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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

In the Matter of	)	Docket Nos. 50-250 OLA-1
	)	50-251 OLA-1
FLORIDA POWER AND LIGHT COMPANY	)	
	)	ASLBP No. 84-496-03 LA
(Turkey Point Nuclear Generating	)	
Units 3 & 4)	)	

LICENSEE'S MOTION FOR  
SUMMARY DISPOSITION OF  
INTERVENORS' CONTENTION (b)

Florida Power & Light Company ("FPL" or "Licensee") moves, pursuant to 10 C.F.R. § 2.749, for summary disposition of Petitioners' Contention (b). For the reasons set forth herein, it is Licensee's position that there is no genuine issue as to any fact material to Contention (b), and that FPL is entitled to a decision in its favor on the Contention as a matter of law. This motion is supported by the

- (1) Affidavit of Mark J. Parvin, attached hereto;
- (2) Licensee's Statement of Material Facts as to which There Is No Genuine Issue To Be Heard with respect to Intervenor's Contention (b), dated August 10, 1984; and

- (3) Licensee's Memorandum of Law in Support of Motions for Summary Disposition of Intervenor's Contentions (b) and (d), dated August 10, 1984.

#### I. BACKGROUND

Intervenor's Contention (b) was admitted by the Licensing Board Prehearing Conference Order, dated May 16, 1984. Thereafter, on May 29, 1984, Licensee propounded interrogatories to Intervenor. These were answered, in accordance with a July 3, 1984 Board Order granting an unopposed motion for extension of time, in Intervenor's Response to Interrogatories Propounded by Florida Power & Light Company, dated July 10, 1984 ("Intervenor's Response to Interrogatories"). There are no outstanding discovery requests and Intervenor's Contention (b) is ripe for summary disposition.

#### II. DISCUSSION

Intervenor's Contention (b) reads as follows:

Whether the entirely new computer model used by the utility, for calculating reflood portions of accidents meets the Commission's ECCS Acceptance Criteria: specifically, whether a 2.2% reduction in re-flood rate is misleading because for a small decrease in re-flood rate, there results a large increase in fuel temperature. Re-flood rates are critical if below 1 or 2 inches per minute [sic; read second (see 10 C.F.R. Part 50, Appendix K, § I.D.5)].

Amended Petition to Intervene, p. 5, Jan. 25, 1984. In essence, the contention questions whether or not "a 2.2% reduction in re-flood rate" has been properly accounted for

in analysis by means of the Westinghouse Emergency Core Cooling System ("ECCS") evaluation model utilizing the new "BART-A1: Computer Code for the Best Estimate Analysis of Reflood Transients" (BART computer code). See also Intervenor's Response to Interrogatories, p. 3 (answers b-9 and b-10).

Section 50.46 of Nuclear Regulatory Commission regulations requires that an ECCS analysis be performed with an acceptable evaluation model, and result in a calculated maximum fuel element cladding temperature not greater than 2200° F. Pursuant to that requirement, ECCS analysis has been performed for the Turkey Point units with an evaluation model utilizing the BART computer code, which has been found acceptable and approved by the NRC. See attached Affidavit of Mark J. Parvin, ¶¶ 3, 4 and 9 ("Parvin Affidavit"). ECCS evaluation model analysis utilizing the BART code results in a calculated fuel rod peak clad temperature ("PCT") of 1972° F for a homogeneous core of either low-parasitic ("LOPAR") fuel or optimized fuel assembly ("OFA") fuel. However, in the current period of transition, when mixed cores of LOPAR and OFA fuel are utilized at Turkey Point, the analysis results are slightly effected by the fact that the hydraulic resistance of OFA fuel is 4.5% higher than that for LOPAR fuel. This causes steam flow velocity past the core midplane of the OFA fuel during reflood to be reduced by about 2.2% for the mixed core transition period, and only that period. This, in turn, results in approximately 10° F increase in

PCT over the calculated 1972° F PCT for a homogeneous core, which is well within the 2200° F criterion of 10 C.F.R. § 50.46. Parvin Affidavit, ¶5.

The BART computer code utilized in the evaluation model to perform calculations for Turkey Point did not include the BART grid spacer rewet model, thus, introducing an additional conservatism. Due to increased flow turbulence, the presence of fuel rod grid spacers in fuel bundles generally increases the local heat transfer in the vicinity of the spacers. The BART grid rewet model, which is now undergoing NRC review, is an improved version of the BART code and accounts for increased heat transfer due to the spacer grids. Parvin Affidavit, ¶ 6.

Further, it is important not to confuse the "2.2% reduction in reflood rate" referred to in Contention (b), and discussed in documentation pertaining to Amendments 99 and 93 to Turkey Point operating licenses DPR-31 and DPR-41, respectively, with core flooding rates during reflood. The 2.2% reduction refers only to reflood hot assembly steam flow velocity. Thus, the Intervenor's concern for the apparent sensitivity of fuel rod temperature to reflood core water flooding rates below one inch per second, due to NRC requirements established in section I.D.5 of Appendix K to 10 CFR Part 50, is not relevant. Parvin Affidavit, ¶ 7.

At the request of the NRC Staff, an analysis was also performed using the previously approved, unmodified version of the 1981 Westinghouse ECCS evaluation model, utilizing

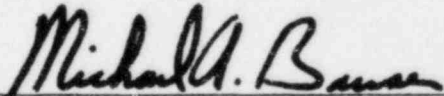
the Westinghouse Full Length Emergency Cooling Heat Transfer (FLECHT) correlation and not BART. This analysis indicated a PCT of 2130° F for a homogeneous core and worst case LOCA. Adding 10° F for the transition, mixed core also results in a PCT of less than the 2200° F limit imposed by 10 CFR 50.46. Parvin Affidavit, ¶ 8.

. In sum, required LOCA analyses, utilizing approved NRC evaluation models and properly taking into account reduced reflood flow rates in the OFA regions of the core, have been performed for Turkey Point yielding results consistent with applicable NRC criteria. Parvin Affidavit, ¶ 9.

### III. CONCLUSION

Based upon the foregoing; the attached Affidavit of Mark J. Parvin; Licensee's Statement of Material Facts as to which There Is No Genuine Issue To Be Heard with respect to Intervenor's Contention (b); and Licensee's Memorandum of Law in Support of Motions for Summary Disposition of Intervenor's Contentions (b) and (d), there is no genuine issue as to any material fact and this motion for summary disposition should be granted and Intervenor's Contention (b) should be decided in Licensee's favor.

Respectfully submitted,

  
Harold F. Reis  
Michael A. Bauser  
Steven P. Frantz

Of Counsel:

Norman A. Coll  
Steel, Hector & Davis  
4000 Southeast Financial Center  
Miami, FL 33131-2398  
(305) 577-2800

Newman & Holtzinger, P.C.  
1025 Connecticut Avenue, N.W.  
Washington, D.C. 20036  
(202) 862-8400

Dated: August 10, 1984