrittled and its fracture toughness is reduced, the allowable pressure is reduced. Operation of the Reactor Coolant System is also limited by the net positive suction curves for the reactor coolant pumps. These curves specify the minimum pressure required to operate the reactor coolant pumps. Therefore, in order to heatup and cooldown, the reactor coolant temperature and pressure must be maintained within an operating window established between the Appendix G pressure-temperature limits and the net positive suction curves.

To address the period of extended operation, the 48 effective full power year projected fluences and the Turkey Point-specific reactor vessel material properties were used to determine the limiting material and calculate pressure-temperature limits for heatup and cooldown. The limiting material at all temperatures for the period of extended operation is the circumferential girth weld. As discussed in the NRC Safety Evaluation for Technical Specification Amendments 208/202 Turkey Point 32 EFPY Pressure-Temperature Curves, future submittals will ensure the consideration of the chemistry factor ratio adjustment in accordance with Regulatory Guide 1.99, Revision 2, Position 2.1, and that the reactor pressure vessel circumferential weld (heat number 72442) is tracked and considered.

period of operation. The results of these inspections will be utilized to assess fatigue of the surge lines. In addition to these inspections, environmentally assisted fatigue of the surge lines will be addressed using one or more of the following approaches:

1. Further refinement of the fatigue analysis to lower the CUF(s) to below 1.0, or
2. Repair of the affected locations, or
3. Replacement of the affected locations, or
4. Manage the effects of fatigue by an NRC approved inspection program.

Since actual projected cycle counts were utilized in the reactor pressure vessel outlet nozzles and the reactor pressure vessel shell at the core support pads evaluations, FPL will either:

1. Modify the Fatigue Monitoring Program to limit transient accumulations to the values used in the evaluations, or
2. Perform a more refined evaluation for the reactor pressure vessel outlet nozzles and the reactor pressure vessel shell at the core support pads to show acceptable CUFs for 60 years, or
3. Track CUF values in addition to cycle counts to ensure CUF values remain acceptable.

Since actual projected cycle counts were utilized in the pressurizer spray nozzle evaluations, FPL will either:

1. Modify the Fatigue Monitoring Program to limit transient accumulations to the values used in the evaluations, or
2. Perform a more refined evaluation for the pressurizer spray nozzle to show acceptable CUFs for 60 years, or
3. Track CUF values in addition to cycle counts to ensure CUF values remain acceptable.

16.3.3 ENVIRONMENTAL QUALIFICATION

The thermal, radiation, and wear cycle aging analyses of plant electrical and I&C components have been identified as time-limited aging analyses for Turkey Point. In particular, the environmental qualification evaluations of electrical equipment with a 40-year qualified life or greater have been determined to be time-limited aging analyses.

Equipment included in the Turkey Point Environmental Qualification Program has