



Carolina Power & Light Company

~~55 DEC 20 10:12~~
SHEARON HARRIS NUCLEAR PROJECT
P. O. Box 165
New Hill, North Carolina 27562

December 13, 1985

File Number: SHF/10-13510E
Letter Number: HO-850479 (O)

Dr. J. Nelson Grace
United States Nuclear Regulatory Commission
Region II
101 Marietta Street, Northwest (Suite 2900)
Atlanta, Georgia 30323

NRC-405

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986 - 900,000 KV - UNIT 1
UNDETECTABLE FAILURES IN ENGINEERED
SAFETY FEATURES ACTUATION SYSTEM, ITEM 213

Dear Dr. Grace:

Attached is our final report on the subject item, which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21 on April 24, 1985. With this report, Carolina Power & Light Company considers this matter closed.

If you should have any questions concerning this matter, please do not hesitate to contact me.

Yours very truly,

R. A. Watson
Vice President
Shearon Harris Nuclear Power Plant

MW:jsb

Attachment

cc: Messrs. G. Maxwell (NRC-SHNPP)
J. M. Taylor (NRC)

NBI-OS1

8512270274 851213
PDR ADOCK 05000400
S PDR

11'
IE29

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT 1

FINAL REPORT

UNDETECTABLE FAILURE IN ENGINEERED SAFETY
FEATURES ACTUATION SYSTEM

ITEM 213

DECEMBER 3, 1985

REPORTABLE UNDER 10CFR50.55(e) AND 10CFR, PART 21

SUBJECT: Shearon Harris Nuclear Power Plant, Unit 1
10CFR50.55(e) and 10CFR, Part 21, reportable deficiency
in the design of the Engineered Safety Features Actuation
System's (ESFAS) capability to determine the status of
the Reactor Trip Breaker purchased under Purchase Order
NY-435002, Westinghouse Shop Order 386.

ITEM: The P-4 permissive from the reactor trip breakers to the
ESFAS.

SUPPLIED BY: Westinghouse Electric Corporation, Pittsburgh, Pennsylvania

NATURE OF
DEFICIENCY: The subject Unit 1 equipment has been received and
installed at the Shearon Harris plant. Basic equipment
design is not unique to the Shearon Harris plant.

Carolina Power & Light was notified of the deficiency by
Westinghouse letter (CQL-8695) dated March 28, 1985.

An undetectable failure of the ESFAS exists which would
prevent terminating safety injection or switchover from
the safety injection phase to recirculation phase.

DATE PROBLEM
REPORTED: On April 24, 1985, CP&L (N. J. Chiang) notified the NRC
(Mr. A. Hardin) that this item was reportable under the
provisions of 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF
PROBLEM: The reactor trip breakers provide a P-4 permissive to the
ESFAS which will enable or disable the capability to
manually reset and block safety injection.

The deficiency exists in the ability to block safety
injection, or in the blocking of safety injection remaining
after reset of the reactor trip breakers.

SAFETY
IMPLICATIONS: The inability of the ESFAS to determine the status of the
reactor trip breakers could result in the blocking of
safety injection, or the blocking of safety injection
could remain after resetting the reactor trip breakers
and returning the plant to power.

REASON

DEFICIENCY

IS REPORTABLE: Portions of the Engineered Safety Features Actuation System could be rendered inoperable.

CORRECTIVE

ACTION:

Westinghouse has redesigned the circuitry associated with the on-line testing of the P-4 permissive and has submitted this to CP&L by Field Change Notification (COLM-10650). CP&L has completed the installation and testing of the circuit modifications necessary to correct this design error.

FINAL REPORT: CP&L considers this item closed.