

CP&L

Carolina Power & Light Company

P. O. Box 1551 • Raleigh, N. C. 27602

MAY 24 1991

SERIAL: NLS-91-108

R. A. WATSON
Senior Vice President
Nuclear Generation

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-324/LICENSE NO. DPR-62
REPLY TO NOTICE OF VIOLATION (EA 91-023)

Gentlemen:

On March 26, 1991, the Nuclear Regulatory Commission issued a Notice of Violation (EA 91-023) for issues at the Brunswick Steam Electric Plant that led to a Unit 2 reactor scram on January 25, 1991. Details of the NRC's inspection were provided in Inspection Report Nos. 50-325/91-01 and 50-324/91-01. Carolina Power & Light Company hereby responds to the Notice of Violation. Enclosure 1 to this letter provides CP&L's "Reply to Notice of Violation" in accordance with the provisions of 10 CFR 2.201.

On May 6, 1991, an enforcement conference was held to discuss violations documented in Inspection Report Nos. 50-325/91-06 and 50-324/91-06. These violations pertained, in part, to maintenance and testing of the Brunswick emergency diesel generators, performed in March 1991, which involved a failure to follow procedures. Carolina Power & Light Company agrees that these violations resulted from a weakness in the work control process at the Brunswick Plant and are related in nature to the issues which led to the Unit 2 reactor scram on January 25, 1991. The corrective actions, discussed in Enclosure 1 to this letter, consist of both short term and long term actions. The Company believes that there was not sufficient time between the January 1991 event and the subsequent March emergency diesel generator testing and repair problems for the long term corrective actions to be fully effective. However, we believe that these actions remain adequate to alleviate concerns with the work control process at the Brunswick Plant for the long term.

Please refer any questions regarding this submittal to Mr. S. D. Floyd at (919) 546-6901.

Yours very truly,

R. A. Watson

R. A. Watson

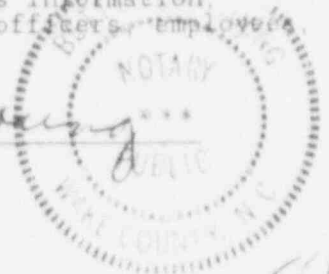
RAW/MAT

cc: Mr. S. D. Ebnetter
Mr. N. B. Le
Mr. R. L. Prevatte

R. A. Watson, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.

My commission expires: 9-23-95

Betty Jean Young
Notary (Seal)



9105310116 910524
PDR ADOCK 05000324
Q PDR

Rec'd
W/ck # 473297
for 50,000.00

JEH

ENCLOSURE 1
BRUNSWICK STEAM ELECTRIC PLANT UNIT 2
DOCKET NO. 50-324
LICENSE NO. DPR-62

REPLY TO NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

VIOLATION

Technical Specification (TS) 6.8.1.a requires that written procedures be established, implemented and maintained for applicable procedures recommended in Appendix A, Regulatory Guide 1.33, Quality Assurance Program Requirements, November 1972. Regulatory Guide 1.33, Appendix A, November 1972 requires that administrative procedures be established detailing procedure adherence requirements.

Maintenance Management Manual (OMMM-001), Maintenance; Conduct of Operations, Revision 13, which, in part, implements TS 6.8.1.a states in Section 5.2.2, that the use of approved procedures is required when the complexity of the task is such that memory cannot be relied upon as the sequence of action must be specified to assure correct performance.

Process Instrument Calibration (OPIC-CPU001), Calibration of an Analog Process Computer Point, Revision 12, Section 3.2.1 of Attachment 13, states that the reactor plant will have to be in cold shutdown or refuel condition to perform the test of the specified feedwater control system computer point.

Contrary to the above, maintenance instrument calibration test, OPIC-CPU001 was not properly implemented in that after multiple levels of review the calibration test of the feedwater system computer point was attempted at approximately 8:00 a.m. on January 25, 1991 with Unit 2 at 100 percent power. The inappropriate attempt at performing this test at power resulted in a reactor scram.

This is a Severity level III violation (Supplement 1)
Civil Penalty - \$50,000

RESPONSE

I. ADMISSION OF VIOLATION

Carolina Power & Light Company admits the Violation occurred as stated.

II. REASONS FOR VIOLATION

The violation resulted from the inadvertent failure of personnel to follow established work control processes and procedures governing the conduct of the work being performed. Additionally, although the procedure (OPIC-CPU001) properly required that the plant be in a Cold Shutdown or Refuel condition to perform the test, the Process Instrument Calibration (OPIC-CPU001) Summary Sheet did not accurately reflect this restriction. This error in the Summary Sheet reduced the effectiveness of the following procedural barriers:

1. The Instrumentation and Controls (I&C) Foreman review of the required plant conditions.
2. Site Work Force Control Group (SWFCG) review.
3. The prejob briefing conducted by the I&C Foreman.
4. The Operations Shift Foreman review.
5. The I&C technicians meeting the prerequisites prior to work starting.

III. CORRECTIVE ACTIONS THAT HAVE BEEN TAKEN TO AVOID FURTHER VIOLATIONS

1. Identification of root cause.
2. Stopping computer point calibrations until the frequency requirements could be reviewed.
3. Discontinued reliance on the use of only the Summary Sheet by the Operations Shift Foreman.
4. Communication of the event with appropriate plant personnel, including a briefing on the event and personnel errors involved with the event.
5. Brunswick Site Procedure (BSP)-43 has been issued. It strengthens existing SWFCG guidelines by requiring more than one method of verifying the impact of planned work on the plant. Review of sources, such as drawings, summary sheets, procedure prerequisites, and system descriptions are required.

6. Site Communications, Command and Control Manual (BSP)-50 has been issued to establish the guidance needed to ensure uniformity of oral communications and the execution of command and control.
7. The I&C Foreman was reassigned and is no longer in charge of an I&C group.

IV. CORRECTIVE ACTIONS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

1. Management presence in the field has been stressed as critical, in that supervisors gain an appreciation of the field conditions, the needs of the employees, and can stress adherence to safe and correct work practices. With an increased supervisory presence in the field more procedure revisions are being requested, indicating an increased sensitivity to procedural compliance. Additionally, Quality Control (QC) has been tasked to work as an extension of management while monitoring work in progress. Along with their normal surveillances they have been asked to pay particular attention to the control and review of plant activities, the presence of supervisors on the job, and attention to detail in the use of procedures and the conduct of work.
2. Maintenance procedures having summary sheets are being reviewed and revised to ensure that the prerequisites and limitations and equipment actuations accurately reflect the procedure impact. The review and revision process is ongoing and has been completed for the 18 month procedures. The expected completion date for other maintenance procedures with summary sheets is January 25, 1992.
3. Maintenance will review and revise the periodic maintenance (PM) routes which presently have 18 month frequency requirements to "Refuel" (RO) frequencies if plant operating conditions other than "RUN" are required for the performance of the procedure. The investigation is ongoing with an expected completion on May 31, 1991.
4. A Human Performance Enhancement System (HPES) evaluation is being conducted, to determine causal factors associated with the personnel errors, as well as determining if additional corrective actions may be necessary to prevent recurrence. The investigation results are undergoing management review.
5. A "Please Listen" program is being implemented to make personnel aware of the importance of good communications and to enhance self-checking in the work place. CP&L Brunswick Nuclear Project personnel and long term contractors are expected to complete this training by September 27, 1991.
6. Plant Management established a Task Force, comprised of working level individuals directly involved in this and other events involving personnel errors, to investigate potential underlying

causes of recent personnel errors. The Task Force was chartered to provide recommendations which would result in plant "personnel consistently performing scheduled and emergent work activities in compliance with accurate site-approved work control process requirements and expectations." The Task Force made a presentation of its findings to Plant Management on February 22, 1991. Additionally special meetings were held to present the Task Force's findings to all available plant management members. While management review of the Task Force results is still ongoing, many of the findings have been implemented or addressed under programs listed under this violation response's corrective actions. The Task Force identified and categorized Contributing Factors that result in experienced and skilled personnel committing errors during the performance of work activities. The categories are:

1. Routine/Complacency
2. Information inadequacies
3. Pressure
4. Distractions
5. Attitudes

Plant Management is keenly aware of the issues posed by these categories and has implemented new programs to make personnel aware of the traps posed by them. Already in place is the requirement for pre-job briefings that, as a minimum, highlight prerequisites, cautions and identify the responsibilities of the personnel involved. As indicated above, a "Please Listen" program is also being implemented to make personnel aware of the importance of good communications and to enhance self-checking in the work place. Management emphasis on compliance with procedures and not relying on memory is still being viewed as the foundation for achieving minimum errors during the performance of work activities.

Along with this foundation, the recently developed Site Communications, Command and Control Manual (BSP-50) establishes the guidance needed to ensure uniformity of oral communications and execution of command and control. BSP-50 establishes that appropriate individual work activity shall be under the command and control of a designated individual and all involved parties shall understand who that is. This individual will establish "Control" meaning he will verify that everything occurs in conformity with an adopted plan, with approved instructions, and in accordance with established principles. He will ensure SWFCG criteria have been met by ensuring plant conditions necessary to perform the evolution exist and that a briefing of the participants has been conducted to discuss the expected parameter changes and plausible significant consequences of error. Together with the new Site Work Force Control Group Process Procedure (BSP-43), work controls are now in place formalizing the requirements involving the review, control and implementation of the work control process.

V. DATE OF FULL COMPLIANCE BEING ACHIEVED

OPIC-CPU001's Summary Sheets were revised and the actions listed in section III are complete. This brings the Brunswick Nuclear Project into full compliance.

It is expected that with the increased management presence in the field, the implementation of the "Please Listen" program, the Site Work Force Control Group Process Procedure (BSP-43), and the Site Communications, Command and Control Manual (BSP-50), the proper work control processes will be in place to reduce further related violations.