April 26, 1999

Carolina Power and Light Company
ATTN: Mr. J. S. Keenan
Vice President
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461

SUBJECT: NRC INTEGRATED INSPECTION REPORT NOS. 50-325/99-02, 50-324/99-02

Dear Mr. Keenan:

This refers to the inspection conducted on February 14 through March 27, at the Brunswick reactor facility. The enclosed report presents the results of this inspection.

Based on the results of this inspection, the NRC has determined that four violations of NRC requirements occurred. These violations are being treated as Non-Cited Violations (NCVs), consistent with Appendix C of the Enforcement Policy. These NCVs are described in the subject inspection report. If you contest the violations or severity level of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region II, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

During the inspection period, the NRC received a supplemental response dated March 30, 1999 to Notice of Violation 50-325(324)/97-09-08, concerning a failure to implement a smoke detector procedure. We have evaluated your response and found that it meets the requirements of 10 CFR 2.201.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

Sincerely,

(Original signed by B. R. Bonser)

Brian R. Bonser, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Docket Nos.: 50-325, 50-324
License Nos.: DPR-71, DPR-62

Enclosure: (See page 2)

CP&L

Enclosure: NRC Inspection Report

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

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|---|---|
| Docket Nos: | 50-325, 50-324 |
| License Nos: | DPR-71, DPR-62 |
| Report No: | 50-325/99-02, 50-324/99-02 |
| Licensee: | Carolina Power & Light (CP&L) |
| Facility: | Brunswick Steam Electric Plant, Units 1 & 2 |
| Location: | 8470 River Road SE<br>Southport, NC 28461 |
| Dates: | February 14 - March 27, 1999 |
| Inspectors: | T. Easlick, Senior Resident Inspector<br>E. Brown, Resident Inspector<br>E. Guthrie, Resident Inspector<br>D. Thompson, Reactor Inspector (Sections S1-S7)<br>F. Wright, Senior Radiation Specialist (Sections R1, R2, R3, R7, R8) |
| Approved by: | B. Bonser, Chief, Projects Branch 4<br>Division of Reactor Projects |

Enclosure

# EXECUTIVE SUMMARY

Brunswick Steam Electric Plant, Units 1 & 2
NRC Inspection Report 50-325/99-02, 50-324/99-02

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a six-week period of resident inspection; in addition, it includes the results of security and radiological protection inspections by regional inspectors.

## Operations

- The caution tag associated with a nonconforming reactor vessel bottom head temperature indication did not contain sufficient guidance. The guidance provided did not direct the operators to the procedure containing the necessary plant condition requirements and temperature validation methodology. A caution tag associated with the reactor recirculation pump speed control instrument was inappropriately removed, since the operator work around it addressed still existed. These issues were addressed and corrected by the licensee (Section O2.1).

- The licensee completed a safe shutdown risk management assessment which consisted of an independent review of the upcoming Unit 2 refueling outage schedule by a team of multi-disciplined personnel. The assessment team focused on maintaining defense in depth for five key safety functions, identified higher risk evolutions, and recommended schedule enhancements. The review and assessment of the outage schedule was both comprehensive and thorough. The licensee took appropriate actions in response to the assessment to minimize outage risk (Section O2.3).

- A review of a control room emergency ventilation system test revealed discrepancies with the test methodology and deficiencies with the test acceptance criteria. The acceptance criteria did not contain all logic system functional testing requirements. A violation was identified for a missed surveillance test (Section O3.1).

- During observation of a turbine building auxiliary operator during routine activities good system knowledge, procedural adherence, and housekeeping practices were demonstrated (Section O4.1).

- Plant nuclear safety committee (PNSC) activities observed complied with plant procedures and the Updated Final Safety Analysis Report. Challenging questions and specific action items assignments demonstrated that the PNSC is effectively implementing its duties and responsibilities (Section O7.1).

- A violation was identified by the licensee when all four of the RCIC steam supply pressure-low pressure switches were found to be calibration-checked below the Technical Specification allowed value (Section O8.2).

Maintenance

- Maintenance surveillance activities were observed to be performed satisfactorily. Three-part communication was maintained and test equipment was within the current calibration cycle. Procedures were present at the job sites, of the proper revision, and were performed with the correct level-of-use (Section M1.1).

Engineering

- Engineering resolution of several motor operated valve deficiencies was satisfactorily performed. Nonconformances were promptly identified, satisfactorily evaluated, and either promptly repaired or entered into the work schedule (Section E2.1).

Plant Support

· The licensee technical staff utilized good planning, procedures, and communications in performing routine radioactive effluent stream sampling (Section R1.1).

· Overall the licensee's radiation protection controls within the low level radioactive material storage facility were adequate and met regulatory requirements. A violation was identified for failure to accurately label a container of radioactive material in the facility. Housekeeping in parts of the facility were poor (Section R2.1).

· Inspected radiological environmental air samplers were properly calibrated, operated in accordance with licensee procedures, and were well maintained (Section R2.2).

· The licensee's 1998 effluent releases increased significantly but continued to be a small fraction of allowable limits (Section R3.1).

· Licensee quality controls for gamma spectroscopy systems met procedure requirements and were effectively implemented (Section R7.1).

· Review of the staffing rosters for Operations responsibilities for the emergency response, alternate safe shutdown, and fire brigade programs revealed a conflict. A violation was identified due to the Site Emergency Coordinator being assigned multiple duties, in the event of a shutdown of both units from outside the control room, which was contrary to the emergency response plan (Section P1.1).

· A review of the licensee's access authorization program concluded that the program was meeting regulatory guidance (Section S1.1).

· Changes to the protected area perimeter barrier met the Physical Security/Contingency Plan and regulatory requirements (Section S2.2).

- The Physical Security/Contingency Plan changes did not decrease the effectiveness of the security programs (Section S3.1).

- Security event logs reviewed appropriately tracked, resolved, and documented safeguards events in accordance with regulatory requirements (Section S3.2).

- Licensee-conducted audits were thorough, complete, and effective in terms of uncovering weaknesses in the security system, procedures, and practices. The audit findings and recommendations were reviewed by management, appropriately assigned, analyzed, and prioritized for corrective action. Corrective actions were technically adequate and performed in a timely manner. The audit/self-assessment program continued to be a program strength (Section S7.1).

- Single fire barrier penetration seals were determined to have only been inspected on one side. As a result, the licensee declared all the seals under an impairment. This impairment existed for most of the safety-related buildings onsite. An unresolved item was initiated for outstanding questions regarding the adequacy of procedures, training, and inspection methodology of the fire barrier penetration seals. The item also included questions regarding missed opportunities to identify this condition sooner (Section F2.1).

## Report Details

Summary of Plant Status

Unit 1 operated at or near 100 percent rated thermal power (RTP) during the report period except for planned testing activities. At the end of the report period, the unit had been on-line continuously for 61 days.

Unit 2 began the report period operating at 100 percent RTP. On February 12, power was reduced to 60 percent RTP to perform required control rod testing and a control rod pattern adjustment. The unit was returned to 100 percent RTP on February 13. On February 28, RTP was reduced to 80 percent to establish final feedwater temperature reduction (FFWTR) operations to maintain RTP as high as possible at the end of core life. The unit was returned to 100 percent RTP on February 28. On March 14, RTP was reduced to 94 percent to perform planned bypass valve testing, control rod testing, and reduce feedwater temperature further as part of FFWTR operations. The unit was returned to 100 percent RTP on March 14. The unit was operating at approximately 97 percent RTP at the end of the report period allowing RTP to coast down at the end of core life. The unit operated with three control rods inserted to suppress power around a leaking fuel assembly. At the end of the report period the unit had been operating continuously for 209 days.

## I. Operations

### O2 Operational Status of Facilities and Equipment

O2.1 Caution Tags/Operator Workarounds

a. Inspection Scope (71707)

The inspectors reviewed several control room equipment deficiencies to verify proper nonconformance dispositioning and procedural compliance in accordance with Operating Instruction 0OI-1.08, “Control of Equipment and System Status,” Revision (Rev.) 20, and Operating Instruction 0OI-1.09, “Equipment Tagging,” Rev. 2.

b. Observations and Findings

On March 2 the inspectors reviewed cautions tags associated with drywell equipment deficiencies. The inspectors noted that on Unit 2 the reactor vessel bottom head drain line temperature recorder, 2-G31-TR-R607, was not functioning properly. The applicable caution tag, 2-4991, indicated the line was

partially plugged and if it was necessary to use the indication a comparison should be made with other plant indications. The inspectors questioned the onshift operators, reviewed the reactor turbine gauge board (RTGB), and Periodic Test 0PT-01.7, “Heatup/Cooldown Monitoring,” Rev. 2.
The inspectors reviewed associated procedures, previous events, and temperature instrumentation. The inspectors noted that all other reactor coolant system (RCS) temperature indicators, such as recirculation suction temperature or vessel wall temperature, either measured another section of the vessel and/or had a time delay of several hours. Therefore, a timely indicator was not available to take the bottom head temperature. The licensee indicated that, until an accurate temperature indication could be obtained, precautions contained in Operating Procedure 2OP-2, “Reactor Recirculation System Operating Procedure,” Rev. 103, would be adequate guidance. The caution tag guidance provided did not direct the operators to the procedure containing the necessary plant condition requirements and the correct temperature validation or verification methodology. Discussions with the licensee revealed that management expectations were not met regarding usefulness of the guidance provided on the caution tag.

On March 2, the inspectors determined that no caution tag was present on the reactor recirculation (RR) speed controller, located in the control room, for an operator work- around. The operator workaround paperwork indicated that a caution tag was necessary. The licensee recognized that not having a caution tag was inappropriate because a workaround still existed. The licensee promptly placed a caution tag on the RR pump speed controllers. The RR operating procedure did not accurately reflect the RR pump speed demand versus the actual pump speed. This relationship was specified in Operating Procedure 1OP-02, “Reactor Recirculation System Operating Procedures,” Figure 3, Rev. 50. The correct relationship could only be attained during a unit shutdown.

c. Conclusions

The caution tag associated with a nonconforming reactor vessel bottom head temperature indication did not contain sufficient guidance. The guidance provided did not direct the operators to the procedure containing the necessary plant condition requirements and temperature validation methodology. A caution tag associated with the reactor recirculation pump speed control instrument was inappropriately removed, since the operator workaround it addressed still existed. These issues were addressed and corrected by the licensee.

O2.2 Containment Atmospheric Dilution (CAD) System Walkdown (71707)

On March 24, the inspectors conducted a detailed walkdown of the accessible mechanical and electrical system components of the CAD engineered safety feature

(ESF) system. The inspectors verified, through review of the updated final safety analysis report (UFSAR), Technical Specifications (TS), design basis documents, and system operating procedures, that the system was operable. The inspectors observed that system instrumentation was indicating expected values and that they were calibrated. The inspectors found that the equipment condition and housekeeping of the CAD system were satisfactory. The inspectors noted that the intake screen for the CAD tank room ventilation system was almost completely blocked by debris. The licensee found that pigeons had been living in the ventilation intake on the outside of the CAD tank room and the debris was comprised of feathers and nesting materials. The licensee cleaned off the screen and was evaluating additional preventive maintenance actions that may be necessary. The inspectors verified that the ventilation system blockage did not affect operability of the CAD system. The inspectors and the licensee observed other safety-related buildings for the facility and found no other discrepancies or the potential that the same condition could occur.

O2.3 Outage Risk Assessment

d. Inspection Scope (71707)

In preparation for the Unit 2 refueling outage, the inspectors attended outage risk assessment team meetings and reviewed the Safe Shutdown Risk Management Assessment Report.

e. Observations and Findings

On March 1 through 4, the licensee conducted an independent review of the refueling outage schedule in accordance with Administrative Procedure AP-22, “BNP Outage Risk Management,” Rev. 4. This procedure communicates the plant management outage safety philosophy and provides guidance to be used in meeting the objectives and goals of the philosophy. The assessment also included a review of the schedule to ensure compliance with the Improved Technical Specifications. The assessment team included a group of multi-disciplined personnel from operations, maintenance, engineering, and the outage and scheduling departments. Additionally, three individuals from other utilities participated on the team. The shutdown risk assessment focused on maintaining defense in depth for five key safety functions including: secondary containment integrity; reactivity control; inventory control; decay heat removal/fuel pool cooling; and electrical distribution. The risk assessment team reviewed and verified that the outage plan maintained systems and components to provide backup of key safety functions, and planned and scheduled outage activities to optimize safety system availability.

The assessment identified two higher risk evolutions that were planned for this outage. A higher risk evolution is defined as outage activities, plant

configuration or condition during shutdown where the plant is more susceptible to an event causing the loss of a key safety function. The first evolution identified was the outage of the Division I 4.16 KV Bus E3 and 480 V Bus E7, and the subsequent Division II 4.16 KV Bus E4 and 480 V Bus E8. The assessment recommended that a contingency plan, as described in AP-22, be developed for the bus outages. The second evolution was the vessel hydrostatic pressure test when all shutdown cooling will be secured to allow the reactor coolant system to heat up in preparation for the test. The team concluded that a contingency plan was already incorporated into the operating procedures and no further action was recommended. The assessment team also identified 13 schedule enhancements to improve the outage execution which were captured in a condition report.

The licensee has developed a contingency plan for the electrical bus outage and is currently reviewing the schedule enhancements for disposition as appropriate in the outage schedule. The final risk assessment report and contingency plan was reviewed and approved by the plant nuclear safety committee (PNSC).

f. Conclusions

The licensee completed a safe shutdown risk management assessment that consisted of an independent review of the upcoming Unit 2 refueling outage schedule by a team of multi-disciplined personnel. The assessment team focused on maintaining defense in depth for five key safety functions, identified higher risk evolutions, and recommended schedule enhancements. The review and assessment of the outage schedule was both comprehensive and thorough. The licensee took appropriate actions in response to the assessment to minimize outage risk.

## O3 Operations Procedures and Documentation

### O3.1 Control Building Heating, Ventilation, and Air-Conditioning (CBHVAC) Testing

a. Inspection Scope (71707, 62707)

The inspectors reviewed the results of the March 12, performance of Periodic Test 0PT-46.4, “Control Building HVAC Auto Initiation,” Rev. 25.

b. Observations and Findings

The inspectors during a routine review of the operators logs noted that 0PT-46.4 was completed unsatisfactorily due to the 2A emergency air filtration (EAF) train failing to start within the required time on a simulated high radiation initiation

signal. The inspectors reviewed the test procedure, and the associated TSs. The licensee indicated that technically the signal had been received within the time specified by the surveillance acceptance criteria. However, due to a misunderstanding of the procedure steps, the time was recorded as 11 seconds using the local motor control center (MCC) indication, which was greater than the acceptance criteria. The licensee initiated a temporary change and revised the procedure to specify the use of the local MCC indication.

The inspectors reviewed the procedure temporary change, associated logic and control wiring diagrams for the affected fans, the logic system functional testing (LSFT) review in accordance with Generic Letter 96-01, “Testing of Safety-Related Logic Circuits,” dampers, and EAF trains. The inspectors questioned the adequacy of the TS surveillance acceptance criteria. TS 3.3.7.1 required the licensee to perform LSFT. The inspectors verified that most of the logic was tested by the procedure. However, the inspectors noted that the acceptance criteria did not specify all of the corresponding mechanical and logic component positions. The inclusion of all the corresponding mechanical and logic component positions was necessary to satisfy the LSFT requirement to test the entire control room emergency ventilation system (CREVS) logic. The inspectors determined that to verify adequate LSFT the acceptance criteria should have included an item verifying that for the failure of the preferred EAF train the dampers associated with the standby EAF train would properly align and the train would start after a designated delay. After discussions with the inspectors, the licensee initiated CR 99-741, 0PT-46.4 Improvement Item.

The licensee informed the inspectors that in CR 99-645, 0PT-46.4 Ten Sec.Delay Test, the licensee determined that the test method of pulling a fuse in the logic circuitry bypassed the time delay logic function. As a result, the standby train started immediately during testing instead of after a time delay. The licensee in the CR concluded that there was "little consequence of not testing" the time delay function since 1993. The inspectors reviewed CR 99-645 and concluded, contrary to the licensees determination, that the failure to not test the time delay logic function constituted a failure to complete LSFT for the CREVS instrumentation. This conclusion was based on the licensee failing to verify proper position of the time delay contacts upon receipt of a high radiation signal. The inspectors observed through review of past performances of 0PT-46.4 that the delay function had not been tested since March 1993.

TS Surveillance 3.3.7.1 requires the performance of logic system functional testing for the CREVS instrumentation every 24 months. Before July 25, 1998, when improved TSs were implemented, the frequency was every 18 months. By the definition contained in Section 1.1 of the TS, LSFT requires that all logic components, all required relays and contacts, be tested to verify operability. The failure to test on four occasions, approximately every 18 to 24 months since March 28, 1993, the time delay logic components of the CREVS instrumentation is a violation. This Severity Level IV violation is being treated as a Non-Cited Violation consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as CR 99-844, CREV Logic Missed Surveillance. This violation is identified as 50-325(324)/99-02-01, Failure to Perform CREVS GL 96-01 Testing.

The licensee after the end of the inspection report period revised 0PT-46.4 to test the time delay function. The function was tested and verified to function as designed. The inspectors noted that the acceptance criteria was not revised to reflect the portion of the logic that was being verified. The licensee indicated that the LSFT requirements which were normally performed under the direction of engineering in 0PT-46.4, may be transferred to the maintenance instrumentation and control section and placed in another procedure. This action would be consistent with the other TS required LSFTs.

c. Conclusions

A review of a control room emergency ventilation system test revealed discrepancies with the test methodology and deficiencies with the test acceptance criteria. The acceptance criteria did not contain all logic system functional testing requirements. A violation was identified for a missed surveillance test.

## O4 Operator Knowledge and Performance

### O4.1 Auxiliary Operator Rounds

a. Inspection Scope (71707)

The inspectors observed the Unit 2 turbine building auxiliary operator (2TBAO) during completion of Operating Instruction 2OI-03.4.3, "Unit 2 Turbine Building Auxiliary Operator Daily Check Sheets," Rev. 11.

b. Observations and Findings

On March 23, the inspectors accompanied the 2TBAO during the performance of 2OI-03.4.3 and observed acceptable adherence to the procedure. During the operator's rounds the operator verified that all high radiation doors were locked and functioned as a barrier to prevent inadvertent access into the areas. Pumps and motors were checked for abnormal bearing temperatures, lubrication levels, and all excess oil was cleared from the surrounding area. The operator was very knowledgeable about the systems he monitored, and thoroughly reviewed the operation of each system to ensure that the operating parameters were within the normal expected range. All abnormal alarms or indications were immediately reported to the control room.

c. Conclusions

During observation of a turbine building auxiliary operator during routine activities good system knowledge, procedural adherence, and housekeeping practices were demonstrated.

## O7 Quality Assurance in Operations

### O7.1 Plant Nuclear Safety Committee

a. Inspection Scope (71707)

The inspectors attended several PNSC meetings during the inspection period to observe onsite review committee activities and verify compliance with Administration Instructions 0AI0-9, "Plant Nuclear Safety Committee Administration," Rev. 41.

b. Observations and Findings

The inspectors attended several PNSC meetings to verify that the committee had proper membership and the appropriate reviews were being conducted in

accordance with 0AI-09. In preparation for the Unit 2 refueling outage, the PNSC reviewed the TS changes for the electrical bus allowed outage time extension, the readiness review for the supplemental spent fuel pool system, the shutdown risk assessment report, and a contingency repair plan for the reactor recirculation pump discharge bypass valve 2B32-F032B, which will involve a freeze seal for valve isolation. The inspectors noted that a PNSC agenda was published prior to the meetings and a membership quorum was present for each of the meetings. PNSC members were familiar with the material being reviewed and challenged the individuals during their presentations to the committee. In a number of cases, the PNSC requested additional information or assigned action items to be completed and reviewed at a later date.

c. Conclusions

Plant nuclear safety committee activities observed complied with plant procedures and the UFSAR. Challenging questions and specific action items assignments demonstrated that the PNSC is effectively implementing its duties and responsibilities.

**O8 Miscellaneous Operations Issues (92901, 92902)**

O8.1 (Closed) Violation 50-325/98-06-06: Failure to Properly Implement a Temporary Procedure Change. The inspectors had identified that the licensee made a temporary procedure change that altered the intent of Maintenance Surveillance Test (MST) 1MST-DG11R, “DG-1 Loading Test,” by substituting a 25 horsepower load for a 50 horsepower load into the diesel generator load test profile. A subsequent 10 CFR 50.59 evaluation confirmed the acceptability of the 25 horsepower load substitution and compliance with respect to this issue was achieved when the temporary change expired. The inspectors reviewed the licensee’s root cause analysis and corrective actions taken to prevent a recurrence of this event. Administrative Procedure 0AP-004, “Temporary Changes To Procedures,” Rev. 5, was revised to clarify the limitations associated with the use of temporary changes which are supported by a high level analysis, formal analysis, or evaluation. These changes will require that safety reviews be performed prior to interim approval. The inspectors verified that the procedure change to OAP-004 was completed.

Maintenance personnel that can approve temporary changes have been trained on the new procedure revision and have reviewed this event. The training rosters were reviewed by the inspectors. Additionally, training material was disseminated to other affected site organizations and individuals on the procedure technical reviewers list. Engineering has prepared a list of appropriate loads that can be substituted in the event that loads currently specified by the load test surveillance procedure were unavailable. The MST was revised to incorporate this list.

O8.2 (Closed) Licensee Event Report 50-324/98-001-00: Reactor Core Isolation Cooling System Isolation Instrumentation Setpoint Shift. During a surveillance test it was identified that all four of the reactor core isolation cooling (RCIC) system steam supply low pressure switch setpoints were below the TS allowable value of greater than or equal to 53 pounds per square inch gauge (psig). The pressure switches were calibrated to within tolerance the same day and emergency notification was made in accordance with 10 CFR 50.72(b)(2)(iii)(D), Mitigate the Consequences of an Accident. The licensee's root cause investigation attributed the cause of the setpoint shift to the licensee's failure to establish comprehensive actions to account for the setpoint shift issues associated with the pressure switches identified in 1991. The inspectors independently reviewed the history of the setpoint shift, including a problem that occurred as recently as 1997, and concluded that the licensee failed to establish comprehensive actions to address and correct the drift and the setpoint shift inherent with the type of pressure switch used for this application. The known magnitude of changes involving the setpoint tolerance and calibration, applied under various initial conditions, were known through industry operating experience to be problem areas, but were never appropriately corrected.

The inspectors reviewed the licensee's corrective actions for the setpoint shift problems associated with this LER and determined the actions to be reasonable. This type of pressure switch was used in the high pressure coolant injection (HPCI) and residual heat removal (RHR) systems. The licensee reasonably addressed setpoint shift and setpoint drift in those systems. The inspectors found that the RCIC pressure switch setpoint and tolerance values were raised. The inspectors verified that the new setpoints were within the allowances discussed in the UFSAR and TS. The higher setpoints were developed to account for expected setpoint shifting and setpoint drift that would occur between the quarterly calibration checks considering the various initial conditions, which could affect the setpoint through drift and setpoint shift. The higher setpoints reasonably ensured that the TS allowed value for the RCIC steam supply low pressure switches would not be challenged prior to the next calibration check.

The purpose of the pressure switches was to isolate the RCIC system on decreasing steam pressure which may have been an indication of a steam leak. Also, it is used coincident with high drywell pressure for isolation of the RCIC turbine exhaust line vacuum breaker isolation values to ensure off-site releases via the RCIC exhaust line diaphragm are less than the off-site release limits. The pressure switch setpoints were found to be above the worst case loss-of-coolant accident (LOCA) calculated drywell pressure of 40.0 psig. Thus, the pressure switch settings would have performed their intended function. The as-found pressure switch settings were approximately 49 psig.

The inspectors determined that a violation of TS Table 3.3.2-2, "Isolation Actuation Instrumentation Setpoints," occurred on June 10, 1998, when all four of the RCIC steam supply pressure-low pressure switches were found to be calibration-checked below the TS allowed value of greater than or equal to 53 psig. This Severity Level IV violation is being treated as a Non-Cited Violation (NCV) consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as condition report (CR) 98-01474, RCIC Pressure Switch Drift. This violation is identified

as 50-325(324)/99-02-02, RCIC Pressure Switch Setpoint Shift.

## II. Maintenance

### M1 Conduct of Maintenance

M1.1 Maintenance Work Activities

a. Inspection Scope (61726, 62707)

The inspectors observed the performance of the following maintenance work activities:

- Maintenance Surveillance Test 1MST-RHR28R, "RHR Time Delay Relays Chan Cal," Rev. 9
- Maintenance Surveillance Test 2MST-RHR27Q, "RHR Shutdown Cooling Rx Press Inst Chan Cal," Rev. 7
- Maintenance Surveillance Test 1MST-APRM 23Q, "APRM C Channel/Functional Test," Rev. 18
- Periodic Test OPT-10-1.1, "RCIC System Operability Test," Rev. 77

b. Observations and Findings

The inspectors observed the conduct of pre-job briefings. Some of the limitations indicated in the procedures were mentioned. Good communication was observed. The inspectors verified that the procedures were present at the job sites, of the proper revision and implemented using the correct level-of-use. Test equipment was observed to be within the current calibration cycle. Minor labeling discrepancies were identified by the technicians and a labeling request was initiated. The acceptance criteria was verified to be consistent with TS requirements. For the surveillances observed TSs were satisfactorily met. Before performance of 2MST-RHR27Q the inspectors observed the inappropriate marking of a step as not applicable. Upon discussion with maintenance supervision present, the procedure was corrected and subsequently performed without incident. Also, during 2MST-RHR27Q, despite extremely noisy conditions, the inspectors observed significant effort by the technicians to successfully maintain three-part communication. During the pre-job briefing for OPT-10.1.1, the inspectors noted an emphasis on lessons learned from previous tests, industry operational experience, and human performance error precursors.

A defense plan was identified for each of the error precursors listed.

c. Conclusions

Maintenance surveillance activities were observed to be performed satisfactorily. Three-part communication was maintained and test equipment was within the current calibration cycle. Procedures were present at the job sites, of the proper revision, and were performed with the correct level-of-use.

## III. Engineering

### E2 Engineering Support of Facilities and Equipment

E2.1 Motor Operated Valve (MOV) Deficiencies and Nonconformances (37551)

The inspectors reviewed the adequacy of engineering support for MOVs which were either safety-related or important to safety. The dispositioning of several valves which failed surveillance or preventive maintenance testing were reviewed. Initial identification was verified by the inspectors to be prompt and consistent with the requirements of the associated sections of the American Society of Mechanical Engineers (ASME) code, inservice test (IST) procedures, and corrective action program. Engineering evaluation and proposed corrective actions were determined to be implemented consistent with the ASME code and IST program procedures. Corrective actions were verified by the inspectors to be either in the schedule, in process, or completed. The inspectors determined that engineering resolution of several MOV deficiencies were timely and satisfactorily performed.

## E8 Miscellaneous Engineering Issues (92903)

E8.1 (Closed) Inspection Follow-up Item 50-325(324)/97-08-10: Review of Control Room Ventilation Issues. The licensee has continued to perform sealing activities in the control room to improve the marginal positive pressure results during control room pressure tests. The licensee had set a goal of approximately .08 inches water gauge (WG) positive pressure in the control room, during the performance of Operations Periodic Test 0PT-46.4, "Control Building HVAC Auto Initiation," Rev. 25. On March 12, 0PT-46.4 was performed with an indicated positive pressure of .10 inches WG, in the emergency air filtration (EAF) mode, relative to the outside atmosphere. Additionally, the licensee completed a safety system functional inspection (SSFI) for the CBHVAC system in May 1996. A self-assessment was completed in April 1998 to verify effective completion of the SSFI identified CBHVAC issues. This self-assessment found that sound technical solutions have been achieved for the issues of concern. The self-assessment concluded that significant improvements to the system and the documentation of the system design basis resulted from the SSFI.

# IV. Plant Support

## R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Routine Sampling of Radioactive Effluent Streams

a. Inspection Scope (83750)

The condition of selected gaseous effluent monitors and routine surveillances was observed to verify the equipment was adequately maintained and surveillances were completed as required by licensee procedures and the Offsite Dose Calculation Manual. The inspection included visual inspections of plant equipment, observations of technicians performing routine effluent surveillance, interviews with licensee personnel, and the review of procedures and records.

b. Observations and Findings

The inspectors observed the sampling of Unit 2 reactor roof vent and stack effluent monitors and observed surveillance activities performed in the control rooms for turbine effluent monitors. The staff received a pre-job briefing prior to start of the surveillance test. The technicians were knowledgeable of the sampling and surveillance test procedures. The inspectors observed good use of procedures at the work location. Independent valve position verifications

were made and good communication between chemistry and operations personnel and other chemistry staff involved in the process were also observed.

Procedure OE&RC-2002, “Sampling of Radioactive Airborne Effluent Releases,” Revision 31 described the methods for sampling of airborne effluent process flow. Attachment 3-1, NMC Monitor Grab Gaseous Sampling, step 2 required the staff verify flow was reading approximately 2 cubic feet per minute (cfm). The as found flow on the Unit 2 reactor building vent was 2.4 cfm. The acceptable range was 1.5 to 2.5 cfm. Chemistry personnel removed the filters and the particulate filter was very loaded. The chemistry staff and radiation monitoring system engineer initiated a condition report and began an investigation into the abnormal flow rates. When the filters were analyzed the results were approximately twice those observed in the previous week. The sample nuclide makeup matched reactor water makeup and a steam leak was later found to be the source of the increased radioactive effluents in the reactor building.

The inspectors also discussed setpoint methodologies for gaseous effluent monitors with the staff and were found acceptable

c. Conclusions

The licensee technical staff utilized good planning, procedures, and communications in performing routine radioactive effluent stream sampling.

## R2 Status of RP&C Facilities and Equipment

R2.1 Low Level Radioactive Material Storage Facility

a. Inspection Scope( 86750)

The licensee’s low level radioactive material storage facility (LLRMSF) was inspected to verify the licensee was utilizing proper radiological controls to control radioactive materials. The inspection included reviews of procedures and records, inspector radiation surveys, and interviews with licensee personnel.

b. Observations and Findings

The LLRMSF was located outside the site’s primary radiation control area (RCA) and protected areas. The facility included a yard and warehouse. The warehouse was utilized to store low level radioactive materials and included a sorting facility to separate clean items from contaminated materials. The facility

was fully enclosed with a security barrier and gates. The inspectors periodically verified the licensee was implementing the security controls during the inspection.

In general, the inspectors found that the LLRMSF had adequate radiation protection controls. The inspectors surveyed the facility to verify radiation and high radiation areas were properly posted, container radioactive material labels were visible, and the radiation level information was correct. The inspectors found one container within a group of various container types having a label indicating radiation levels were less than 5 mrem/hour. The inspectors found radiation levels on exposed surfaces were approximately 50 mrem/hour. The finding was reported to a health physics technician working in the facility. The technician surveyed the whole container and found that the highest dose rate on the container was approximately 75 mrem/hour. The technician replaced the label with one containing the correct radiation levels. Licensee management showed the inspectors a routine monthly radiation survey made in January 1999, which documented radiation levels at the containers general location that were similar to those identified by the inspector. However, the licensee failed to update the radioactive materials label for the container at that time and the written records identifying the contents of uniquely identified containers in the facility were not readily available for all persons working in the facility. The inspectors concluded that the label attached to the interim storage container in question was misleading, the exemptions of 10 CFR 20.1905 had not been met, and that the container label was inaccurate and did not meet the requirements of 10 CFR 20.1904.

The licensee identified the issue in the corrective action program as “Incorrect radiation level data was recorded on the label of an in-process radioactive waste container, (45 cubic foot inner pack) at Low Level Warehouse. The label indicated 5 mR/hr; the actual contact radiation level was determined to be 75 mR/hr.”

Failure to maintain accurate radioactive materials label for a container of radioactive material was identified as a Violation of 10 CFR Part 20.1904 requirements. This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee’s corrective action program as CR 99-509. This violation is identified as 50-325(324)/99-02-03, Failure to Label Container of Radioactive Material.

The storage area of the warehouse was in good order. The sorting facility was not in use and the inspector noted the housekeeping for the area was poor with dirt and litter scattered on the floor. The paint on floors and equipment was also

dirty and chipped.

c. Conclusions

Overall the licensee's radiation protection controls within the low level radioactive material storage facility were adequate and met regulatory requirements. A violation was identified for failure to accurately label a container of radioactive material in the facility. Housekeeping in parts of the facility were poor.

R2.2 Environmental Air Samplers

a. Inspection Scope (84750)

The operability and material conditions of Brunswick low volume environmental monitoring program air samplers were reviewed to verify the monitors were capable of performing their intended functions. The inspection included reviews of records and procedures, visual inspections of the monitoring facilities and equipment, and interviews with licensee personnel.

b. Observations and Findings

The licensee's procedures for collecting environmental air samples prescribed appropriate sample care and preparation for analysis. The air samples were being collected (weekly) as required by the licensee's environmental monitoring program. Air samplers were operating in accordance with approves procedures. The material condition of the observes air samplers was good and all were operating in accordance with approved procedures. All monitors are calibrated every six months and all monitors had recent calibration dates. The air sampler flow calibrations were made with test equipment traceable to National Institute of Standards and Technology.

c. Conclusions

Inspected radiological environmental air samplers were properly calibrated, operating in accordance with licensee procedures, and were well maintained.

## R3 RP&C Procedures and Documentation

R3.1 Radioactive Effluent Release Report

a. Inspection Scope (84750)

The inspectors reviewed the draft 1998 effluent report and compared the results

with those submitted in recent years. The inspection included reviews of records, procedures, and interviews with licensee personnel

b. Observations and Findings

While all radiological dose, dose rates, and concentrations from the 1998 radiological effluents were well within limits, some radiological effluents had increased significantly from 1997. In some cases estimated doses were tripled. Problems with fuel leaks and tramp uranium have resulted in increased radiological concentrations in effluents from the site in recent years. In 1998 a main steam isolation valve leak went unrepaired for several weeks which contributed significantly to the radiological effluents.

Gaseous radiological releases

In 1997 the child thyroid dose was 0.05 millirem per year (mrem/yr). In 1998 the dose increased to 0.17 mrem/yr. The total integrated population dose within 50 miles of the site also increased from 68 mrem in 1997 to 204 mrem in 1998.

Liquid radiological releases

The highest adult organ dose in 1997 was 0.003 mrem and increased to 0.011 mrem in 1998. The total integrated dose to all individuals with a 50 mile radius of the site increased from 4.28 mrem to 9.31 mrem in 1998.

Tritium

Forty seven curies of tritium were released in 1998. Fifty six percent of tritium (29.3 curies) was released from the storm drain collection pond. Both tritium and iodine 131 releases have increased every year since 1993.

Mixed fission and activation products activities released were the lowest in the plant's history in 1997 at 0.019 curies but increased to 0.075 curies in 1998.

c. Conclusions

The licensee's 1998 effluent releases increased significantly but continued to be a small fraction of allowable limits.

## R7 Quality Assurance in RP&C Activities

R7.1 Quality Controls for Chemistry Nuclear Identification Systems

a. Inspection Scope (86750)

Quality controls for the chemistry gamma spectroscopy systems were reviewed to verify system performance was adequately monitored. The inspection included reviews of records and procedures and interviews with licensee personnel

b. Observations and Findings

The inspectors verified that the licensee was monitoring and trending gamma spectroscopy system performance. Licensee procedures required actions to investigate performance trends and the licensee was investigating system conditions in accordance with those procedures. The licensee's documentation demonstrated reliability of system analysis.

c. Conclusions

Licensee quality controls for gamma spectroscopy systems met procedure requirements and were implemented effectively.

## R8 Miscellaneous RP&C Issues

R8.1 New Environmental &Radiological Control Manager (83750)

The licensee filled the vacant position of the Manager of Environmental and Radiological Control in January 1999. The new manager had previously earned a senior reactor operators certification, Masters degree in Health Physics from the University of Pittsburgh, and was a Certified Health Physicist. The new manager also had experience as a Radiation Protection Manager in a boiling water reactor plant.

## P1 Conduct of EP Activities

P1.1 Site Emergency Coordinator Responsibilities

a. Inspection Scope (71750)

The inspectors reviewed the adequacy of position designation and maintenance of required emergency plan staffing in accordance with the requirements of the Emergency

Response Plan 0ERP, “Radiological Emergency Response Plan (ERP),” Rev. 52, fire protection, Attachment 1, “Shift ASSD Staffing Roster”, of Alternate Safe Shutdown Procedure 0ASSD-00, “User’s Guide,” Rev. 21, and TS.

b. Observations and Findings

During routine inspection activities the inspectors reviewed staffing in accordance with Attachment 1 to 0ASSD-00. The inspectors noted that both the Unit 1 and 2 Senior Control Operators (SCOs) were assigned responsibility for Fire Brigade Advisor (FBA). Through discussions with the licensee the inspectors were informed that during the fire postulated in Alternate Safe Shutdown Procedure 0ASSD-02, “Control Building,” Rev. 28, one of the unit SCOs would fill the role of FBA, the other would maintain the assigned role as Unit 1 or 2 SCO and the Shift Superintendent (SS) would fill the other SCO position. The inspectors obtained copies of all the ASSD staffing rosters for the month of February. Out of 56 rosters this condition existed 29 times. The inspectors determined that this arrangement would leave the position of Site Emergency Coordinator (SEC) open. The licensee indicated that the SS would serve as both a unit SCO as well as the SEC.

The inspectors observed that during all other events the SS was normally designated by the ERP and the ASSD staffing roster to fill only the SEC position. The assignment of one individual to both positions would mean that the SS would be required to provide oversight for a controlled shutdown outside of the control room requiring coordination of several ASSD stations both within the reactor building and in other buildings for a unit. The inspectors noted that Section 3.0.2 of the ERP indicated that the primary responsibility of the individual in charge, the SEC, was “to assure that all critical actions (emergency response functions) are carried out. Upon activation of the Plan, he is freed of all other responsibilities and thus able to devote his entire effort to managing the emergency response.”

The ERP as well as other plant emergency procedures contained various requirements for emergency coordination, including emergency classifications, offsite notifications, facility activations, and onsite emergency response personnel coordination. Review of Section 3.2.1 of the ERP revealed that the SS remained as the SEC until relieved by the designated On-Call SEC(O-CSEC). The maximum time indicated in the ERP until the O-CSEC would have been available was 45 minutes. The inspectors acknowledged that consistent with industry practice during any event the SS is assumed to maintain oversight responsibilities for the site as well as perform the responsibilities as the SEC; however, the inspectors determined that the addition of another responsibility as proposed by the licensee was not adequate to properly implement the ERP. The licensee indicated that the assignment of the SS as both the SEC and unit

SCO did constitute a conflict with the guidance in the ERP. This observation was captured in CR 99-696, Shift Manning Requirements. The licensee indicated the requirements for manning of the FBA would be reviewed. In addition, a table-top exercise was planned to review the command and control as well as coordination requirements for implementation of 0ASSD-02. The inspectors noted that this drill would not fully staff all the positions needed during an actual shutdown of both units from outside of the control room.

10 CFR 50.54(q) requires that licensees follow and maintain in effect emergency plans which meet the planning standards of 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR 50. Section 3.0.2 of the Emergency Response Plan 0ERP, "Radiological Emergency Response Plan (ERP)," Rev. 52, requires that for the SEC, "upon activation of the Plan, he is freed of all other responsibilities and thus able to devote his entire effort to managing the emergency response." The failure to maintain in effect the proper staffing in accordance with the Emergency Response Plan in the event of a shutdown of both units from outside of the control room is a violation. This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This violation is in the licensee's corrective action as CR 99-696, Shift Manning Requirements. This violation is identified as 50-325(324)/99-02-04, Inadequate Designation of Emergency Response Plan Staffing.

c. Conclusions

Review of the staffing rosters for Operations responsibilities for the emergency response, alternate safe shutdown, and fire brigade programs revealed a conflict. A violation was identified due to the Site Emergency Coordinator being assigned multiple duties in the event of a shutdown of both units from outside the control room contrary to the emergency response plan.

## S1 Conduct of Security and Safeguards Activities

### S1.1 Access Authorization Program

a. Inspection Scope (81700)

The licensee's Access Authorization (AA) program was reviewed against regulatory requirements and Physical Security/Contingency Plan (PSP) commitments.

b. Observations and Findings

The licensee developed their AA program requirements from 10 CFR 73.56 and 73.57. The licensee committed to Regulatory Guide (RG) 5.66, "Access Authorization Program for Nuclear Power Plants." Regulatory Guide 5.66 endorses Nuclear Management and Resources Council (NUMARC) 89-01, "Industry Guidelines for Power Plant Access Authorization Programs," as providing guidance that meets the intent and substance of 10 CFR 73.56.

The inspector reviewed active unescorted access records and observed the access authorization process, fitness for duty testing, and badging of contractors during in-processing for support of the outage. Additionally, the licensee's measures to limit access to personal information and to safeguard the access authorization process were also reviewed and considered to be in accordance with regulatory requirements.

c. Conclusions

A review of the licensee's access authorization program concluded that the program was meeting regulatory guidance.

## S2 Status of Security Facilities and Equipment

S2.1 Protected Area Boundary

a. Inspection Scope (81700)

The inspectors evaluated the new protected area barrier against PSP requirements.

b. Observations and Findings

The inspectors observed the relocation of the protected area fence on the west side of the plant. As a result of the newly installed protected area fence, the security and administrative buildings have been incorporated into the protected area. Also, as part of the change, the vehicular traffic search area was moved to an area outside the protected area. The barrier was properly installed and no openings or maintenance concerns were noted.

c. Conclusions

Changes to the protected area perimeter barrier met the PSP and regulatory requirements.

## S3 Security and Safeguards Procedures and Documentation

S3.1 Security Program Plans and Procedures

a. Inspection Scope (81700)

The inspectors reviewed the licensee's changes to Physical Security/Contingency Plan, Revision 3, against the provisions of 10 CFR 50.54(p).

b. Observations and Findings

Review of Revision 5 to the Physical Security/Contingency Plan, submitted for approval, verified the licensee's compliance to the requirements of 10 CFR 50.54(p). The Physical Security/Contingency Plan changes delineated the new

protected area boundary and defined the number of armed responders available to respond to contingency events.

c. Conclusions

Changes to the Physical Security/Contingency Plan did not decrease the effectiveness of the security program.

S3.2 Security Event Logs

a. Inspection Scope (81700)

The inspectors reviewed a sample of event logs generated since the last inspection to verify that the licensee appropriately analyzed, tracked, resolved, and documented safeguards events that the licensee determined did not require to be reported to the NRC within 1 hour.

b. Observations and Findings

The inspectors reviewed the security event logs for the third and fourth quarters of 1998, and for the first quarter of 1999. The licensee was logging security events as required. No adverse equipment or human error trends were noted.

c. Conclusions

Security event logs reviewed appropriately tracked, resolved, and documented safeguards events in accordance with regulatory requirements.

## S7 Quality Assurance in Security and Safeguards Activities

S7.1 Audits/Self-Assessment Program

a. Inspection Scope (81700)

The inspectors evaluated the licensee's audit program against the commitments of the Physical Security/Contingency Plan. During the inspection, a small representative sample of the problems identified by audits was evaluated by the inspector to determine whether review and analysis were appropriately assigned, analyzed, and prioritized for corrective action, and whether corrective actions taken were technically adequate and performed in a timely manner.

b. Observations and Findings

The licensee's program commitments included auditing the security program at

least every 12 months. The annual audit included a review of routine and contingency security procedures and practices. Also, the review evaluated the effectiveness of the physical protection system testing and maintenance program, protected area lighting, training and qualification, central alarm station operation, storage of safeguards information, access control, security communications, and compensatory measures. The annual audit was conducted during the period of January 25-29, 1999, Audit Report No. B-SC-99-01. Self-assessments were conducted January 3-31, 1998, Report No. S-98-01; May 26 through June 12, 1998, Report No. S-98-02; and September 7-28, 1998, Report No. S-98-03. The audit reports concluded that the security program was effective and recommended appropriate actions to improve the effectiveness of the security program. The licensee had acted appropriately in response to recommendations made in the audit. The audits and self-assessments were thorough, complete, and effective in determining that the security force was capable of meeting the regulatory requirements.

c. Conclusions

Licensee-conducted audits were thorough, complete, and effective in terms of uncovering weaknesses in the security system, procedures, and practices. The audit findings and recommendations were reviewed by management, appropriately assigned, analyzed, and prioritized for corrective action. Corrective actions were technically adequate and performed in a timely manner. The audit/self-assessment program continued to be a program strength.

## F2 Status of Fire Protection Facilities and Equipment

F2.1 Fire Barrier Penetration Seals

g. Inspection Scope (71750, 62707)

The inspectors reviewed the work activities and corrective actions for a licensee identified deficiency in the testing methodology and procedural acceptance criteria for fire barrier penetration seals.

h. Observations and Findings

On March 10 the licensee indicated that for the single fire barrier penetration seals only one side of the seals had been inspected. This was not consistent with the procedural requirements for penetration seal inspection. This condition affected penetration seals in both reactor buildings; the control, service water, and diesel generator (DG) buildings; DG 4-day tank room; and augmented off-gas buildings. Fire Impairments were initiated for the penetration seals in all the

buildings. CR 99-619, Fire Seal impairments expire, was initiated to document this nonconformance.

The inspectors reviewed associated procedures, training requirements and qualifications of the penetration seal inspectors, and other related documentation. The inspectors noted that in December 1998 engineering personnel received questions regarding seal inspection methodology. In the instructions provided by engineering at that time it was stated that single seals were to be inspected on both sides. The inspectors questioned why the missed inspections were not identified or captured in a CR at that time. The licensee indicated that the missed opportunity and others would be discussed in the root cause for CR 99-619. The inspectors noted that after the licensee began reinspecting the penetrations the inspection methodology continued to change. Based on penetration seal inspections still ongoing in the reactor buildings, the lack of initiation or completion of analyses of the affect the unsatisfactory seals have or have had on redundant safety equipment, questions regarding the adequacy of the licensee's dispositioning of nonconforming penetration seals back in 1998, as well as, the adequacy of training for penetration seal inspectors and the test methodology, this issue remains unresolved. This Unresolved Item (URI) is identified as URI 50-325(324)/99-02-05, Fire Barrier Penetration Seal Inspection.

i. Conclusions

Single fire barrier penetration seals were determined to have only been inspected on one side. As a result, the licensee declared all the seals under an impairment. This impairment existed for most of the safety-related buildings onsite. An unresolved item was initiated for outstanding questions regarding the adequacy of procedures, training, and inspection methodology of the fire barrier penetration seals. The item also included questions regarding missed opportunities to identify this condition sooner.

## F8 Miscellaneous Fire Protections Issues (92904)

F8.1 (Closed) Violation 50-325(324)/98-06-13: Failure to Retain ASSD Roster. The inspectors reviewed the root cause evaluation and corrective action from CR 98-1006, Missing Records. The inspectors verified closure of the corrective actions and validated that the rosters were being retained and were retrievable.

F8.2 (Closed) Violation 50-325(324)/98-06-14: Failure to Maintain Adequate Appendix R Staffing. The inspectors reviewed the associated CR 98-1437, ASSD Manning Requirements Not Met, and corrective actions. The inspectors determined that the corrective actions proposed were adequately implemented. Staffing was routinely reviewed by the inspectors for compliance with those

applicable portions of 10 CFR 50, Appendix R. No ASSD manning impairments were generated for expected absences.

## V. Management Meetings

### X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on April 12, 1999. The licensee acknowledged the findings presented.

## PARTIAL LIST OF PERSONS CONTACTED

Licensee

A. Brittain, Manager Security
D. Dicello, Manager of Environmental and Chemistry
N. Gannon, Manager Operations
J. Gawron, Manager Nuclear Assessment
M. Herrell, Training Manager
J. Johnson, Superintendent, Environmental and Chemistry
K. Jury, Manager Regulatory Affairs
J. Keenan, Site Vice President
B. Lindgren, Manager Site Support Services
J. Lyash, Plant General Manager
G. Miller, Manager Brunswick Engineering Support Section
S. Tabor, Project Analyst, Regulatory Affairs
S. Taylor, Superintendent Radiation Protection
E. Quidley, Manager Maintenance
S. Vann, Manager Outage and Scheduling

## INSPECTION PROCEDURES USED

| | |
|---|---|
| IP 37551: | Onsite Engineering |
| IP 61726: | Surveillance Observations |
| IP 62707: | Maintenance Observations |
| IP 71707: | Plant Operations Program |
| IP 71750: | Plant Support Activities |
| IP 81700: | Physical Security Program For Power Reactors |
| IP 83750: | Occupational Radiation Exposure |
| IP 84750 | Radioactive Waste Treatment And Effluent And Environmental Monitoring |
| IP 86750 | Solid Radioactive Waste And Transportation Of Radioactive Materials |
| IP 92901: | Followup - Operations |
| IP 92902 | Followup - Maintenance |
| IP 92903: | Followup - Engineering |
| IP 92904: | Followup - Plant Support |

## ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

| | | |
|---|---|---|
| 50-325(324)/99-02-01 | NCV | Failure to Perform CREVS GL 96-01 Testing (Section O3.1) |
| 50-325(324)/99-02-02 | NCV | RCIC Pressure Switch Setpoint Shift (Section O8.2) |
| 50-325(324)/99-02-03 | NCV | Failure to Label Container of Radioactive Material (Section R2.1) |
| 50-325(324)/99-02-04 | NCV | Inadequate Designation of Emergency Response Plan Staffing (Section P1.1) |
| 50-325(324)/99-02-05 | URI | Fire Barrier Penetration Seal Inspection (Section F2.1) |

Closed

| | | |
|---|---|---|
| 50-325(324)/99-02-01 | NCV | Failure to Perform CREVS GL 96-01 Testing (Section O3.1) |
| 50-325(324)/99-02-02 | NCV | RCIC Pressure Switch Setpoint Shift (Section O8.2) |
| 50-325(324)/99-02-03 | NCV | Failure to Label Container of Radioactive Material (Section R2.1) |
| 50-325/98-06-06 | VIO | Failure to Properly Implement a Temporary procedure Change (Section O8.1) |
| 50-324/98-001-00 | LER | Reactor Core Isolation Cooling System Isolation Instrumentation Setpoint Shift (Section O8.2) |
| 50-325(324)/97-08-10 | IFI | Review of Control Room Ventilation Issues (Section E8.1) |
| 50-325(324)/99-02-04 | NCV | Inadequate Designation of Emergency Response Plan Staffing (Section P1.1) |
| 50-325(324)/98-06-13 | VIO | Failure to Retain ASSD Roster (Section F8.1) |

| | | |
|---|---|---|
| 50-325(324)/98-06-14 | VIO | Failure to Maintain Adequate Appendix R Staffing (Section F8.2) |