

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-324, 50-325  
License Nos: DPR-71, DPR-62  
Report Nos.: 50-324/97-04, 50-325/97-04  
Licensee: Carolina Power & Light Company  
Facility: Brunswick Steam Electric Plant  
Location: P.O. Box 10429  
Southport, NC 28461  
Dates: March 3-7, 1997  
Inspector: D. H. Thompson, Safeguards Specialist  
Approved by: P. E. Fredrickson, Chief, Special Inspection Branch  
Division of Reactor Safety

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## EXECUTIVE SUMMARY

Brunswick Steam Electric Plant, Units 1 & 2  
NRC Inspection Report Nos. 50-324/97-04, 50-325/97-04

This safeguards inspection included aspects of licensee plant support. The report covers a week period of an announced routine inspection by a regional safeguards specialist inspector.

### Plant Support

- The random review of plans, records, reports, and interviews with appropriate individuals verified that changes did not appear to decrease the effectiveness of the Physical Security Plan. (S3.1)
- The inspector found that licensee management provided very good support for the Physical Security Program. This was based on the review of the Physical Security Plan, records and interviews with management, support, and security personnel. (S6.1)
- The licensee's problem evaluation, root cause analysis, and corrective actions of the Corrective Action Program for the 2nd and 3rd Quarter of 1996, were found to be appropriate and adequate as far as security requirements are concerned. (S6.1)
- The inspector concluded that the licensee evaluated the human errors, hardware and mechanical problems and they are effectively controlled and managed. Root cause analysis on the Licensee Event Report and Condition Reports was a strength. (S6.2)
- Licensee-conducted audits were thorough, complete, and effective in terms of uncovering weaknesses in the security system, procedures, and practices. The last audit report concluded that the security program was effective and recommended appropriate action to improve the effectiveness of the security program and the licensee had acted appropriately in response to recommendations made in the audit report. The inspector determined that audit items were reviewed, appropriately assigned analyzed and prioritized for corrective action. The corrective actions taken were technically adequate and performed in a timely manner. (S7.1)

ENCLOSURE

## Report Details

### IV. Plant Support

#### **S3 Security and Safeguards Procedures and Documentation**

##### **S3.1 Security Program Plans**

###### **a. Inspection Scope (81700)**

The inspector reviewed the licensee's Physical Security Plan (PSP), Revision 0, dated March 15, 1996, and the Security Personnel Training and Qualification Plan (T&Q), Revision 07, dated November 21, 1996, and found that both plan submittals were in accordance with the provisions of 10 CFR 50.54 (p).

###### **b. Observations and Findings**

Review of Revision 0 to the PSP, submitted for approval verified their compliance to the requirements of 10 CFR 50.54(p). The PSP changes were numerous and consolidated regulatory requirements for specific areas into one location, i.e., all protected area or vital area requirements are in their own chapter. Additionally, the PSP combined the requirements of Brunswick and Harris into a generic plan. The changes will make it easier for the security personnel to find specific security requirements as needed. The T&Q Plan changes were mostly grammatical and position/title changes.

###### **c. Conclusions**

The random review of plans, records, reports, and interviews with appropriate individuals verified that the changes reviewed did not decrease the effectiveness of the PSP. There were no violations of regulatory requirements found in this area.

#### **S6 Security Organization and Administration**

##### **S6.1 Management Support**

###### **a. Inspection Scope (81700)**

The inspector evaluated the degree of the licensee's management support to the Physical Security Program. Based on the requirements contained in the PSP, the inspector reviewed the Licensee's Event Reports (LERs) and the Safeguards Event Log (SEL) entries. This review was to determine if the licensee appropriately assigned, analyzed, and set priorities for corrective action for the reports and log entries, and whether the corrective action taken was technically adequate and timely.

ENCLOSURE

b. Observations and Findings

The licensee had an on-site physical protection system and security organization. Their objective was to provide assurance against an unreasonable risk to public health and safety. The security organization and physical protection system were designed to protect against the design basis threat of radiological sabotage as stated in 10 CFR 73.1(a). A contract security force provided site security for the licensee. At least one full-time manager of the security organization was always on-site. This individual had the authority to direct the physical protection activities of the organization. The management system included a mechanism for establishing, maintaining, and enforcing written security procedures. These procedures documented the structure of the security organization, and detailed the duties of security force and other individuals responsible for security. Licensee management exhibited an awareness and favorable attitude toward the physical protection requirements.

The review of the SELs as of March 1997 indicated the following:

EVENTS	1st Quarter '97	4th Quarter '96	3rd Quarter '96
Human Errors	4 (38%)	22 (44%)	28 (47%)
Hardware Systems	9 (62%)	28 (56%)	31 (53%)
Other Events	0	0	0
<b>TOTALS</b>	<b>13 (100%)</b>	<b>50 (100%)</b>	<b>59 (100%)</b>

Each quarter had an excellent Trending Summary report that was provided to site management.

There were no compensatory measures in effect at the time of the inspection. Review of previous compensatory measures indicated that they lasted 24 hours or less. The compensatory time for 1996 was excellent and only 306 hours were expended for compensatory measures.

c. Conclusions

The inspector found that licensee management provided very good support for the Physical Security Program. This was based on the review of the PSP, records and interviews with management, support, and security personnel. The licensee's problem evaluation, root cause analysis, and corrective actions of Corrective Action Program for the 2nd and 3rd Quarter of 1996, were found to be appropriate and adequate as far as security requirements are concerned. There were no violations of regulatory requirements found in this area.

ENCLOSURE

## S6.2 Effectiveness of Management Control

### a. Inspection Scope (81700)

The inspector evaluated the adequacy of the licensee's controls for identifying, resolving and preventing problems by reviewing such areas as corrective action systems, root cause analyses, and self assessment in the area of physical security. Also, this inspection was to determine whether there are strengths or weaknesses in the licensee's controls for the identification and resolution of the reviewed issues that could enhance or degrade plant operations or safety.

### b. Observations and Findings

To determine the adequacy of the above, the inspector reviewed the (LERs) and the (SEL) entries. This review was to determine if the licensee appropriately assigned, analyzed and set priorities for corrective action for the reports and log entries, and whether the corrective action taken was technically adequate and timely.

The review of the LERs and SELs indicated a significant decrease in reportable events in 1996, even though the licensee experienced two hurricanes during this period.

One LER was reviewed (LER 1-96-016) concerning a Security Door Lock Tampering Event. On November 8, 1996, a security officer found wire protruding from the security lock core in the exterior Unit 1 railroad door (RB-10). At 1:10 a.m. he also found that the Unit 2 exterior railroad door (RB-09) could not be opened due to an obstruction in the lock. At 4:55 a.m. the licensee confirmed that both locks had been tampered with. On November 8, 1996, at 10:17 p.m. a security officer discovered a thin gauge wire of the same type inserted in the lock on the Unit 2 Reactor Building door (RB-16). The cause of the events was intentional tampering of security equipment by unknown person(s). These tampering events did not restrict access to any vital areas for operations or security personnel as other means of ingress/egress were available. Both events were reported to the NRC. Corrective actions included the following:

- security inspecting all security locks and equipment within the protected and vital areas;
- all security doors were placed on increased patrol frequency;
- operations personnel performed walkdowns of plant systems; security patrol frequency was increased;
- additional surveillance was installed;
- additional compensatory measures were employed;
- and engineering personnel performed walkdowns of plant systems.

The root cause analyses, corrective actions and self assessment, as mentioned in paragraph S6.1 above and in paragraph S8.1 below, were reviewed and found appropriate and adequate.

c. Conclusions

The inspector concluded that the licensee evaluated the human errors, hardware and mechanical problems and they are effectively controlled and managed. Root cause analysis on the Licensee Event Report and Condition Reports was a strength. Root cause analysis on the LERs and Condition Reports was a strength. The licensee's actions documented in LER 1-96-016 were reviewed and considered adequate to close the LER. There were no violations of regulatory requirements found in this area.

**S7 Quality Assurance in Security and Safeguards Activities**

S7.1 Audits and Corrective Actions

a. Inspection Scope (81700)

Based on the commitments of Chapter 11 of the PSP, the inspector evaluated the licensee's audit program and corrective action system. This also ensured compliance with the requirement for an annual audit of the security and contingency programs. 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 the corrective action taken was technically adequate and performed in a timely manner.

b. Observations and Findings

The licensee's program commitments included auditing the security program, including the Safeguards Contingency Plan, at least once every 12 months. The audit included a review of routine and contingency security procedures and practices. This review evaluated the effectiveness of the physical protection system testing and maintenance program. The licensee's Nuclear Assessment Section prepared report B-SC-96-01 dated April 17, 1996. This audit was conducted during the period of March 18-29, 1996. The report was sent to the Site Vice-President and corporate management. There were four strengths, one issue, and five weaknesses. The audit conclusion was, "Overall, the security program at the Brunswick Site is effectively implemented." Also, reports of audits were available for inspection at the plant for a period of three years.

ENCLOSURE

c. Conclusions

Licensee-conducted audits were thorough, complete, and effective in terms of uncovering weaknesses in the security system, procedures, and practices. The audit report concluded that the security program was effective and recommended appropriate action to improve the effectiveness of the security program; and the licensee had acted appropriately in response to recommendations made in the audit report. The inspector determined that all the above items were reviewed, appropriately assigned, analyzed, and prioritized for corrective action. The corrective actions taken were technically adequate and performed in a timely manner. There were no violations of regulatory requirements found in this area.

**S8 Miscellaneous Security and Safeguards Issues**

- S8.1 (CLOSED) Violation, 50-325, 324/96-17-01, Failure to report security event (tampering and locks) within one hour.

The corrective action to the violation was reviewed and the inspector noted that the licensee had revised Security Instruction OSI-20, "Reporting of Safeguards Events," (Revision 16) to remove the word "confirmed" when discussing reporting of tampering events. Additionally, paragraph 6.6.3 of OSI-20, Revision 16, states in part, "Members of the security forces shall report the event via the Security chain of command to the Security Shift Supervisor. If the Security Superintendent or a Security staff representative is on site and immediately available, the Security Shift Supervisor shall report the event to him or her and the Operations Shift Superintendent specifying the category and reporting time requirement. If the Security Superintendent or his designee are not immediately available, the Security Shift Supervisor shall report the event directly to the Operations Shift Superintendent. On call CP&L Security staff representative shall be contacted as soon as possible. Under no circumstances should there be any delay in reporting the event to the Operations Shift Superintendent specifying the category and reporting time requirement. (Remember the One Hour Clock starts when the event is discovered.)"

- S8.2 (CLOSED) LER, 1-96-016, Tampering of vital access doors. Review and closure of this LER is discussed in paragraph S6.2

**V. MANAGEMENT MEETING**

**X1 Exit Meeting Summary**

The inspector presented the inspection results to licensee management at the conclusion of the inspection on March 7, 1997. The licensee acknowledged the findings presented. Although reviewed during this inspection, proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

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**PARTIAL LIST OF PERSONS CONTACTED**Licensee

A. Brittain, Security Supervisor  
W. Campbell, Vice President  
C. Gawron, Manager, Nuclear Assessment Section  
S. Holth, Security Specialist  
W. Levis, Director, Site Operations  
B. Lindgren, Manager, Site Support  
R. Lapriore, Plant Manager

NRC

Patterson, C., Senior Resident Inspector

**INSPECTION PROCEDURES USED**

IP 81700: Physical Security Program for Power Reactors

**ITEMS OPENED, CLOSED, AND DISCUSSED**

<u>Closed</u>	VIO	50-325/324/96-17-01	Failure to Report Security Event (Tampering with Locks) Within One Hour.
<u>Closed</u>	LER	1-96-016	Tampering of Vital Access Doors.

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