CP&L

Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
Southport, NC 28461-0429

November 20, 1989

FILE: B09-13510C
SERIAL: BSEP/89-1049

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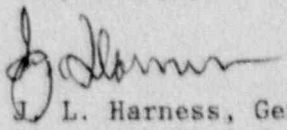
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
SUPPLEMENTAL RESPONSE TO INFRACTIONS OF NRC REQUIREMENTS

Gentlemen:

The Brunswick Steam Electric Plant (BSEP) received I&E Inspection Reports 50-325/89-20 and 50-324/89-20 and provided a response to that report on October 23, 1989 (SN: BSEP/89-0970). Based on a telephone conversation between Mr. H. C. Dance (Region II) and myself on November 14, 1989, a supplemental response is being provided to provide additional information on several of the identified violations. This response supersedes the October 23, 1989, response.

Very truly yours,



T. L. Harness, General Manager
Brunswick Nuclear Project

TMJ/mcg

Enclosure

cc: Mr. S. D. Ebneter
Mr. E. G. Tourigny
BSEP NRC Resident Office

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FORM 22

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COPY

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Original Signed By
JOSEPH L. HARNESS

J. L. Harness, General Manager
Brunswick Nuclear Project

TMJ/mcg

Enclosure

cc: Mr. S. D. Ebneter
Mr. E. G. Tourigny
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Mr. C. W. Crawford
Mr. A. B. Cutter
Ms. R. S. Gatewood
Mr. W. P. Guarino
Mr. M. D. Hill
Mr. L. E. Jones
Mr. M. A. Jones
Mr. L. I. Loflin
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Mr. R. E. Morgan
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Reference Library

Violation A

10CFR50, Appendix B, Criterion XVI, requires that measures shall be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, the licensee failed to take prompt corrective action, in that on March 31, 1989, after the identification of a third example of a corroded service water pump lubrication water support resulting in the possible inoperability of the associated service water pump, the licensee failed to promptly identify and correct other degraded service water pump lubricating water piping supports.

RESPONSE

I. Admission or Denial of the Violation

CP&L acknowledges that, between 3/31/89 and 4/5/89, during the course of evaluating corrosion problems associated with the Service Water (SW) pump lubricating water piping supports, it failed to promptly identify and correct other SW pump lubricating water piping support operability concerns.

II. Reason For Violation

The failure to promptly identify and correct other SW pump lubricating water piping support operability concerns between 3/31/89 and 4/5/89 was a result of miscommunication.

CP&L began prompt and timely corrective actions immediately upon being informed of the initial corroded support by the Resident Inspector on 3/9/89. The actions taken the next day were to:

1. Verify if there were similar SW lube water pump supports which had potential operability concerns due to corrosion by shock testing and visually inspecting the other system lube water supports,

2. Initiate preliminary assessments of the operability of the pumps based on the corrosion found during the support inspections and

3. Initiate a seismic analysis for the entire pump structure to determine SW pump operability with the corroded supports.

At this time, two pumps were determined to have potential operability concerns relative to visible corrosion damage of the lube water supports, the 2A Nuclear SW pump (NSWP) and the 1B Conventional SW pump (CSWP). Repairs were initiated, implemented and completed on these pump supports by 3/22/89.

On 3/31/89, during clean-up activities of the SW lube water supports, a potential corrosion problem was found on the 2A CSWP local to the installed Horne Flex, which is a grouting material used to seal the supports in place under base level. An engineering assessment of the seismic qualification of the support was begun that day. Upon determination that the support may not be seismically qualified, the system engineer initiated a WR/JO with an Operating Instruction (OI)-04 operability assessment on the 2A CSWP. Repairs were begun on 3/31/89 under the guidelines of Direct Replacement (DR) 89-0112 for the 2A CSWP support.

Based on the findings for the 2A CSWP, a discussion between the Technical Support Manager and the Plant General Manager was held on 4/5/89 and at that time the recommendation was made that if another problem was discovered underneath the Horne Flex, which would be the second indication, then action would have to be taken to remove the Horne Flex on all SW lube water supports for immediate investigation. This was the approach agreed upon and subsequently carried out upon determination that the next inspected support had similar corrosion problems.

III. Corrective Actions Which Have Been Taken

An appropriate and timely action plan was established once management became aware of the significance of the corrosion beneath the Horne Flex. This plan was implemented based on discussions between the Technical Support Manager and the Plant General Manager. The service water pump lube water supports have been inspected and repaired as necessary.

The completed analysis of the SW pump support structure concluded that the SW pumps were not inoperable due to the corrosion conditions found on the supports.

The communication problems encountered during this event have been assessed both by site management and through an independent Human Performance Evaluation of the event. Although site management does not completely agree with the HPE description of events surrounding this incident, the recommended corrective actions from the report have been addressed specifically as follows and are complete:

1. This event is considered to be an isolated/individual event and is not indicative of generic communications problems at the Brunswick Plant.

2. The System Engineer has been counseled on ensuring effective communications to and from supervision.

3. A memorandum has been issued to Technical Support personnel from the Technical Support Manager notifying them that the full management chain of Technical Support is to be involved for issuance of OI-04 or LCO conditions by members of the Technical Support staff.

4. Real-Time Training (RTT) on this issue for the Technical Support staff has been completed.

The intent of the memorandum and the RTT is to assure that Technical Support Management, and consequently site management, is made aware of such events in a timely manner to assure that the event/condition actually represents an operability condition and that timely resources are identified and directed to correcting the event/condition in parallel with establishing the LCO.

5. Revision 2 to Plant Procedure (PLP)-04, the site Corrective Action Procedure, has been issued. This revision was initiated to improve the identification and documentation of potential operability concerns, including increased management attention to these concerns.

6. To assist in driving out perceptions at the site that raising operability concerns is resisted by management, this subject is addressed at regularly held unit meetings and ongoing working lunches between the Plant Manager and plant supervision.

7. A Senior Site Management [Technical Assistant to the Plant General Manager (TAPGM)] position reporting directly to the Plant Manager has been filled to direct the site Corrective Action Program.

8. A senior level position has been approved and filled as Human Performance Evaluation System Coordinator. This position, working closely with the TAPGM, will heighten sensitivity to inadequate human performance and communications, ensuring appropriate corrective actions are taken.

The corrective actions taken to this point are considered sufficient to prevent recurrence of a similar event. As a result, no further corrective actions are considered necessary for this event.

Violation B

Technical Specification 6.8.1.a requires that written procedures be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, November 1972.

1. Section D of Appendix A requires Operating Procedures for safety-related BWR systems. Operating Procedure 1-OP-24, Containment Atmosphere Control System, Revision 32, provides the system valve lineup for the Containment Atmosphere Dilution System, a safety-related system.

   Contrary to the above, Operating Procedure 1-OP-24 was inadequately established, in that, on and before July 20, 1989, it failed to specify the position for the manual override for valve 2-CAC-CV-2714. The manual override and valve 2-CAC-CV-2714 were shut instead of open from June 7, 1989, to July 20, 1989, with no other documentation of the valve's position.

2. Section D of Appendix A requires instructions for filling and venting the Standby Liquid Control (SLC) System. Operating Procedure 2-OP-05, Standby Liquid Control System, Revision 27, provides instructions for filling and venting the SLC System.

   Contrary to the above, Operating Procedure 2-OP-05 was not adequately implemented, in that, on August 6, 1989, valve 2-C41-F017, Return to Test Tank Valve, was throttled during filling and venting of the SLC System without any instructions to do so in 2-OP-05.

This is Severity Level IV violation.

Response

I. Admission or Denial of the Violation

   1. Inadequate CAD Procedure

      Carolina Power & Light admits that OP-24, Containment Atmosphere Control System, is inadequate in that it does not identify the manual override valve for 2-CAC-CV-2714.

II. Reason for the Violation

   1. Inadequate CAD Procedure

      An investigation into the cause of the manual override valve for the 2-CAC-CV-2714 being found shut, on July 17, 1989, has been unsuccessful in determining specifically what events led up to the closure. However, on June 27, 1989, when 2-CAC-CV-2714 would not stroke during Periodic Test 16.3, CAD Valve Operability Test, an

Auxiliary Operator (AO) reported to the Control Operator (CO) that the manual override valve was not manually closed and that the manual override handwheel was in the "open" position. The AO initiated a Work Request/Job Order (WR/JO) on the 2-CAC-CV-2714 which was placed on hold by the Maintenance Planner until a Q-list solenoid could be procured. Based on a concern of the Resident Inspector, a request for upgrading a commercial grade solenoid valve was initiated approximately two weeks after placing the WR/JO on hold. During the process of upgrading the solenoid, the System Engineer (SE) requested that an attempt to stroke the valve from the Control Room be conducted with Instrumentation and Control (I&C) technicians stationed at the valve. On July 19, 1989, an I&C technician noticed that the manual override handwheel was in the "closed" position. The AO verified that the valve stroked from both Unit 1 and Unit 2 control boards and the maintenance PMTR was signed off satisfactorily. On July 20, 1989, applicable portions of PT-16.3 were performed satisfactorily and the Operations PMTR was signed off.

As evidenced by the above narrative, CP&L has not been able to determine exactly when the manual override valve was placed in the closed position. Based on statements of the AO involved, CP&L is confident that the manual override was "open" on June 27, 1989. The work involving the air accumulator for the 2-CAC-CV-2714 was completed and the clearance was removed from the air header isolation valve on June 7, 1989. Therefore, CP&L believes that the work did not result in the mispositioning of the manual override. However, CP&L acknowledges that had the manual override been listed in OP-24, it would have been added to the clearance and would have been documented as being verified in the "open" position.

In the past, it has been CP&L's policy that valves which are part of a vendor supplied skid system are not listed in OPs unless they need to be manipulated by Operations during startup, shutdown or normal operation of the involved system. Therefore, the manual override valves were not placed in OP-24 because their manipulation would only be required if 2-CAC-CV-2714 were to fail to operate pneumatically.

III. Corrective Actions Which Have Been Taken

1. Inadequate CAD Procedure

The investigation and corrective action determination into this event has been coincident with the violation response and no corrective actions have yet been completed.

IV. Corrective Actions Which Will Be Taken and Dates of Full Compliance

1. Inadequate CAD Procedure

a. PT-16.1 will be revised to require position verification of the manual override handwheel for CAC-CV-2714 by November 30, 1989.

b. OP-24 will be revised to identify the manual override handwheel and its required position by November 30, 1989.

c. SD-24 will be revised to describe the operation of 2-CAC-CV-2714 by November 30, 1989.

d. A review will be conducted by Technical Support to identify other valves of the same type as 2-CAC-CV-2714 by December 20, 1989.

e. The valves identified in the review will have revisions to PTs, OPs, SDs, P&IDs, training and other procedures, as appropriate, by June 30, 1990.

I. Admission or Denial of the Violation

2. Failure to Follow SLC Operating Procedure

Carolina Power & Light admits that the operator failed to follow the SLC fill and vent procedure, OP-05, Section 8.1.

II. Reason for the Violation

2. Failure to Follow SLC Operating Procedure

On August 6, 1989, the Unit 2 Standby Liquid Control (SLC) system was under clearance. At approximately 1100, Operations was sent up to pull the clearance, fill and vent the system (in accordance with OP-05, Section 8.1) and run the applicable portions of the monthly operability performance test PT-06.1.

After successfully filling and venting the suction side piping, the procedure drains the test tank. Prior to connecting a vent rig to the high point vent valve the procedure lines up the pump discharge to the test tank by opening 2-C41-F016 and 2-C41-F017 (the SLC pump discharge header test tank isolation valves).

When the F016 and F017 valves are opened, a flow path exists from the demineralized water header through the pumps and into the test tank. At this point, the operator is required to remove the pipe cap and attach plastic tubing to the high point vent valve.

By the time the Operator had attached the vent rig he noticed that the test tank was already approximately 50% full and he was concerned that he would not have sufficient test tank capacity to prevent overflowing the test tank during the run. Since the procedure did not address another draining of the test tank until after filling the discharge piping with the 'A' SLC pump, the operator decided to throttle closed the 2-C41-F017 valve to limit the amount of demineralized water flow into the test tank. When the "A" SLC pump was started, the pump discharge relief valve lifted and discharged back to the SLC system common suction piping causing the "B" SLC pump suction flange gasket to blow out. The operator did not realize that by throttling the F017 valve the discharge pressure would increase to the point of lifting the discharge relief valve.

Operating philosophy at CP&L allows operators to take actions which are necessary to place equipment in a safe condition from which a procedure can be used. In this instance the operator realized that the test tank level was getting too high but took an inappropriate action by throttling the discharge of a positive displacement pump instead of taking other available actions to drain the test tank or decrease the supply to it.

III. Corrective Actions Which Have Been Taken

2. Failure to Follow SLC Operating Procedure

a. Involved personnel have been counseled.

IV. Corrective Actions Which Will Be Taken and Dates of Full Compliance

2. Failure to Follow SLC Operating Procedure

a. The current fill and vent procedure will be evaluated and revised, as appropriate, to minimize the time from opening the C41-F017 to starting the SLC pump and/or to caution the operator on potential filling of the SLC test tank by December 15, 1989.

b. This event will be reviewed during Operations Real Time Training by January 30, 1990.

c. Appropriate operator training will be revised to include training on the effects of throttling valves at the discharge of positive displacement pumps by June 15, 1990.

Violation C

Technical Specification 6.8.1.c requires that written procedures shall be established, implemented, and maintained covering surveillance and test activities of safety-related equipment. MMM-03, Corrective Maintenance, Revision 1, Section 4.2.8.3. states that postmaintenance testing requirements contain legitimate requirements that will verify the maintenance activity has been completed satisfactorily or the equipment has been returned to service properly. Work Requests/Job Order (WR/JO) 89-AHGE1 specified postmaintenance test requirements for containment atmosphere dilution valve 2-CAC-CV-2714 after repair/replacement of the accumulator.

Contrary to the above, written procedures for postmaintenance test activities were inadequate for 2-CAC-CV-2714, in that the valve was not cycled on June 7, 1989, to show it functioned, nor was the accumulator's ability to hold 2-CAC-CV-2714 shut tested. (This testing would have also revealed that the manual override for 2-CAC-CV-2714 had been shut.)

This is Severity Level IV violation.

Response

I. Admission or Denial of the Alleged Violation

CP&L acknowledges that the written procedures for postmaintenance test requirements were inadequate to verify the operability of the 2-CAC-CV-2714.

II. Reason for the Violation

Both Maintenance and Operations personnel failed to recognize that the replacement of the accumulator could have an adverse effect on the operation of the 2714.

The accumulator performs a passive function in that it stores the required amount of air that will hold 2-CAC-CV-2714 closed if the supply control air pressure is low. Normal operation of the valve is provided through the station pneumatic system and does not use the accumulator. This passive function is controlled by a snap acting solenoid, which ports the accumulator air to 2-CAC-CV-2714, and a check valve, which prevents loss of accumulator air pressure to the air system. Replacing the accumulator should not affect the design function of the 2-CAC-CV-2714. Replacing a solenoid could affect the design function of 2-CAC-CV-2714, because a solenoid could be ported wrong, wired incorrectly or stuck in position. The involved maintenance activity did not involve the solenoid or the check valve. The accumulator was replaced with an accumulator of the same volumetric capacity and was verified not to leak. The rational for not verifying the operability of the valve following accumulator replacement was the belief that the changeout could not affect operability. As the accumulator provides the motive force for valve operation in certain

conditions, operability of the valve should have also been verified by the PMTR. Restoration of the system in accordance with the Operating Procedure was intended to be the vehicle assuring a proper valve lineup; however, as noted in Violation B, the Operating Procedure was found to be inadequate.

III. Corrective Steps Which Have Been Taken

The proper valve lineup was restored to the 2714 and the system was returned to operable status.

IV. Corrective Steps to be Taken and When Full Compliance Will be Achieved

Real-Time Training will be conducted for appropriate Maintenance and Operations personnel on this event, emphasizing the need to carefully assess the possible affects of components not directly involved in the maintenance. This training will address the need to assure that the operability of safety-related components/systems is verified following maintenance on the component/system or on subcomponents/subsystems which support its operability. This training will be completed during the 1990 first quarter training session scheduled to be completed by March 30, 1990.

Violation B

Technical Specification 6.8.1.c requires that written procedures be established governing surveillance activities of safety-related equipment.

Technical Specification 4.6.5.1 requires that Secondary Containment Integrity be demonstrated by verifying at least once every 18 months by operating a standby gas treatment system for one hour and maintaining greater than or equal to one quarter inch of vacuum, water gauge, at a flow rate not exceeding 3000 cfm. PT-15.4, Secondary Containment Integrity Test, Revision 14, implements this requirement.

Contrary to the above, surveillance procedure PT-15.4 was inadequately established, in that, it did not specify the testing configuration of the railroad airlock doors. This resulted in operation, on at least two occasions, outside the tested configuration. The two occasions when the inner railroad doors were open were from about 1:30 p.m. until about midnight on August 1, 1989, for Unit 1 and from about 2:00 p.m. on August 23, 1989, until 9:30 a.m. on August 24, 1989, for Unit 2.

This is a Severity Level IV violation (Supplement I).

Response

I. Admission of Denial of the Alleged Violation

Carolina Power & Light Company admits that PT-15.4 was inadequate in that it did not test for the operating configuration where an individual railroad access airlock (inner or outer door) was open.

II. Reason for the Violation

Technical Support Group personnel responsible to ensure the adequacy of the subject periodic test failed to recognize the necessity of individually testing both doors of the airlock in order to account for expected operating configurations where either door is opened for an extended period of time.

III. Corrective Steps Which Have Been Taken

As an interim measure, on September 1, 1989, Standing Instruction 89-057 was implemented to require establishment of a Limiting Condition for Operation to ensure Secondary Containment integrity of the Reactor Building airlocks whenever it is requested that one of the doors of an airlock is to be opened for greater than one hour.

On September 9, 1989, Special Procedure SP-89-050 was performed, which verified Secondary Containment integrity could be maintained in accordance with Technical Specifications with the inner railroad door open. Based upon the test results, it is felt reasonable to conclude that Secondary Containment was being maintained during the past 18 months whenever the inner railroad door was open.

IV. Corrective Steps to be Taken and When Full Compliance will be Achieved

PT-15.4 is run at least once per 18 months, to satisfy Technical Specification 4.6.5.1.b, and is normally run during refueling outages. The next test on Unit 1 will be run on Unit 1 by February 9, 1991, and on Unit 2 by July 28, 1991. The test procedure will be revised by the end of the current Unit 2 outage (presently scheduled to end February 15, 1990) to include a requirement for individual inspection of the personnel airlock and inner railroad door seals and for testing with the inner railroad doors open. These changes will help assure that Secondary Containment is maintained whenever one door of a Secondary Containment airlock is opened and that gross door seal leakage does not go undetected.

Violation E

Technical Specification 6.8.1.a requires that written procedures be established during the activities recommended in Appendix A of Regulatory Guide 1.33, November 1972. Appendix A, Section A.3, recommends procedures for equipment control (e.g., locking and tagging).

Administrative Instruction AI-58, Equipment Clearance Procedure, Step 5.3.5.2, requires that the boundary of a clearance will provide adequate safe working conditions for the scope of work to be performed.

Contrary to the above, AI-58 was inadequately implemented, in that, on August 3, 1989, the boundary of a clearance did not provide adequate conditions for the scope of work. Local Clearance 2-886 (Clearance to Support Standby Liquid Control (SLC) System Relief Valve Removal) for the removal of relief valve 2-C41-F029A, affected both SLC pumps instead of just the 2A pump as originally intended.

This is a Severity Level IV violation (Supplement I) applicable to Unit 2 only. This clearance problem is a repeat violation.

Response

I. Admission or Denial of the Alleged Violation

Carolina Power & Light Company acknowledges the violation occurred as stated. It is noted that an evaluation by the plant Technical Support Group determined that during the time frame that the valve flange of 2-C41-F029A was loosened, the 2B SLC pump and associated piping would have been capable of performing the design function.

II. Reason for the Violation

This violation is attributed to failure to adequately recognize the design of the SLC tank and pump suction piping as the result inadequate attention to detail by the involved Unit 2 Senior Operations Specialist, who developed the clearance, by the responsible Senior Reactor Operator (SRO) of the Operations Clearance Center, who verified and approved the adequacy of the clearance, and by Maintenance personnel accepting the clearance.

Contributing factors to this event were:

1. A mind set on the part of the involved personnel of the Operations Clearance Center, who wanted to ensure operability of the 2B SLC pump and piping in order to meet Technical Specifications (TS) requirements for Limiting Conditions for Operation (LCO). TS provides for a seven-day LCO whenever one SLC pump is out of service; however, an eight-hour LCO is entered whenever both SLC pumps are out of service.

2. The involved SRO utilized a reduced size plant drawing to verify the clearance boundary, which contributed to his overlooking the fact that both SLC pumps utilize a common suction pipe from the SLC storage tank.

3. Due to the relative simplicity of the SLC System, the involved clearance accepter failed to adequately review the scope of the clearance, as hung, prior to acceptance for work.

Following the determination that the involved clearance was inadequate, the valve flange of 2-C41-F029A was retightened and the clearance was canceled. A visual inspection of the valve flange connection was then performed which verified the system integrity and the SLC System was returned to standby readiness.

III. Corrective Actions Which Have Been Taken

As a result of this event, the involved personnel of the Operations Clearance Center as well as the involved clearance acceptor were counseled in order to stress the importance of attention to detail. In addition, the involved SRO has been removed from activities requiring a license indefinitely as a result of this and other past events.

On October 12, 1989, a corporate task force was initiated to perform an independent onsite programmatic review of the equipment clearance process at the Brunswick Station in order to identify areas for improvement. The task force, which is headed by a Nuclear Staff Support Section Manager, who previously held an SRO license at the Brunswick Station, is comprised of four personnel. Areas expected to be covered during this review will include the following:

1. Observe the operation of the Operations Clearance Center.

2. Evaluation of the historical patterns and trends of equipment clearance problems.

3. Comparison of appropriate regulatory guidelines to the equipment clearance procedure.

IV. Corrective Actions Which Will Be Taken

The task force is intended to complete the involved field work by the end of October 1989, and will provide a report, by November 30, 1989, for review by the station management and implementation of action (as required). On or before December 31, 1989, a status of the results of the corporate task force study will be submitted which will include a summary of actions planned to help in the prevention of future similar violations.

Based upon the results of the task force study, appropriate corrective action regarding equipment clearance development will be implemented by the end of the first quarter 1990.

Violation F

The Brunswick Steam Electric Plant, Unit 1, Updated Facility Operating License, DPR-71, Section 2.c.(1), authorizes the facility to operate with maximum steady state reactor core power levels not in excess of 2436 megawatts thermal.

Contrary to the above, the facility operated in excess of 2436 megawatts thermal from approximately 7:00 p.m., on August 23, 1989, until approximately 6:00 a.m. on August 24, 1989.

Response

I. Admission or Denial of the Alleged Violation

CP&L acknowledges that Unit 1 operated in excess of 2436 megawatts thermal during the time period noted in the violation.

II. Reason for the Violation

This violation is attributed to personnel error by the control operators on Unit 1 during this time period. These operators failed to recognize that reactor thermal power was exceeding the licensed allowable and take effective action.

During normal operation, reactor power is continuously recorded in "% power" on the reactor turbine gage board through the average power range monitors (APRM), and reactor power is recorded in megawatts thermal hourly on both the balance of plant (BOP) typer and the core performance periodic log P-1. Interviews with the operators involved determined that they were aware that the reactor power level was high and took actions during the shift to restore power to less than or equal to 2436 megawatts.

On the shift in question, the Plant Monitor (a licensed control operator) noted that the BOP typer and the P-1 thermal power levels were in excess of 2436 megawatts thermal and informed the BOP Operator (licensed operator responsible for reactivity control). The Plant Monitor recalls making several recirculation flow reductions on shift and performing OD-03's, Instantaneous Core Thermal Power and APRM Calibration, to verify a reduction in thermal power. OD-03 printouts for this time period could not be found to verify the power reductions as they are not a controlled log, nor are they retained. The result of the flow reductions were not significant enough, nor would they be expected to be significant enough, to have been observed on the APRM recorders nor on the recirculation flow recorders. Other than the noted flow reductions, no other actions were identified which the operators took to ensure reactor power was reduced to allowable limits.

III. Corrective Actions Taken

Reactor power was reduced to less than or equal to 2436 megawatts thermal. The operators involved were counseled on the need to assure positive results for actions taken, in this case, reactor power less than 2436 megawatts following flow reductions and the need to assure operation within licensed conditions. In addition, specific requirements were established to monitor reactor thermal power on an hourly basis and to positively reduce power to allowable values if found above 2436 megawatts.

IV. Corrective Actions Which Will Be Taken and the Date For Compliance

Real-time training is to be conducted for appropriate Operations personnel on this event. This training is to be completed by December 15, 1989.

Violation G

Technical Specifications 4.1.5.c.3, requires that the Standby Liquid Control (SLC) System shall be demonstrated OPERABLE at least once per 18 months during shutdown by demonstrating that the pump relief valve setpoint is 1450 +/- 50 psig.

Contrary to the above, the Unit 2 SLC System was not demonstrated OPERABLE during shutdown, in that, on August 3-6, 1989, the pump relief valves' setpoints were demonstrated during power operation of Unit 2.

Response

I. Admission or Denial of the Alleged Violation

CP&L acknowledges that the requirements of Technical Specification 4.1.5.c.3 were not properly implemented by performing the testing during power operation on Unit 2.

II. Reason for the Violation

In the 1983 time frame, CP&L identified a conflict with performing required surveillances on the diesel generators "during shutdown" as required by technical specifications. The BNP Technical Specifications required that all four diesel generators be operable with either or both units in modes 1, 2, or 3. As noted in paragraph 4e on page 9 of the inspection report, the technical specification wording would require that both units be shutdown in order to complete the surveillance requirements. Discussions were initiated with the NRC, through the Region II Section Chief on the potential for discretionary enforcement or an emergency Technical Specifications change to avoid what was considered an unreasonable and unjustified dual unit shutdown to perform the noted surveillance.

Verbal guidance was provided by the Section Chief to Senior Plant Management on the requirements for testing the diesel generators "while shutdown." The guidance provided was:

1. It is not intended that both units be shutdown to perform required surveillance testing on the diesel generators.

2. The Definitions section of Technical Specifications provides the definitions for the various operational modes. These terms, as noted in the definitions, are written in upper case, signifying the uniqueness of the conditions (i.e., hot shutdown, cold shutdown, refuel. etc.). Whenever the technical specifications require that a surveillance or other activity or ACTION be performed in a specific mode, that mode is so noted. An example is found in Technical Specifications 4.4.1.1.1, where the valve cycle for the designated valves is to be performed in COLD SHUTDOWN.

The wording found in the diesel generator specification is written in the lower case; therefore, "during shutdown" applies to the component/system and not the plant operational conditions.

Based on the guidance provided by the NRC on the diesel generator testing (dual unit shutdown concern), the testing requirements were extrapolated to the SLC relief valves (single unit shutdown concern) for this testing cycle. During the past, SLC testing was being performed during COLD SHUTDOWN or REFUEL, as the plant fully believes that it is more appropriate to do so.

III. Corrective Steps Which Have Been Taken

Plant management personnel responsible for providing the guidance for technical specification required testing and operating philosophy now understand the intent for the "during shutdown" guidance previously given only applies to dual unit shutdown concerns. This understanding will prevent future misunderstandings of this type from occurring. In addition, the surveillance test scheduling system was annotated to schedule the SLC relief valve surveillance during an outage.

A review of other "during shutdown" requirements in the technical specifications was conducted to ensure compliance was being met. Two additional technical specification surveillances were identified which are not being performed in accordance with this "during shutdown" definition. Those surveillances are 4.7.7.1.2.c.1 for the diesel driven fire pump and 4.8.1.1.2.d.1 for the emergency diesel generators. These surveillances are dual unit shutdown concerns and are considered to be in agreement with the guidance provided in 1983. The remaining surveillances were found to be properly scheduled.

IV. Corrective Steps To Be Taken and When Full Compliance Will be Achieved

CP&L will submit appropriate technical specification changes to clarify the surveillance requirement to remove the dual unit shutdown concern for its emergency diesel generators by March 30, 1990. The surveillance on the diesel driven fire pump will be resolved by CP&L's technical specification change request per Generic Letter 86-10, removal of fire protection equipment from technical specifications.

Violation H

Technical Specification 6.2.3.2 requires that the Onsite Nuclear Safety (ONS) Unit be responsible for maintaining surveillance of facility activities to provide independent verification that these activities are performed correctly.

Contrary to the above, as specified in Regulatory Compliance Instruction (RCI)-06.6, Rev. 0, Site Event Investigation Process, ONS functions as a member of the site incident investigation team, a facility activity that ONS also maintains independent surveillance.

This is a Severity Level IV violation.

Response

I. Admission or Denial of the Violation

CP&L acknowledges that it violated Technical Specifications by allowing the ONS independent review function of site incident investigation team (SIIT) results to be performed by the ONS member of the SIIT.

II. Reason for the Violation

The SIIT was established to provide an independent assessment of significant events at Brunswick. CP&L failed to recognize that having ONS on the SIIT could compromise the independence of ONS should the ONS SIIT member also be the independent reviewer. As the SIIT was designed to be independent, and the Technical Specifications allow ONS to perform independent reviews of the same type events, CP&L felt that it was in compliance with Technical Specifications.

III. Corrective Steps Which Have Been Taken

CP&L will continue to call out ONS when the SIIT is activated; however, the ONS SIIT member will be performing an independent review function and will not be assigned any specific responsibilities or sign-off functions. There have been no event investigations by the SIIT since the notice of violation; therefore, this corrective action has not been needed to date.

A review of ONS site activities revealed that ONS performs no other activity similar to the SIIT function which would compromise their independence; therefore, this is not considered to be a generic issue.

IV. Corrective Step Which Will be Taken and When Full Compliance Will Be Achieved

RCI-06.6 will be revised by December 1, 1989, to indicate that the ONS member on the SIIT is performing an independent review function and will not be assigned specific responsibilities or sign-off functions.

Violation I

10CFR50.54(h) requires that the operating license be subject to all Orders of the Commission. Confirmatory Order EA-82-106, dated December 22, 1982, required the licensee to implement the Brunswick Improvement Program (BIP).

BIP Item VI-5 required the licensee to hold quarterly nuclear safety review meetings.

Contrary to the above, quarterly corporate nuclear safety review meetings were not held at least during 1988 and 1989.

Response

I. Admission or Denial of the Violation

CP&L acknowledges that it violated 10CFR50.54(h) by failing to continue holding quarterly Corporate Nuclear Safety Review Board (CNSRB) meetings.

II. Reason for the Violation

Pursuant to Confirmatory Order EA-82-106, dated December 22, 1982, and in accordance with 10CFR50.54(h), CP&L expeditiously implemented the Brunswick Improvement Program (BIP), including Item VI-5, which required quarterly CNSRB meetings. This fact was confirmed by NRC Region II correspondence to CP&L, dated April 3, 1984, which advised that they "...have inspected each task action item in the BIP and that CP&L has satisfied the requirements imposed by Confirmatory Order EA-82-106." Further, Region II stated that "With regard to ongoing items, we find that a status report submitted at six-month intervals will be satisfactory." Of note is that one of the original 134 detailed BIP tasks specified that the 167 Management Analysis Corporation (MAC) recommendations be reviewed and implemented. The ongoing items referred to by Region II were only 7 of the 168 MAC recommendations. CP&L's final six-month status report (Serial NLS-86-166), dated May 30, 1986, stated that these final ongoing items were completed. The intent of the referenced December 22, 1982 Order, as described in the NRC's transmittal letter, was to ensure "...positive and expeditious completion..." of the initiatives identified in the Brunswick Improvement Program. CP&L fully met this intent by implementing the vast majority of the BIP items during 1982 (prior to the Order) and 1983, and completing the remaining seven ongoing items by May 1986.

With respect to BIP Item VI-5, the first CNSRB meeting was held on October 29, 1982, and meetings continued to be held into 1988. The last available documented meeting minutes are dated September 30, 1988. However, beginning in late 1987, it became apparent that the primary CNSRB goal--an independent assessment of potential safety concerns at

CP&L nuclear plants--was being effectively performed by the Corporate Nuclear Safety (CNS) Section, and that elimination of the CNSRB could provide additional stimulation to ensure that potential nuclear safety issues were adequately addressed within the normal line function. Subsequently, based on a belief that the previously referenced correspondence from Region II and our May 1986 Final Status Report had "closed" the Order, the CNSRB was discontinued.

Confirmatory Order EA-82-102 was somewhat different than a typical Order in that it included tasks that were of an administrative nature as well as tasks of a strict regulatory compliance nature. This has led to confusions as to exactly what was required to change or improve specific tasks within overall BIP objectives. By letter dated October 26, 1987 (Serial: NLS-87-188), CP&L requested concurrence with revising specific BIP commitments for performance of periodic reviews. Further, by letter dated October 11, 1988 (Serial: NLS-88-211), CP&L submitted relevant justification and requested discontinuance of Confirmatory Order EA-82-106. To date, no response has been received.

In summary, Carolina Power & Light recognizes that Orders issued by the NRC under 10CFR50.54 are binding until formally rescinded by the NRC. Due to the nature of this order and through referenced correspondence, particularly the April 3, 1984, NRC to CP&L Letter, CP&L failed to recognize that the inspection noting compliance was not a rescinding of the order.

III. Corrective Steps Which Have Been Taken

While each of the specific BIP actions taken was appropriate at the time of implementation, CP&L does not believe that it was the NRC's intent to require continued implementation of actions that are either no longer necessary or actions whose objectives can be achieved in a more safe or efficient manner. CP&L's conclusion is supported by 10CFR50.59(a)(1). The action in question--existence or nonexistence of CNSRB meetings--will not result, either way, in a change to the technical specifications or an unreviewed safety question.

CP&L believes that its justifications for discontinuing the CNSRB remain valid and does not intend to restart the CNSRB quarterly meetings. The strength of our Corporate Nuclear Safety program and our existing corporate structure contain the necessary tools to implement the goals of the CNSRB, and to meet the overall intent of BIP Objective VI which stated, "More effectively utilize the technical expertise of the ONS and CNS staffs in enhancing the safety and reliability of plant operations."

To improve communications with the NRC, CP&L, in 1988, began development of the CP&L/NRC Interaction Plan. The program goal is to promote improved relationships with the NRC through the guidelines, policy statements, plans and processes contained within the program manual.

IV. Corrective Steps Which Will Be Taken

As evidenced by our recent response to the NRC's Diagnostic Evaluation of Brunswick, CP&L is continuing to focus attention on those issues which will ensure that Brunswick operates at the level of excellence that is desired and expected. CP&L expeditiously implemented the BIP as evidenced by the fact that many BIP tasks were completed prior to the issuance of the NRC Order. Further, we will continue to appropriately change, implement and/or modify our management actions to ensure that the goal of excellence is met. The CP&L/NRC interaction Plan is an example of management actions in response to the need for improved communication.

In this case, we have inadvertently misinterpreted the methodology for making changes subsequent to full implementation of Order requirements; however, we have made efforts to have the Order rescinded and will continue to do so.

No further corrective actions are considered necessary as a result of this violation.