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NRC: RI
(ORGANIZATION) 11-9-89
(DATE)

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-245/89-22
50-336/89-21
50-423/89-22

Docket No. 50-245
50-336
50-423

License No. DPR-21
DPR-65
NPF-13

Licenses: Northeast Nuclear Energy Corporation
P. O. Box 270
Hartford, Connecticut 06141-0270

Facility Name: Millstone Nuclear Power Station, Units 1, 2, and 3

Inspection At: Waterford, Connecticut

Inspection Conducted: September 11-15, 1989

Date of Last Physical Security Inspection: January 30-February 3, 1989

Type of Inspection: Routine Unannounced Physical Security Inspection

Inspectors: W.T. Lancaster for 11-7-89
W. K. Lancaster, Physical Security Inspector date

W.T. Lancaster for 11-7-89
E. Sylvester, Senior Reactor Engineer - Physical Security date

Approved by: R. R. Keimig 11-7-89
R. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Inspection Summary: Routine unannounced Physical Security Inspection on September 11-15, 1989 (Report Nos. 50-245/89-22, 50-336/89-21, and 50-423/89-22).

Areas Inspected: Licensee Action on Previously Identified Items and the NRC's Regulatory Effectiveness Review; Management Support, Security Program Plans and Audits; Protected and Vital Area Physical Barriers; Detection and Assessment Aids; Protected and Vital Area Access Control of Personnel, Packages and Vehicles; Alarm Stations and Communications; Power Supply; Testing, Maintenance and Compensatory Measures; and Security Training and Qualifications.

Results: The licensee was in compliance with NRC requirements in the areas inspected. However, a potential weakness was identified in the testing of Protected Area Intrusion Detection Aids.

DETAILS

1.0 Key Personnel Contacted

a. Licensee and Contractor Personnel

- *H. Haynes - Station Services Superintendent
- *G. Hallberg - Manager, Nuclear Security, Northeast Utilities
- *J. Provençal - Station Services Senior Engineer
- *P. Anhalt - Station Assistant Security Supervisor - Operations
- *M. Gellinas - Station Assistant Security Supervisor - Administrative
- M. Klien - Station Security Coordinator
- E. Burke - Station Security Shift Supervisor
- D. Atwood - Station Security Shift Supervisor
- S. Foster - Station Security Shift Supervisor
- B. Eckenrode, Station Security Shift Supervisor
- D. D'Egidio, Security Chief, Burns International
- N. Dinsmoor, Station I&C Specialist

b. U. S. Nuclear Regulatory Commission (NRC)

- *L. Kolonauski - Resident Inspector, Unit 3

*Indicates those present at the exit interview.

2.0 Licensee Action on Previously Identified Items

(Closed) Violation (50-245/86-26-01, 50-336/86-32-01, 50-423/86-38-01):
The previously identified protected area (PA) unsecured penetration point was inspected and found to be properly secured. All Licensee corrective actions were verified. No deficiencies were noted.

3.0 Licensee Action on Findings from the NRC's Regulatory Effectiveness Review (RER)

The RER, which was conducted on June 7-15, 1988, identified several potential program weaknesses. The inspectors reviewed the status of the licensee's actions in response to the RER findings. The inspectors' findings relative to the status of these items is provided in the Appendix A to this report.

4.0 Management Support, Security Program Plans, and Audits

- a. Management Support - Management support for the licensee's physical security program was determined to be adequate by the inspectors. This determination was based upon the inspectors' reviews of various aspects of the licensee's program during this inspection, as documented herein. No deficiencies were noted.

- b. Security Program Plans - The inspectors verified that changes to the Licensee's Security, Contingency, and Guard Training and Qualification Plans, as implemented, did not decrease the effectiveness of the respective plans, and had been submitted in accordance with NRC requirements. No deficiencies were noted.
- c. Audits - The inspectors reviewed the 1988 and 1989 annual security program audit reports and verified that the audits had been conducted in accordance with the NRC-approved Physical Security Plan (the Plan). The audits were very comprehensive in scope with the results reported to the appropriate levels of management. The inspectors' review included the security organization's responses to the 1988 audit findings and the corrective actions taken to remedy adverse findings. The documented corrective actions appeared appropriate for the 1988 findings. The responses to the 1989 audit findings and the corrective actions taken to remedy any adverse findings had not been completed at the time of the inspection. They will be reviewed during subsequent inspections.

Based upon the potential weakness identified in Section 5.b. below, the inspectors recommended that the licensee's annual security program audit should include the performance of the security force and review the security plan implementing procedures to ensure the effectiveness of the testing program.

5.0 Protected and Vital Area Physical Barriers, Detection and Assessment Aids

- a. Protected Area Barriers - The inspectors conducted a physical inspection of the PA barrier on September 12, 1989. The inspectors determined, by observation, that the barriers were installed and maintained as described in the Plan. No deficiencies were noted.
- b. Protected Area Detection Aids - The inspectors observed the PA perimeter detection aids on September 12, 1989 and determined that they were installed, maintained and operated as committed to in the Plan.

The inspectors identified several areas where the PA detection aids did not always detect penetrations into the PA. The licensee took appropriate compensatory security measures when these areas were identified.

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The inspectors verified by reviewing testing records that the PA detection aids were being tested as required in the Plan. However, the inspectors determined by reviewing the licensee's station procedure No. SEP 5085B, "Perimeter Intrusion Detection System Testing," and by interviewing security force members (SFM) and I&C Security Technicians, that the testing, as performed, did not ensure the effectiveness of the detection system. The licensee committed to implement a more aggressive testing program by the end of September 1989 and will keep the NRC informed of the results of this effort. The licensee committed to revising the testing procedures to ensure their effectiveness by the end of November 1989. This is an Unresolved Item (50-245/89-22-01; 50-336/89-21-01; and 50-423/89-22-01).

The improperly installed PA detection aids that were noted in Combined Inspection Nos. 50-245/87-22, 50-336/87-20 and 50-423/87-18, had been repositioned by the licensee and were observed by the inspectors to be effectively installed during this inspection.

- c. Isolation Zones - The inspectors verified that isolation zones were adequately maintained to permit observation of activities on both sides of the PA barrier. No deficiencies were noted.
- d. Protected Area and Isolation Zone Lighting - The inspectors conducted a lighting survey of the PA and isolation zones on September 11, 1989. The inspectors determined, by observation, that lighting in the isolation zones was adequate. No deficiencies were noted.
- e. Assessment Aids - The inspectors observed the PA perimeter assessment aids and determined that they were installed, maintained, and operated as committed to in the Plan. During a previous inspection (Combined Inspection Nos. 50-245/89-01, 50-336/89-02, and 50-423/89-01), the inspectors identified several areas where the assessment aids were only marginally effective. Several of the marginal areas identified by the inspectors during the previous inspection had been corrected. The inspectors verified that funding had been budgeted for upgrading the assessment aids in 1990 and that compensatory security measures were in place for the marginal assessment areas. The inspectors recommended that the upgrades to the assessment aids be accomplished as soon as possible.

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This matter will be reviewed during subsequent inspections and is an Inspector Follow-up item (50-245/89-22-01; 50-336/89-21-01; and 50-423/89-22-01).

- f. Vital Area Barriers - The inspectors conducted a physical inspection of several Vital Area (VA) barriers during the period of September 11 - 15, 1989. The inspectors determined, by observation, that the VA barriers were installed and maintained as described in the Plan. During the previous inspection, the inspectors identified several areas where the VA barriers were constructed of materials with marginal integrity. The licensee is still implementing compensatory security measures for these marginal VA barriers. The inspectors verified that the design phase of upgrading these barriers has been accomplished and that installation will commence in 1990. The progress on the VA barrier upgrades will be reviewed during subsequent inspections and is an Inspector Follow-up item (50-245/89-22-02; 50-336/89-21-02; and 50-423/89-22-02).
- g. Vital Area Detection Aids - The inspectors observed the VA detection aids and determined that they were installed, maintained and operated as committed to in the Plan. No deficiencies were noted.

6. Protected and Vital Area Access Control of Personnel, Packages and Vehicles

- a. The inspectors determined that the licensee was exercising positive control over personnel access to the PA and VA. This determination was based on the following:
- 1) The inspectors verified that personnel are properly identified and authorization is checked prior to issuance of badges and key-cards. No deficiencies were noted.
 - 2) The inspectors verified that the licensee has a fitness for duty program in place. A drug screening program has been implemented and all new hires are screened prior to being authorized for unescorted access. The current program also calls for testing individuals for cause. Random testing of employees is prohibited by state law. The licensee has begun to initiate plans to implement 10 CFR Part 26. No deficiencies were noted.
 - 3) The inspectors verified that the licensee has a search program, as committed to in the Plan, for firearms, explosives, incendiary devices and other unauthorized materials. The inspectors observed personnel access processing during shift changes and visitor access processing, and interviewed members of the security force and licensee's security staff about personnel access procedures. No deficiencies were noted.
 - 4) The inspectors determined, by observation, that individuals in the PA and VAs display their access badges as required. No deficiencies were noted.
 - 5) The inspectors verified that the licensee has escort procedures for visitors to the PA and VAs. No deficiencies were noted.
 - 6) The inspectors verified that the licensee has provisions for expediting prompt access to vital equipment during emergencies and that the provisions are adequate for the purpose.
- b. The inspectors determined that the licensee was exercising positive control over packages and material that are brought into the PA. The inspectors reviewed the package and material control procedures and found that they were consistent with commitments in the Plan. The inspectors also observed package and material processing and interviewed members of the security force and the licensee's security staff about package and material control procedures. No deficiencies were noted.
- c. The inspectors determined that the licensee properly controls vehicle access to and within the PA. The inspectors verified that vehicle are properly processed prior to entering the PA. The

process was consistent with commitments in the Plan. The inspectors also reviewed the vehicle search procedures and determined that they were consistent with commitments in the Plan. This determination was made by observing vehicle processing and search, review of vehicle logs, and by interviewing members of the security force and licensee's security staff about vehicle processing and search procedures. No deficiencies were noted.

7. Alarm Station and Communications

The inspectors observed the operation of the Central and Secondary Alarm Stations (CAS and SAS) and determined that they were maintained and operated as committed to in the Plan. CAS and SAS operators were interviewed by the inspectors and found to be knowledgeable of their duties and responsibilities. No deficiencies were noted.

8. Emergency Power Supply

The inspectors verified that there are several systems (batteries, dedicated diesel generator, and plant on-site AC power) that provide back-up power to the security systems and reviewed the accompanying test and maintenance procedures for these systems. The systems and procedures were consistent with the Plan. The systems are located in VAs. No deficiencies were noted.

The inspectors also verified that the VA door access control system for all three units will permit emergency ingress and egress when normal power is lost. The inspectors verified that the licensee had modified the Units 1 and 2 VA door access control system to permit emergency ingress and egress since the previous routine physical security inspection. No deficiencies were noted.

9. Testing, Maintenance and Compensatory Measures

Potential weaknesses in the licensee's testing program are discussed in paragraph 5.b of this report.

The inspectors reviewed testing and maintenance records and confirmed that the records committed to in the Plan were on file and readily available for NRC review. The security organization has its own instrumentation and controls (I&C) technicians to maintain and test security equipment. A review of repair records by the inspectors indicated that maintenance and testing is being accomplished in a timely manner. No deficiencies were noted.

The inspectors also reviewed the licensee's use of compensatory measures and determined them to be as committed to in the Plan. No deficiencies were noted.

10. Security Training and Qualification

The inspectors randomly selected and reviewed the training and qualifications records for three security officers (SOs). Physical qualifications and firearms qualifications records were inspected. These records were for armed guards, watchmen and supervisory personnel. The inspectors determined that the required training had been conducted in accordance with the security program plans and that it was properly documented.

Additionally, several SOs were interviewed by the inspectors to determine if they possessed the requisite knowledge and ability to carry out their assigned duties. The interview results indicated that the SOs, in general, were knowledgeable of their job requirements.

During the previous inspection, the inspectors expressed a concern to the licensee about the high turnover rate in the security force for 1988 (approximately 47%). The inspectors determined that licensee efforts since then to reduce the turnover rate appear to be effective. The inspectors reviewed the turnover rate during this inspection and found that it was about 18% from January 1 to September 1, 1989. Records indicated that about 30% of the current losses were due to terminations of SFMs by the contractor which could be attributed to attendance and procedural violations.

The licensee's contract security force consists of approximately 218 SOs and supervisory personnel. The inspectors verified that the armed response force meets the commitments in the Plan and that there is always one full-time member of the security organization on-site who has the authority to direct security activities.

The inspectors reviewed the Licensee Event Reports (LERs) submitted in accordance with 10 CFR 73.71. During the previous inspection, the inspectors expressed a concern to the licensee about inattentive SFMs (four in 1988 and one in 1989). The inspectors determined that licensee efforts since then to reduce the problems with inattentive SFMs appear to be effective.

11. Exit Interview

The inspectors met with the licensee representatives indicated in paragraph 1 at the conclusion of the inspection on September 15, 1989. At the time, the purpose and scope of the inspection were reviewed and the findings were presented.

At no time during this inspection was written material provided to the licensee by the inspectors.

APPENDIX A TO INSPECTION REPORT
50-245/89-22, 50-336/89-21, 50-423/89-21
LICENSEE ACTION ON FINDINGS FROM THE NRC'S
REGULATORY EFFECTIVENESS REVIEW

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