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NRC - Region I

(ORGANIZATION)

March 12, 1990

(DATE)

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IReport No. 50-213/90-03Docket No. 50-213License No. DPR-61Licensee: Connecticut Yankee Atomic Power CompanyFacility Name: Haddam Neck Nuclear Power PlantInspection At: Haddam Neck Nuclear Power PlantInspection Conducted: February 19-23, 1990Type of Inspection: Routine Unannounced Physical Security Inspection

Inspector:

W. K. Lancaster

W. K. Lancaster, Physical Security Inspector

3/9/90

date

Approved by:

R. R. Keimig, Chief, Safeguards Section  
Division of Radiation Safety and Safeguards

3/9/90

date

Inspection Summary: Routine Unannounced Physical Security Inspection on  
February 19-23, 1990 (Inspection Report No. 50-213/90-03)

Areas Inspected: Management Effectiveness; Management Support, Program Plans, and Audits; Protected and Vital Area Physical Barriers, Detection and Assessment Aids; Lighting; Protected and Vital Area Access Control of Personnel, Packages, and Vehicles; Power Supplies; Testing, Maintenance and Compensatory Measures; Personnel Training and Qualifications; and Land Vehicle Bomb Contingency Procedure Verification.

Results: The licensee was in compliance with NRC requirements in the areas inspected. A potential weakness was identified in the area of Protected Area Lighting.

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## DETAILS

### 1. Key Personnel Contacted

#### Licensee Personnel

- \*E. DeBarba, Station Services Superintendent, Connecticut Yankee Atomic Power Company (CY)
- \*R. Gill, Station Security Manager, CY
- \*P. Jewett, Station Security Coordinator, CY
- J. Lenois, Security Shift Supervisor, CY
- \*S. Horn, Security Shift Supervisor, CY
- \*R. Beaulieu, Security Shift Supervisor, CY
- \*P. Marchese, Senior Nuclear Security Agent, Northeast Nuclear Energy Company (NNECo)
- G. Mark, Chief, Burns Contract Security Force

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

- \*T. Shedlosky, Senior Resident Inspector
- \*A. Asars, Resident Inspector

\*indicates those present at the exit interview

The inspector also interviewed other licensee personnel and members of the contract security force.

### 2. Management Effectiveness - Security Program

The inspector determined that management attention to the Haddam Neck security program remains strong and aggressive.

The following actions have been taken by the licensee since the last NRC physical security inspection to enhance the existing security program:

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The following items were also observed by the inspector:

- On February 23, 1990, the station had a nuclear security force consisting of 119 members (includes 10 temporary contingency force members from other contractor sites and 14 officers in training).
- A review of the security force contractor's records revealed that the contractor has continued to experience an attrition rate of about 50 percent for security officers since January 1, 1989.
- Some security force members (SFMs) have been working 12 hour shifts since June 1989. The licensee has not exceeded any of the NRC recommended guidelines as documented in the NRC IE Information Notice No. 86-88.
- Based on numerous interviews conducted with SFMs and licensee personnel, the inspector determined that excellent communications exists within the licensee's security staff. Good communications exists between the licensee's security staff and the security force contractor. Poor communications exists between security officers and their immediate supervision.
- The station's security program is actively supported by other plant groups and effective communication channels exist among security (both licensee and contractor) and other plant groups.

In summary, the inspector found these upgrades to be indicative of licensee management's efforts to implement a more performance-oriented security program. In spite of the high attrition rate within the security force, the inspector noted that security force members (SFMs), were, in general, knowledgeable of their post duties, contents of procedures and their other responsibilities. Minor security concerns identified by the inspector during the inspection were discussed with on-site security management and prompt corrective actions were taken as applicable. The licensee remains very responsive to NRC identified concerns. However, the inspector noted that the security force contractor had taken few, if any actions since the last NRC physical security inspection to enhance the security program. The security force contractor has been in a totally reactive state since the last security inspection due to the high attrition rate. The attrition rate has severely taxed the contractor's supervision and training programs. The inspector noted during extensive interviews with contractor SFMs, that morale was extremely low.

A majority of the SFMs expressed concerns about the high attrition rate and inexperienced supervision. These issues were discussed with the Station Services Superintendent and his staff during the inspection. The licensee was aware of these concerns and has been taking actions to resolve these issues with the contractor. This item will be reviewed during subsequent inspections.

3. Management Support, Security Program Plans and Audits

- a. Management Support - Management support for the licensee's physical security program was determined to be active and effective by the inspector. This determination was based upon the inspector's review of various aspects of the licensee's program as documented in this report.

The inspector considers the types of upgrades discussed in Section 2. of this inspection report to be indicative of a high quality, effective and performance-based security program. The effectiveness of the program could be further enhanced by reducing the security officer attrition rate. Also, security force morale must be closely monitored by the licensee for any signs of further deterioration as a result of the extremely high attrition rate. So far, the attrition rate and the morale of the security force has not adversely affected the licensee's ability to implement the NRC-approved Physical Security Plan (the Plan).

- b. Security Program Plans - The inspector 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 inspector did not review the 1989 annual security program audit report during this inspection due to time constraints. This review will be conducted during a subsequent inspection.

4. Protected and Vital Area Physical Barriers, Detection and Assessment Aids

- a. Protected Area Barriers - The inspector conducted a physical inspection of the PA barrier on February 21, 1990. The inspector determined, by observation, that the barriers were installed and maintained as described in the Plan.

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- b. Protected Area Detection Aids - The inspector observed the PA perimeter detection aids on February 21, 1990, and determined that they were installed, maintained and operated as committed to in the

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During a previous inspection (Inspection No. 50-213/89-09), the inspectors identified a weakness with the PA IDS testing procedure. During this inspection, the inspector verified that the testing procedure had been upgraded and was more comprehensive and thorough.

- c. Isolation Zones - The inspector verified that isolation zones were adequately maintained to permit observation of activities on both sides of the PA barrier. No deficiencies were noted.
- d. Assessment Aids - The inspector observed the PA perimeter assessment system and determined that it was installed, maintained, and operated as committed to in the Plan. During a previous inspection (Inspection No. 50-213/89-09), the inspectors identified several areas where the assessment system was only marginally effective. Several of the marginal areas identified by the inspectors during the previous inspection had been corrected. During 1989 and 1990, the licensee replaced several components of the system as a short-term corrective action. As a long-term corrective action, the licensee intends to upgrade the entire system and the inspector verified that funding had been budgeted for the project, which is scheduled for completion by December 1990.
- e. Protected Area and Isolation Zone Lighting - The inspector conducted a lighting survey of the PA and isolation zones on February 19, 1990. The inspector determined, by observation, that the lighting was adequate, however, several marginal areas were identified.

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The inspector determined from reviewing the SFM lighting surveys and interviewing security personnel (both contractor and licensee) that the majority of these areas had been previously identified. However, during a review of the licensee's security plan implementing procedures, the inspector determined that compensatory measures for minor lighting deficiencies were not specifically addressed; therefore, the adequacy and prompt initiation of compensatory measures were questioned by the inspector. Also, the licensee's security plan was found to be rather vague concerning physical security measures in this area. The licensee committed to revise the procedure to address the compensatory measures and to analyze potential weaknesses in the PA lighting program and initiate corrective actions as necessary. The procedures and corrective actions will be reviewed during subsequent inspections and this matter is considered an Unresolved Item (UNR 50-213/90-03-01).

f. Vital Area Barriers - The inspector conducted a physical inspection of selected vital area (VA) barriers on February 19, 1990. The inspector determined, by observation, that the barriers were installed and maintained as described in the Plan. No deficiencies were noted.

g. Vital Area Detection Aids - The inspector observed the VA detection aids, and determined that they were installed, maintained and operated as committed to in the Plan. No deficiencies were noted.

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

a. Personnel Access Control - The inspector determined that the licensee was exercising control over personnel access to both the PA and VAs. This determination was based on the following:

- 1) The inspector verified that personnel are properly identified and authorization is checked prior to issuance of badges and keycards. No deficiencies were noted.
- 2) The inspector verified that the licensee has a program to confirm the trustworthiness and reliability of employees and contractor personnel. This program includes checks on employment, credit, and criminal history, and a psychological examination. No deficiencies were noted.
- 3) The inspector verified that the licensee has a fitness-for-duty program in place. The licensee fully implemented the requirements of 10 CFR 26 on January 3, 1990. No discrepancies were noted.



- 4) The inspector verified that the licensee takes precautions to ensure that an unauthorized name cannot be added to the access list by having a member of management review the list every 31 days. No deficiencies were noted.
- 5) The inspector verified that the licensee has a search program, as committed to in the Plan, for firearms, explosives, incendiary devices and other unauthorized materials. The inspector observed personnel access processing during shift changes, visitor access processing, and interviewed members of the security force and licensee's security staff about personnel access procedures. No deficiencies were noted.
- 6) The inspector determined, by observations, that individuals in the PA and VAs display their access badges as required.

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- 7) The inspector verified that the licensee has escort procedures for visitors to the PA and VAs. No deficiencies were noted.
  - 8) The inspector verified that the licensee has a mechanism for expediting access to vital equipment during emergencies and that the mechanism is adequate for its purpose. No deficiencies were noted.
  - 9) The inspector verified that unescorted access to VAs is limited to authorized individuals. The access list is revalidated at least once every 31 days as committed to in the Plan. No deficiencies were noted.
- b. Package and Material Access Control - The inspector determined that the licensee was exercising positive control over packages and materials that are brought into the PA at the main access control portal. The inspector reviewed the package and material control procedures and found that they were consistent with commitments in the Plan. The inspector 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 identified.



- c. Vehicle Access Control - The inspector determined that the licensee properly controls vehicle access to and within the PA. The inspector verified that vehicles are properly authorized prior to being allowed to enter the PA. Identification is verified by the SFM at the vehicle access control portal. This procedure is consistent with the commitments in the Plan. The inspector 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, inspection of vehicle logs, and by interviewing members of the security force and licensee's security staff about vehicle search procedures. The inspector also determined that at least two SFMs control vehicle access at the main vehicle access control point. No deficiencies were noted.

6. Emergency Power Supply

The inspector verified that there are several systems (batteries, security diesel generator, plant emergency diesel generators, and plant on-site AC power) that provide backup power to the security systems and reviewed the accompanying test and maintenance procedures. The systems and procedures were consistent with the Plan. The batteries, battery chargers, inverters, and the diesel generators are located in locked areas. No deficiencies were noted.

7. Testing, Maintenance and Compensatory Measures

The inspector reviewed testing and maintenance records. The testing and maintenance records committed to in the Plan were on file and readily available for review. The security systems are maintained and repaired by Instrumentation and Control (I&C) staff technicians and off-site contractors. A review of maintenance records indicated that repairs of security systems were being accomplished in a timely manner. No deficiencies were noted.

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

8. Security Training and Qualification

The inspector selected and reviewed the training and qualifications records for 10 SFMs (unarmed). The inspector determined that the required training had been conducted in accordance with the security program plans, and that it was properly documented. The security force contractor administers the training program with nine professionals (one supervisor, two full-time instructors, five part-time instructors and one clerk). No deficiencies were noted.

Several SFMs were interviewed to determine if they possessed the requisite knowledge and ability to carry out their assigned duties. The interview results indicated that they are knowledgeable of their job requirements. No deficiencies were noted.

The inspector 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.

9. Land Vehicle Bomb Contingency Procedure

The inspector conducted a review of the licensee's Land Vehicle Bomb Contingency Procedure. The licensee's procedure details short-term actions that could be taken to protect against attempted radiological sabotage involving a land vehicle bomb if such a threat were to materialize. The procedure appeared adequate for its intended purpose. No discrepancies were noted.

10. Exit Interview

The inspector met with the licensee representatives indicated in paragraph 1 at the conclusion of the inspection on February 23, 1990. At that time, the purpose and scope for the inspection were reviewed and the findings were presented. The licensee's commitments, as documented in this report, were reviewed and confirmed with the licensee.