

September 25, 2001

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 50-271/01-06

Dear Mr. Balduzzi:

On August 18, 2001, the NRC completed an inspection at your Vermont Yankee facility. The enclosed report documents the inspection findings which were discussed on September 7, 2001, with your and other Vermont Yankee managers.

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. Specifically, this inspection involved seven weeks of resident inspection and a region-based inspection in the area of radiation safety.

Based on the results of this inspection, the inspectors identified one issue of very low safety significance (Green) that was determined to involve a violation of NRC requirements. However, because of its safety significance and because the issue has been entered into your corrective action program, the NRC is treating this issue as a non-cited violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this non-cited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, D.C. 20555-001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Resident Inspector at Vermont Yankee.

M. A. Balduzzi

-2-

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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Glenn W. Meyer, Chief  
Projects Branch 3  
Division of Reactor Projects

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

Enclosure: Inspection Report 50-271/01-06  
Attachment: Supplementary Information

cc w/encl: R. McCullough, Operating Experience Coordinator - Vermont Yankee  
G. Sen, Licensing Manager, Vermont Yankee Nuclear Power Corporation  
D. Rapaport, Director, Vermont Public Interest Research Group, Inc.  
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  
Commonwealth of Massachusetts, SLO Designee

- Dist w/encl: Region I Docket Room (with concurrences)  
 B. McDermott, DRP - NRC Resident Inspector  
 H. Miller, RA  
 J. Wiggins, DRA  
 G. Meyer, DRP  
 R. Barkley, DRP  
 T. Haverkamp, DRP  
 D. Loveless, RI EDO Coordinator  
 E. Adensam, NRR  
 R. Pulsifer, PM, NRR  
 D. Starkey, Backup PM, NRR

DOCUMENT NAME: C:\Program Files\Adobe\Acrobat 4.0\PDF Output\VY0106.wpd

After declaring this document "An Official Agency Record" it **will** 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	McDermott/GWM f/	Meyer/GWM						
DATE	09/25/01	09/25/01						

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No. 50-271

Licensee No. DPR-28

Report No. 50-271/01-06

Licensee: Vermont Yankee Nuclear Power Corporation

Facility: Vermont Yankee Nuclear Power Station

Location: Vernon, Vermont

Dates: July 1 - August 18, 2001

Inspectors: Brian J. McDermott, Senior Resident Inspector  
Edward C. Knutson, Resident Inspector  
Joseph T. Furia, Senior Health Physicist

Approved by: Glenn W. Meyer, Chief  
Projects Branch 3  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000271-01-06, on 07/01 - 08/18/01; Vermont Yankee Nuclear Power Station; Vermont Yankee Nuclear Power Corporation; Temporary Plant Modifications.

This inspection was performed by the resident inspectors and a region-based radiation protection specialist. The inspection identified one Green finding and this finding was determined to involve a non-cited violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at <http://www.nrc.gov/NRR/oversight/index.html>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

### A. Inspector Identified Findings

#### **Barrier Integrity**

- **Green.** VY did not provide adequate design control for a non-safety cover installed over a safety-related expansion bellows. The cover had been attached to the adjoining piping at both ends of the bellows, potentially restricting expansion and/or contraction of the metal bellows.

This issue was considered more than minor, because the physical problem existed and because restriction of the bellows could have a credible impact on safety during a design basis accident. Degradation (restriction) of the bellows could credibly affect the operability of the primary containment or its pressure suppression function. However, the inspectors determined this issue was of very low safety significance (Green) based on a Phase 1 evaluation of the SDP, because VY was able to show that the cover brackets would deform and not restrict movement or otherwise damage the bellows. The failure to provide adequate design control for the bellows cover was treated as a non-cited violation in accordance with Section VI.A.1 of the NRC's Enforcement Policy. This issue was entered in VY's corrective action program as ER 2001-1665. (Section 1R23.1)

### B. Licensee Identified Findings

None

## Report Details

Summary of Plant Status: Vermont Yankee (VY) operated at 100 percent power throughout the inspection period with one exception. On August 16 operators reduced reactor power to 73 percent in support of a control rod pattern adjustment, planned maintenance, and surveillance testing.

### **1. REACTOR SAFETY**

#### **Initiating Events, Mitigating Systems, Barrier Integrity [REACTOR - R]**

##### 1R01 Adverse Weather Protection

###### a. Inspection Scope

The inspectors reviewed VY's response to high outdoor temperatures during the week of August 6 using the guidance in NRC Inspection Procedure 71111, Attachment 1, "Adverse Weather." Three aspects of VY's operation were affected by the heat and examined by the inspectors: reactive loading of the main generator, torus water temperature, and ultimate heat sink (service water) temperature. The torus and service water (SW) functions have high risk significance and their condition was evaluated against design basis information contained in the Updated Final Safety Analysis Report (UFSAR). In addition, the inspectors reviewed the status of the electrical grid to assess the impact on the operability of offsite power supplies required by Technical Specification (TS) 3.10.

###### b. Findings

No findings of significance were identified.

##### 1R04 Equipment Alignment

###### a. Inspection Scope

The inspectors performed partial system walkdowns (visual inspections) to verify system alignments and to identify any discrepancies that would impact system operability. Observed plant conditions were compared with the standby alignment of equipment specified in VY's system operating procedures. In addition, the inspectors referenced the general guidance in NRC Inspection Procedure 71111, Attachment 4, "Equipment Alignment."

The inspectors reviewed selected valve position, electrical power availability, and the general condition of major system components for the following equipment:

- Residual heat removal (RHR) subsystem B and its support equipment during preventive maintenance on RHR subsystem A. The operability requirements for this system are listed in TS 3.5 and the system's standby alignment is prescribed by VY operating procedure OP 2124.

- Core spray subsystem B during preventive maintenance on RHR subsystem A. The operability requirements for this system are listed in TS 3.5 and the system's standby alignment is prescribed by VY operating procedure OP 2123.
- RHR subsystem A following restoration from preventive maintenance. The operability requirements for this system are listed in TS 3.5 and the system's standby alignment is prescribed by VY operating procedure OP 2124.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors toured plant areas important to reactor 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 inspectors identified fire areas important to plant risk based on the Fire Protection Program and the Individual Plant Examination External Events (IPEEE). The inspection elements identified in NRC Inspection Procedure 71111, Attachment 5, "Fire Protection," were used in evaluating the following plant areas:

- Emergency diesel generator rooms
- Service water pump room

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed VY's implementation of the Maintenance Rule for structures, systems and components that exhibited performance problems. The inspectors 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 systems and/or assessments of component failures were reviewed:

- Feedwater heater 1A level control valve failure on August 13 (ER 2001-1666).
- Stator water cooling pump B, unexpected auto start due to an indication of low system pressure on July 19 (ER 2001-1659).

- Feedwater pump C minimum flow valve (FWD-FCV-102-2C), cycling during power reduction on April 27, 2001 (ER 2001-0801).
- Control rod drive system, based on risk significance.
- Fire protection system, to determine the basis for it not being classified as a risk significant system.
- Turbine Building Closed Cooling Water, based on risk significance.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed planned and emergent maintenance at VY based on the guidance in NRC Inspection Procedure 71111, Attachment 13, "Maintenance Risk Assessment and Emergent Work Control." VY procedures AP 0125, "Equipment Release" and AP 0172, "Work Schedule Risk Management - Online," were used as criteria to assess VY's activities. One emergent activity and one planned activity were reviewed during this period:

- Degradation of a service water drain line in the turbine building. On July 19 VY personnel identified that a drain line on the SW supply to the C hydrogen cooler was physically loose. Further investigation revealed that corrosion of the carbon steel drain line had significantly reduced the pipe's thread engagement. Although this portion of the SW system is not safety related, the inspectors reviewed the emergent work based on its potential to affect steady state operation. The inspectors assessed VY's compensatory measures and implementation of corrective actions.
- Preventive maintenance outage for RHR subsystem A, July 29 - August 3. The inspectors reviewed VY's maintenance risk assessment entitled "RHR A LCO Maintenance Plan," approved on July 26. The inspectors examined the accuracy and completeness of information considered in VY's risk assessment, the appropriate use of the risk monitoring tools and compensatory measures.

b. Findings

No findings of significance were identified.

## 1R14 Personnel Performance During Non-routine Evolutions

### a. Inspection Scope

The inspectors assessed the control room operators' performance during two non-routine evolutions. Specifically, 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."

- On July 25 the inspectors observed the control room operators responding to the failure of the normal level control valve for feedwater heater 2A. The inspectors verified that the equipment failures and procedure enhancements identified during this event were entered into VY's corrective action process.
- On July 26 operators initiated a lockup of the scoop tube for reactor recirculation pump B in support of planned maintenance on its controller. The inspectors observed portions of the pre-job brief and execution of this infrequently performed evolution. This was the first time the scoop tube had been locked up (with the reactor at power) since a new digital control system was installed in the Spring 2001 refueling outage.

### b. Findings

No findings of significance were identified.

## 1R15 Operability Evaluations

### .1 Reactor Core Isolation Cooling (RCIC) Turbine Exhaust Line Water Accumulation

#### a. Inspection Scope

The inspectors reviewed VY's analysis of RCIC operability with 28 gallons of water in the turbine exhaust line between the turbine exhaust check valve (RCIC-6) and the torus. This condition was discovered by VY on July 17 during investigation of check valve noise reported during a prior RCIC surveillance (ER 2001-1340). NRC Generic Letter 91-18, the Updated Final Safety Analysis Report, and TS 3.5.G were used as the criteria for this review.

#### b. Findings

An unresolved item is being opened regarding the operability of the RCIC system between May 21 and July 17, pending NRC review of additional information from VY. The inspectors considered this information necessary to evaluate VY's analytical assessment of RCIC system operability with its turbine exhaust line water filled.

An automatic start of RCIC with water in its exhaust line could cause the system to trip on a high exhaust line pressure signal or cause damage to the downstream piping.

VY evaluated two bounding scenarios to assess the operability of the as-found condition. First, they examined the structural loading on the exhaust piping and torus penetration that would result from the most limiting slug of water. Secondly, they examined whether RCIC would trip on high turbine exhaust pressure, assuming the exhaust line was completely filled with water. VY's evaluation concluded that the structural loading would be within design limits and that the peak exhaust pressure would be 33.3 psig, below the RCIC exhaust backpressure trip set point of 42.0 psig.

VY determined that the most likely explanations for the water in the turbine exhaust line were: 1) the condensation of steam leaking past the RCIC steam admission valve, 2) the induction of torus water after the turbine was shutdown (i.e., exhaust steam collapse with insufficient vacuum relief), or 3) a combination of the two sources. VY's root cause investigation was still in progress at the end of this inspection report period.

VY was planning to collect additional information regarding operation of the exhaust line vacuum breakers and the induction of torus water into the exhaust line during the next quarterly RCIC surveillance test. The inspectors determined that this information should either corroborate or disprove VY's analysis of RCIC operability between May 21 and July 17. In addition, this information should allow the inspectors to assess whether performance issues contributed to this problem. Pending the collection and evaluation of additional information from the next RCIC surveillance, this issue will remain unresolved. **(URI 50-271/01-06-01)**

## .2 Routine Observations

### a. Inspection Scope

The inspectors reviewed a sample of operability evaluations prepared by VY. The inspectors used the guidance provided in NRC Generic Letter 91-18 to assess VY's evaluation of the degraded or non-conforming conditions. The following plant issues were reviewed:

- Steam leakage past the reactor core isolation cooling (RCIC) turbine steam admission valve, V13-131. On July 12 VY identified a significant accumulation of water in the RCIC turbine exhaust line, downstream of the exhaust line check valves. VY prepared an operability determination based on compensatory actions which tracked the accumulation of steam condensate, specified periodic draining of the exhaust line, and analyzed the RCIC turbine oil. This operability determination was documented as Basis for Maintaining Operation (BMO) 2001-005.
- Improper bolting of an expansion bellows cover. The cover for one metal expansion bellows on a drywell vacuum breaker line was bolted at both ends, contrary to its design. An evaluation by VY's structural engineering department concluded that the cover attachments were not strong enough to prevent the bellows from functioning properly. This operability determination was documented as part of ER 2001-1665.

b. Findings

No findings of significance were identified. (A finding regarding design control of the bellows is discussed in Section 1R23.1.)

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed minor modification 2001-026 associated with the tailpipe temperature monitoring for the reactor safety and relief valves. The inspectors' evaluation consisted of reviewing the design change documents (including the FSAR changes, procedure markups, 10 CFR 50.59 Applicability and Screening Determination, and engineering evaluations), discussion with cognizant VY personnel, and observation of VY management review during a Plant Operations Review Committee meeting.

This permanent modification changed the high temperature alarm setpoint, common to all six valves, from 200°F to 230°F. The original plant design documents assumed that the tailpipe temperatures would be the same. However, historical operating data shows the tailpipe temperatures vary from 120°F to 200°F based on their location. The modification also changed the function of this common alarm from that of early leak detection to a backup indication of valve opening or leakage. VY will now credit plant computer monitoring of individual, normalized safety and relief valve tailpipe temperatures as the means of early leak detection. Section 7.4 the UFSAR will be revised as a result of this change.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed and/or observed portions of the post maintenance testing associated with the RHR and RHR service water (RHRSW) online maintenance performed during the week of July 30. The review was performed using the guidance provided in NRC Inspection Procedure 71111, Attachment 19, "Post- Maintenance Testing." VY operating procedures were compared with applicable TS requirements and then used as criteria for this inspection.

The inspectors observed portions of the following post-maintenance test activities:

- RHRSW subsystem A pump and valve testing performed in accordance with operating procedure OP 4124.
- Reactor building recirculation unit (room cooler) flow rate testing performed in accordance with OP 4181.

- RHR subsystem A pump and valve testing performed in accordance with OP 4124.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

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

- Core spray system quarterly surveillance testing performed in accordance with OP 4123 on July 2.
- Standby liquid control system quarterly surveillance testing performed in accordance with OP 4114 on July 26.
- Emergency diesel generator B monthly surveillance testing performed in accordance with OP 4126 on July 24.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

.1 Control of Installation of a Non-Safety Class Protective Cover on a Safety Class Expansion Bellows

a. Inspection Scope

On February 8, 2001, the inspectors identified that a non-safety class cover was improperly attached to a safety-related expansion bellows on one torus-to-drywell vacuum breaker line. The cover was rigidly fastened at both ends of the bellows and had the potential to prevent expansion and/or contraction of the bellows. The bellows are intended to limit the stress from differential expansion of the drywell and torus under design basis accident conditions. The inspectors reviewed design drawings for the bellows and the work control process VY used to install the cover.

b. Findings

Green. A non-cited violation of 10 CFR 50, Appendix B, Criterion III existed for failure to provide adequate design control for a non-safety cover installed over a safety-related expansion bellows.

In 1996 VY identified that the bellows cover could restrict of movement of the torus-to-drywell vacuum breaker bellows. As immediate corrective action VY removed the mounting bolts from one end of each cover, thereby eliminating the restriction. VY also prepared safety classification worksheets that designated the covers as non nuclear safety (NNS) components. This designation allowed VY to control the configuration of the covers using the work order process, without the design change controls required for temporary, minor and permanent modifications.

The 5G vacuum breaker bellows cover was removed in 1999 and subsequently reinstalled during the Spring 2001 refueling outage under work order 99-010992-001. During the Spring 2001 installation both ends of the cover were bolted, recreating the problem identified in 1996.

The performance deficiency associated with this event was inadequate control of non-safety equipment that could impact the operability of safety-related equipment. VY's processes for controlling changes to NNS plant equipment failed to identify the potential impact of attaching the NNS cover to the safety-related bellows.

This issue was considered more than minor, because the physical problem existed and because restriction of the bellows function could have a credible impact on safety under design basis conditions. Excessive stress on the attached piping due to the mechanical bypass of the bellows could credibly affect the primary containment and its pressure suppression function. However, the inspectors determined this issue was of very low safety significance (Green) based on a Phase 1 evaluation of the SDP (Inspection Manual Chapter 0609, Appendix A) because VY was able to show that the bellows were operable in the current configuration. At one end of the cover, bolts were used to secure the cover to one of four brackets welded to the pipe. VY determined this single bracket would deform and allow adequate movement of the bellows.

10 CFR 50, Appendix B, Criterion III, "Design Control," requires that measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated in specifications, drawings, procedures and instructions. Contrary to the above, the instructions provided for installation of the 5G vacuum breaker bellows cover were not adequate to ensure that the cover would not impact the safety function of the bellows. This violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy, issued May 1, 2000 (65FR25368). This issue was entered in VY's corrective action program as ER 2001-1665.

**(NCV 50-271/01-06-02)**

.2 Routine Observation

a. Inspection Scope

The inspectors reviewed VY's list of temporary modifications and selected TM 2001-022 for review. This modification provided isolation of an electrical ground in the control circuit for reactor recirculation pump suction valve V2-43A. Installation of the modification restored remote manual control of the valve and eliminated an operator workaround.

b. Findings

No findings of significance were identified.

**Emergency Preparedness [EP]**

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed portions of an emergency preparedness drill from the Technical Support Center and the Emergency Operations Facility on August 8. Guidance in NRC Inspection Procedure 71114, Attachment 6, "Emergency Preparedness," was used to evaluate the drill and VY's identification of problems during this training activity. The inspectors focused on the event classification and notification, and communication between the emergency response centers.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Occupational Radiation Safety [OS]**

2OS1 Access Control

a. Inspection Scope

The inspector determined exposure significant work areas, high radiation areas, and airborne radioactivity areas in the plant and reviewed associated controls and surveys of these areas to determine if controls (i.e., surveys, postings, barricades) were acceptable. For these areas, the inspector reviewed all radiological job requirements and attended job briefings; determined if radiological conditions in the work area were adequately communicated to workers through briefings and postings; verified radiological controls, radiological job coverage and contamination controls; and verified the accuracy of surveys and applicable posting and barricade requirements. The inspector determined if prescribed radiation work permits (RWPs), procedure and engineering controls were in place, whether surveys and postings were complete and accurate, and that air samplers were properly located. Reviews of RWPs used to access these and other high radiation areas and to identify what work control instructions or control barriers have been specified were conducted. Observation of work activities inside the RCA occurred in the reactor, turbine, radwaste and advanced off-gas buildings. The inspector focused particularly on work being performed in the residual heat removal system, located in one of the reactor building corner rooms. Plant TS 6.5 and 10 CFR 20, Subpart G were utilized as the standard for necessary barriers. The inspector reviewed electronic pocket dosimeter alarm set points (both integrated dose and dose rate) for conformity with survey indications and plant policy.

The inspector also examined an audit report (2001-028) prepared by the quality assurance department, which documented assorted surveillances and audits performed during the Spring 2001 outage. Specifically, items 18 and 20 of this report, covering drywell access control and support, and work practices respectively, were reviewed by the inspector.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls

a. Inspection Scope

The inspector reviewed work performance during the Spring 2001 refueling outage. Areas reviewed included a review of the use of low dose waiting areas; review of on-job supervision provided to workers; and, a review of individual exposures from selected work groups. An evaluation of engineering controls utilized to achieve dose reductions, and analysis of source term reduction plans was also conducted. The inspector also reviewed data on three-year rolling average exposures, in which VY has the second lowest average of all U.S. boiling water reactors.

The inspector observed radiation worker and RP technician performance during high dose rate or high exposure jobs, and determined if workers demonstrated the ALARA philosophy in practice. The inspector observed radiation worker performance to determine whether the training/skill level was sufficient with respect to the radiological hazards and the work involved.

The inspector reviewed ALARA job evaluations, exposure estimates and exposure mitigation requirements, and ALARA plans were compared with the results achieved. Reviews of the integration of ALARA requirements into work procedures and RWP documents; the accuracy of person-hour estimates and person-hour tracking; and generated shielding requests and their effectiveness to dose rate reduction were also conducted.

A review of actual exposure results versus initial exposure estimates was conducted, including comparison of estimated and actual dose rates and person-hours expended; determination of the accuracy of estimations to actual results; and determination of the level of exposure tracking detail, exposure report timeliness and exposure report distribution to support control of collective exposures to determine compliance with the requirements contained in 10 CFR 20.1101(b). The inspector reviewed the results of six high exposure jobs performed during RFO22, and their associated ALARA packages, including: reactor disassembly/reassembly (Package No. 01-01-14-01-RF); in-service inspection (Package No. 01-15-05-01-RF); shielding and support (Package No. 01-15-11-03-RF); staging and support (Package No. 01-15-11-04-RF); insulation and support (Package No. 01-15-11-05-RF); and, drywell seal work (Package No. 01-15-11-11-RF).

The inspector also examined an audit report (2001-028) prepared by the quality assurance department, which documented assorted surveillances and audits performed

during the Spring 2001 refueling outage. Specifically, item 34 of this report, covering outage ALARA, was reviewed by the inspector.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation

a. Inspection Scope

The inspector reviewed field instrumentation utilized by health physics technicians and plant workers to measure radioactivity, including portable field survey instruments, friskers, portal monitors and small article monitors. The inspector conducted a review of instruments observed during the refueling outage, specifically verification of proper function and certification of appropriate source checks for these instruments which are utilized to ensure that occupational exposures are maintained in accordance with 10 CFR 20.1201. The inspector also reviewed randomly selected calibration records for radiological survey instruments, and also verified that sources utilized to calibrate survey instruments were traceable to the National Institute of Standards and Technology. Records for the calibration of eight different types of air samplers, seven types of portable radiation detection devices and for personal electronic dosimeters were reviewed.

b. Findings

No findings of significance were identified.

#### 4. OTHER ACTIVITIES [OA]

##### 4OA5 Other

(Closed) LER 50-271/01-03-00: Denial of Unescorted Access Authorization Due to Withholding Information. This licensee event report (LER) pertains to a security issue, in which no violation of NRC requirements was identified. On the basis of an on-site review, this LER is closed.

(Closed) EA 00-165-010103: Maintenance manager deliberately violated procedure for control of contracted services (valve maintenance) required by 10CFR50, Appendix B, Criterion VII, during the 1998 Refueling Outage. On September 18, 2000 the NRC issued a Severity Level III violation for the inadequate oversight of contractors performing valve maintenance during the 1998 refueling outage. In response to this violation, VY requested additional documentation regarding this case in a letter dated October 12, 2000. After reviewing the documents provided, VY decided not to pursue any further appeals in this matter. Although VY has acknowledged that a violation of quality assurance requirements took place, they continued to believe that no willful or deliberate actions were taken by the maintenance manager. VY documented corrective actions that were taken to improve the oversight of contracted services in a letter dated September 11, 2000. Based on the improved oversight of contractors during the 2000 and 2001 refueling outages observed during on-site inspections, this violation is closed.

##### 4OA6 Exit Meeting

On September 7, 2001, the resident inspectors presented their overall findings to members of VY management led by Mike Balduzzi, Senior Vice President and Chief Nuclear Officer. VY management stated that the analysis of the RCIC turbine exhaust line performed by an engineering consultant was considered proprietary information. Through discussions with VY management the inspectors confirmed that none of the information to be documented in this inspection report would be considered proprietary.

## ATTACHMENT 1

## SUPPLEMENTARY INFORMATION

a. List of Items Opened, Closed and DiscussedOpened

50-271/01-06-01:	URI	Operability of RCIC with Water in Turbine Exhaust Line
------------------	-----	--------------------------------------------------------

Closed

50-271/01-06-02:	NCV	Inadequate Design Control For Torus-Drywell Vacuum Breaker Cover
50-271/01-03-00	LER	Denial of Unescorted Access Authorization Due to Withholding Information
00-165-010103	EA	Maintenance manager deliberately violated procedure for control of contracted services (valve maintenance) required by 10CFR50, Appendix B, Criterion VII, during the 1998 Refueling Outage

b. List of Acronyms Used

ALARA	As Low as Is Reasonably Achievable
BMO	Basis for Maintaining Operation
CFR	Code of Federal Regulations
ER	Event Report
IPEEE	Individual Plant Examination External Events
LCO	Limiting Condition for Operation
NNS	Non Nuclear Safety
NRC	Nuclear Regulatory Commission
PP	Program Procedure
RCA	Radiologically Controlled Area
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RWP	Radiation Work Permit
SDP	Significance Determination Process
SW	Service Water
TM	Temporary Modification
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
VY	Vermont Yankee