

REVIEWED BY:

R. Bellamy
(NAME)

Ronald R. Bellamy
(SIGNATURE)

NRC: LJ
(ORGANIZATION)

2-2-88
(DATE)

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-271/87-20

Docket No. 50-271

License No. DPR-28

Licensee: Vermont Yankee Nuclear Power Corporation
R.D. 5, Box 169
Ferry Road
Brattleboro, Vermont 05301

Facility Name: Vermont Yankee Nuclear Power Station

Inspection At: Vernon, Vermont

Inspection Conducted: October 26-29, 1987

Date of Last Physical Security Inspection: February 9-13, 1987

Type of Inspection: Routine Unannounced Physical Security

Inspectors: G. Smith 12/16/87
G. Smith, Safeguards Specialist date

T. Madden 12/16/87
T. Madden, Physical Security Inspector date

Approved by: B. R. Keimig 12.17.87
B. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Inspection Summary: Routine Unannounced Physical Security Inspection on
October 26-29, 1987 (Report No. 50-271/87-20)

Areas Inspected: Plan and Implementing Procedures; Program Audits; Records
and Reports; Testing and Maintenance; Physical Barriers - Protected Area;
Physical Barriers - Vital Areas; Lighting; Assessment Aids; Access Control
Personnel, Packages, and Vehicles; Detection Aids, Alarm Stations; Training
and Qualifications; Inspector Follow-up Item; and Regulatory Effectiveness
Review (RER) Findings.

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

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DETAILS

1. Key Persons Contacted

a. Licensee and Contractor Personnel

J. Pelletier - Station Superintendent
R. Pagodin - Technical Services Superintendent
J. Sinclair - Plant Services Superintendent
T. Linn - Security Supervisor
C. Langmaid - Chief, Green Mountain Security
W. Jacobson - Green Mountain Security

b. U.S. Nuclear Regulatory Commission Personnel

G. Grant - Senior Resident Inspector

The inspectors also interviewed other licensee and contractor security personnel.

2. Status of Inspector Follow-up Item

(Closed) IFI (85-19-05): Licensee to conduct a review of the intrusion detection system (IDS) to insure that all components meet the tamper indicating requirements of Interim Federal Specification WSA-00450-B. The licensee completed the review of the IDS in August 1986. The review identified several components that did not meet the specification. The inspectors verified that these components were made tamper indicating or tamper resistant.

3. Follow-up on Regulatory Effectiveness Review Findings

On July 15-19, 1985, the NRC conducted a Regulatory Effectiveness Review (RER) at the Vermont Yankee Nuclear Power Station. The report of the RER findings was issued by the NRC on November 27, 1985. On January 14, 1986 Vermont Yankee Nuclear Corporation responded to the RER findings with corrective actions to be taken, where appropriate. During this inspection, the inspectors reviewed these actions. The results of that review are contained in Attachment 1 to this report.

4. Security Plan and Implementing Procedures

The inspectors met with licensee representatives and discussed the NRC-approved Physical Security Plan (the Plan). As a result of these discussions and a review of the Plan, it was determined that:

- (a) a 10 CFR 50.90 change has been submitted to the NRC and is currently under review; and

- (b) changes, to incorporate the revisions required by the Miscellaneous Amendments codified by the NRC on August 4, 1986, were submitted as required and are currently under review.

All security personnel interviewed, both licensee and security contractor, demonstrated familiarity with the Plan implementing procedures and NRC-performance objectives.

5. Security Program Audit

The inspectors reviewed the annual security program audit reports for the past five years and verified that the audits had been conducted in accordance with the Plan. The review included the response of the security organization to the audit findings and the corrective actions taken to remedy any adverse findings. The documented corrective actions appeared appropriate for the findings.

6. Records and Reports

The inspectors reviewed testing and maintenance records and records of security events.

a. Testing and Maintenance Records

The testing and maintenance records committed to in the Plan were on file and readily available for review.

b. Security Event Reports

The inspectors reviewed, and discussed with the licensee, all security events that had been reported to the NRC in accordance with 10 CFR 73.71(c) since January 1, 1987. No discrepancies were identified relative to reporting the events or the actions taken.

7. Testing and Maintenance

The inspectors reviewed the testing and maintenance records and procedures for the intrusion detection system, card readers, personnel and package search equipment, and assessment aids. No discrepancies were identified relative to either the records or procedures.

8. Physical Barriers - Protected Area

The inspectors conducted a physical inspection of the protected area barriers. It was determined, by observation, that the barriers were installed and maintained as committed to in the Plan.

9. Physical Barriers - Vital Areas

The inspectors observed vital area barriers and determined them to be installed and maintained as committed to in the Plan.

10. Lighting

The inspectors conducted a lighting survey of the entire protected area between the hours of 6:00 p.m. and 7:00 p.m. on October 20, 1987. The inspectors were accompanied by a licensee representative and had a calibrated light meter available for direct measurement of lighting levels. The inspection revealed three areas below the illumination level committed to in the Plan. The inspectors found that the deficient areas did not degrade the security program since they did not provide sufficient opportunity for effective concealment. Two of the deficient areas resulted from the positioning of equipment still on-site from the recently completed outage and scheduled for removal the following day (October 29, 1987). The other resulted from a light not being turned on. The licensee had installed temporary lighting around the outage equipment, however, the alignment of these lights during the ongoing removal of the equipment resulted in several dark spots. The area that was dark as a result of the light not being turned on was compensated for as committed to in the Plan.

11. Assessment Aids

The inspectors observed the use of assessment aids in operation at both the CAS and SAS.

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12. Access Control - Personnel, Packages, and Vehicles

The inspectors reviewed the personnel, package, and vehicle access control procedures and, except as noted below, determined them to be as committed to in the Plan. This determination was made by observing personnel access processing during shift change, visitor access processing, vehicle access processing, and a discussion with licensee representatives about package access procedures.

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The licensee stated that the matter will be reviewed in an effort to correct the situation.

13. Detection Aids - Protected Area

The inspectors observed the protected area perimeter detection aids and determined that they were installed, maintained, and operated as committed to in the Plan.

14. Alarm Stations

The inspectors observed the operation of both the CAS and SAS and found them to be operating as committed to in the Plan.

15. Training and Qualification - General Requirements

The inspectors reviewed training records for 51 individuals in the security force. The review included armed guards, unarmed watch persons, and supervisors.

The inspectors determined that all required training had been conducted in accordance with the Plan and the Vermont Yankee Training and Qualification (T&Q) Plan. The inspectors found seventeen incidents where periods in excess of 30 days had elapsed between physical examinations and physical fitness tests of security force members. The inspectors determined that in thirteen of these cases, security force members had taken a fire brigade stress test within the prescribed 30 days that exceeded the criteria of the security fitness test, and that the remaining four cases involved newly hired personnel. The licensee explained that, in the new hire cases, the excessive period was due to the fact that the security fitness test took place within a radiation controlled area and the new personnel had to complete HP training prior to the issuance of required dosimetry. It was further explained that new hires were not considered members of the security force until all training requirements had been completed. The licensee provided assurance that in the future newly hired personnel and fire brigade members in the security force would complete security physical fitness tests within 30 days of their prescribed physical examination.

The inspectors determined that the standard being achieved equaled or exceeded the standard committed to in the Plan and resulted in no degradation to the security program or NRC performance objectives.

16. Exit Interview

The inspectors met with the licensee representatives listed in paragraph 1 at the conclusion of the inspection on October 29, 1987. At that 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.

ATTACHMENT 1

Review of Licensee Actions on RER Findings

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