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REGION II

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Report Nos: 50-335/99-10, 50-389/99-10

Licensee: Florida Power & Light Company

Facility: St. Lucie Nuclear Plant, Units 1 & 2

Location: 6351 South Ocean Drive
Jensen Beach, FL 34957

Dates: April 12-16 and May 3-7, 1999

Inspectors: L. Hayes, Security Specialist
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Approved by: Kenneth P. Barr, Chief
Plant Support Branch
Division of Reactor Safety

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EXECUTIVE SUMMARY

St. Lucie Nuclear Plant, Units 1 & 2
NRC Inspection Report Nos. 50-335/99-10, 50-389/99-10

This routine, unannounced inspection was conducted in the area of plant support by two Regional Safeguards Inspectors. The specific area evaluated was the Physical Security Program for Power Reactors.

- The inspectors verified the licensee developed and maintained a Behavioral Observation Program in accordance with 10 CFR 73.56, the Physical Security Plan, and implementing procedures (Section S1.2).
- Two examples were identified in which officers, for a brief period of time, did not maintain the capability for continuous communication with an individual in the Central or Secondary Alarm Station (Section S1.3).
- One Non-Cited Violation of regulatory requirements was identified when the inspectors bypassed one of the explosive detectors with a test source due to configuration of the metal and explosive detectors (Section S.2.2).
- Changes to the Physical Security Plan submitted by the licensee were generally satisfactory. The inspectors identified that the licensee failed to submit a revision to the Physical Security Plan when the response station was no longer utilized (Section S3.1).
- One Unresolved Item was opened pending further licensee information and validation of the immediate availability of response officers and the ability of the responders to meet response requirements specified in the Physical Security Plan (Section S4.2).
- One Non-Cited Violation was identified in that, in some instances, duties of the Security Shift Specialist were not being performed as required in the Physical Security Plan (Section S6.2).
- The licensee audit team performed a thorough review of the security program on an annual basis as required by the licensee's PSP (Section S7.1).
- Security generated a lower number of Condition Reports than actual problems that had been identified and corrected (Section S7.4).



REPORT DETAILS

S1 Conduct of Security and Safeguards Operations

S1.2 Access Authorization

a. Inspection Scope (81700)

The inspectors reviewed the licensee's Behavioral Observation Program (BOP) to verify it was developed and maintained in accordance with 10 CFR 73.56(b) and Chapter 1 of the Physical Security Plan (PSP).

b. Observation and Findings

The inspectors determined the licensee was training all individuals on the necessary aspects of the BOP during General Employee Training (GET) on an annual basis. The licensee maintained the BOP by having Department Heads certify that individuals, who continue to have unescorted access authorization, have been observed during a period of 30 days. This certification process was captured in the 31-Day Access Review, which also acknowledged that those individuals listed continued to require the access levels as designated. For those employees who had been away from the BOP for greater than 30 days, the licensee was required by the PSP and by ADM-15.02, "Access Authorization and Control Gate Program," Revision 2, dated March 24, 1999, to ascertain the individual's activities prior to allowing reentry into the protected area. Previous to this inspection, the Plant Access Authorization Request (PAAR) also had a BOP statement in which Department Heads were required to initial to ensure that the individual requesting re-entry had been under the BOP. This additional certification measure was recently eliminated to streamline the access process.

The inspectors reviewed the last six months of the 31-Day Access Review certifications. The inspectors selected six individuals and compared the certifications of the 31-Day Access Review against the individuals' access records, the Nuclear Employee Plant Access (NEPA) database, and the security computer to determine if those individuals were absent for a period longer than 30 days. The inspectors determined that for those individuals absent for more than 30 days and no longer under the BOP, the licensee appropriately ascertained the individual's activities prior to allowing reentry into the protected area.

c. Conclusion

The inspectors verified the licensee developed and maintained a BOP in accordance with 10 CFR 73.56, the PSP, and implementing procedures.

S1.3 Communications

a. Inspection Scope (81700)

The inspectors reviewed records and observed activities to determine if the licensee provided each guard, watchman, or armed response individual on duty with the capability of maintaining continuous communication with an individual in each continuously manned alarm station as required by 10 CFR 73.55(f) and Chapter 6 of the PSP.

b. Observations and Findings

Throughout the two week inspection, officers on duty were observed to be in the possession of an operational telephone or equipped with a functioning radio. However, on April 7, 1999, the Senior Resident Inspector (SRI) noted the licensee had pre-posted officers around the protected area perimeter in the event of a security computer system failure due to Year 2000 upgrades being implemented. The SRI monitored this effort and verified officers' attentiveness. The SRI noted one officer had experienced radio battery failure and could no longer communicate with the alarm stations. An Alarm Station Operator realized the lack of radio traffic and dedicated a camera to observe the officer. The attempt to deliver an operational battery to the officer was delayed due to the unavailability of officers to physically transport the battery. Approximately 20 minutes after discovery of the failed battery, the supervisor was available to deliver an operational battery to the officer.

On April 14, 1999, during the day shift, the inspectors, with the cooperation of the licensee's Security Shift Specialist (SSS), conducted five limited response drills. While performing a drill, one response officer dropped his radio and did not stop to retrieve it. The inspectors, who were accompanying this officer during the drill, retrieved the radio and presented it to the SSS. The responder arrived at the designated vital door without communication capability to either alarm station. The officer was retrained immediately.

These two examples constitute a violation of minor significance in that there was a failure to maintain continuous communication with the CAS or SAS as required by the PSP. This violation of minor significance is not subject to formal enforcement action.

The licensee initiated Condition Report (CR) 99-0618 to review these two examples of communication problems.

c. Conclusion

Two examples were identified in which officers, for a brief period of time, did not maintain the capability for continuous communication with an individual in the CAS or SAS.

S2 Status of Security Facilities and Equipment

S2.2 Protected Area Detection Aides

a. Inspection Scope (81700)

The inspectors observed activities and tested equipment at both protected area access portals to determine if the licensee was searching people, packages, and vehicles either using special purpose detectors (metal, explosive or x-ray) or by a physical hands-on search as required by 10 CFR 73.55(d) and Chapter 3 of the PSP

b. Observations and Findings

The inspectors toured the facility and evaluated the search devices at the North Security Building and at the East Security Building. Personnel, packages and vehicles were being searched as required. Officers on duty were aware of their responsibilities to identify workers or to arrange for escorts for incoming visitors. Hand-held search equipment was found to be functioning effectively.

The inspectors, after first coordinating with a security officer in the vicinity of the search lanes, tested one explosive detector at the East Security Building using the licensee's test source. Using several known vulnerability scenarios, the inspectors were successful in introducing the explosives test source into and out of the walk-through detector without generating an alarm. The inspectors determined this failure was caused by the metal and explosive detector configuration. Neither the officer in the bullet-resistant enclosure nor the officer in the general vicinity of the search lanes was aware the inspectors defeated the explosive detector. The licensee's failure to detect a test explosive device as required by the PSP is a Severity Level IV violation and 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 99-0753. When the licensee was informed of the problem, an immediate compensatory post was established to detect such attempts. The inspectors also observed that the problem exhibited at the East Security Building did not exist for the walk-through detectors at the North Security Building due to equipment setup and an additional officer located in the search lane area.

c. Conclusion

One Non-Cited Violation of regulatory requirements was identified when the inspectors bypassed one of the explosive detectors with a test source due to configuration of the metal and explosive detectors.

S3 Security and Safeguards Procedures and Documentation

S3.1 Security Program Plans

a. Inspection Scope (81700)

The inspectors reviewed recently submitted revisions to the licensee's PSP to determine if the changes incorporated met the requirements of 10 CFR 50.54(p) and did not decrease the effectiveness of the Plan and were submitted within 60 days from implementation.

b. Observations and Findings

Revisions 52, 53, and 54 to the PSP incorporated several changes, which addressed response weapon changes, organizational structure, and 10 CFR 73 rule changes of January 1, 1998. On November 13, 1998, the licensee determined that response strategy would no longer be generated from the response station. The response station's location was specified in Figure A-7D of the PSP. However, the PSP was not amended to reflect the licensee's decision to no longer use the response station. This failure to revise the PSP constitutes a violation of minor significance and is not subject to formal enforcement action.

Conclusion

Changes to the PSP submitted by the licensee were generally satisfactory. One violation of minor significance was noted for the licensee's failure to submit a revision to the PSP when the response station was no longer utilized.

S4 Security Safeguards Staff Training and Qualification

S4.2 Response Capabilities

a. Inspection Scope (81700)

The inspectors reviewed procedures and records and observed activities to determine if the licensee maintained a minimum number of armed first responders who were "immediately available" for security contingency response as required by 10 CFR 73.55(h) and Chapters 1 and 11 of the PSP.

b. Observations and Findings

On April 14, 1999, during the day shift, the inspectors, with the cooperation of the licensee's Security Shift Specialist (SSS), conducted response drills to determine the "immediate availability" of the first responders. Several drills were performed so that all of the committed first responders were not exercised at once. The inspectors noted that

all of the first responders were located at their normal posts inside the power block when these unannounced drills were initiated. The inspectors furnished 20 seconds credit for those officers who were posted inside a radiation area to compensate for radiation controls to be performed prior to continuation of the drills. The responders arrived at a designated vital area door within the time limit documented in Chapter 11 of the PSP for all drills conducted.

Regarding the "immediate availability" of the required response officers, the inspectors were informed by the licensee that on a routine basis the first required number of responders were given other regulatory duties outside the power block, such as escorting trucks and drivers, or the posting of gates. The inspectors expressed concern that required response officers were performing other duties necessary to meet NRC requirements and would have to abandon that assignment to respond as required by the 10 CFR 73.55 and the PSP. With respect to the example of the responder escorting a truck, the inspectors were informed that the driver would be taken along to the alarm contingency in the hope of locating an authorized escort enroute who would assume the officer's escorting duty. The inspectors referred the licensee to NRC NUREG 0908, "Acceptance Criteria for the Evaluation of Nuclear Power Reactor Security Plans," which discusses NRC's criteria used for acceptance of a licensee's PSP commitment for the immediate availability of responders. Specifically, NUREG 0908 recommends that these responders, "... do not have any operational, security or emergency duties that interfere with their ability to immediately respond to a security incident." The NUREG indicates that, in an acceptable program, these responders can perform other duties provided that they are still immediately available to respond. The licensee informed the inspectors that if a contingency occurred during the time period when one of the initial responders was performing another NRC duty that could not be abandoned, the SSS would then direct another response qualified officer to respond. The inspectors were informed by the licensee that they intend to dedicate the initial responders to duties that would not interfere with their response capability. During a telecon of May 26, 1999, the licensee informed the NRC Director of the Division of Reactor Safety that they were evaluating assignments made to security staff who are designated as initial responders in order to determine the impact on meeting 10 CFR 73.55 and the PSP.

The inspectors also questioned if those responders posted outside the power block to perform such duties would be able to respond to and arrive at vital equipment prior to the adversary and within the times specified in the PSP. The three timeliness observed by the inspectors tested only the responders' time capability inside the power block. Those time frames were acceptable in that they met the requirements in 10 CFR 73.55 and the PSP. However, one of the responder's response time was very near to the allowable time specified in the PSP. Other assignments and their affect on the responder's response time meeting the PSP were not evaluated during the inspection. As indicated, the licensee was continuing to evaluate these assignments. The issue of whether the responders arrive in a timely manner to protect vital equipment when they were posted in remote locations of the protected area remains an issue that the NRC is monitoring. An Unresolved Item (URI) has been opened pending further licensee validation of the

response officers' immediate availability to respond to a security contingency and to further validate if those responders are capable of meeting the response requirements of the licensee's PSP (50-335, 50-389/99-10-01, Availability and Response Time of Response Officers).

The licensee initiated CR 99-0617 to address the evaluation of response time issues.

c. Conclusion

One URI was opened pending further licensee information and validation of the immediate availability of response officers and the ability of the responders to meet response requirement specified in the PSP.

S6 Security Organization and Administration

S6.2 Management Effectiveness

a. Inspection Scope (81700)

The inspectors reviewed records and observed activities to determine if the licensee had one full time member of the security organization who has the authority to direct the physical protection activities of the security organization and was onsite at all times. This requirement is specified in 10 CFR 73.55(b) and Chapter 1 of the licensee's PSP.

b. Observations and Findings

Paragraph 1.1.2.6.5 of the PSP states that the SSS will have no assigned duties which would interfere with the ability to direct emergency response activities. In previous inspections the SSS was a licensee employee. Currently, the SSS is a contractor and according to shift assignment records is designated the "LEAD" assisted by two Alarm Station Operators and two Unit Supervisors. The inspectors established there were records of the individual designated as the SSS posted as a compensatory measure for a failed alarm and also as having conducted fire watches inside the power block. This indicated the SSS had been assigned duties which would interfere with his ability to direct emergency response activities if so required. Upon further discussion with the licensee, the inspectors were informed that during the two situations discussed above, the Secondary Alarm Station (SAS) operator was actually the person who would have directed emergency response. The licensee explained that although the SSS is the senior contractor who handles "administrative" functions for the contract force and held the actual title, the individual who would carry out those duties described in the PSP could be any one of a number of supervisory personnel, to include the CAS or SAS operators. However, the inspectors noticed there was not a formal turnover process to shift SSS responsibility. The licensee was informed that many officers and supervisors interviewed displayed confusion as to the identity of their leader if an actual event were to occur. The Security Plan Evaluation Report, dated January 1978, defines the NRC's



acceptable criteria for a security organization. Specifically, Section 1.2 states that a clear chain of succession of responsibility shall be established for the transfer of authority in the event of disablement of a key member of the organization. To achieve this continuous effective direction of the security force, the individual in charge should not have routine assignments, such as manning the CAS, SAS, etc., that may interfere with this direction. Also, the individual in charge must have time to direct all activities of the security organization during an incident. The licensee's practice of utilizing the SAS operator to perform the SSS duty and/or the practice of utilizing the SSS to perform other duties that could interfere with the ability to direct emergency response functions is contrary to the provisions of Chapter 1 of the PSP. Additionally, the lack of a clear chain of succession of SSS responsibility could potentially add confusion during a security emergency. 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 Condition Report (CR) 99-0616. At the time of the inspection, the licensee agreed to update the contractor's Daily Post Rotation Schedule (title changes), but did not see the necessity of revising the PSP commitments. By telecon on May 10, 1999, the inspectors were informed that the licensee was evaluating the PSP and would revise it to identify the supervisor(s) who would perform the SSS function as required by 10 CFR 73.55(b)(2) and the chain of succession, if necessary.

c. Conclusion

One Non-Cited Violation of regulatory requirements was noted in that, in some instances, the duties of the SSS were not being performed as required in 10 CFR 73.55 and the PSP.

S7 Quality Assurance in Security and Safeguards Activities

S7.1 Audits/Self-Assessment Program

a. Inspection Scope (81700)

The inspectors reviewed audit reports to determine that the licensee conducted audits of the security program on an annual basis and those audits were conducted by individuals who were independent of the security department as required by 10 CFR 73.55 and the licensee's PSP. Audit results should be provided to site management and to a senior individual at the corporate level and encompass an entire review and evaluation of the PSP, site procedures, security records, training, and contingency planning.

b. Observations and Findings

The inspectors reviewed the 1998 audit (QSL SEC 98-02) and the 1999 audit (QSL SEC 99-02), in which both addressed the effectiveness of the security program at the site and also the control of safeguards information. The corrective actions to the

1998 audit were verified during the 1999 audit. In 1999 the audit team included a Security Specialist from Florida Power Corporation, who assisted the licensee's four auditors. The audit was conducted between February and April, 1999. All aspects of the security program were sampled and verified. Additionally, the auditors reviewed a severe weather related event when certain security duties were suspended due to personnel safety. According to Administrative Procedure # 5753, Severe Weather Preparations, it is the duty of the Security Shift Specialist to take certain actions in the event of a tornado watch, severe weather or hurricane watch. These actions include tying-down security vehicles, relocating officers and accounting for all weapons. In accordance with 10 CFR Part 50.54(x), the licensee notified the NRC that no compensatory posts were in effect for the failed alarm system during a storm. The auditors concluded that the program was satisfactory with strengths in the areas of the security staff reorganization, timely completion of routine maintenance and the improved use of the self-assessment process. The auditors suggested improvement in the contractor's weapons maintenance program and also noted that several officers were past due their annual physical. The auditors concluded that several issues existed that do not satisfy the licensee's "Year 2000 Readiness Procedure." The audit was furnished to the Plant Manager, Site Vice President, the Manager of Quality, the Services Manager, and the Security Manager.

c. Conclusion

The licensee audit team performed a thorough review of the security program on an annual basis as required by the licensee's PSP.

S7.4 Corrective Actions

The inspectors noted that from October 1, 1998, to present, a total of nine CRs were generated from site Security, a number significantly lower than actual problems identified and being corrected in the security area. For instance, the examples of the lack of communication on two occasions were not addressed in the Corrective Action Program during the course of the inspection. To address the lack of use of the corrective action system by security, the licensee generated CR 99-0620. (Inspection Report 50-335, 50-389/99-03 contains additional discussion of this issue.)

Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of the licensee's management at the conclusion of the inspection on May 7, 1999. The licensee had dissenting comments regarding the inspectors ability to bypass the explosive detector in the East Security Building. The licensee declared that other detection methods were in place; that the officer in the search area did see the inspector bypass the detector and

would have stopped him from entering the protected area, and that the inspector did not enter the protected area. Also, dissenting comments were given by the licensee regarding the inspectors' concerns regarding the immediate availability of responders. The licensee emphasized that the availability of the responders was not a concern in that other officers could be utilized as determined by the SSS. Additionally, the licensee made dissenting comments with regard to the utilization of the SSS to perform other duties and emphasized that the rotation of supervisors in the SSS position met the PSP commitments and that the examples cited by the inspectors were not significant in that at the time, another supervisor had assumed the SSS duties. No proprietary information was identified during the inspection.

A subsequent telephone conversation occurred on May 26, 1999 between the St. Lucie Vice President, the St. Lucie Site Security Manager, and the NRC Director, Division of Reactor Safety to clarify the findings of the inspection. Dissenting comments similar to those described above were received regarding the SSS position, the explosive detector vulnerability, and the immediate availability of the responders.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

G. Bird, Security Manager
E. Weinkam, Licensing Manager

NRC

T. Ross, Senior Resident Inspector

INSPECTION PROCEDURES USED

IP 81700 Physical Security Program for Power Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-335, 50-389/99-10-01 URI Availability and Response Time of Response Officers (Section S4.2).