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L-92-27
10 CFR 50.61
FEB 13 1992

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

Gentlemen:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
10 CFR 50.61 (b)(1) Report


By letter L-86-09 dated January 23, 1986, Florida Power and Light Company (FPL) submitted the projected values for Reference Transition Temperature, Pressurized Thermal Shock (RT_{ps}) for Turkey Point Units 3 and 4, in accordance with the requirements of 10 CFR 50.61 (b)(1). On May 15, 1991, the NRC issued a revision to 10 CFR 50.61. In accordance with the revised 10 CFR 50.61 (b)(1), an updated estimate of the RT_{ps} for Turkey Point Units 3 and 4 is provided in Table 1; Table 2 provides the beltline materials data for Turkey Point Units 3 and 4. The critical beltline materials, initial properties, chemistry data of the critical beltline materials, and the limiting circumferential weld (SA 1101) specified in L-86-09 remain unchanged. The fluence reduction program, implemented by FPL and verified by the NRC per NRC letter dated February 27, 1985, remains unchanged. The fluence reduction program consists of low-leakage fuel loading patterns coupled with part-length burnable absorbers, located so as to reduce the neutron flux to the pressure vessel circumferential weld from high importance core locations.

The RT_{ps} calculations were performed using equation 1 of 10 CFR 50.61 (b)(2). An M value of 34 was used for forgings and an M value of 56 was used for welds. Initial properties based on drop weight and Charpy tests were used for both forgings and welds.

The updated estimate of the RT_{ps} for Turkey Points Units 3 and 4 provided in Table 1 demonstrates adequate margins of safety to the screening criterion for circumferential welds of 300°F, as specified in 10 CFR 50.61.

Should there be any questions, please contact us.

Very truly yours,


T. F. Plunkett
Vice President
Turkey Point Nuclear

TFP/OIH

Attachments

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

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an FPL Group company

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TABLE 1

CURRENT AND PROJECTED RT₇₇₃

TURKEY POINT UNIT 3

Date	Fluence ($\times 10^{19}$) neutrons/cm ² (E > 1.0 MeV)	Intermediate Shell (F)	Lower Shell (F)	Girth Weld (F)
August 24, 1992	1.501	115	121	266
April 27, 2007	2.342	120	127	287
July 19, 2012	2.641	121	128	293

TURKEY POINT UNIT 4

Date	Fluence ($\times 10^{19}$) neutrons/cm ² (E > 1.0 MeV)	Intermediate Shell (F)	Lower Shell (F)	Girth Weld (F)
October 15, 1991	1.366	121	112	262
April 27, 2007	2.210	125	117	285
April 10, 2013	2.533	126	118	291

TABLE 2

MATERIALS DATA FOR TURKEY POINT
UNITS 3 AND 4 BELTLINE MATERIALS

UNIT	LOCATION	HEAT NO.	LOT NO.	%Cu	%Ni	INITIAL RTNOT (°F)
3	Intermediate shell	123 P 461 VA-1	N/A	0.058	0.70	40
3	Lower shell	123 S 266 VA-1	N/A	0.079	0.68	30
3	Intermediate to lower girth weld	71249	8445	0.26	0.60	10
4	Intermediate shell	123 P 481 VA-1	N/A	0.054	0.71	50
4	Lower shell	122 S 180 VA-1	N/A	0.056	0.70*	40
4	Intermediate to lower girth weld	71249	8445	0.26	0.60	10

* Changed from 0.71%; typographical error on the January 23, 1986 submittal.