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 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

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 RECIP. NAME: RECIPIENT AFFILIATION: Document Control Branch (Document Control Desk)

SUBJECT: Responds to NRC ltr re violations noted in Insp Repts
 50-250/91-39 & 50-251/91-39. Corrective actions: tested
 dropout timing of 162/TDDO relays on 910919. Procedure
 0-PMR-005.10, "HGA 162/TDDO Relay Calibr," approved.

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FPL

P.O. Box 14000, Juno Beach, FL 33408-0420

DEC 18 1991

L-91-323
10 CFR 2.201

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

Gentlemen:

Re: Turkey Point Units 3 and 4
Docket No. 50-250 and 50-251
Reply to a Notice of Violation
NRC Inspection Report 91-39

Florida Power and Light Company has reviewed the subject inspection report and pursuant to 10 CFR 2.201, the required response is attached. In response to a telephone conversation between Turkey Point and NRC Region II, the required submittal date for this reply was extended to December 20, 1991. This extension was a result of a delay in FPL receiving the inspection report.

If there are any questions please contact us.

Very truly yours,

J. H. Goldberg
President
Nuclear Division

JHG/CLM/cm

Attachment

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

9112270134 911218
PDR ADOCK 05000250
Q PDR

TEC 11

ATTACHMENT

REPLY TO A NOTICE OF VIOLATION

RE: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
NRC Inspection Report 91-39

VIOLATION

"10 CFR 50, Appendix B, XI, Test Control requires that components shall be tested in accordance with written procedures. The test program shall include as appropriate, proof tests prior to installation, preoperational tests, and operational tests during nuclear power plant operations.

Contrary to the above, on September 17, 1991, the Unit 3 and 4 Transfer Inhibit Relays were not included in any preventative maintenance program. The Unit 4 relays did not meet the engineering criteria when tested and were replaced on September 19, 1991.

This is a Severity Level IV violation (Supplement 2)."

RESPONSE TO VIOLATION:

1. FPL concurs with the violation.
2. The 162/TDDO fast bus transfer inhibit relay is used in the close circuit of the 4KV auxiliary and startup transformer breakers. This relay is a General Electric auxiliary relay type HGA. The relay was physically installed in 1978. The original plant design used the 162/TDDO relay as follows:
 1. With either of the switchyard generator breakers closed and the auxiliary transformer breaker closed, the 162/TDDO relay is energized. With the relay energized, contacts are made up which allows the bus to fast transfer.
 2. When both of the switchyard generator breakers open or the auxiliary transformer breaker opens, the 162/TDDO relay is de-energized. Opening of the auxiliary transformer breaker also provides a signal to the close circuit of the startup transformer breaker. Approximately 10 cycles after the 162/TDDO relay is de-energized, its contacts open, blocking the close signal to the startup transformer breaker, inhibiting the bus fast transfer if it has not yet occurred.

To resolve a discrepancy in the new sequencer logic, a spare

set of contacts from the 162/TDDO relay was wired into the emergency load sequencer circuit. This change added an additional function to the relay, as follows:

When both of the switchyard generator breakers open or the auxiliary transformer breaker opens, the relay de-energizes. Approximately ten cycles later, contacts close, and if by that time the startup transformer breaker has not closed, and a Safety Injection signal exists, then bus stripping/sequencing will occur.

The 162/TDDO relay has an inherent dropout time, that can be adjusted over a very small range only, by moving the control spring. When an adjustable dropout time is required a different type of relay is used. This relay's dropout time had not been checked since its installation approximately twelve years ago. Engineering issued Change Request Notice (CRN) E-12582 to Plant Change/Modification (PCM) 87-264, to use the spare set of contacts, without requesting that the dropout time be checked. Verification of the dropout time for this relay was not requested by the CRN as the actual dropout time was not significant to the operation of the sequencer.

When the CRN was implemented, Startup performed a point-to-point wiring check, but did not test the new relay function, because the plant was using the auxiliary transformer in a backfeed lineup. First-time testing of the new relay function was relegated to the integrated safeguards test. This first test failed. Because the newly wired contacts had been spares, their condition had never been a concern. The newly wired contacts were misaligned such that they did not make contact when "closed." Having been "open" for about twelve years, corrosion built up on the contact surfaces such that when they were aligned, they still did not make electrical contact.

After the contacts were aligned, burnished, and tested, Startup Problem Report 91-191, issued August 2, 1991, requested Engineering "to evaluate the need to perform surveillance testing of this relay, or an alternate routine maintenance type activity/procedure to ensure operability of the '162' relay input to the load sequencers." In accordance with plant procedures, Request for Engineering Assistance (REA) 91-274 was issued for formal response to Startup's question.

During NRC inspection 91-39, inquiry was made into the timing results of the 162/TDDO relays. During the inspection period, timing tests were performed by Protection and Controls (P&C), and an engineering evaluation was written reviewing these results. Nuclear Engineering evaluation JPN-PTN-SEES-91-073

concluded that the dropout time of the 162/TDDO relay is not critical for the original inhibit function nor for the new delayed signal to the sequencer (the original permissive function is satisfied by the relay not dropping out). This evaluation supports the decision not to check the timing of the relay, when CRN E-12582 was issued.

P&C had verified the functionality of this relay in the past, by performing procedure 3/4-PMR-004.1, "Auxiliary Transformer to Startup Transformer Auto Transfer Test." This procedure verifies that the 4KV bus will automatically transfer from its normal supply (the auxiliary transformer) to its alternate supply (the startup transformer). The procedure also verifies that each of the 162/TDDO relays allows the bus transfer.

3. Corrective steps which have been taken and the results achieved:
 - a. P&C tested the dropout timing of the 162/TDDO relays on September 19, 1991. Relay Nuclear Work Orders 91-0199 and 91-0202 document satisfactory performance of the relays.
 - b. Procedure 0-PMR-005.10, "HGA 162/TDDO Relay Calibration," was approved by the PNSC on October 22, 1991. This procedure will be used to check the relay every refueling outage.
 - c. A review of plant circuitry for other relays not included in a plant preventive maintenance program was performed by Technical Department, and was completed on October 31, 1991. No additional relays were identified as requiring a maintenance program.
4. Corrective actions which will be taken to avoid further violations include:
 - a. The above corrective actions are deemed to be sufficient to preclude recurrence.
5. The date full compliance will be achieved:

Full compliance was achieved on October 22, 1991, when new procedure 0-PMR-005.10 was approved.

