REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8501230357 DOC.DATE: 85/01/18 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
WILLIAMS,J.W. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
VARGA,S.A. Operating Reactors Branch 1

SUBJECT: Forwards response to request for addl info re Genric.Ltr 83-28,Items 4.2.1 & 4.2.2 on reactor trip breakers periodic maint program & parameters to forecast degradation of operability.

DISTRIBUTION CODE: A055D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: OR/Licensing Submittal: Salem ATWS Events GL-83-28

NOTES: 05000250
OL:07/19/72
05000251
OL:04/14/73

	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL
	NRR ORB1 BC	01	3	3				
INTERNAL:	ACRS		6	6	ADM/LFMB		1	0
	ELD/HDS4		1	0	IE/DQASIP		1	1
	NRR/DE/EQB		1	1	NRR/DE/MEB		1	1
	NRR/DHFS/HFEB		1	1	NRR/DHFS/LQB		1	1
	NRR/DHFS/PSRB		1	1	NRR/DL DIR		1	1
	NRR/DL/ORAB		1	1	NRR/DL/SSPB		1	1
	NRR/DL/TAPMG		1	1	NRR/DSI/ASB		1	1
	NRR/DSI/ICSB		2	2	NRR/DSI/PSB		1	1
	NRR/DSI/RSB		1	1	REG FILE	04	1	1
	RGN2		1	1				
EXTERNAL:	LPDR	03	1	1	NRC PDR	02	1	1
	NSIC	05	1	1				

TOTAL NUMBER OF COPIES REQUIRED: LTTR 31 ENCL 29

FLORIDA POWER & LIGHT COMPANY

January 18, 1985
L-85-31

Office of Nuclear Reactor Regulation
Attention: Mr. S. A. Varga, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Generic Letter 83-28 Items 4.2.1 and 4.2.2

Florida Power & Light Company has reviewed the subject request for additional information and a response is attached.

Very truly yours,

J. W. Williams, Jr.
Group Vice President
Nuclear Energy

JWW/JA/msK26

Attachment

cc: J. P. O'Reilly, Region II
Harold F. Reis, Esquire

A055
1/1

ATTACHMENT

Re: Turkey Point Units 3 and 4
Docket No. 50-250, 50-251
Request For Additional Information
on GL 83-28 Items 4.2.1 and 4.2.2 (Task A6814)

REQUEST:

Item 4.2.1 - Periodic Maintenance Program for Reactor Trip Breakers.

1.1 Criteria for Evaluating Compliance with Item 4.2.1

The Turkey Point Units 3 and 4 Reactor Trip Systems utilize Westinghouse DB-50 circuit breakers. The primary criteria for an acceptable maintenance program for this breaker are contained in Maintenance Program for DB-50 Reactor Trip Switchgear, Rev. 0, dated October 14, 1983, by Westinghouse. The NRC Staff, Equipment Qualification Branch, has reviewed and endorsed the Westinghouse Maintenance Program for DB-50 Switchgear. Specifically, the criteria used to evaluate compliance include those items in the Westinghouse program that relate to the safety function of the breaker, supplemented by those measures that must be taken to accumulate data for trending.

1.2 Issues Relating to Item 4.2.1

The licensee response states that "Every 6 months, each circuit breaker is cleaned, lubricated as required, checked for alignment, checked for proper operation of shunt and undervoltage trip devices, and tested on the bench and in-place. Every refueling overhaul operability of the shunt trip is checked via the manual trip pushbuttons." The response identifies, but does not include, the procedures governing reactor trip breaker periodic maintenance.

Does the Turkey Point Units 3 and 4 periodic maintenance program for the reactor trip breakers include, on a six month basis:

1. Verification of trip bar freedom;

2. Verification of operating mechanism alignment and freedom, using the procedure identified in the Westinghouse program;

3. Retaining ring verification, 33 places;

4. Verification of nut and bolt tightness;

5. Verification of pole bases physical condition;

6. Verification of arcing and main contacts physical condition, using the procedure identified in the Westinghouse program;

7. Verification of insulating link's physical condition;

8. Verification of wiring insulation and termination physical condition;

9. Verification of arc chute physical condition;

10. Verification of breaker cleanliness;

11. Undervoltage Trip Attachment (UVTA) dropout voltage test and lubrication, using the procedure identified in the Westinghouse program;

12. Shunt Trip Attachment (STA) operation verification;

13. Verification of operation of auxiliary switches;

14. Inspection of positioning lever condition, using the procedure identified in Westinghouse program;

15. Functional test of the breaker prior to returning it to service, using the procedure identified in the Westinghouse program.

Does the Turkey Point Units 3 and 4 periodic maintenance program for the reactor trip breakers include, on a refueling interval basis:

1. Verification of cell interlock operation;

2. Measurement of trip force required, using the procedure identified in the Westinghouse program;

3. Breaker response time for undervoltage trip;

4. Functional test of the breaker prior to returning it to service, using the procedure identified in the Westinghouse program.

The licensee is to confirm that the periodic maintenance program includes these 19 items at the specified intervals or commit to their inclusion.

RESPONSE:

Item 4.2.1 - Periodic Maintenance Program for reactor trip breakers requires that 19 items as contained in Maintenance Program for DB-50 Reactor Trip Switchgear, Rev. 0, dated October 14, 1983 by Westinghouse be implemented. Our present program contains the items as listed and we are in full compliance.

REQUEST:

Item 4.2.2 - Trending of Reactor Trip Breaker Parameters to Forecast Degradation of Operability.

2.1 Criteria for Evaluating Compliance with Items 4.2.2

Four parameters have been identified as trendable and are included in the criteria for evaluation. These are (1) undervoltage trip attachment dropout voltage, (2) trip force, (3) breaker response time for undervoltage trip, and (4) breaker insulation resistance.

2.2 Issues Relating to Item 4.2.2

The licensee submittal states that "No specific trending of reactor trip breaker opening times is peformed." The response does not describe any trending program as being in place at Turkey Point or planned.

The licensee is to commit to inclusion of trip force, breaker response time and dropout voltage for undervoltage trip and breaker insulation resistance as trending parameters. The licensee should also identify the organization which will perform trend analysis, how often the analysis will be performed and how the information derived from the analysis will be used to affect periodic maintenance.

RESPONSE:

Item 4.2.2 - FPL commits to inclusion of trip force, breaker response time, and dropout voltage for undervoltage trip into a periodic trending program.

The Trip Force Measurement will be plotted on a refueling basis. The trip force required will be linearly extrapolated using the two most recent data points to ensure that the acceptance limit of 31 oz. is not exceeded prior to the next maintenance interval. The maintenance interval will be rescheduled if trends indicate that the limit may be exceeded prior to regularly scheduled refueling checks.

The Dropout Voltage Test data will be trended on a 6 month initial interval. The acceptance for trending information will be in accordance with the Westinghouse Instructions for DB-50 Reactor Trip Switchgear. Additionally if the pre-lubrication dropout voltage vs service time plot shows that the acceptance criteria will not be met prior to the next scheduled 6 month interval the service interval will be adjusted downward to the predicted interval. This trending plot will also be used to adjust the 6 month interval to 9 or 12 months if the pre-lubrication trend predicts that the acceptance criteria will not be exceeded during that interval. Turkey Point Plant staff will be responsible for performing the trend analysis.

Breaker Response Time will be trended on a monthly interval. The response time plot will be linearly extrapolated to adjust the maintenance interval upward or downward from 6 months initially so long as predicted response time does not exceed 167 milliseconds.

FPL does not intend to include insulation resistance checks in a trending program. Insulation resistance is not checked on the DB-50 trip breaker per the Westinghouse Maintenance Guidelines. Due to the reduced voltage application of the breakers we do not believe that any prediction could be obtained from a trend plot of Insulation Resistance.

The trending Programs will be implemented by August 1, 1985.