January 25, 2005

Mr. Jay K. Thayer
Site Vice President
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
P.O. Box 0500
185 Old Ferry Road
Brattleboro, VT 05302-0500

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000271/2004006

Dear Mr. Thayer:

On December 31, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Vermont Yankee Nuclear Power Station (VY). The enclosed report documents the inspection findings which were discussed on January 6, 2005, with Mr. W. Maguire and other members of your staff.

The 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.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. This violation is being treated as a Non-Cited Violation (NCV), consistent with Section VI.A of the Enforcement Policy. The NCV is described in the inspection report. If you contest this non-cited violation, you should provide a response within 30 days of the date of this inspection report with the basis for your denial to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001 with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Vermont Yankee Nuclear Power Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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 05000271/2004006
w/Attachment: Supplemental Information

cc w/encl:
M. R. Kansler, President, Entergy Nuclear Operations, Inc.
G. J. Taylor, Chief Executive Officer, Entergy Operations
J. T. Herron, Senior Vice President and Chief Operating Officer
D. L. Pace, Vice President, Engineering
B. O'Grady, Vice President, Operations Support
J. M. DeVincentis, Manager, Licensing, Vermont Yankee Nuclear Power Station
Operating Experience Coordinator - Vermont Yankee Nuclear Power Station
J. F. McCann, Director, Nuclear Safety Assurance
M. J. Colomb, Director of Oversight, Entergy Nuclear Operations, Inc.
J. M. Fulton, Assistant General Counsel, Entergy Nuclear Operations, Inc.
S. Lousteau, Treasury Department, Entergy Services, Inc.
Administrator, Bureau of Radiological Health, State of New Hampshire
Chief, Safety Unit, Office of the Attorney General, Commonwealth of Mass.
D. R. Lewis, Esquire, Shaw, Pittman, Potts & Trowbridge
G. D. Bisbee, Esquire, Deputy Attorney General, Environmental Protection Bureau
J. Block, Esquire
J. P. Matteau, Executive Director, Windham Regional Commission
M. Daley, New England Coalition on Nuclear Pollution, Inc. (NECNP)
D. Katz, Citizens Awareness Network (CAN)
R. Shadis, New England Coalition Staff
G. Sachs, President/Staff Person, c/o Stopthesale
J. Sniezek, PWR SRC Consultant
R. Toole, PWR SRC Consultant
Commonwealth of Massachusetts, SLO Designee
State of New Hampshire, SLO Designee
State of Vermont, SLO Designee

Distribution w/encl:
S. Collins, RA
J. Wiggins, DRA
C. Anderson, DRP
D. Florek, DRP
S. Lee, RI OEDO
D. Roberts, NRR
R. Ennis, PM, NRR
V. Nerses, Backup PM, NRR
D. Pelton, DRP, Senior Resident Inspector
A. Rancourt, DRP, Resident OA
Region I Docket Room (with concurrences)

SISP Review Complete: ____DJF1_____ (Reviewer's Initials)

DOCUMENT NAME: E:\Filenet\ML050280176.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		RI/DRP	
NAME	DPelton*		Dflorek/DLF1		CAnderson/CJA	
DATE	01/25/05		01/25/05		01/25/05	

OFFICIAL RECORD COPY

*via e-mail

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	50-271
Licensee No.	DPR-28
Report No.	05000271/2004006
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Vermont Yankee Nuclear Power Station
Location:	320 Governor Hunt Road Vernon, Vermont 05354-9766
Dates:	October 1, 2004 - December 31, 2004
Inspectors:	David L. Pelton, VY Senior Resident Inspector Beth E. Sienel, VY Resident Inspector Jamie C. Benjamin, Reactor Engineer Steven Dennis, Senior Operations Engineer Roy L. Fuhrmeister, Senior Reactor Engineer James D. Noggle, Senior Health Physicist
Approved by:	Clifford J. Anderson, Chief Projects Branch 5 Division of Reactor Projects

CONTENTS

SUMMARY OF FINDINGS

IR 05000271/2004006; 10/01/04 - 12/31/04; Vermont Yankee Nuclear Power Station; Other Activities.

This report covered a 13-week period of inspection by resident inspectors and announced inspections by a regional senior operations engineer, senior reactor engineer, reactor engineer, and a senior health physicist. One Severity Level IV non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, “Significance Determination Process” (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. 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. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Severity Level IV. The inspectors identified a Severity Level IV NCV of 10 CFR 50.74(c) because Entergy did not notify the NRC within 30 days of the identification of a medical condition that caused a licensed senior operator to fail to meet the requirements of 10 CFR 55.21. That medical condition ultimately required the NRC to issue a conditional [restricted] license. Specifically, Entergy became aware of a medical condition in March 2004 that caused a licensed senior operator to fail to meet the requirements of 10 CFR 55.21 and for which a conditional [restricted] license was required. However, Entergy did not notify the NRC of the medical condition until five months later, in August 2004.

Entergy’s failure to report the medical condition to the NRC impacted the regulatory process, in that, between April and August 2004, the NRC was unaware of a medical condition that warranted issuance of a conditional [restricted] license. Because the finding impacted the regulatory process, it was dispositioned using the traditional enforcement process instead of the significance determination process. This issue has been entered into Entergy’s corrective actions program. (Section 4OA5)

B. Licensee Identified Findings

None.

REPORT DETAILS

Summary of Plant Status

Vermont Yankee Nuclear Power Station began the inspection period with the reactor at full power operation and with the exception of minor power reductions for control rod pattern adjustments, continued at, or near, full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

1. Readiness for Seasonal Susceptibilities

a. Inspection Scope (two samples)

The inspectors reviewed measures established by Entergy for cold weather operations. The inspectors reviewed Vermont Yankee Operating Procedure (OP) 2196, "Preparations for Cold Weather Operations," and its Forms 1, "Cold Weather Operations Checklist," and 4, "Operations Cold Weather Protection Verification Checklist," and discussed the completion of items with operations personnel to confirm the items on the checklists were either completed or appropriately tracked for completion. The inspectors walked down the intake structure, condensate storage tank, and emergency diesel generator rooms to independently verify that selected actions to prepare for cold weather operations were completed appropriately and systems were kept at temperatures to ensure operability. The inspectors also reviewed recent condition reports (CRs) related to cold weather protection to ensure proper actions were taken in response to identified issues.

Additionally, the inspectors reviewed measures established by Entergy for minimizing the impact of a tornado on the continued availability of the emergency diesel generators (EDGs). The inspectors reviewed the Individual Plant Examination of External Events (IPEEE), the Updated Final Safety Analysis Report (UFSAR), and the Vermont Yankee Topical Design Basis Document (DBD) for External Events to ensure all tornado-related vulnerabilities had been identified and appropriately addressed including the installation and maintenance of tornado vent dampers for each EDG room. The inspectors also reviewed Engineering Design Change Request (EDCR) 97-407, "Installation of Emergency Diesel Generator Room Tornado Dampers" and NRC Information Notice 96-06, "Design and Testing Deficiencies of Tornado Dampers at Nuclear Power Plants. The inspectors performed walkdowns of the EDG rooms and tornado dampers to ensure dampers were unobstructed and to observe general physical condition. Additionally, the inspectors reviewed CRs related to the EDG tornado dampers to ensure identified problems were properly resolved (a listing of CRs reviewed is included in the attachment to this report).

b. Findings

The EDG rooms have dampers (louvers) installed to provide a pressure relief path to prevent the EDG room walls from collapsing during a design basis tornado event. During the inspector's review of the preventive maintenance (PM) performed on the tornado dampers the inspectors determined that the dampers are inspected, lubricated, and manually cycled open and closed every 18 months.

Although the PM applied to the dampers provides evidence that the dampers will open manually, the inspectors questioned whether manually cycling the dampers open and closed is a sufficient test to demonstrate that the dampers open within the design basis differential pressure range (0.28 to 0.35 pounds per square inch (psid)) specified in EDCR 97-407. 10 CFR 50, Appendix B, Criterion XI, "Test Control," requires, in part, that testing be performed on safety-related components to demonstrate that the component will perform satisfactorily in service and that this testing be performed in accordance with written procedures that incorporate the requirements and acceptance limits contained in the applicable design documents.

In response to the inspectors questions, Entergy entered the issue into its corrective action program (CR 2004-3293). Also, Entergy developed an operability determination which demonstrated that the EDG room tornado dampers are currently able to perform their design function if called upon.

Entergy Engineering Department personnel plan to perform an engineering analysis of the current PM performed on the EDG room tornado dampers to determine if manually cycling the dampers opened and closed is a sufficient test to assure that the dampers will open within the design basis differential pressure range. Entergy is also developing an enhanced testing methodology for the EDG tornado dampers. Following completion of Entergy's engineering analysis, the inspectors can determine whether the testing performed under the PM meets the requirement of 10 CFR 50, Appendix B, Criterion XI, "Test Control." As a result, this issue is considered to be an unresolved item (URI): **URI 05000271/2004006-01, Adequacy of Testing for Emergency Diesel Generator Room Tornado Dampers** .

1R04 Equipment Alignment

1. Complete Equipment Alignment (71111.04S)

a. Inspection Scope (one sample)

The inspectors performed a complete equipment alignment inspection of the accessible portions of the high pressure coolant injection (HPCI) system. The inspectors walked down the HPCI system and compared actual equipment alignment to approved piping and instrumentation diagrams, operating procedure lineups, the Vermont Yankee UFSAR, and the Vermont Yankee design basis document (DBD). The inspectors observed valve positions, the availability of power supplies, and the general condition of

selected components to verify there were no unidentified deficiencies. The inspectors also confirmed that licensee-identified equipment problems had been entered into the corrective actions program.

b. Findings

No findings of significance were identified.

2. Partial Equipment Alignments (71111.04)

a. Inspection Scope (three samples)

The inspectors performed three partial system walkdowns of risk significant systems to verify system alignment and to identify any discrepancies that would impact system operability. Observed plant conditions were compared with the standby alignment of equipment specified in Entergy's system operating procedures and drawings. The inspectors also observed valve positions, the availability of power supplies, and the general condition of selected components to verify there were no obvious deficiencies. The inspectors verified the alignment of the following systems:

- The "B" train of the residual heat removal service water (RHRSW) system during planned maintenance on the "A" train of the RHRSW system,
- The "B" train of the residual heat removal (RHR) system during planned maintenance on the "A" train of the RHR system, and
- Accessible portions of the service water (SW) and RHRSW systems during planned maintenance on alternate cooling system cooling tower (CT) 2-1.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope (eight samples)

The inspectors identified fire areas important to plant risk based on a review of Entergy's Vermont Yankee Safe Shutdown Capability Analysis, the Fire Hazards Analysis, and the IPEEE. The inspectors toured plant areas important to safety in order to verify the suitability of Entergy's control of transient combustibles and ignition sources, and the material condition and operational status of fire protection systems, equipment, and barriers. The following fire areas (FAs) and/or fire zones (FZs) were inspected:

- Reactor building, 318 foot elevation (FZ RB7);
- Reactor building, 345 foot elevation (FZ RB7);
- "A" Emergency Core Cooling System (ECCS) corner room (FZ RB1);
- "B" ECCS corner room (FZ RB2);

- HPCI room (FZ RB2);
- Circulating water pump room (FZ 14);
- West cooling tower (FA 16); and
- Discharge structure (no fire designation).

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

1. Annual Heat Sink Performance (71111.07A)

a. Inspection Scope (one sample)

The inspectors observed a thermal performance test conducted on the "A" standby fuel pool cooling system (FPCS) heat exchanger in accordance with OP 4033, "Standby FPCS Heat Exchanger Thermal Performance Test." The inspectors reviewed the completed surveillance forms and calculation reports to ensure that test results met test acceptance criteria which considered differences between test and design basis accident conditions.

b. Findings

No findings of significance were identified.

2. Biennial Heat Sink Performance (71111.07B)

a. Inspection Scope (three samples)

The inspectors reviewed Vermont Yankee's response to NRC Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety-Related Equipment," and the other documents listed in the Attachment, to ensure that Entergy's test methodology, test frequency, test results and acceptance criteria for heat exchangers and coolers were consistent with previous commitments and design basis values. The inspectors performed a walkdown of portions of the SW, RHRSW, and alternate cooling systems, including the intake and discharge structures and cooling tower CT 2-1 to assess the condition of these components. The inspectors reviewed the frequency of maintenance and cleaning of heat exchangers with the system engineer to ensure that these activities were scheduled and performed using trend data developed from periodic heat transfer tests and previously performed visual inspections. The inspector examined the trending of the measured data for the service water system components. The inspectors reviewed the methods and results of heat exchanger performance inspections and cleaning to ensure that the methods used were consistent with the expected degradation. The inspectors reviewed the disposition of "as-found results" to ensure that the "as-left" conditions were acceptable. The inspectors reviewed the history of

system piping corrosion and discussed the macro-fouling and corrosion experience with the system engineer and discussed the limitations imposed on chemical treatment of the service water and residual heat removal service water systems.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

1. Quarterly Requalification Review (71111.11Q)

a. Inspection Scope (one sample)

The inspectors observed a simulator session for one operating crew to assess the performance of the licensed operators and the ability of Entergy's Training Department staff to evaluate licensed operator performance. Operating crew performance was evaluated during a scenario which involved the loss of a direct current (DC) electrical bus, recirculating pump trip and an unisolated steam leak in secondary containment. The inspectors evaluated the crew's performance in the areas of:

- Clarity and formality of communications;
- Ability to take timely actions;
- Prioritization, interpretation, and verification of alarms;
- Procedure use;
- Control board manipulations;
- Oversight and direction from supervisors; and
- Group dynamics.

Crew performance in these areas was compared to Entergy management expectations and guidelines as presented in the following documents:

- Vermont Yankee Administrative Procedure (AP) 0151, "Responsibilities and Authorities of Operations Department Personnel;
- AP 0153, "Operations Department Communication and Log Maintenance"; and
- Vermont Yankee DP- 0166, "Operations Department Standards."

The inspectors also compared simulator configurations with actual control board configurations. For any weaknesses identified, the inspectors observed the evaluators to verify that they also noted the issues and discussed them with the crew.

b. Findings

No findings of significance were identified.

2. Biennial Operator Requalification Review (71111.11B)

a. Inspection Scope (one sample)

The inspectors reviewed documentation of operating history since the last requalification program inspection. The inspectors also discussed facility operating events with the resident staff. Documents reviewed included NRC inspection reports and 10 condition reports to ensure that operational events were not indicative of possible training deficiencies.

The inspectors verified that documented Requalification Training Schedule changes were made to address specific events. A sample of ten training records were reviewed to verify completion of this training.

The inspectors reviewed five senior reactor operator (SRO) and five reactor operator (RO) comprehensive biennial written exams administered in November 2003. In addition, the inspectors reviewed three sets of Scenarios and job performance measures (JPMs) administered during this current exam cycle to ensure the quality of these exams met or exceeded the criteria established in NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," and 10 CFR 55.59. The inspectors observed the administration of operating examinations to one operating crew. The operating examination consisted of two simulator scenarios and one set of five JPMs administered to each individual.

For the VY plant referenced simulator, the inspectors observed simulator performance during the conduct of the examinations and reviewed simulator performance tests (e.g., steady state performance tests, selected transient tests, selected scenario based tests, normal plant evolution tests, and core performance tests) and simulator deficiency reports to verify compliance with the requirements of 10 CFR 55.46. A listing of tests and data reviewed is included in the Attachment to this report.

The inspectors reviewed an Entergy self-assessment conducted in the 2nd quarter of 2004 regarding the simulator testing program.

Conformance with operator license conditions was verified by reviewing the following records:

- Attendance records for the most recent year training cycle;
- Six medical records (three SRO and three RO) and to verify that all records were complete, that restrictions noted by the doctor were reflected on the individual's license and that the exams were given within 24 months;
- Proficiency watch-standing and reactivation records. A sample of five licensed operator watch-standing documentation was reviewed for the current and prior quarter to verify currency and conformance with the requirements of 10 CFR 55;
- Remediation training records for the prior two years.

In regard to Entergy's feedback system, the inspectors interviewed instructors, training/operations management personnel, and licensed operators for feedback regarding the implementation of the licensed operator requalification program to ensure the requalification program was meeting their needs and was responsive to their noted deficiencies/recommended changes. In addition, recent modifications to the feedwater and reactor recirculation system were reviewed to ensure that they were adequately addressed in the Requalification Training Program.

The inspectors conducted an in-office review of Entergy's requalification exam results. These results included the annual operating test only (i.e., the comprehensive written exam was administered and reviewed by NRC staff last year). The inspection assessed whether pass rates were consistent with the guidance of NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process ". The inspectors assessed the following areas:

- Crew failure rate on the dynamic simulator was less than 20 percent,
- Individual failure rate on the dynamic simulator test was less than or equal to 20 percent,
- Individual failure rate on the walk-through test was less than or equal to 20 percent,
- Individual failure rate on the comprehensive biennial written exam was less than or equal to 20 percent, and
- More than 75 percent of the individuals passed all portions of the exam.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope (one sample)

The inspectors performed an issue-oriented inspection of actions taken by Entergy in response to the loss of the station blackout power supply from the Vernon Hydroelectric Station on two concurrent days due to equipment issues at the Vernon Station switchyard. The inspectors reviewed the applicable system's (4 kilovolt (KV) alternating current (AC) power) maintenance rule scoping document, system health reports, condition reports for related issues over the past three years, corrective actions taken in response to the equipment problems, and maintenance rule functional failure determinations. The inspectors confirmed that Entergy appropriately tracked the occurrences against the system's performance criteria, both for functional failures and unavailability time, as applicable. In addition, the issue was discussed with the responsible system and maintenance rule engineers.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope (five samples)

The inspectors evaluated on-line risk management for five planned maintenance activities. The inspectors reviewed maintenance risk evaluations, work schedules, recent corrective actions, and control room logs to verify that other concurrent or emergent maintenance activities did not significantly increase plant risk. The inspectors compared these items and activities to requirements listed in AP 0125, "Equipment Release" and AP 0172, "Work Schedule Risk Management - Online." The inspectors reviewed the following planned work activities:

- Maintenance on the “A” train of the RHRSW system coincident with Vernon Tie maintenance,
- Maintenance on the “A” train of the RHR system coincident with “A” RHRSW maintenance,
- Replacement of the west switchgear room fire/high energy line break/flood door
- Maintenance on alternate cooling fan CT 2-1, and
- Maintenance on the “B” emergency diesel generator.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (three samples)

The inspectors reviewed three operability determinations prepared by Entergy. The inspectors evaluated the selected operability determinations against the requirements and guidance contained in NRC GL 91-18, “Resolution of Degraded and Nonconforming Conditions,” and procedure ENN-OP-104, “Operability Determinations.” The inspectors verified the adequacy of the following evaluations of degraded or non-conforming conditions:

- Failed welds identified on the west switchgear room door,
- Emergency diesel generator fuel oil analysis reporting errors, and
- Torus-to-reactor building vacuum breaker seating issue.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope (six samples)

The inspectors reviewed completed documentation for six post-maintenance test (PMT) activities to verify the test data met the required acceptance criteria contained in Entergy's Technical Specifications, UFSAR, and in-service testing program, and that the PMT was adequate to verify system operability and functional capability following maintenance. The inspectors reviewed the PMTs performed after the following maintenance activities:

- "A" train of core spray system planned maintenance,
- Electric fire pump replacement,
- Maintenance on the "A" RHRSW pump upper oil level bull's-eye,
- Maintenance on the "A" train of the RHR system,
- Maintenance on CT 2-1, and
- Installation of minor modification (MM) 2003-017 on the "A" and "C" RHRSW pumps' motor cooling lines.

The inspectors verified that systems were properly restored following testing and that discrepancies were appropriately documented in the corrective action process. The inspectors also discussed the PMT results with the responsible engineers, as needed.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (three samples)

The inspectors observed surveillance testing to verify that each test was performed in accordance with the written procedure, the acceptance criteria specified for each test was consistent with Technical Specification and UFSAR requirements, the test data was complete and met procedural requirements, and the system was properly returned to service following testing. The inspectors observed selected pre-job briefs for the test activities. The inspectors also verified that discrepancies were appropriately documented in the corrective action program. The inspectors verified that testing in accordance with the following procedures met the above requirements:

- OP 4181, "Service Water Surveillance," Section A, "Service Water Pump Operability and Discharge Check Valve Test;"
- OP 4181, Section E, "Service Water Piping Differential Pressure Test," with the "B" EDG operating; and
- OP 4192, "HVAC [heating, ventilation and air conditioning] Surveillance," Section D, "Quarterly Control Room HVAC Isolation Surveillance Test."

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope (1 sample)

The inspectors reviewed temporary modification (TM) 2004-032, "Temporary Electrical Feed to SW System Freeze Protection Panel," to ensure that the modification did not adversely affect the availability, reliability, or functional capability of any risk-significant structures, systems, or components. The inspectors compared the information in the TM package to Entergy's TM requirements contained in AP 0020, "Control of Temporary and Minor Modifications." The inspectors observed the installation of the TM in the control room and subsequently walked down the TM to verify that required tags and markings were applied and that the TM was properly maintained.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

1. Drill Observation

a. Inspection Scope (one sample)

The inspectors observed a November 8, 2004, emergency preparedness (EP) practice drill and the subsequent player and lead controller critiques. Entergy had preselected the drill notifications and protective action recommendation (PAR) results to be included in the EP drill performance indicator (PI). The inspector reviewed the industry guidance provided by Nuclear Energy Institute(NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, and discussed the performance expectations and results with the drill manager and EP Manager to confirm correct implementation of the PI program. The drill evaluation form and drill critique report were also reviewed to verify proper documentation of results.

b. Findings

No findings of significance were identified.

2. Operations Simulator Training Observation

a. Inspection Scope (one sample)

On November 3, 2004, the inspectors observed an operating crew evaluate a simulator-based event using the station emergency action levels (EALs) during licensed operator requalification training activities. The inspectors discussed the performance expectations and results with the lead instructor. The inspectors focused on the ability of licensed operators to perform event classification and make proper notifications in accordance with the following station procedures and industry guidance:

- AP 0153, Operations Department Communications and Log Maintenance";
- AP 0156, "Notification of Significant Events";
- AP 3125, "Emergency Plan Classification and Action Level Scheme";
- DP 0093, "Emergency Planning Data Management";
- OP 3540, "Control Room Actions During an Emergency"; and
- NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

a. Inspection Scope (nine samples)

The inspectors conducted the following activities to evaluate the operability and accuracy of radiation monitoring instrumentation and the adequacy of the respiratory protection program for issuing self-contained breathing apparatus (SCBA) to emergency response personnel. Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and Entergy procedures.

- Reviewed VY UFSAR Sections 9.2, "Liquid Radwaste System," 9.3, "Solid Radwaste System," and 9.4, "Gaseous Radwaste System," to identify applicable radiation monitors associated with transient high radiation areas in the plant for review.

- Ensured the radiation protection (RP) instrument check-out area provided for the selection of portable RP instruments that were available for use for job coverage of radiologically significant areas.

- Reviewed current calibration records and applicable calibration procedures for various plant radiation monitors and portable RP instruments. In addition, the applicable calibrators utilized were reviewed for National Institute of Standards and Technology (NIST) standard traceability. A listing of the specific monitors and instruments covered by this review is included in the Attachment to this report.

- With respect to the RP portable instruments noted above, the instruments' calibration expiration and response check stickers were reviewed. The applicable response check beta-source and instrument sign-out procedures were also reviewed.

- Radiological incidents involving internal exposures identified by condition reports were reviewed for 2004. In addition, dosimetry electronic records were queried for any internal exposures greater than 50 mrem committed effective dose equivalent.

- CRs were reviewed with respect to radiation monitoring instrument deficiencies to determine if the deficiencies were appropriately characterized and corrected commensurate with their safety significance. A listing of reviewed CRs is included in the Attachment to his report.

- Based on the CRs reviewed, no repetitive deficiencies were identified for further followup.

- Emergency plan-specified SCBA equipment and qualified users were sampled based on VY Emergency Plan documents. This included inspection of six SCBAs in the main control room, and SCBA qualification records for 18 on-shift reactor operators, four RP duty watch technicians, and five chemistry duty watch technicians.

- Three SCBA units in the main control room were examined for periodic air cylinder hydrostatic testing and maintenance records. Review of approved replacement parts documentation and certification of the repair personnel was performed.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope (five samples)

The inspectors reviewed Entergy submittals for the PIs listed below. The PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," and AP 0094, "NRC Performance Indicator Reporting," were used to verify the accuracy and completeness of the PI data reported.

Mitigating Systems Cornerstone

- Safety System Unavailability, Emergency AC Power System
- Safety System Unavailability, Residual Heat Removal System
- Safety System Functional Failures

The inspectors reviewed licensee event reports (LERs), portions of operator logs, maintenance rule out of service logs, and CRs to verify the accuracy and completeness of the PI data for the period from October 1, 2003, through September 30, 2004. The inspectors also interviewed Entergy personnel responsible for the PI data collection and evaluation.

Occupational Radiation Safety Cornerstone

- Occupational Exposure Control Effectiveness

The inspectors reviewed CRs and radiological controlled area (RCA) dosimeter exit logs for the past four calendar quarters. These records were reviewed for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures.

Public Radiation Safety Cornerstone

- Radiological Effluent Technical Specifications (RETS)/Off-Site Dose Calculations Manual (ODCM) Radiological Effluent Occurrence

The inspectors reviewed a listing of relevant effluent release reports for the past four calendar quarters for issues related to the public radiation safety performance indicator. The inspectors also reviewed the quarterly and monthly projected dose assessment results due to radioactive liquid and gaseous effluent releases as well as the dose assessment procedures to ensure Entergy met all requirements of the PI.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

1. Routine Review of Identification and Resolution of Problems

a. Inspection Scope

The inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were entered into Entergy's corrective action system at an appropriate threshold and that adequate attention was given to timely corrective actions. Additionally, in order to identify repetitive equipment failures and/or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into Entergy's corrective action program. This review was accomplished by reviewing selected hard copies of CRs and/or by attending daily screening meetings. A listing of CRs reviewed is included in the Attachment to this report.

b. Findings

No findings of significance were identified

2. Annual Sample Review of the Relief Valve Program Improvement Plan

a. Inspection Scope (one sample)

The inspectors selected the in-service testing (IST) Relief Valve Program and IST Program Improvement Plan for review based on two recent NRC-identified issues and other related issues identified over the past several years. A listing of reviewed CRs is included in the Attachment to this report. The CRs and any associated root cause analyses were reviewed to ensure the full extent of documented issues were identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. In addition, the inspectors independently reviewed as-found IST relief valve data to ensure American Society of Mechanical Engineers (ASME) code compliance and deficiencies identified during testing were appropriately entered into Entergy's corrective action program. The inspectors performed system walkdowns to examine the material condition of various in-service relief valves and the IST bench testing equipment. The inspectors interviewed the cognizant component and IST program engineers to discuss the corrective actions outlined in the root cause analysis, recent relief valve IST results, new bench testing equipment performance, known relief valve deficiencies, and compliance with the ASME code.

b. Findings and Observations

No findings of significance were identified. The inspectors verified that all root cause evaluations and associated corrective actions adequately addressed performance deficiencies identified.

3. Semi-Annual Trend Review

a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," the inspectors performed the semi-annual trend review to identify trends, either licensee or NRC identified, that might indicate the existence of a more significant safety issue. Included within the scope of this review were:

- CRs generated from June through December 2004,
- Corrective maintenance backlog listings from June through December 2004, and
- Daily review of main control room operator logs.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

1. (Closed) Unresolved Item (URI) 05000271/2004005-01, Issues Identified with the Evaluation and Reporting of Changes in Licensed Senior Operator Medical Condition.

a. Inspection Scope

The inspectors evaluated actions taken by Entergy to evaluate the medical condition of a licensed senior reactor operator who developed a medical condition that was reportable. The inspectors reviewed the licensed senior operator's medical records, American National Standards Institute (ANSI) American National Standard (ANS)-3.4-1983, "American National Standard Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants;" 10 CFR 50.74, "Notification of Change in Operator or Senior Operator Status;" 10 CFR 55.21, "Medical Examinations;" 10 CFR 55.23, "Certification;" 10 CFR 55.25, "Incapacitation Because of Disability or Illness;" and Entergy Nuclear Northeast Organization and Management Procedure ENN-OM-117, "Medical Program Procedure." Additionally, the inspectors reviewed the reportability aspects of the licensed senior operator's medical condition as delineated in 10 CFR 50.74(c) and 10 CFR 55.25. The inspectors interviewed Operations Department personnel including the licensed senior operator with the medical condition.

b. Findings

Introduction: The inspectors identified a Severity Level IV NCV of 10 CFR 50.74(c) because Entergy did not notify the NRC within 30 days of the identification of a medical condition that caused a licensed senior operator to fail to meet the requirements of 10 CFR 55.21. That medical condition ultimately required the NRC to issue a conditional [restricted] license.

Description: On January 12, 2004, a licensed senior reactor operator developed a medical condition that required the operator to recuperate away from work until March 2004. The inspectors' review of the licensed senior operator's medical records in June 2004 identified that Operations Department Management had cleared the individual to return to licensed duties in March 2004 without the Entergy Medical Examiner (i.e., the doctor responsible for the medical evaluations of licensed operators) reviewing the medical condition as required by Entergy's medical program procedure.

Once prompted by the inspectors, the Entergy Medical Examiner reviewed the medical condition and on June 14, 2004, determined that the medical condition caused the operator to fail to meet the requirements of 10 CFR 55.21 and recommended that the operator's license include a "no solo" medical restriction (i.e., would require another qualified individual to be present while performing licensed duties). This recommendation was provided to the facility medical files administrator. On July 1, 2004, the inspectors identified that the medical files administrator had not forwarded the Entergy Medical Examiner's medical restriction recommendation to the operator, to Operations Department Management, or to the NRC as required by Entergy's medical program procedure.

On August 5, 2004, Entergy notified the NRC via an NRC Form 396, "Certification of Medical Examination by Facility Licensee," of the medical condition that caused the operator to fail to meet the requirements of 10 CFR 55.21 and recommended that the operator's license include a "no solo" medical restriction. Based on the information provided on the NRC Form 396, the NRC issued a conditional [restricted] license on November 8, 2004.

The inspectors determined that the operator had not performed licensed duties since returning to work in March 2004 and that the issue had been entered into Entergy's Corrective Actions Program as CRs 2004-2158, 2004-2218, and 2004-2229.

Analysis: The performance deficiency associated with this finding is that Entergy did not notify the NRC within 30 days of the identification of a medical condition that caused a licensed senior reactor operator to fail to meet the requirements of 10 CFR 55.21 as required by 10 CFR 50.74(c). The NRC relies on facility licensees to evaluate medical conditions and, if warranted, to report those changes to the NRC so that the NRC can take appropriate regulatory action including issuance of a conditional [restricted] license. The inspectors determined that Entergy's failure to report the medical condition to the NRC impacted the regulatory process, in that, between April and August, 2004, the NRC was unaware of a medical condition that warranted issuance of a conditional [restricted] license. Because the finding impacted the regulatory process, it was dispositioned using the traditional enforcement process instead of the SDP.

Enforcement: 10 CFR 50.74(c) requires, in part, that each facility licensee notify the NRC within 30 days of a permanent disability or illness as described in 10 CFR 55.25 in regards to a licensed operator or senior operator. 10 CFR 55.25 requires, in part, that if a licensed senior operator develops a permanent physical or mental condition that causes the licensed senior operator to fail to meet the requirements of 10 CFR 55.21,

the facility licensee must notify the NRC within 30 days of learning of the diagnosis. For conditions for which a conditional [restricted] license is required, the facility licensee must provide medical certification on NRC Form 396, "Certification of Medical Examination by Facility Licensee." Contrary to the above, Entergy did not notify the NRC within 30 days of learning of a medical condition of a licensed senior operator for which a conditional [restricted] license was required. Specifically, Entergy became aware of a medical condition on March 2004 that caused a licensed senior operator to fail to meet the requirements of 10 CFR 55.21 and for which a conditional [restricted] license was required. Entergy did not provide the NRC Form 396 medical certification to the NRC until August 5, 2004.

Entergy's failure to notify the NRC of the licensed senior operator's medical condition is considered a violation of 10 CFR 50.74(c). The violation is determined to be a Severity Level IV (Supplement 1) violation. Additionally, the licensed senior operator had not been assigned or performed licensed duties since returning from medical leave in March 2004. Because the violation is a Severity Level IV and has been entered into Entergy's corrective action program, this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: **NCV 05000271/2004006-02, Entergy Did Not Notify the NRC of a Licensed Senior Operator's Medical Condition**.

4OA6 Meetings, including Exit

Resident Exit

On January 6, 2005, the resident inspectors presented the inspection results to Mr. William Maguire and members of his staff. The inspectors asked whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy Personnel

J. Allen, Design Engineering
K. Bronson, General Plant Manager
P. Corbett, Maintenance Manager
J. Dreyfuss, Project Engineering Manager
J. Devincentis, Licensing Manager
W. Fadden, Design Engineering
J. Geyster, Radiation Protection Superintendent
D. Giorowall, Programs Supervisor
D. Girroir, Programs Supervisor
S. Goodwin, Mechanical Design Department Manager
M. Gosekamp, Superintendent of Operations Training
M. Hamer, Licensing
D. Johnson, Design Engineering
D. King, ISI Coordinator
M. Layton, ALARA Specialist
W. Maguire, General Plant Manager
R. Morissette, Principal As Low As Reasonably Achievable (ALARA) Engineer
M. Pletcher, Radiation Protection Supervisor - Instruments
P. Rainey, Design Engineering
K. Stupak, Technical Training
J. Thayer, Site Vice President
C. Wamser, Operations Manager
R. Wanczyk, Director of Nuclear Safety

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000271/2004006-01	URI	Adequacy of Testing for Emergency Diesel Generator Room Tornado Dampers (Section 1R01.1)

Opened and Closed

05000271/2004006-02	NCV	Entergy Did Not Notify the NRC of a Licensed Senior Operator's Medical Condition (Section 4OA5)

Closed

05000271/2004005-01	URI	Issues Identified with the Evaluation and Reporting of Changes in Licensed Operator Medical Conditions (Section 4OA5)

LIST OF DOCUMENTS REVIEWED

Section 1R07: Heat Sink Performance

Procedures

OP 2181, "Service Water / Alternate Cooling Operating Procedure
OP 4181, "Service Water / Alternate Cooling System Surveillance
OP 5265, "Service Water Component Inspection and Acceptance Criteria

Design Basis Documents

Design Basis Documents for the SW, RHR, and Alternate Cooling Systems
Design Change Record 98-007, Rev. 0, Returning RBCCW Heat Transfer Function to NNS Designation

Miscellaneous Documents

VYNPC Letter BVY 90-007, dated January 22, 1990
Intake Structure Inspection Data
Deep Basin Inspection Data
Heat Exchanger inspection Data
P-7-1A Service Water Pump Capacity Curve
P-7-1B Service Water Pump Capacity Curve
P-7-1C Service Water Pump Capacity Curve
P-7-1D Service Water Pump Capacity Curve
Service Water Microbiologically Influenced Corrosion - Ultrasonic Thickness Measurement Matrix

Section 1R11: Licensed Operator Requalification Program

Vermont Yankee Training Department Directives 8.5, "Evaluation"
ANSI/ANS 3.5- 1998

Plant-Specific Simulator Procedures and Operating Guides

SIM 374, "Simulator Scenario Based Testing"
SIM 371, "Annual Simulator Performance Testing"
SIM 380, "Development and Installation of Simulator Core Constants
Simulator Guide SEG 14
Simulator Guide SEG 40

Plant Referenced Simulator Performance Tests

Plant startup and shutdown
Steady state power at 100, 75, and 50 percent
Design basis loss of coolant accident (LOCA)

Turbine trip from 100 percent power without a reactor trip
A manual reactor scram
Recirculation pump trips (single and dual)
Safety relief valve malfunctions
Main steam line isolation valve closure
Simulator scenario based testing review forms
Reactivity data from reactor start-up tests

JPM Topics Reviewed From 2003 and 2004 Annual Operating Exams

Alternate Shutdown Operation of an SRV
Lower Recirc MG Set Speed Locally
Terminate and Prevent RPV Injection
Bypass PCIS Group Isolation Signals
Isolate and Vent The Scram Air Header
Swap From the electric pressure regulator to the mechanical pressure regulator
Develop A Protective Action Recommendation
Shift feedwater level control From 3 Element to 2 Element Control
Initialize the rod worth minimizer
Shift Reactor Level Control From Main feedwater regulating valve to the Auxiliary
Perform Local Operation of Feed Reg Valve
Locally Fire a standby liquid control system Squib Valve
Transfer DC Control Power
Initial Actions for Control Room Evacuation
Shift Reactor Master Level Controller From Manual to Auto Control

Simulator Scenarios Reviewed From 2003 and 2004 Annual Operating Exams

Loss of Coolant Accident
Anticipated Transient Without Scram
Steam Leak Into the Drywell
Loss of 125V DC Bus DC-2AS
Failure of “A” Condensate Pump Seal
Loss of all High Pressure Injection Sources- Post Scram
Reactor Core Isolation Cooling System Relay Logic Failure
Loss of Start Up Transformers
Events Requiring Emergency Depressurization
Vessel Level Transmitter Failure
Pressure Regulator Failure
Response To Power Oscillations
Response To Loss of Primary Containment Integrity
Safety Relief Valve Leakage Leading To High Torus Temperature
Seismic Event
“A” Recirculation Pump Trip
Loss of “B” Reactor Protection System
Automatic Depressurization System Power Supply Failure

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment

Calibration Records and Applicable Calibration Procedures for the Following Equipment

Plant Radiation Monitors

Main steam line radiation monitors
Transverse in-core probe room area radiation monitor
East and west refuel floor area radiation monitors
Spent fuel pool area radiation monitor
Reactor water clean up phase separator area radiation monitor;
Reactor building ventilation and refueling area zone monitors
Reactor building duct north and south monitors
Containment air monitors
Steam jet air ejector gas monitors

Portable Radiation Protection Instruments

Seven electronic dosimeters
Four ion chamber survey instruments
One extendable probe survey instrument
One continuous air monitor
Four high volume air samplers
Two low volume air samplers
One personal lapel air sampler
One high purity germanium gamma detector
One small article monitor, model 11
One personnel contamination monitor
Four beta and alpha air sample counters

Calibrators

A Shepherd 89 survey instrument calibrator
A Technical Operations 682 instrument calibrator
Two air sampler flow calibrators
Three plant radiation monitor calibrators

Section 4OA2.1: Routine Review of Problem Identification and Resolution

Condition Reports

1996-00343	Potential impact on the diesel generators ability to perform their safety related function in the event of a design basis tornado
1997-0756	Vermont Yankee changed GL 89-13 testing commitment made in BVY 90-007
1999-0481	Broke locking mechanism on tornado damper
2000-0265	EDG tornado damper plunger failed during PM
2001-2020	Configuration control inconsistencies for tornado relief dampers

2001-2101	Incorrect spring position found on tornado relief damper
2001-2349	Insufficient testing requirements specified by EDCR 97-409
2003-1501	Through wall service pipe leakage
2003-1957	Core Bore into SW Header
2003-2258	Vernon dam switching causes Vernon generators to trip
2003-2344	Adverse trend in SW through wall leaks
2004-0206	SW pump seals questionable
2004-0385	Loss of Vernon tie voltage on 2/23/04
2004-0404	Vernon tie line lost unexpectedly
2004-1148	Unexpected reduction in SW pipe wall thickness for A EDG
2004-1321	Ultrasonic test data for 20" SW-3 shows areas below min wall requirements
*2004-2158	Medical return to work process error occupational health
2004-2218	Failure to Notify the NRC of the need for a Conditional Operator License (Glasses)
2004-2229	No formalized process of notifications between departments for Operator Physicals
2004-2539	CR 2003-0277 did not address original design's safety evaluation
2004-2939	Identified tubercles in SW exceeding max 1.25" height recommended inOP5265
2004-3013	Four Scott air cylinders exceeded hydrostatic test 3 year time limit
2004-3018	Air cylinder on Scott pack IIa in control room hydrostatic test data expired
2004-3024	One FIN team member's respirator qualifications not current as required by E-Plan
2004-3158	Technician failed to have a copy of a reference use procedure at work site
*2004-3174	SLC pump discharge relief valve lift test failures determined reportable as LER
2004-3207	E-Plan equipment not in required location at Gate House 2 (RM-20)
2004-3234	Broken tack welds on west switchgear room door
2004-3261	Loss of Vernon Tie on 10/25/04
2004-3280	Loss of Vernon Tie line on 10/26/04
*2004-3293	Insufficient testing requirements for EDG tornado dampers AAD-42 and -43
*2004-3305	Vernon tie maintenance rule unavailability interval not identified
*2004-3340	"B" SW pump discharge gauge reading 16 psig low during surveillance
2004-3333	"A" service water pump packing observed to be smoking
2004-3334	Vibration data on "B" SW pump placed pump in IST alert status
2004-3436	EDG fuel oil analysis reporting errors
*2004-3474	Critical plant equipment signs not posted as required prior to "B" EDG work
2004-3504	RP instrument not source checked in time required by procedure DP 4502
2004-3505	Lost most recent calibration records for an AMS-4 air sampler
2004-3506	CW and SW agitators not installed when required by procedure
*2004-3507	NRC identified HCU accumulator pressure low
2004-3517	Protective action recommendation problems during 11/8/04 E-Plan drill
2004-3689	Heat trace freeze protection problems

*Inspector-identified issues.

Section 4OA2.2: Annual Sample Review of the Relief Valve Program Improvement Plan

Condition Reports

2003-1910 Root cause analysis - The failure to document the evaluation of acceptability
2003-1489 Failed relief valve setpoint testing
2003-1491 Relief valve not tested in accordance with code requirements
2003-1494 Level two activity not completed as scheduled
2003-1495 IST testing of SR-13-25 scheduled since 02/27/03 not yet completed
2004-3174 SLC Pump Discharge Relief Valve Lift Test Failures (SR-11-39A&B)

Work Orders

98-9371, 01-4324, 01-4325, 01-4326, 01-4327, 01-4328, 01-4330, 01-4331, 01-4332, 01-4333
01-4334, 01-4335, 01-4336, 01-4337, 01-4338, 01-4341, 01-4342, 01-4343, 01-4344, 01-5382
02-0751, 02-4785, 02-4969, 02-5183, 02-5193, 03-0678, 03-0679, 03-0680, 03-1538, 03-1539
03-1540, 03-1541, 03-1542, 03-1543, 03-2660, 03-2662, 03-3714, 03-4052, 03-4056, 03-4066
03-5150, 03-5857, 04-0279, 04-0651, 04-0652, 04-0683, 04-0693, 04-0694, 04-0709, 04-0712
04-0713

Procedures

PP 70123, “Inservice Testing Program”

LIST OF ACRONYMS

AC	Alternating Current
ADAMS	Automated Document Access Management System
ANS	American National Standard
ANSI	American National Standards Institute
AP	Vermont Yankee Administrative Procedure
ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
CR	Condition Report
CT	Cooling Tower
DBD	Design Basis Document
DC	Direct Current
DP	Vermont Yankee Department Procedure
EAL	Emergency Action Level
ECCS	Emergency Core Cooling System
EDCR	Engineering Design Change Request
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
FA	Fire Area
FPCS	Fuel Pool Cooling System
FZ	Fire Zone

GL	Generic Letter
HPCI	High Pressure Coolant Injection
HVAC	Heating, Ventilation, and Air Conditioning
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination External Events
IR	Inspection Report
IST	In-Service Testing
JPM	Job Performance Measure
KV	Kilovolt
LER	Licensee Event Report
MM	Minor Modification
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OP	Vermont Yankee Operating Procedure
PAR	Protective Actions Recommendation
PI	Performance Indicator
PM	Preventive Maintenance
PMT	Post Maintenance Testing
RP	Radiation Protection
RCA	Radiological Controlled Area
RETS	Radioactive Effluent Technical Specifications
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RO	Reactor Operator
SCBA	Self Contained Breathing Apparatus
SDP	Significance Determination Process
SRO	Senior Reactor Operator
SW	Service Water
TM	Temporary Modification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
VY	Vermont Yankee