FPL

JUN 2 6 2001

L-2001-144
10 CFR 50.36
10 CFR 50.90

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
Proposed License Amendments
EDG Risk Informed AOT Extension from 72 hours to 14 days and
Relocation of TS Surveillance 4.8.1.1.2.g.1 to Licensee Controlled Maintenance Program
Response to Request for Additional Information

By letter L-2001-022, dated March 12, 2001, Florida Power and Light Company (FPL) requested an amendment to Technical Specification (TS). Specifically, FPL requested to amend TS 3/4.8.1 "A.C. Sources," and the associated TS 3/4.4.3 and TS 3/4.5.2 to extend the allowed outage time for an inoperable emergency diesel generator (EDG) from 72 hours to 14 days. Additionally, the request proposed to relocate TS Surveillance Requirement 4.8.1.1.2.g.1 to a licensee controlled maintenance program that will be incorporated by reference into the Updated Final Safety Analysis Report. By letter dated June 1, 2001, the U.S. Nuclear Regulatory Commission Staff requested additional information regarding the above referenced FPL submittal. The response to the request for additional information is provided in Attachment 1. FPL has determined that the additional information provided herein does not change the conclusions reached in the original no significant hazards consideration provided in FPL letter L-2001-022.

In accordance with 10 CFR 50.91 (b) (1), a copy of this letter is being forwarded to the State Designee for the State of Florida. If you have any questions on this request, please contact Steve Franzone at (305) 246-6228.

Very truly yours,

R. J. Hovey
Vice President
Turkey Point Plant

SM
Attachment
cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point
Florida Department of Health

A001

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

R. J. Hovey being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Plant, 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.

R. J. Hovey

STATE OF FLORIDA

COUNTY OF MIAMI-DADE

Subscribed and sworn to before me this

25th day of June, 2001,

by R. J. Hovey is personally known to me.

Name of Notary Public - State of Florida

CHERYL A. STEVENSON
NOTARY PUBLIC - STATE OF FLORIDA
COMMISSION # CC929876
EXPIRES 6/19/2004
BONDED THRU ASA 1-888-NOTARY1

(Print, type or stamp Commissioned Name of Notary Public)

Attachment 1

1. Please discuss your current and planned activities regarding the independent peer review/certification of your probabilistic risk analysis (PRA).

   FPL has participated in the Westinghouse Owners Group (WOG) peer review activities, and the Turkey Point Probabilistic Safety Assessment (PSA) will be reviewed in February 2002. In preparation for the peer review/certification, two outside industry PSA experts have recently reviewed the Turkey Point PSA model used for the Emergency Diesel Generator (EDG) Allowed Outage Time (AOT) extension. No findings were identified that would change the conclusions for the EDG AOT extension applications.

2. Please provide a list of model changes and their associated risk impacts that contributed significantly to the reduction in the baseline core damage frequency following the completion of the original PRA.

   The original model documented in the 1991 Turkey Point Individual Plant Examination (IPE) submittal had a core damage frequency (CDF) of 1.0E-04 per year. This model was revised following a detailed "Step 2" review by the NRC and submittal of the revised Turkey Point IPE in 1992 to address the comments of the review. The Turkey Point PSA model was updated in 1993, 1995, and 1997 to incorporate plant changes and modeling changes. The CDF for the 1997 update was 6.12E-05 per year. Major plant changes incorporated in the model include service water system changes, standby steam generator feed water pump change (from motor-driven to diesel-driven), and instrument air system upgrades. Major modeling changes included time-dependent recovery of offsite power, more consistent recovery actions (use of rule-based recovery), and data updates.

   In 1999, the 1997 Turkey Point PSA model was modified to account for several plant features that have significant impact on the benefit calculations, but were not included in the plant risk model. This modified baseline model with a core damage frequency of approximately 9.0E-6 per year was used for the EDG AOT extension.

   Major modeling changes included the following:

   - Taking credit for High Head Safety Injection (HHSI) from the opposite unit (as a backup for recirculation) in the mitigation of small Loss of Coolant Accident (LOCA)s,
   - Updating of the LOCA initiating event frequencies,
   - Revising the Reactor Coolant Pump (RCP) seal LOCA model, and
   - Taking credit for the Component Cooling Water (CCW) system of the opposite unit.

Credit for HHSI from the opposite unit in the mitigation of small LOCAs had the most significant effect on the CDF, reducing it by approximately 1.8E-5 per year. Next, the revised treatment of RCP seal LOCAs accounted for a reduction of 1.1E-5 per year. Revision of the LOCA frequencies resulted in a decrease of 6.9E-6 per year, and credit for cross-tying of the two units' CCW systems caused a further decrease of 6.6E-6 per year. The combined effect of many other modifications, including common cause failure (CCF) update, initiating event frequency update, and MTC (moderator temperature coefficient) update made up the rest of the difference. Of these changes, the one which had a significant effect on the station blackout sequences, and, therefore, the importance of the diesel generators, was the revised treatment of the RCP seal LOCAs.

3. Please describe your current model used for the potential reactor coolant pump seal loss-of-coolant accident. Describe the differences between the NUREG-1150 model and this model.

   The RCP seal LOCA model was updated using the draft WCAP (not yet numbered) entitled RCP Seal LOCA Modeling Guidelines. This draft WCAP is based on the RCP seal leakage model described in WCAP-15603, WOG2000 Reactor Coolant Pump Seal Leakage Model for Westinghouse PWRs, Revision 0, December 2000. Previously, the Turkey Point PSA model used a NUREG-1150 approach to the modeling of RCP seal LOCAs. Using this approach, it was assumed that a seal LOCA would occur 90 minutes after loss of seal cooling. A 300 gpm per pump leak was assumed, resulting in core uncovery 90 minutes later. The RCP seal LOCA model in the new guidance document breaks up the RCP seal LOCAs into 5 categories, each with its own split fraction and leak rate. The smallest of these leak categories is a 21 gpm per pump leak, and this category is predicted to occur 79% of the time. The largest of the leak categories is 480 gpm per pump, but is predicted to occur only 0.25% of the time. For the 21 gpm per pump case, the time to core uncovery is much longer than the 90 minutes used in the old model, due to the smaller leak rate. This extra time allows for more credit for offsite power recovery.

4. Please describe your PRA tools used for implementing requirement (a)(4) of the Maintenance Rule. Explain how you address multi-unit risk impact resulting from shared or cross-tied systems, structures, and components.

   At Turkey Point, the EOOS (Equipment Out of Service) software developed by Data Systems and Solutions (DS&S), and distributed by EPRI is used for the on-line risk monitor (OLRM), which is the PRA tool used for implementing requirement (a)(4) of the Maintenance Rule. There is an EOOS model for each unit, and any shared systems/dependencies are modeled in each, i.e., if a component which is shared between the two units is taken out of service, the OLRM is run twice, once for each unit, to measure the risk impact on each unit.

5. Please describe plant enhancements made for your capability to mitigate potential loss-of-offsite-power accidents. Specifically, discuss in detail those that removed dependency on electrical power supply or increased redundancy for mitigating systems.

The most significant plant enhancement which affected Turkey Point's ability to cope with loss-of-offsite-power accidents was the addition of two emergency diesel generators, installed in 1991. This brought the total number of diesel generators dedicated to the nuclear units to four, two per unit. The diesel generators are designed to be easily cross-tied between units, and one diesel generator can support the loads of two buses one bus on each unit. Therefore, a single diesel generator can provide sufficient power to successfully mitigate a loss of offsite power affecting both units.

Another significant plant enhancement made to increase Turkey Point's capability to mitigate potential loss-of-offsite-power accidents was the replacement of one of the motor-driven standby steam generator feedwater pumps (SSGFPs) with a diesel-driven standby steam generator feedwater pump. The purpose of the standby steam generator feedwater pumps is to provide feedwater flow to the steam generators during startup and shutdown. The pumps are also a backup to the auxiliary feedwater system in the event the AFW system does not function properly. The standby steam generator feedwater pumps are independent of the steam generator feedwater pumps and the auxiliary feedwater pumps.

The "A" SSGFP is motor-driven and is supplied from the 3C 4kV Bus. The "B" SSGFP is now diesel-driven, eliminating the need for an independent 4kV power supply. The "B" SSGFP was originally motor-driven, receiving its power from the 4C 4kV Bus.

Another plant enhancement to Turkey Point's capability to mitigate potential loss-of-offsite-power accidents was the replacement of the existing RCP seals with the new high-temperature RCP seals. This significantly increased the RCP seals' performance during a loss of seal injection and cooling.

Another enhancement made to reduce the dependence on offsite and onsite power was the addition of a diesel-driven service water pump. The Service Water system is designed to supply water for various uses during both normal and off-normal operations. Among the functions of the Service Water system is to provide backup cooling to the charging pumps. Two raw water tanks and three motor-driven service water pumps supply routine needs. A diesel-engine-driven service water pump will supply the system if the normal pumps are unavailable.