

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8612110038 DOC. DATE: 86/12/05 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
 MCDONALD, D. G. PWR Project Directorate 2

SUBJECT: Forwards comments on NUREG-0737, Item II.K.3.5, "Automatic Trip of Reactor Coolant Pumps."

DISTRIBUTION CODE: A046D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
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NOTES:

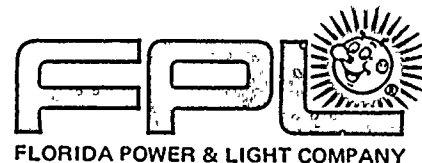
RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
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PWR-A EICSB	2 2	PWR-A FOB	1 1
PWR-A PD2 LA	1 0	PWR-A PD2 PD 01	5 5
McDONALD, D	1 1	PWR-A PSB	1 1
PWR-A RSB	1 1		

INTERNAL: ADM/LFMB	1 0	AEOD/PTB	1 1
ELD/HDS4	1 0	IE/DEPER DIR 33	1 1
IE/DEPER/EPB	3 3	NRR BWR ADTS	1 1
NRR PAULSON, W.	1 1	NRR PWR-A ADTS	1 1
NRR PWR-B ADTS	1 1	NRR/DSRO EMRIT	1 1
<u>REG FILE</u> 04	1 1	RGN2	1 1
EXTERNAL: LPDR 03	1 1	NRC PDR 02	1 1
NSIC 05	1 1		

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DECEMBER 05 1986

L-86-496

Office of Nuclear Reactor Regulation
Attention: Mr. D. G. McDonald, Project Manager
PWR Project Directorate #2
Division of PWR Licensing - A
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. McDonald:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
NUREG-0737, Item II.K.3.5
Automatic Trip of Reactor Coolant Pumps
NRC TAC Nos. 49678 and 49679

Your letter dated October 29, 1986 documented discussions with Florida Power & Light Company (FPL) concerning NUREG-0737, Item II K 3.5, Automatic Trip of Reactor Coolant Pumps, at Turkey Point Units 3 and 4. We have reviewed the attachment of that letter and conclude, with the exception of a few minor comments, that it accurately represents FPL's position on this topic. Our comments are attached.

If you have any questions, please call us.

Very truly yours,

C. O. Woody
Group Vice President
Nuclear Energy

COW/TCG/gp

Attachment

cc: Dr. J. Nelson Grace, USNRC Region II
Harold F. Reis, Esquire

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THE
FEDERAL
BUREAU OF
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OF THE
DEPARTMENT OF JUSTICE
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20535

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Enclosure
Reactor Coolant Pump Trip
Turkey Point Units 3 and 4

In June 1985 (reference 1), NRC provided their review of generic Westinghouse information related to Reactor Coolant Pump (RCP) trip, NUREG-0737, Item II.K.3.5. While the staff determined the Westinghouse approach was acceptable, certain plant specific information was required for the staff to complete its review. FPL provided plant specific information related to manual trips of RCPs for Turkey Point Units 3 and 4 in January 1986 (reference 2).

Additional staff questions were generated and issued by reference 3 in April 1986. Several conferences have been held between NRC staff and FPL personnel since April to resolve the staff's questions. By reference 4, NRC documented their understanding of FP&L's position on this issue and requested FPL review and concurrence by December 1986.

We have reviewed NRC's letter of 29 October 1986 regarding RCP trip and conclude, with the exception of a few minor comments, it accurately represents FPL's position on this topic. These comments are provided below and are deemed not to effect the salient aspects of the issue under consideration:

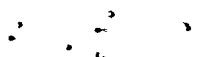
Section A1, Licensee Response, Page 8 of Reference 4

The phrase "and three T/Cs which form a representative sample of core exit T/C behavior" should be revised to state "and the highest eight T/Cs which form a representative sample of the core exit T/C behavior."

Supplement to Enclosure, Item B-1

The pump seals can be adequately cooled through either seal injection or component cooling to the thermal barrier. Component cooling however, also provides cooling to the oil for the motor bearings which, if lost, will require pump shutdown. This is discussed on page 14 of reference 4. A situation of simultaneous loss of seal injection and component cooling will result in pump shutdown and temperature increase in the upper pump/shaft and seal areas which are normally cooled.

The thermal effect does not present an overstress situation to the pump pressure boundary as the code stress analysis recognizes the possibility of this occurrence. The increased temperatures will have an effect on the shaft seals if the condition is prolonged. This effect has been defined through detailed testing. The results are presented in Westinghouse Topical Report, WCAP 10541 Rev. 1, which is currently under generic formal review by the NRC. The test results and evaluation show that the thermal effects do not result in a catastrophic failure of the seals.



Reinitiation of seal cooling is accomplished in a controlled manner in order to avoid an abrupt and non-symetric thermal change at the pump shaft and seal area. An abrupt change has the potential to result in shaft bowing and subsequent maintenance of the RCP.

From an operational standpoint, seal cooling is highly desirable and attempts to restore cooling would occur as soon as possible if lost. Of the two choices available for seal cooling, CCW to the thermal barriers or seal injection, operations would restore thermal barrier cooling first. This is because thermal barrier cooling is evenly distributed around the RCP seal components. Seal injection occurs on one side of the RCP shaft and if started suddenly could cause a thermal shock to RCP components, such as bowing the RCP shaft. Once seal leakoff temperatures have dropped to an acceptable level after restoration of thermal barrier cooling, the RCP may be restarted. Seal injection may be initiated after RCP restart.

FPL believes that the information provided in this letter, our previous conferences with NRC and our previous submittals is adequate to address NRC concerns for manual tripping of RCPs.

DCB:akb



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REFERENCES

1. Thompson, Hugh L. Jr., "Implementation of TMI Action Item II.K.3.5, 'Automatic Trip of Reactor Coolant Pumps' (Generic Letter No. 85-12)," Letter from Director, Division of Licensing, NRC, to all applicants and licensees with Westinghouse (W) designed nuclear steam supply systems (NSSSs), June 28, 1985.
2. Woody, C. O., "Turkey Point Units 3 and 4, 50-250 and 50-251, Automatic Trip of Reactor Coolant Pumps, Generic Letter No. 85-12" Letter from Florida Power & Light Company to Hugh L. Thompson, Jr., NRC, L-85-471, Jan. 7, 1986.
3. McDonald, Daniel G., "NUREG-0737, TMI Action Item II.K.3.5, 'Automatic Trip of Reactor Coolant Pumps' Turkey Points Units 3 and 4," letter from NRC to Florida Power and Light Company, April 1, 1986.
4. McDonald, Daniel G., "NUREG-0737, Item II.K.3.5, 'Automatic Trip of Reactor Coolant Pumps' - Turkey Point Units 3 and 4," Letter from NRC to Florida Power & Light Company, October 29, 1986.