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NRC Region I 11/26/90

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-29/90-22

Docket No. 50-29

License No. DPR-3

Licensee: Yankee Atomic Electric Company
580 Main Street
Bolton, Massachusetts 01740-1398

Facility Name: Yankee Rowe Atomic Power Station

Inspection At: Rowe, Massachusetts

Inspection Conducted: October 15-19, 1990

Inspectors: Arthur Della Ratta 11-20-90
A. Della Ratta, Safeguards Inspector date

D. F. Limroth 11-20-90
D. F. Limroth, Senior Reactor Engineer date

Approved by: R. R. Keimig 11-20-90
R. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Inspection Summary: Routine, Unannounced Physical Security Inspection
(Inspection Report No. 50-29/90-22)

Areas Inspected: 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; Security Training and Qualifications.

Results: The licensee was in compliance with NRC requirements in the areas
inspected.

DETAILS

1. Key Personnel Contacted

Licensee and Contractor Personnel

- *N. St. Laurent, Plant Superintendent
- *T. Henderson, Assistant Plant Superintendent
- *J. Palmieri, Security Manager
- *D. March, Security Administrator
- *B. Wood, Manager of Administrative Services
- *D. King, Maintenance Support Supervisor
- *R. Mitchell, Maintenance Manager
- *J. Kay, Technical Services Manager
- *W. Plumb, Security Training Officer
- *J. Lynch, Security Shift Supervisor
- *G. Crane, Security Shift Supervisor
- *D. LeFrancois, Senior Engineer
- *B. Holmgren, Lead Mechanical Engineer
- C. Clark, Training Manager
- T. Smith, Maintenance and Technical Training Supervisor

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- *T. Koshy, Senior Resident Inspector
- *M. Markley, Resident Inspector
- *J. Carrasco, Reactor Engineer, Region I

*indicates those present at the exit interview

The inspectors also interviewed other licensee employees and members of the Burns contract security force.

2. Management Support, Security Plans, and Audits

2.1 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' review of various aspects of the licensee's program during this inspection as documented in this report.

Since the last routine physical security inspection, which was conducted on April 16-20, 1990 (NRC Inspection Report No. 50-29/90-08), the licensee has continued to upgrade the security program as described below:

- The licensee's Security Department had conducted 11 self-assessments of the program in order to identify security program weaknesses and where enhancements are possible.

- The licensee's Instrumentation and Calibration (I&C) Department has replaced one protected area assessment aid and has requested an additional protected area assessment aid in its 1991 budget.
- The licensee has transferred the station's access authorization program from the Administration Department to the Security Department in order to provide better control and continuity of the program.
- The licensee is still in the process of upgrading the security computer software program. The upgrade was initially scheduled to be completed by August 31, 1990, but due to the extended plant outage, the licensee has rescheduled the completion date to December 15, 1990.
- The security force is currently being trained in the use of Multiple Integrated Laser Engagement System (MILES) equipment to be used during the security force tactical exercises conducted at the station.
- The licensee is still in the process of upgrading all personnel control hardware for access control areas (ACAs) and vital areas (VAs). The upgrade was initially scheduled to be completed by August 31, 1990, but, due to the extended outage, the licensee has rescheduled the completion date to December 15, 1990.
- The licensee designed and installed a carousel type badge storage rack for the gatehouse to expedite the issuance of badges.
- The licensee procured and installed portable lighting equipment to improve lighting in the protected area.
- The licensee procured and implemented the use of a vehicle steering wheel lock bar to reduce the need for compensatory measures for certain vehicles.

Based upon the inspectors' review of the licensee's security program and the efforts being made to upgrade and enhance it, the inspectors determined that the program is continuing to receive appropriate management attention and support.

- 2.2 Security Program Plans - The inspectors noted that, subsequent to the last inspection, the licensee has submitted four changes to the Physical Security Plan and two changes to the Guard Training and Qualification Plan in accordance with 10 CFR 50.54(p). These changes are in the process of being reviewed by the NRC.

- 2.3 Audits - The licensee's annual Security Program Audit Report for 1990 was reviewed and discussed in NRC Inspection Report 50-29/90-08. The next annual Quality Assurance (QA) Audit is scheduled to be conducted during January 1991. The results of that audit will be reviewed during a subsequent inspection.

To supplement the NRC-required annual program audit, an assessment of security activities was performed by the Security Administrator during the recently completed plant outage. The report, "Security Performance Assessment - Refueling (90-A-009)," dated August 28, 1990, was reviewed by the inspectors and was determined to be very thorough and objective. Appropriate corrective actions were noted to have been recommended and initiated, where applicable.

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

- 3.1 Protected Area Barrier - The inspectors conducted a physical inspection of the Protected Area (PA) barrier on October 16, 1990. The inspectors determined, by observation, that the barrier was installed and maintained as described in the Plan. No discrepancies were noted.
- 3.2 Protected Area Detection Aids - The inspectors observed the PA perimeter detection aids October 17, 1990, and determined that they were installed, maintained and operated as committed to in the Plan.

However, the inspectors identified two areas that did not alarm as required during the inspector-requested climb test. The licensee implemented appropriate compensatory measures and also initiated a Maintenance Work Request to resolve this matter. The licensee's actions to resolve this matter will be reviewed during the next inspection.

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- 3.3 Isolation Zones - The inspectors verified that isolation zones were adequately maintained to permit unobstructed observation of activities on both sides of the PA barrier. No discrepancies were noted.
- 3.4 Protected Area and Isolation Zone Lighting - The inspectors conducted a lighting survey of the PA and isolation zones on October 17, 1990. The inspectors determined, by observation, that lighting in the PA and isolation zones was adequate. No discrepancies were noted.

- 3.5 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. However, potential weaknesses were observed in two areas. The licensee immediately implemented compensatory measures for these potential weaknesses and committed to resolve this matter. The licensee's actions will be reviewed during the next inspection.

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- 3.6 Access Control and Vital Area Barriers - The inspectors conducted a physical inspection of selected vital area (VA) and access control area (ACA) barriers on October 17, 1990. The inspectors determined, by observation, that the barriers were installed and maintained as described in the Plan. The inspectors noted that compensatory measures were still in effect for potential weaknesses identified in NRC Inspection Report No. 50-29/89-04. The licensee has implemented a two-phase Engineering Design Change Request (EDCR) to address and correct these matters. The first phase of the EDCR was completed by July 31, 1990. However, the second phase of the EDCR, which involves air flow calculations, was delayed due to the extended plant outage. The licensee expects the EDCR to be completed by June 1, 1991.
4. Protected and Vital Area Access Control of Personnel, Packages and Vehicles
- 4.1 The inspectors observed plant personnel and visitor access processing several times during the inspection and interviewed members of the security force and the licensee's security staff about personnel access procedures. No discrepancies were noted.
- 4.2 The inspectors determined that the licensee has established positive control measures over personnel access to the PA, VAs and ACAs. This determination was based on the following:
- The inspectors verified that authorization is checked prior to issuance of badges and key cards. No discrepancies were noted.
 - Through reviews of reports of licensee QA audits of contractor personnel records, the inspectors verified that the licensee was providing assurance that contractor personnel were screened prior to being granted access to protected and vital areas. The inspectors also noted that the licensee had audited records of contractors that performed the background investigations to assure that licensee requirements for such investigations had been satisfied. No discrepancies were noted.

- 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. No discrepancies were noted.
- The inspectors determined, by observation, that individuals in the PA, VAs and ACAs display access badges as required. No discrepancies were noted.
- The inspectors reviewed the security lock and key procedures and determined they were consistent with commitments in the Plan. The inspectors also reviewed the protected and vital areas key inventory logs, and discussed lock and key procedures with members of the licensee's security staff. No discrepancies were noted.

The licensee is in the process of revising its security lock and key annual physical inventory procedures to reflect current practices. This will be reviewed during a subsequent inspection.

- 4.3 The inspectors determined that the licensee was exercising positive control over hand-carried items that are brought into the PA at the access control portal. No discrepancies were noted.

The inspectors reviewed the vehicle, package and material control procedures and found them consistent with commitments in the Plan. No discrepancies were noted.

- 4.4 The inspectors verified that unescorted access to the VAs is limited to authorized individuals. The access list is revalidated at least once every 31 days as committed to in the Plan. The licensee effort to reduce access to vital areas as noted in NRC Inspection Report No. 50-29/90-08 has resulted in a decrease of 58 persons who are authorized access to the control room since January 1, 1990.

5. Alarm Stations and Communication

- 5.1 The inspectors observed the operation of the central alarm station (CAS) and secondary alarm station (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. The inspectors verified that the CAS and SAS do not contain any operational activities that would interfere with assessment and response functions. No discrepancies were noted.
- 5.2 The inspectors also verified that both the CAS and SAS maintained continuous communication with on-duty security personnel and were capable of calling for assistance from local law enforcement authorities. No discrepancies were noted.

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6. Emergency Power Supply

The inspectors verified that there are several systems (batteries, dedicated diesel generator, and plant on-site AC power) that provide backup power to the security systems. The systems were consistent with the Plan. One backup source of power is located in a VA. No discrepancies were noted.

7. Testing, Maintenance and Compensatory Measures

The inspectors reviewed testing and maintenance records and confirmed that the records committed to in the Plan were on file and readily available for licensee and NRC review. The station provides I&C technicians to maintain and test any security equipment which requires preventive or corrective maintenance. A check of repair records indicated that repairs, replacements and testing are generally being accomplished in a timely manner. No discrepancies were noted.

The inspectors reviewed the 1990 Quarterly Security Event Logs and the 1990 Maintenance Work Requests and determined that all of the reported system and component failures are being reviewed by the licensee and are included in the Quarterly Security Event Report Analysis used to track and evaluate the reliability of the security system components. No discrepancies 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 discrepancies were noted.

8. Security Training and Qualification

- 8.1 The inspectors verified, by reviewing documentation in selected training records, that before being permitted to act as a security officer, armed responder or other member of the security organization, all individuals had been trained, equipped and qualified to perform each assigned security-related job task or duty in accordance with the Guard Training and Qualification Plan.
- 8.2 During Inspection No. 50-29/90-08, the inspectors reviewed a sample of security officer training and qualification records. The results disclosed that one security officer had exceeded annual requalification time limits in the areas of patrol and alarm station functions. The licensee committed to conduct a 100 percent review of all security officer training records in order to identify any other similar discrepancies. During this inspection, the inspectors verified that the licensee had conducted the review and no other discrepancies were found.

The inspectors also reviewed a selected sample of security officer training and qualification records during this inspection. No discrepancies were noted.

- 8.3 During NRC Inspection Nos. 50-29/89-13 and 50-29/90-08, the inspectors noted that only one version of a test for each training module was available for use. The licensee agreed to review the matter and take corrective action. During this inspection, the inspectors verified that the licensee was in the process of initiating a complete upgrade of the security training program. Part of this upgrade included the transfer of the security training program to the licensee's Training Department with the Security Training Officer reporting to the Maintenance and Technical Training Supervisor. The transfer will be effective January 1, 1991.

The status of the security training upgrade will be reviewed during subsequent inspections.

- 8.4 The security force consists of 40 contract security officers and 5 licensee supervisory personnel. The licensee is in the process of adding an additional licensee supervisor. 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. No discrepancies were noted.

Several security officers were interviewed to determine if they possessed the requisite knowledge and ability to carry out their assigned duties. Interview results indicated that personnel were professional and knowledgeable of their job requirements. No discrepancies were noted.

9. Exit Interview

The inspectors met with the licensee representatives indicated in paragraph 1 at the conclusion of the inspection on October 19, 1990. At that time, the purpose and scope of 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.

