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SUBJECT: Responds to NRC ltr re violations noted in insp rept 50-261/92-25.Corrective actions:Adverse Condition Rept 92-340 initiated to determined root cause.

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Carolina Power & Light Company

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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
NRC INSPECTION REPORT NO. 50-261/92-25 REPLY TO A NOTICE OF VIOLATION

Gentlemen:

Carolina Power and Light Company hereby provides the enclosed reply to the Notice of Violation identified in NRC Inspection Report 50-261/92-25. The enclosure provides a description of the occurrence, the causal factors and root causes identified for the violation, and a discussion of the corrective actions taken and planned for the occurrence. In addition, a discussion of the adequacy of operating procedures that deal with the subject of the violation is included as requested in the letter transmitting the violation.

Should you have any questions regarding this matter, please contact Mr. J. L. Harrison at (803) 383-1433.

Very truly yours,

Charles R. Dietz
Vice President
Robinson Nuclear Project Department

Enclosure

RDC:dwm

cc: Mr. S. D. Ebneter
Mr. L. W. Garner
INPO

IE01

REPLY TO A NOTICE OF VIOLATION

Severity Level IV Violation RII-92-25-01:

Technical Specification 6.5.1.1.1.a requires written procedures be established for activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, "Quality Assurance Program Requirements (Operation)". Appendix A paragraph 6.c requires that the licensee have procedures for combatting emergencies (Loss of Electrical Power). Procedure OP-603 Section 8.1.2 was established for restoration of normal power after a loss of all AC power and turbine trip with Emergency Diesel Generator Operating. During the recovery phase of August 22, 1992, temporary change T-4633 to procedure OP-603 was being utilized for restoration of offsite power.

Contrary to the above, procedures were not adequately established in that on August 22, 1992, OP-603 temporary change T-4633 did not provide instructions for verifying the generator lockout relays 86P and 86 BU were reset prior to closing the startup to 4kv Bus 2 breaker 52/12.

REPLY

1. The Reason for the Violation

CP&L acknowledges the violation occurred as described.

OP-603 provides the instructions for operating the Electrical Distribution System in support of Unit 2 operation. This procedure also provides lineup instructions for restoration of normal power after loss of all A.C. power and a turbine trip. The circumstances that led to utilization of temporary change T-4633 to OP-603, including reasons that Plant operators involved were unable to properly rack in breaker 52/12, are provided in the following sequence of events.

Prior to loss of the Start Up Transformer on August 22, 1992, breaker 52/12 was racked in and in its normally open position. The pressure switch on the Start Up Transformer shorted, initiating the loss of offsite power event, and caused relay 86ST "Start Up Transformer Lock Out" and its time delay to operate, sending a signal to breaker 52/12 to open. Voltage was removed from the Startup transformer. Breaker relay 27ST, "Startup Transformer Loss of Voltage", then opened its contacts, thus preventing an automatic close operation for breaker 52/12 from Generator Lock Out Relays 86P and 86BU, as well as a manual operation from the RTGB. When the generator tripped, a continuous signal was sent from relay 86P to breaker 52/12. This signal tried to close breaker 52/12; however, due to the open breaker 27ST contact, the signal could not get through.

At this point, a clearance was taken on breaker 52/12, the DC control power fuses were pulled, and the breaker was racked out. When breakers of this type (4KV "50DH350") are pulled from the cubicle, the Latch Check Switch (LCS) is closed and tripped by tabs on the floor of the cubicle, causing the spring to be discharged and the breaker to remain open.

After the Start Up Transformer's pressure switch had been repaired and returned to service, the Start Up Transformer Lock Out Relay was reset. The clearance on breaker 52/12 was canceled and Operations personnel attempted to rack the breaker back in. However, as the levering-in device for breaker 52/12 was turned, the tracks for the shutters bound, preventing the breaker to properly rack in, and the breaker was left jammed. Testing has since demonstrated that jamming the interlock device while racking in a 4KV breaker with the levering in device, and leaving it jammed even after the removal of the interlock tool, will prevent closing of the breaker. When the breaker is jammed or otherwise not fully racked in and receives a close signal, the breaker's interlock pins will prevent the full release of its closing spring which prevents the breaker from closing. This leaves the LCS trip device in the "down" position and the LCS close device in the "up" position. The breaker position indication will show open. It should be noted that the LCS devices in these positions indicate a malfunction. These devices will not be in these positions at the same time unless the interlock was jammed and the breaker received a close signal.

Restoration procedure SP-1155 had been completed, and Operations began utilizing OP-603, "Electrical Distribution Line Up". This line up procedure required Operations to close the Start Up Transformer 115KV motor operated disconnect, returning voltage to the Start Up Transformer by causing the 27ST "Start Up Transformer Loss of Voltage Relay" contacts to close. Closure of the 27ST contact will allow auto-close signals from the 86P & 86BU, "Generator Lock Out Relays", and/or a manual close signal from the RTGB.

OP-603, step 8.1.2, then required Operations to "Turn the STARTUP TRANSF synchroscope switch to the STARTUP BUS 2 position" and "Verify CLOSED the STARTUP TO 4KV BUS 2 BKR 52/12." The instruction "Verify closed" directs the operator to check that the breaker is closed, and to close the breaker if it is not closed. At this point the breaker should have been found closed, since there was an auto-close signal from the 86P relay and 4KV breaker 52/12 should have auto-closed. However, Breaker 52/12 had open indication on RTGB. Operations attempted to close 52/12 from the RTGB, but the breaker did not close.

A Senior Reactor Operator stationed in the 4KV Switchgear Room noted the LCS trip and LCS close positions on breaker 52/12, but Breaker position indication was open. The Operations Shift Supervisor then entered the 4KV Room and also noted positions of LCS trip and LCS close. The Operators then pulled the fuses and racked out the breaker to the position where the shutters closed and DC power disconnected. They racked the breaker back in, installed the fuses, and nothing happened. Even the latch check switches stayed in the same position. An I&C Technician then entered the 4KV Room and pulled the fuses and racked out the breaker to the position where the shutters closed and DC power disconnected. He then tripped the LCS trip. The breaker reset to the open position and the spring was discharged, which left the LCS trip in the up position and the LCS close in the up position. The breaker was then racked back in and the fuses re-installed. The spring charged, the breaker closed automatically and the spring recharged automatically. The breaker worked properly at this point due to the auto-close signal from relay 86P.

In order to test the auto-closing function, the Shift Supervisor then attempted to open and close breaker 52/12 from the RTGB. The breaker opened, however it did not close. The breaker worked properly at this point due to the auto-close signal from 86P and the 4KV breaker's anti-pump circuit. The anti-pump circuit prevents the breaker from acting on simultaneous open and close signals, and can be reset by removing and replacing the control power fuses.

Breaker 52/12 not closing at this point was not fully understood; therefore, the breaker was racked out and tested on the 4KV test stand. The control power fuses were pulled and the breaker was racked out fully, causing the closing spring to discharge. I&C verified the breaker tested properly on the 4KV test stand. The breaker was racked back in and the fuses were re-installed. The breaker closed automatically and the spring recharged. Operations verified that the generator lock out signal from relay 86P was annunciated, indicating that 86P was reset. Operations decided to test breaker 52/12 again from the RTGB and their attempts were successful.

Therefore, the problem experienced with closure of breaker 52/12 was due to an equipment problem during the rack in process, and was not the result of a procedure inadequacy. The breaker would have been found in the closed position when the operator performed the "verify closed" instruction if the breaker had functioned properly.

2. The Corrective Steps That Have Been Taken and the Results Achieved

Adverse Condition Report ACR 92-340 was initiated to determine root cause, as described above, and recommend corrective actions.

3. The Corrective Steps That Will Be Taken to Avoid Further Violations

During the NRC inspection, CP&L committed to develop a procedure to restore offsite power via backfeeding under loss of offsite power conditions.

4. The Date When Full Compliance Will Be Achieved

Full compliance will be achieved following completion of the ACR investigation, identifying the root cause of the equipment failure and implementation of corrective actions to preclude recurrence. At this time, the ACR evaluation is scheduled to be completed by December 8, 1992.

The procedure for restoration of offsite power via backfeeding will be developed and in place prior to startup from Refueling Outage 15.