

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707310319 DOC. DATE: 87/07/27 NOTARIZED: NO DOCKET #
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
 AUTH. NAME AUTHOR AFFILIATION
 WOODY, C. O. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

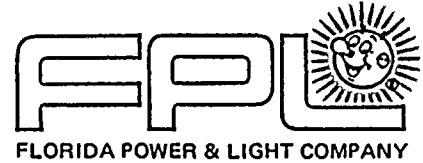
SUBJECT: Provides addl info in response to NRC 870609 request re use of boroflex poison matl in spent fuel storage racks at plant. Util completed review of possible options if degraded boroflex discovered by surveillance program.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2
 TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-2 LA	1 0	PD2-2 PD	5 5
	McDONALD, D	1 1		
INTERNAL:	ARM/DAF/LFMB	1 0	NRR/DEST/ADE	1 1
	NRR/DEST/ADS	1 1	NRR/DEST/CEB	1 1
	NRR/DOEA/TSB	1 1	NRR/RMAS/ILRB	1 1
	OGC/HDS2	1 0	<u>REG FILE</u> 01	1 1
	RES/DE/EIB	1 1		
EXTERNAL:	EG&G BRUSKE, S	1 1	LPDR	1 1
	NRC PDR	1 1	NSIC	1 1

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL



JULY 27 1987

L-87-313

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
Request for Additional Information
Boraflex Usage in Spent Fuel Pools

Your letter dated June 9, 1987 requested information concerning the use of Boraflex poison material in the spent fuel storage racks at Turkey Point Units 3 and 4. Florida Power & Light provided a response to those questions by our letter L-87-279 dated July 10, 1987. As this response explains, FPL considers the Boraflex to be acceptable for continued use. FPL will be performing a surveillance test, known as Blackness Testing, on these racks and will provide the results of this surveillance to the staff. The purpose of this letter is to provide additional information in response to NRC Staff question regarding the existence of possible options if degradation of the Boraflex were to occur.

FPL has completed a review of possible options if degraded Boraflex poison is discovered by our surveillance program.

- 1) The degraded Boraflex could be evaluated to determine whether the degradation and any expected future degradation would adversely affect FPL's ability to satisfy the $.95 K_{eff}$ limit for the Turkey Point spent fuel pools. If the pools could still satisfy this limit, no further action would be necessary.
- 2) Administrative controls could be imposed on the placement of new fuel assemblies around storage cell locations that have degraded Boraflex. The sensitivity analysis performed for Turkey Point Units 3 and 4 assumes only new fuel with 4.5 w/o fuel is stored in the spent fuel pool. By limiting the amount and location of the storage of new fuel assemblies and by inserting spent fuel between the new fuel, FPL could reduce the K_{eff} to less than or equal to .95.

8707310319 870727
PDR ADDCK 05000250
P. PDR

Acc 1/10

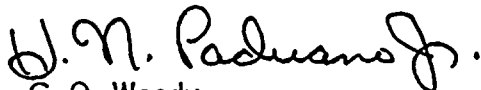


•

- 3) A poison material similar to a control rod or burnable poison could be added to any new fuel assembly to be placed in a storage cell with degraded Boraflex. This would reduce the K_{eff} to less than or equal to the .95 limit.
 - 4) Poison plates could be added into the space between the fuel assembly and the cell wall to assure a K_{eff} of less than or equal to .95.
 - 5) FPL has taken no credit for the 1950 ppm boron concentration in the spent fuel pool water. This boron concentration alone assures a K_{eff} of less than .90. In order to take credit for this boron, FPL could establish various administrative controls to provide a high level of confidence that the spent fuel pool water will remain borated. These controls could include isolating pure water sources and routine sampling of the boron concentration.
 - 6) The storage cells with the degraded Boraflex could be blocked off to prevent loading of any fuel assembly into the cell.
 - 7) The storage racks with the degraded Boraflex could be coated with boron with a sufficient density to assure a K_{eff} of less than or equal to .95.
 - 8) The storage racks which contain degraded Boraflex could be replaced.
- It should be emphasized that FPL believes that the Boraflex at Turkey Point is acceptable for continued use and that no changes will be necessary in the manner in which FPL plans to store fuel at Turkey Point. The purpose of this letter is only to indicate that there are several possible actions which could be taken to assure the continued safe storage of fuel at Turkey Point if the Boraflex in the spent fuel racks were to experience degradation.

Should there be any further questions, please contact us.

Very truly yours,


for C. O. Woody
Group Vice President
Nuclear Energy

COW/RG/gp

cc: Dr. J. Nelson Grace, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

The first of these is the fact that the
the second is the fact that the
the third is the fact that the

THE SECOND OF THESE

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the

the first of these is the fact that the
the second is the fact that the
the third is the fact that the