July 30, 2002

Mr. Michael A. Balduzzi
Senior Vice President
and Chief Nuclear Officer
Vermont Yankee Nuclear Power Corporation
185 Old Ferry Road
P.O. Box 7002
Brattleboro, Vermont 05302-7002

SUBJECT: VERMONT YANKEE - NRC INSPECTION REPORT 50-271/02-05

Dear Mr. Balduzzi:

On June 29, 2002, the NRC completed an inspection at your Vermont Yankee facility. The enclosed report documents the inspection findings which were discussed on July 25, 2002, with Mr. Kevin Bronson and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

On the basis of the results of this inspection, no findings of significance were identified.

The NRC has increased security requirements at Vermont Yankee in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC continues to monitor overall security controls and will issue temporary instructions in the near future to verify by inspection the licensee's compliance with the Order and current security regulations.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Clifford J. Anderson, Chief
Projects Branch 5
Division of Reactor Projects

Docket No. 50-271
License No. DPR-28

Enclosure: Inspection Report 50-271/02-05

Attachment: Supplementary Information

Docket No. 50-271
License No. DPR-28

cc w/encl: M. Hamer, Operating Experience Coordinator - Vermont Yankee
G. Sen, Licensing Manager, Vermont Yankee Nuclear Power Corporation
D. Tefft, Administrator, Bureau of Radiological Health, State of New Hampshire
Chief, Safety Unit, Office of the Attorney General, Commonwealth of Massachusetts
D. Lewis, Esquire
G. Bisbee, Esquire
J. Block, Esquire
T. Rapone, Massachusetts Executive Office of Public Safety
D. Katz, Citizens Awareness Network (CAN)
M. Daley, New England Coalition on Nuclear Pollution, Inc. (NECNP)
R. Shadis, New England Coalition Staff
State of New Hampshire, SLO Designee
State of Vermont, SLO Designee
S. McGrail, Commonwealth of Massachusetts, SLO Designee

Distribution w/encl: H. Miller, RA/J. Wiggins, DRA (1)
C. Anderson, DRP
F. Arner, DRP
P. Bonnett, DRP
R. Junod, DRP
E. Knutson - NRC Resident Inspector
H. Nieh, RI EDO Coordinator
S. Richards, NRR (ridsnrrdlpmlpdi)
R. Pulsifer, PM, NRR
T. Tate, Backup PM, NRR
Region I Docket Room (with concurrences)

DOCUMENT NAME: G:\BRANCH5\Vermont Yankee\VY0205.wpd
After declaring this document “An Official Agency Record” it **will/will not** be released to the Public. **To receive a copy of this document, indicate in the box:** "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	RI/DRP		RI/DRP	
NAME	EKnutson/CA		CAnderson/CA	
DATE	07/30/02		07/30/02	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	50-271
Licensee No.	DPR-28
Report No.	50-271/02-05
Licensee:	Vermont Yankee Nuclear Power Corporation
Facility:	Vermont Yankee Nuclear Power Station
Location:	Vernon, Vermont
Dates:	May 19 - June 29, 2002
Inspectors:	Brian J. McDermott, Senior Resident Inspector Edward C. Knutson, Resident Inspector Thomas F. Burns, Reactor Inspector
Approved by:	Clifford J. Anderson, Chief Projects Branch 5 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000271-02-05, on 05/19/02-06/29/02; Vermont Yankee Nuclear Power Station; Vermont Yankee Nuclear Power Corporation; Resident Inspector Report.

This inspection was performed by the resident inspectors and a region-based reactor inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector Identified Findings

None

B. Licensee Identified Findings

None

Report Details

Summary of Plant Status: At the beginning of the inspection, Vermont Yankee (VY) was shutdown in a mid-cycle refueling and maintenance outage. A reactor startup was performed on May 22, and 100 percent power was achieved on May 28. With the exception of short duration power reductions for control rod pattern adjustments and routine surveillances, VY operated at 100 percent power for the remainder of the inspection.

1. REACTOR SAFETY

Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness [REACTOR - R]

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors reviewed the operations department's actions for electrical storms as specified in Operating Procedure OP 3127, "Natural Phenomena," prior to a storm that occurred on June 27. NRC Inspection Procedure 71111, Attachment 1, "Adverse Weather Protection," was used as a reference during this inspection.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

.1 Partial System Walkdown

a. Inspection Scope

The inspectors performed a partial system walkdown (visual inspection) of the residual heat removal (RHR) subsystem "A" and its support equipment, during scheduled maintenance on RHR subsystem "B". Observed plant conditions were compared with the standby alignment of equipment specified in VY Operating Procedure OP 2124, and operability requirements as specified in technical specification (TS) 3.5. In addition, the inspectors referenced the general guidance in NRC Inspection Procedure 71111, Attachment 4, "Equipment Alignment."

b. Findings

No findings of significance were identified.

.2 Full System Walkdown

a. Inspection Scope

The inspectors performed a complete walkdown of the primary containment vacuum relief system in accordance with NRC Inspection Procedure 71111.04. This activity involved verification of equipment alignment through in-plant observations and review of plant records to assess the material condition of the system. Section 5.2 of the Final Safety Analysis Report (FSAR) and VY's design basis document for the primary containment vacuum relief system were used as references for this inspection.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspector toured plant areas important to safety in order to assess VY's control of transient combustibles and ignition sources, and the material condition and operational status of fire protection systems, equipment, and barriers. The inspector identified fire areas important to plant risk based on the Fire Protection Program and the Individual Plant Examination of External Events (IPEEE). Additional plant areas were selected based on their increased significance due to ongoing plant maintenance. The inspection elements identified in NRC Inspection Procedure 71111, Attachment 5, "Fire Protection," were used in evaluating the following plant areas:

- On May 30, the reactor building 303' elevation south due to risk significance.
- On June 10, the inspectors observed diesel fire pump surveillance testing in order to assess the material condition and operational effectiveness of the system.
- On June 19, the torus room due to safety significance.
- On June 25, the east switchgear room due to increased risk significance during the RHR subsystem "B" maintenance period.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

The inspectors performed an inspection of the standby gas treatment / torus vent system to assess its susceptibility to internal and external flooding. The inspection was performed in accordance with NRC inspection procedure 71111.06, "Flood Protection Measures." Documents that were reviewed included the FSAR, sections 2.4 and 5.3, the VY topical design basis documents for internal flooding and external events, and the VY IPEEE.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed simulator training for one operating crew to assess the performance of the licensed operators and the evaluation by VY's training staff. The inspector's assessment was in accordance with NRC Inspection Procedure 71111, Attachment 11, "Licensed Operator Requalification Program."

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspector reviewed VY's implementation of the Maintenance Rule for structures, systems and components that exhibited performance problems. The inspector also reviewed a sample of risk significant systems to verify proper identification and resolution of maintenance rule-related issues. NRC Inspection Procedure 71111, Attachment 12, "Maintenance Rule Implementation," and VY Program Procedure PP 7009, "10 CFR 50.65, Maintenance Rule Program," were used as references during this inspection. VY's performance monitoring for the following assessments of component failures were reviewed during this inspection period:

- Failure of the reactor core isolation cooling (RCIC) steam drain pot high level switch, LSH-13-74, that disabled the drain pot bypass valve, RCIC-32, on May 23, event report (ER) 2002-1244.

- Failure of the high pressure coolant injection (HPCI) low cooling flow alarm switch, FSL-23-107, on May 23, ER 2002-1242.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspector reviewed two planned maintenance activities based on the guidance in NRC Inspection Procedure 71111, Attachment 13, “Maintenance Risk Assessment and Emergent Work Control.” VY administrative procedures AP 0125, "Equipment Release" and AP 0172, "Work Schedule Risk Management - Online," were used as criteria to assess VY's activities.

- Removal of the 4160 VAC tie from the Vernon Hydroelectric Station to VY (the Vernon tie line) from service for on- and off-site maintenance.

- The planned limiting condition for operation (LCO) maintenance period for the "B" RHR subsystem. The inspector attended the inter-discipline pre-job brief and reviewed the LCO maintenance plan.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. Inspection Scope

The inspectors assessed the control room operators' performance during the plant and reactor startup from the mid-cycle outage. The adequacy of personnel performance, procedure compliance, and use of the corrective action process were evaluated using the guidance in NRC Inspection Procedure 71111, Attachment 14, "Personnel Performance Related To Non-routine Plant Evolutions and Events."

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspector reviewed documentation and/or observed portions of the post maintenance testing associated with online maintenance. The review was performed using the guidance provided in NRC Inspection Procedure 71111, Attachment 19, "Post-Maintenance Testing." VY operating procedures, work documents and TS requirements were used as criteria, when applicable, for this inspection.

The following post-maintenance testing activities were evaluated:

- On May 23, testing of the HPCI system following motor operated valve maintenance during the mid-cycle outage.

- On June 11, a test of the security equipment backup power following preventive and corrective maintenance.

- On June 27, "B" RHR and RHR service water pump and valve testing upon completion of the LCO maintenance period.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspector reviewed documentation and/or observed portions of testing related to the following surveillance tests using the guidance provided in NRC Inspection Procedure 71111, Attachment 22, "Surveillance Testing":

- Quarterly surveillance testing of secondary containment and the standby gas treatment system on June 11, performed in accordance with OP 4116.

- Monthly surveillance testing of the emergency diesel generators on June 21, performed in accordance with OP 4126.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors performed an in-depth review of two samples of VY's problem identification and corrective action to verify that the licensee has taken corrective action commensurate with the significance of the issues. The samples selected are within the cornerstones of mitigating systems and barrier integrity and involve risk significant systems. NRC Inspection Procedure 71152, "Identification and Resolution of Problems," Section 02.02, "Selected Issue Follow-up Inspections," was used as a reference during this inspection. The following event reports and corrective actions were reviewed:

- ER 2001-2226 on October 25, 2001, concerning a break in a piece of 1/4-inch stainless steel tubing in the "B" containment hydrogen/oxygen (H_2/O_2) monitor

which resulted in a temporary loss of primary containment integrity. Shortly after repair, the same piece of tubing again failed, as reported in ER 2001-2314 on November 4, 2001. The repetitive failure of the "B" H_2/O_2 monitor was identified as a non-cited violation of 10 CFR 50, Appendix B, "Criterion III, "Design Control," in inspection report 50-271/01-11. During this inspection, the inspectors interviewed cognizant system engineering personnel, reviewed the problem identification, operability/reportability determinations, extent of condition review, cause analysis, and long term corrective actions for this event.

- ER 2001-1619 on July 12, 2001, concerning an NRC inspection finding, NCV 50-271/01-12-01, for inadequate design control of the RCIC turbine exhaust line. Incomplete evaluation of the combined effects of two modifications to the RCIC turbine exhaust line resulted in the creation of an unanalyzed condition in which water from the torus was drawn into the exhaust line following turbine shutdown. During this inspection, the inspectors interviewed cognizant system engineering personnel and reviewed VY's investigation of the event. The inspectors evaluated the problem identification, cause analysis, assessment of similar conditions, and verified that immediate and long term corrective actions to prevent recurrence were reasonable.

b. Findings

No findings of significance were identified.

4OA6 Exit Meeting

On July 25, 2002, the resident inspectors presented their overall findings to members of VY management led by Kevin Bronson, Plant Manager, who acknowledged the findings presented.

The inspectors asked whether any materials examined during the inspection should be considered proprietary. Where proprietary information was identified, it was returned to VY after review.

ATTACHMENT 1

SUPPLEMENTARY INFORMATION

A. List of Items Opened, Closed and Discussed

None

B. List of Acronyms Used

AP	Administrative Procedure
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
ER	Event Report
FSAR	Final Safety Analysis Report
HPCI	High Pressure Coolant Injection
H_2/O_2	Hydrogen/Oxygen
IPEEE	Individual Plant Evaluation of External Events
LCO	Limiting Condition for Operation
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OP	Operating Procedure
PP	Program Procedure
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
TS	Technical Specification
VAC	Volt Alternating Current
VY	Vermont Yankee