

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-369 and 50-370  
License Nos: NPF-9 and NPF17

Report Nos.: 50-369/97-02, 50-370/97-02

Licensee: Duke Power Company

Facility: McGuire Nuclear Station, Units 1 & 2

Location: 12700 Hagers Ferry Rd.  
Huntersville, NC 28078

Dates: February 3 - 6, 1997

Inspector: W. W. Stansberry, Safeguards Specialist

Approved by: P. E. Fredrickson, Chief, Special Inspection Branch  
Division of Reactor Safety

## EXECUTIVE SUMMARY

McGuire Nuclear Station, Units 1 and 2  
NRC Inspection Report 50-369/97-02, 50-370/97-02

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

### Plant Support

- \* Through observations, interviews, and documentation review, the inspector concluded that compensatory measures implemented for degraded security equipment and conditions were within the commitments of the Physical Security Plan. However, the licensee's procedural guidance for patrol officers was unclear for certain plant and equipment condition under the hours of darkness. An Inspector Follow-up Item was opened to review the procedure changes for the issue. (S1)
- \* Through observations, interviews, and documentation review, the inspector concluded that the licensee used testing and maintenance programs that would ensure the reliability of security related equipment and devices. This area was a strength in the security program. (S2)
- \* A random partial review of plans, records, reports, and interviews with appropriate individuals indicated that changes to the Physical Security Plan and Training and Qualification Plan did not decrease the effectiveness of these plans. The Steam Generator Replacement Project Security Plan was reviewed and found in compliance with regulatory requirements. (S3)
- \* Through observation and interviews of security force personnel, and reviews of training records, the inspector concluded that the security force was being trained in accordance with the T&QP and regulatory requirements. This area was a strength in the security program. (S5)
- \* A review of an uncontrolled Safeguards Information event, identified by the licensee, found that the licensee administered timely, thorough and aggressive corrective action. (S8)

## REPORT DETAILS

### IV. Plant Support

#### **S1 Conduct of Security and Safeguards Activities**

##### **S1.1 Compensatory Measures**

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

The inspector evaluated the licensee's program for compensatory measures for degraded security equipment. This was to ensure the reliability of the physical protection of vital equipment and security-related devices; and licensee's compliance with the criteria in the Physical Security Plan (PSP).

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

Compensatory measures, which are intended to equal the failed or damaged component of the security system, were reviewed. These measures consisted of equipment, additional security force personnel and specific procedures to assure that the effectiveness of the security system was not reduced. During this inspection, no compensatory measures were in effect. There were no outstanding workorder requests that required compensatory measures. However, during a review of the lighting conditions during the hours of darkness, the inspector noted that the security procedures were not clear as to the method used to monitor and observe the protected area during hours of darkness.

Revision 2 of the PSP, dated October 3, 1979, implemented under 10 CFR 50.54 (p), page 8-2, paragraph 8.1.1 - EXCEPTIONS TO ILLUMINATION REQUIREMENTS, states to the effect that vehicles, trailers and other mobile devices, maintenance equipment, material storage areas or similar obstructions which cause shadows or dark areas are exceptions to the illumination requirement [0.2 footcandle]. The PSP further states that during the construction of facilities, outages and maintenance operations, dark areas or shadows may exist in exterior areas of the protected area. For these exceptions, the PSP states that the 0.2 footcandle requirement shall be provided for by "special attention during the protected area patrol." In addition, Security Procedure # EXAT-09, Revision 18, dated December 4, 1980, page 1, paragraph 3.1.3 - PROTECTED AREA LIGHTING SYSTEM, states to the effect that the patrol officer shall tour the protected areas providing "special attention to the area during the normal protected area patrol." Several other paragraphs also reference "special attention" as the action for the patrol officer. Security procedure # EXAO-14, Revision 44, dated February 27, 1996, PATROL DUTIES AND SURVEILLANCE, also references the use of "special attention."

The inspector discussed the term "special attention" with the licensee and understood that they meant that patrol officers would generally look for dark areas, not illuminated, per the PSP and use a flash light to check the area. The licensee did not provide any specific training or guidance on the process for implementing this "special



attention." Subsequent discussions with the licensee resulted in the licensee indicating that appropriate changes would be made to the procedures to update the actions of the Protected Area Patrol Officer in monitoring and observing dark areas during the performance of the patrol duties. These procedural changes will be reviewed during the next inspection, consequently this issue will be tracked as an Inspector Follow-up Item (IFI 50-369, 370/97-02-01).

c. Conclusions

Through observations, interviews, and documentation review, the inspector concluded that compensatory measures implemented for degraded security equipment and conditions were within the commitments of the PSP. However, the licensee's procedural guidance for patrol officers was unclear for certain plant and equipment conditions under the hours of darkness. An Inspector Follow-up Item was opened to review the procedure changes for the issue.

## **S2 STATUS OF SECURITY FACILITIES AND EQUIPMENT**

### **S2.4 Testing and Maintenance**

a. Inspection Scope (81700)

The inspector evaluated the licensee's program for testing and maintenance of security equipment. This was to ensure the reliability of physical protection-related equipment and security-related devices; and licensee's compliance with the criteria in Chapter 9 of the PSP.

b. Observations and Findings

The licensee's program for testing and maintenance was established to ensure that physical protection-related equipment met the general performance requirements. Two individuals from the Instrumentation and Electronics department were permanently assigned to the testing and maintenance of security related devices and equipment. These individuals were also trained and certified as security watchman. Each intrusion alarm was tested for performance at the beginning and end of any period in which it was used but at least every seven days during continuous use. Alarm station operators tested the communication equipment required for onsite communication for performance at least at the beginning of each security work shift. Communication equipment required for offsite communication was tested at least once a day.

The inspector reviewed 18 records documenting tests and maintenance on security-related equipment from February 4, 1994 to February 3, 1997. All documents were readily available and properly maintained. Noteworthy, was the Equipment Specialist Task List used to track and document the daily, seven day and quarterly tests. The licensee has established a Security-Related Equipment Data Base. This program tracked and documented all repairs to each security equipment item.

The inspector observed the quarterly testing and maintenance of the metal detectors at the North Personnel Access Portal (NPAP). The equipment was cleaned, calibrated and tested in accordance with Procedure Process Record IP/0/B/3190/16, Revision 0, dated October 9, 1995, SENTRIE AT METAL/WEAPON DETECTION SYSTEM.

c. Conclusion

Through observations, interviews, and documentation review, the inspector concluded that the licensee used programs that will ensure the reliability of security related equipment and devices. The testing and maintenance program was a strength in the security program. There were no violations of regulatory requirements found in this area.

**S3 Security and Safeguards Procedures and Documentation**

S3.1 Security Program Plans

a. Inspection Scope (81700)

The inspector reviewed appropriate chapters of the licensee's Physical Security Plan (PSP), Revision 04, dated April 18, 1996, the Security Personnel Training and Qualification Plan (T&QP), Revision 02, dated April 19, 1996, and the Steam Generator Replacement Project Security Plan (SGRPSP), Revision 3, not dated.

b. Observations and Findings

A review of the reported changes to the PSP and T&QP verified their compliance to the requirements of 10 CFR 50.54(p). Most of the changes were grammatical, and position/title changes. Necessary coordinating changes were also incorporated for the merged PSP and T&QP that resulted in a consolidated PSP and T&QP for each of the three Duke Power nuclear power plants. Review of the SGRPSP indicated that plan items were in compliance with regulatory requirements.

c. Conclusions

A random partial review of plans, records, reports, and interviews with appropriate individuals indicated that changes did not decrease the effectiveness of the PSP and the T&QP. The SGRPSP was reviewed and found in compliance with regulatory requirements. There were no violations of regulatory requirements found in this area.

## S5 SECURITY SAFEGUARDS STAFF TRAINING AND QUALIFICATION

### S5.1 Security Training and Qualification

#### a. Inspection Scope (81700)

The inspector reviewed the security training and qualification program to ensure that the criteria in the Security Personnel Training and Qualification Plan (T&QP) were met.

#### b. Observation and Findings

The inspector interviewed six security non-supervisor personnel, three supervisors, and witnessed approximately 20 other security personnel in the performance of their duties. Members of the security force were knowledgeable in their responsibilities, plan commitments and procedures. Randomly selected training records were reviewed by the inspector concerning training, firearms, testing, job/task performance and requalification. Documentation and equipment inspected were found as committed to in the approved T&QP.

The inspector found that armed response personnel had been instructed in the use of deadly force as required by 10 CFR Part 73. Members of the security organization were requalified at least every twelve months in the performance of their assigned tasks, both normal and contingency. This included the conduct of physical exercise requirements and the completion of the firearms course. The licensee had an onsite security organization, including adequately trained and qualified security force members in accordance with the licensee's T&QP and the Safeguards Contingency Plan.

Fifteen security personnel training and qualification records were reviewed. Through this review and interview of six security force personnel, the inspector found that the requirements of 10 CFR 73, Appendix B, Section 1.F. concerning suitability, physical and mental qualification data, test results and other proficiency requirements were met. During the review of the training records, the inspector noted that the day time average scores were lower than the night time average scores for handguns and shotguns. The day time average score for handguns was 94.4, the night time average was 96.5. More significant difference was found in the shotgun average scores, day time was 91 and the night time was 97.8. The licensee stated that the differences were caused by the luminous sights on the weapons.

#### c. Conclusion

The inspector concluded through observation and interviews of security force personnel, and reviews of training records that the security force was being trained in accordance with the T&QP and regulatory requirements. This area was a strength in the security program. There were no violations of regulatory requirements identified in this area.



**S8 MISCELLANEOUS SECURITY AND SAFEGUARDS ISSUES****S8.2 Control of Safeguards Information****a. Inspection Scope (81810)**

The inspector reviewed Problem Investigation Process (PIP) 0-M96-3522 pertaining to a safeguards cabinet not properly locked. This review was to determine whether Safeguards Information (SGI), as defined in 10 CFR 73.21, was protected against unauthorized disclosure or compromised.

**b. Observations and Findings**

Through interviews with appropriate security personnel and a review of the PIP, the inspector reviewed an issue, identified by the licensee, involving a malfunctioned safeguards storage cabinet causing SGI to be uncontrolled for approximately five minutes. The malfunctioned part locks the bottom three drawers below the top drawer. A check of the cabinet found the bottom three drawers unsecured, only the top drawer was locked. The cabinet was inventoried and all items in the cabinet were accounted for. A review of the electric lock log for the SSWR entry door showed that there were no other entries into the SSWR between the time the last person using that particular cabinet left the room and the entry of the individuals who discovered the unsecured cabinet. The licensee discovered that the cabinet had hardware problems and was malfunctioning. The cabinet was repaired and all other cabinets in the SSWR were examined and found operating properly.

The immediate corrective action was the inventory of SGI documents in the unlocked cabinet, repairing the cabinet, and examining the other cabinets to ensure proper operation. The PIP concluded that incident was caused by both hardware and human error; mechanical failure of the cabinet and the individual locking the cabinet failed to ensure that the cabinet was secure before leaving the SSWR. Intermediate corrective action was the counseling of the individual involved, security guidelines revised to clarify responsibilities when issuing/returning SGI material, and training SGI cleared personnel on the revised guidelines.

**c. Conclusion**

The inspector determined that the event was licensee identified, had minor safeguards significance and was logged in the Security Events Log. Corrective actions were taken, including inventorying, indicating that no SGI was compromised, and prompt functional examinations of the other cabinets were conducted.

**V. Management Meeting****X1 Exit Meeting Summary**

The inspector presented the inspection results to licensee management at the conclusion of the inspection on October 18, 1996. 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.

## PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Bone, Security Support Supervisor, McGuire Nuclear Station (MNS)  
M. Cash, Regulatory Compliance Manager, MNS  
R. Cross, Regulatory Compliance, Technical Specialist, MNS  
B. Dolan, Safety Assurance Manager, MNS  
W. Evans, Security Manager, MNS  
S. Sellers, Security Technical Specialist, MNS

NRC

S. Shaeffer, Senior Resident Inspector

## INSPECTION PROCEDURES USED

IP 81700: Physical Security Program for Power Reactors  
IP 81810: Protection of Safeguards Information

## ITEMS OPENED, CLOSED, AND DISCUSSED

OPENED

50-369, 370/97-02-01	IFI	Illumination commitments in the PSP differed from regulatory requirements.
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