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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REPLY TO NOTICE OF VIOLATION

Gentlemen:

On February 14, 1997, the NRC issued a Notice of Violation (NOV) for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. The NOV contained two specific violations the bases for which are provided in NRC Inspection Report 50-325/96-18 and 50-324/96-18.

Carolina Power & Light Company admits the violations occurred as described in the Inspection Report. Enclosure 1 provides Carolina Power & Light Company's response to the violations in accordance with the provisions of 10 CFR 2.201; enclosure 2 delineates regulatory commitments contained within the response.

Carolina Power & Light Company finds the inspection does not contain information of a proprietary nature. Please refer any questions regarding this submittal to Mr. K. R. Jury, Manager-Regulatory Affairs, at (910) 457-2783.

Sincerely,

W. Levis, Director-Site Operations
Brunswick Steam Electric Plant

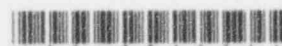
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Enclosures

1. Reply to Notice of Violation
2. List of Regulatory Commitments

cc: Mr. L. A. Reyes, Regional Administrator, Region II
Mr. D. C. Trimble, Jr., NRR Project Manager - Brunswick Units 1 and 2
Mr. C. A. Patterson, Brunswick NRC Senior Resident Inspector
The Honorable J. A. Sanford, Chairman - North Carolina Utilities Commission



ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 and 2
NRC DOCKET NOS. 50-325 & 50-324
OPERATING LICENSE NOS. DPR-71 & DPR-62
REPLY TO NOTICE OF VIOLATION

VIOLATIONS:

During an NRC inspection conducted from December 8, 1996 through January 18, 1997, two violations of NRC requirements were identified. In accordance with the NUREG 1600, "General Statement of Policy and Procedure for NRC Enforcement Actions", the violations are listed below:

VIOLATION A:

10 CFR 50, Appendix B, Criterion XII, Control of Measuring and Test Equipment requires that measures shall be established to assure that gauges used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.

Contrary to the above, on December 12, 1996, licensee measures failed to assure that the Unit 2 Residual Heat Removal (RHR) discharge pressure gauges 2-E11-PI-R003A(C) were properly calibrated during the performance of Periodic Test OPT-08.2.2c, Low Pressure Coolant Injection (LPCI)/RHR System Operability Test - Loop A.

This is a Severity Level IV Violation (Supplement I). This is applicable to Unit 2 only.

RESPONSE TO VIOLATION A:

Admission or Denial of Violation:

Carolina Power & Light admits this violation.

Reason for Violation:

This violation is attributed to the failure to establish appropriate controls for ensuring that calibrated test gauges were used in the performance of surveillance testing.

On August 29, 1996, it was determined that the test gauges installed for quarterly In-Service Testing (IST) on the RHR and High Pressure Coolant Injection (HPCI) system pumps were not

performing in accordance with plant testing requirements. Previous testing results indicated that the gauges would not remain in calibration over the established calibration frequency. As a result, it was determined that calibrated temporary gauges would be installed prior to the performance of RHR and HPCI system operability testing to ensure that the monitored parameters (i.e., pump suction and/or discharge pressure) were accurate. This requirement was to be maintained until the installed gauges were replaced with acceptable gauges or the calibration problem was corrected.

An Operations Standing Instruction (SI) was established as the controlling mechanism for ensuring that calibrated temporary test gauges were installed prior to the performance of RHR and HPCI system testing. This process was an inappropriate control mechanism for ensuring that the temporary test gauges were installed. SIs are intended to provide guidance for consistency between shifts on various issues, describe significant plant problems or changes, and to inform operators of significant procedure changes affecting plant operations. The SIs are only required to be read once and reviewed periodically.

The appropriate controlling mechanism should have been the respective periodic testing procedures. These procedures should have been revised to provide the guidance to install calibrated temporary gauges prior to performing each test. These procedures are continuous use procedures and as such, require that each step be signed-off as it is performed. Therefore, a procedural step requiring the installation of the temporary gauges would be implemented and signed-off during each test.

The investigation into the cause of this event identified two contributing factors. The first contributing factor was the failure to initiate a separate Work Request/Job Order (WRJO) in accordance with management expectations. It is an expectation that a separate WRJO should have been initiated for each identified test gauge deficiency or that a test gauge reference be inserted in an existing WRJO secondary equipment field. Had a separate WRJO been written for each identified test gauge deficiency, the operators could have readily identified that temporary test gauges were required to be installed prior to system testing.

The second contributing factor is the failure of the operators to follow the guidance of the SI. Based on the knowledge that replacement gauges had been ordered and that the replacement gauges would be installed upon receipt, the operators believed that the gauges had been replaced when an active WRJO for the gauges could not be identified. The operators should have verified that the gauges had been replaced and obtained management concurrence to deviate from the guidance provided in the SI.

Corrective Actions Which Have Been Taken and Results Achieved:

The installed test gauges for the RHR and HPCI systems have been replaced on both units; the SI that was established to ensure test gauge installation has been deleted.

The personnel involved in this event were counseled on the importance of adherence to SIs.

Corrective Steps Which Will Be Taken to Avoid Further Violations:

SIs are being reviewed to determine if others exist which provide guidance or instruction that

should be controlled by plant procedures. The review of the SIs will be completed by March 31, 1997. The revisions to procedures identified during the SI review will be implemented by May 2, 1997.

Appropriate procedure revisions will be implemented by May 2, 1997, to incorporate management expectations on the initiation of WR/JOs.

Date When Full Compliance Will Be Achieved:

Full compliance with the requirements of 10 CFR 50, Appendix B, Criterion XII, has been achieved.

VIOLATION B:

10 CFR 50.65(b) establishes the scoping criteria for selection of safety related and non-safety related structures, systems, or components to be included within the Maintenance Rule program. Scoping criteria shall include those non-safety related structures, systems, and components (SSCs) that are relied upon to mitigate accidents or transients, or are used in the plant emergency operating procedures.

Nuclear Generation Group Standard Procedure ADM-NGGC-0101 established the program for the implementation of the Maintenance Rule which identified those structures, systems, and components included within the scope of the Maintenance Rule.

Contrary to the above, as of January 14, 1997, the licensee failed to include a number of non-safety related systems or components within the scope of the Maintenance Rule as required. The following examples were improperly excluded from the scope.

1. Communications, Emergency AC and DC Lighting - These non-safety related SSCs were not included in the scope of the rule despite being used in Emergency Operating Procedures or being relied upon to mitigate accidents or transients.
2. Ambient Chlorine Detectors, Turbine Ventilation, Service Water Effluent, Reactor Building Area, and Main Steam Line Radiation Monitors - These non-safety related components were not included in the scope of the rule despite being used in the Emergency Operating Procedures or relied upon to mitigate accidents or transients.

This is a Severity Level IV Violation (Supplement I). This is applicable to both units.

RESPONSE TO VIOLATION B:

Admission or Denial of Violation:

Carolina Power & Light admits this violation.

Reason for Violation:

10 CFR 50.65(b)(2) requires inclusion of systems, structures, or components "...that are relied upon to mitigate accidents or transients or are used in plant emergency operating procedures (EOPs)."

The Brunswick Steam Electric Plant (BSEP) Maintenance Rule Expert Panel excluded those systems identified in examples 1 and 2 of this violation from the scope of the Maintenance Rule concluding that these systems did not add significant value to the mitigation function of an EOP since they do not provide complete nor a significant fraction of, the total functional capability required to mitigate core damage or radioactive release. This determination was based on the guidance provided in section 8.2.1.3 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," Revision 0, which has been endorsed by the NRC.

In review of industry experience related to the Maintenance Rule, BSEP recognized this position as potentially inconsistent with the NRC interpretation. Actions were initiated to evaluate current scoping and to make appropriate additions to the Maintenance Rule scope. These actions were in progress when the issue was identified during the NRC inspection.

Corrective Actions Which Have Been Taken and Results Achieved:

1. The following systems are being added to the Maintenance Rule scope: chlorine detectors, emergency AC lighting (control room portions only), Appendix R DC lighting, public address system, portable radio system (repeaters and transceivers), sound-powered phone (i.e., hard-wire communications which are referenced in EOPs), process radiation monitors, area radiation monitors, reactor building area temperature indicators, and reactor building differential pressure instrumentation.

The following SSCs were not added to the Maintenance Rule scope: portable communication equipment (hand-held radios, headsets), non-control room emergency AC lighting, non-Appendix R emergency DC lighting, portable area radiation monitors, and non-significant process radiation monitors. Justification for these exclusions is provided as follows.

Communications Systems:

EOP related communication sources at BSEP include portable radios, a five channel public address system, and a five channel sound-powered phone system. The likelihood of a loss of all three sources at any one time is remote and thus, the focus of the Maintenance Rule was not initially deemed necessary.

The power block portions of the public address system, the plant installed portions of the portable radio system, and the channels of the sound-powered phone system which are referenced in EOPs have been added to the Maintenance Rule scope.

Emergency AC Lighting:

The emergency AC lighting equipment in locations other than the control room provides minimum lighting on each reactor building elevation primarily for the purpose of personnel egress. The lights are not positioned to illuminate equipment used to accomplish EOP functions. Portable lighting equipment is required to perform these actions. BSEP maintains portable lighting in strategically located gangboxes which are marked and locked for emergency use by Operations personnel. These portable lights are periodically checked to ensure functionality. The same portable lighting used to illuminate key plant equipment to support EOP actions is also used for personnel egress to the equipment. Consequently, emergency AC lighting equipment located in areas other than the control room is not credited with illuminating plant areas for operators during performance of their accident or transient mitigation duties on a loss of normal plant lighting. As such, this equipment is not being added to the Maintenance Rule scope.

The control room emergency AC lights are supplied from the two Uninterruptible Power Supplies (UPS) and are arranged such that each UPS feeds every other light. Each UPS can be powered from either division of the 480 volt AC electrical system or either the Unit 1 or 2 Division 2 125/250 volt DC battery system. The remainder of the control room emergency AC lighting system consists of distribution panels, fluorescent bulbs, and ballasts. There is no preventive maintenance which could be performed on the system that would enhance the reliability and availability of the system. The bulbs and ballasts are replaced upon failure on an as-needed basis. Due to the number and layout of the lighting fixtures installed in the control room, the failure of a bulb, ballast, circuit breaker, or entire distribution panel would not cause a loss of illumination and thereby inhibit the operator's ability to perform EOP or accident mitigating actions. The availability and reliability of the system are entirely dependent on the availability of the power sources. BSEP has added the UPS to the Maintenance Rule scope. The DC battery system has been included in the Maintenance Rule scope since the initial Maintenance Rule program development effort.

Emergency DC Lighting:

Emergency DC lighting consists of two subsystems; egress/exit sign lighting and Appendix R lights. Similar to the emergency AC lighting system, egress and exit sign lights do not illuminate equipment required to accomplish EOP functions. Portable lights are required to support EOP related functions and as such, could also be used for egress. Consequently, the emergency DC egress/exit sign lighting equipment is not being included in the Maintenance Rule scope.

Appendix R SSCs including lights were initially excluded from the Maintenance Rule scope based on the general exclusion allowed for Appendix R components in NUMARC 93-01. Appendix R related lighting equipment has been added to the Maintenance Rule scope since these lights provide illumination of certain equipment identified in the EOPs.

Area Radiation Monitors (ARMs):

The EOPs specify entry level conditions which are based on the readings of reactor building area radiation monitor channels 15 through 30 (excluding channels 21 and 26). Although there are alternate methods of confirming these conditions, the ARMs are the first line of detection which provide continuous monitoring capabilities. Area radiation monitors

and continuous area monitors are also used to determine whether an alert emergency action level exists.

Since the appropriate regions for EOP entry are monitored by permanently installed area radiation monitors, the permanent area radiation monitors have been added into the scope of the Maintenance Rule. Updated Final Safety Analysis Report (UFSAR) section 12.5 does not describe the continuous air monitors (CAMs) as being used for accident or transient mitigation. The UFSAR does state that CAMs are used for routine sampling in selected areas of potential airborne radioactivity. Since the number of portable CAMs and their locations can vary according to changing needs and conditions and CAMs do not provide remote input to the control room, CAMs will not be included in the Maintenance Rule scope.

Process Radiation Monitors:

Process radiation monitors which are designed to provide safety system actuation such as the Reactor Building Vent Radiation Monitor, the Main Stack Radiation Monitor, and the Control Building Area Radiation Monitor have been included in the Maintenance Rule scope since Maintenance Rule program development. As part of the corrective actions for this violation, those process radiation monitors which provide EOP entry information have been added to the scope of the Maintenance Rule. These monitors include the Main Steam Line Radiation Monitors, the Condenser Off-Gas Radiation Monitors, the Reactor Building Roof Vent Noble Gas Radiation Monitor, the Turbine Building Noble Gas Radiation Monitors, the Turbine Building Release Rate Monitor, and the Service Water Liquid Discharge Radiation Monitors. Those process radiation monitors that do not provide safety system actuation or EOP entry information are not being included in the Maintenance Rule scope. These include the Radwaste Liquid Effluent Radiation Monitor, the Reactor Building Closed Cooling Water Liquid Discharge Radiation Monitor, the Storm Drain Collection Basin Radiation Monitor, the AOG Charcoal Adsorber System Effluent Gas Radiation Monitor, the Hardened Wetwell Vent Radiation Monitor, the Hot Shop Ventilation Exhaust Radiation Monitor, and the Stabilization Pond Effluent Radioactivity Monitor.

2. A review of the EOPs for other SSCs used to identify EOP entry conditions was performed. This review revealed two deficiencies related to EOP-SCCP, Secondary Containment Control Procedure. This EOP includes secondary containment area temperature indicators and differential pressure instrumentation as EOP entry conditions. Those temperature switches that provide secondary containment system isolation actuation have been included in the Maintenance Rule scope since Maintenance Rule program development. However, those switches and the differential pressure instruments that provide an indication-only function, had not been included in the Maintenance Rule scope. As part of the corrective actions for this violation, the temperature switches and differential pressure instruments providing an indication-only function are being added to the Maintenance Rule scope. The remaining EOP entry-related SSCs were previously included in the Maintenance Rule scope.

Corrective Steps Which Will Be Taken to Avoid Further Violations:

Several actions are required to ensure compliance with 10 CFR 50.65 requirements for those SSCs which are being added to the Maintenance Rule scope as identified in this response.

Performance criteria must be established and a historical review of system performance must be completed with the affected systems classified A1 or A2. These actions will be completed for each of the systems discussed, by April 30, 1997.

Step 8.2.1.2 of NUMARC 93-01 states that utilities are to determine which non-safety SSCs are needed to mitigate accidents or transients as described in the plant's Final Safety Analysis Report (FSAR). Conversation with NRC Maintenance Rule personnel indicates that many licensees misinterpreted this step to include only UFSAR Chapter 15 accidents and that the entire UFSAR should be used to determine accidents or transients. Examples of events which may have been overlooked include tornadoes and chlorine releases. Thus, BSEP will perform a review of Maintenance Rule scoping to determine whether any UFSAR accidents or transients were overlooked. Any identified discrepancies will be reviewed by the Maintenance Rule Expert Panel for impact to the plant. Based on the results of this review, Maintenance Rule scoping and associated procedures will be adjusted accordingly. This review will be completed by July 31, 1997. CP&L believes the Maintenance Rule process established at BSEP contains adequate controls for ensuring revision of Maintenance Rule scope due to plant changes, changes to the regulations as they occur, and from the incorporation of industry experience.

Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by April 30, 1997.

Enclosure 2
List of Regulatory Commitments

The following table identifies those actions committed to by Carolina Power & Light (CP&L) Company in this document. Any other actions discussed in the submittal represent intended or planned actions by CP&L. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager-Regulatory Affairs at the Brunswick Steam Electric Plant of any questions regarding this document or any associated regulatory commitments.

Commitment	Committed date or outage
Standing Instructions (SIs) are being reviewed to determine if other SIs exist which provide guidance or instruction that should be controlled by plant procedures. Affected SIs will have procedures developed/revise and implemented as appropriate.	5/2/97
Appropriate procedure revisions will be implemented to incorporate management expectations on the initiation of Work Request/Job Orders.	5/2/97
Performance criteria will be established and a historical review of system performance completed for those Structures, Systems, and Components which are being added to the Maintenance Rule scope as identified in this response.	4/30/97
A review of Maintenance Rule scoping will be performed to determine whether any Updated Final Safety Analysis Report accidents or transients were overlooked; the Maintenance Rule scoping and associated procedures will be adjusted accordingly.	7/31/97