

REVIEWED BY:

RONALD R. BELLAMY Ronald R. Bellamy

(Signature) (Signature)

NRC - Region I Nov 29, 1989
(Organization) (Date)

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-443/89-12

Docket No. 50-443

License No. NPF-56

Licensee: Public Service of New Hampshire
P. O. Box 330
Manchester, New Hampshire

Facility Name: Seabrook Nuclear Station

Inspection At: Seabrook, New Hampshire

Inspection Conducted: September 25-29, 1989

Date of Last Physical Security Inspection: September 26-29, 1988

Type of Inspection: Routine, Unannounced Physical Security

Inspector:

W. K. Lancaster

W. K. Lancaster, Physical Security Inspector

11/22/89

date

Approved by:

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

11/22/89

date

Inspection Summary: Routine, Unannounced Physical Security Inspection on
September 25-29, 1989 (Inspection No. 50-443/89-12)

Areas Inspected: Licensee Action on Previously Identified NRC Findings; 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; Emergency 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, potential weaknesses were identified in the areas of Protected Area Detection and Assessment Aids and Contractor Access Authorization Programs.

8912120167 FDR ADDCK 05000443
G ADDCK 05000443
PNU

REPORT DETAILS

1. Key Persons Contacted

Licensee and Contractor Personnel

*B. Drawbridge, Executive Director of Nuclear Production
*D. Moody, Station Manager
*S. Buchwald, Nuclear Quality Assurance (QA) Supervisor
*W. Temple, Licensing Coordinator
*E. Sovetsky, Station Technical Projects Supervisor
*C. Roberts, Security and Computer Systems Manager
*B. Seymour, Security Department Supervisor
*S. Kulback, Security Supervisor
*R. Messina, Security Shift Supervisor
J. Newhall, Security Shift Supervisor
K. Macnutt, Security Shift Supervisor
J. Kerkensen, Security Shift Supervisor
*C. Goodnow, Chief of Security, Green Mountain Security Services (GMSS)
R. Cole, Training Supervisor, GMSS
G. Conway, Assistant Chief, Administration and Resources, GMSS
W. Anderson, Systems QA Supervisor, GMSS
P. Ryan, CAS/SAS Supervisor, GMSS
S. Hackney, R.N., Medical Center
A. Sukeforth, R.N., Medical Center

U.S. Nuclear Regulatory Commission Personnel

*A. Cerne, Resident Inspector

*Indicates those present at the exit interview.

The inspector also interviewed other licensee employees and members of the GMSS contract security organization.

2. Management Effectiveness - Security Program

The inspector determined that management attention to the Seabrook Station security program remains evident.

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

- The licensee purchased and installed new search equipment (four metal detectors, four explosive detectors and two X-ray machines) for the access control portal. The equipment was installed in May 1989.

- The licensee replaced assessment monitors in both the Central and Secondary Alarm Stations (CAS/SAS).
- The licensee is purchasing new assessment devices to monitor the protected area (PA) perimeter.
- The licensee has begun testing various weapons in order to upgrade the response force capabilities at the station in 1990.
- The licensee has begun upgrading/hardening vital area (VA) barriers, which it determined to be potentially weak.
- The licensee has continued to implement the computerized system for monthly analysis of certain aspects of the security program, such as: random sample qualification testing of security officers; licensee designated vehicles processed; visitors processed; response force drill scenarios; terminations of employment; and computer generated alarms.

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

- Additional training aids (pop-up and moving targets) have been incorporated into the security force firearms training program.
- Approximately 80% of all Training and Qualification (T&Q) Plan examinations have been upgraded.
- Four instructors attended off-site seminars/schools.

The following items of interest were observed:

- On September 29, 1989 the Seabrook Generating Station had a nuclear security force consisting of 123 members.
- A review of the security force contractor's records revealed that the contractor has had 26 terminations since January 1, 1989.
- Security force members (SFM's) are being paid overtime for shift briefings prior to assuming duties.
- Excellent communications exists between the licensee and the security force contractor.
- Both the licensee and the security force contractor continue to pursue innovations to enhance the security program; for example, the inspector noted that numerous internal audits, reports, studies, and analyses are being conducted and used to provide bases for future plans and actions.

- Both the licensee and the security force contractor appear to be working together as a "team" to implement the station security program effectively.
- The station's security program is actively supported by other plant functional groups and effective communications channels exist among security (both licensee and Contractor) and other plant groups.

3. Licensee Action on a Previously Identified Finding

(Closed) Violation (50-443/88-14-01): During a routine physical security inspection conducted on September 26-29, 1988, an NRC inspector observed security force members (SFM's) failing to adequately search two vehicles entering the PA. During this inspection, the inspector reviewed procedures, interviewed SFM's and observed them performing vehicle searches. The inspector determined that corrective actions taken by the licensee in response to the violation were satisfactory and effective vehicle searches are being conducted by SFM's.

4. Management Support, Security Program Plans and Audits

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

The inspector found the types of upgrades discussed in Section 2 of this inspection report to be indicative of a high quality, effective and performance-oriented security program.

The inspector noted that SFM's are, in general, very knowledgeable of their post duties, contents of procedures and their other responsibilities, and exhibit a very professional demeanor. On-site security managers and supervisors appeared to be effectively implementing a quality program and corporate support is highly evident. Minor potential security weaknesses identified by the inspector during the inspection were discussed with on-site security management and prompt actions were taken as applicable. The inspector noted, however, that some of the licensee's security systems (PA detection and assessment aids) are showing signs of aging. The SFM's are adequately compensating for these systems and equipment deficiencies, but the practice of using SFM's to compensate for degrading systems and equipment has inherent weaknesses. In summary, the inspector determined that the licensee has a strong security program that is generally very effective. However, the effectiveness of the program could be further enhanced by upgrading the aging systems and equipment.

- 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 discrepancies were noted.
- c. Audits - The inspector reviewed the preliminary 1989 annual security program audit report and verified that the audit had been conducted in accordance with the NRC-approved Physical Security Plan (the Plan). The audit was comprehensive in scope with the results reported to the appropriate levels of management. During a future inspection, the inspector will review the response of the security organization to the audit findings and the corrective actions taken to remedy any adverse findings. No discrepancies were noted.

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

- a. Protected Area Barriers - The inspector conducted a physical inspection of the protected area (PA) barrier on September 25, 1989. The inspector determined, by observation, that the barrier was installed and maintained as described in the Plan. No discrepancies were noted.
- b. Protected Area Detection Aids - The inspector observed the PA perimeter detection aids on September 26, 1989, and determined that they were installed, maintained and operated as committed to in the Plan, except as noted below.

THIS PARAGRAPH CONTAINS SAFEGUARDS INFORMATION AND IS NOT FOR PUBLIC DISCLOSURE, IT IS INTENTIONALLY LEFT BLANK.

The licensee committed to review this matter further and implement corrective measures which would enhance the effectiveness of the PA detection aids. This is an unresolved item pending NRC's review of the licensee's evaluation and corrective actions to resolve this problem (UNR 50-443/89-12-01).

THIS PARAGRAPH CONTAINS SAFEGUARDS
INFORMATION AND IS NOT FOR PUBLIC
DISCLOSURE, IT IS INTENTIONALLY
LEFT BLANK.

This item will be reviewed during subsequent inspections and is considered an Inspector Follow-up Item (IFI 50-443/89-12-02).

- 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 discrepancies were noted.
- d. Protected Area and Isolation Zone Lighting - The inspector conducted a lighting survey of the PA and isolation zones on September 25 and 28, 1989. The inspector determined, by observations, that lighting in the isolation zones and PA was adequate, however, two marginally effective areas were identified.

THIS PARAGRAPH CONTAINS SAFEGUARDS
INFORMATION AND IS NOT FOR PUBLIC
DISCLOSURE, IT IS INTENTIONALLY
LEFT BLANK.

The licensee committed to installing permanent lighting in the first two areas listed above, by November 15, 1989. Due to the other two areas mentioned above being used for temporary storage, the licensee committed to installing temporary lighting as needed on a case-by-case basis to provide adequate illumination. These items will be reviewed during subsequent inspections.

During a review of the licensee's security event logs (for the last two years), the inspector determined that a large number of permanent lighting deficiencies had been reported inside the protected area. During this inspection, the licensee determined that incorrect lighting measurements had been recorded for over two years as a result of incorrect instructions for reading the light meter. On September 27, 1989, the licensee resurveyed protected area lighting and determined that in almost all cases of previously identified permanent lighting deficiencies there had been correct levels of illumination. The operation and procedure for taking light measurements with the licensee's light meter will be reviewed during subsequent inspections and is considered an Inspector Follow-up Item (IFI 50-443/89-12-03).

- e. Assessment Aids The inspector observed the protected area perimeter assessment aids and determined that they were generally installed, maintained, and operated as committed to in the Plan.

THIS PARAGRAPH CONTAINS SAFEGUARDS
INFORMATION AND IS NOT FOR PUBLIC
DISCLOSURE, IT IS INTENTIONALLY
LEFT BLANK.

THIS PARAGRAPH CONTAINS SAFEGUARDS
INFORMATION AND IS NOT FOR PUBLIC
DISCLOSURE, IT IS INTENTIONALLY
LEFT BLANK.

This matter will be reviewed in future inspections and is considered an Inspector Follow-up Item (IFI 50-443/89-12-04).

- f. Vital Area Barriers - The inspector conducted a physical inspection of several vital area barriers on September 25 and 26, 1989. The inspector determined, by observation, that the barriers were installed and maintained as described in the Plan. No discrepancies were noted.
- g. Vital Area Detection Aids - The inspector observed the vital area detection aids and determined that they were installed, maintained and operated as committed to in the Plan. No discrepancies were noted.

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

- a. Personnel Access Control - The inspector determined that the licensee was exercising positive control over personnel access to the protected and vital areas. 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 key-cards. No discrepancies 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.

During a review of the licensee's audits of contractor clearance programs, the inspector discovered a 1987 audit report that identified several deficiencies with the Yankee Atomic Electric Company's (Bolton, Massachusetts) clearance program. The licensee had not yet followed up on that audit finding to verify that the Yankee Atomic Electric Company had corrected the identified deficiencies. The licensee committed to reaudit that clearance program by November 1, 1989. This item is unresolved pending the licensee's reaudit of the clearance program. (UNR 50-443/89-12-05).

- (3) The inspector verified that the licensee has a fitness-for-duty program in place. The program consists of:
- All new hires (licensee and contractors) are tested before being granted unescorted access;
 - All personnel are tested for cause; and,
 - All security force personnel (licensee and contractor) undergo random testing.
- The licensee also continues to conduct periodic searches of the owner-controlled area and the PA with drug detection dogs. No discrepancies were noted.
- (4) The inspector reviewed the security lock and key procedures and determined that they were consistent with commitments in the Plan. The inspector also reviewed the protected and vital area key inventory logs, and discussed lock and key procedures with members of the security force and the licensee's security staff. No discrepancies were noted.
- (5) 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 discrepancies were noted.
- (6) 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 discrepancies were noted.
- (7) The inspector determined, by observation, that individuals in the Protected Area (PA) and Vital Areas (VAs) display their access badges as required. No discrepancies were noted.
- (8) The inspector verified that the licensee has escort procedures for visitors to the PA and VAs. No discrepancies were noted.
- (9) 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 discrepancies were noted.
- (10) 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 discrepancies were noted.

- b. Package and Material Access Control - The inspector determined that the licensee was exercising positive control over packages and material that are brought into the protected area at the main access 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 discrepancies were noted.
- 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 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. No discrepancies were noted.

7. Alarm Station and Communications

The inspector observed the operation of the Central Alarm Station (CAS) and determined that it was maintained and operated as committed to in the Plan. CAS operators were interviewed by the inspector and found to be knowledgeable of their duties and responsibilities. The inspector verified that the CAS does not contain any operational activities that would interfere with the assessment and response functions. No discrepancies were noted.

The inspector also observed tests of all communications capabilities in the CAS and reviewed the testing records for the communications channels. All were found to be as committed to in the Plan. No discrepancies were noted.

8. Emergency Power Supply

The inspector verified that there are several systems (batteries, station diesel generator, and plant on-site AC power) that provide backup 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 diesel generator is located in a locked VA. No discrepancies were noted.

The inspector also verified that the door access control system for VAs will permit emergency egress when normal power is lost. Administrative procedures permit emergency ingress capability when normal power is lost. No discrepancies were noted.

9. Testing, Maintenance and Compensatory Measures

The inspector 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 instrumentation and controls (I&C) technicians to conduct preventive and corrective maintenance on security equipment. A check of repair records indicated that repairs, replacements and testing is being accomplished in a timely manner. No discrepancies 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 discrepancies were noted.

10. Security Training and Qualification

The inspector randomly selected and reviewed the training and qualification records for six SFMs. Physical qualifications and firearms qualification records were inspected. These records were for both armed guards and supervisory personnel. The inspector determined that the required physical qualification requirements had been met, that training had been conducted in accordance with the security program plans and that they were properly documented. No discrepancies were noted.

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

The security force contractor administers the training program with seven professionals (one supervisor, two instructors/off-shift, three instructors/on-shift, and one clerk). Newly hired SFMs receive a minimum of five weeks of basic training (including 40 hours of firearms training). SFMs also receive one day of training every five weeks.

At the time of the inspection, the licensee's security force consisted of 123 contract personnel (19 supervisory personnel, 29 security system operators, 39 security officers, 16 watchmen, and 20 administrative personnel) and 9 licensee personnel (1 manager, 2 supervisors, 5 shift supervisors and 1 staff assistant). 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.

The inspector determined that the turnover rate in the contract security force has been about 21% since January 1, 1989.

11. Exit Interview

The inspector met with the licensee representatives indicated in paragraph 1 at the conclusion of the inspection on September 29, 1989. 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.

Since the licensee has decided not to complete construction of Unit 2 the inspector questioned the licensee concerning its plans for several temporary security provisions that the NRC had approved pending the completion of Unit 2. The licensee indicated that final plans and a schedule had not yet been developed. The inspector advised the licensee that this issue needs to be discussed with the NRC and stated that it would be addressed with Region I management subsequent to this inspection in an effort to schedule a time for its review with the licensee.