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EXECUTIVE SUMMARY

Vermont Yankee Nuclear Power Station NRC Inspection Report 50-271/98-11

This inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a six week period of routine resident inspection activities.

Operations

The routine conduct of activities in the control room was well controlled. Operators responded appropriately to conditions which alarmed in the control room and the status of plant evolutions was promptly communicated to shift supervision. (Section O1.1)

Auxiliary operators experienced problems conducting the quarterly standby liquid control system surveillance and were slow to respond to abnormal conditions observed during the test. Although approximately 375 gallons of demineralized water was unintentionally transferred to the SLC storage tank through a relief valve, the sodium pentaborate concentration remained within Technical Specification limits. (Section O4.1)

VY identified and properly reported that four instrument line isolation valves were not closed as required by Technical Specifications. The hydrostatically tested lines were capped and also contained excess flow check valves. A sample of VY's corrective actions were reviewed and found to adequately address the root cause. This licensee-identified, non-repetitive, and corrected violation is being treated as a non-cited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy. (Section O8.4)

Maintenance

Routine plant maintenance activities were observed to be performed in accordance with applicable VY procedures, industry codes, and Technical Specification requirements. Activities with the potential to impact plant operation or challenge safety related equipment were approached with caution. One such activity was the investigative maintenance to identify the source of minor steam pressure fluctuations. Based on observations of the preparations and implementation, this job was well planned and controlled. (Section M1.1)

VY identified that grout removal from a seismically qualified block wall caused the "B" emergency diesel generator (EDG) to be inoperable after the work was in progress. Later, VY identified that the EDG should have been declared inoperable when the work began and consequently, the EDG was inoperable for longer than allowed by Technical Specifications. The event was appropriately reported and corrective actions were adequate. This non-repetitive, licensee identified and corrected violation was not cited in accordance with the NRC Enforcement Policy. (Section M8.3)

Engineering

Two previous unresolved items were determined not to constitute violations of NRC requirements and were administratively closed. Four licensee event reports were reviewed and administratively closed. (Section E8)

Plant Support

The inspector reviewed VY's response to a security advisory and considered that the actions taken were conservative and appropriate. The inspector noted that VY's response to an anti-nuclear demonstration, conducted after this advisory was in effect, appropriately dealt with the security aspects of the situation and demonstrated good coordination with state and local law enforcement agencies. (Section S1.1)

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Report Details

Summary of Plant Status

At the beginning of the inspection period, Vermont Yankee (VY) was operating at 100 percent power. Shortly after returning to full power following a rod pattern exchange on July 21, operators observed minor oscillations in main steam flow. The condition was found to be power dependent, and was eliminated by maintaining power at 98 percent or less. Initial troubleshooting indicated that the problem was associated with the main steam electronic pressure regulator (EPR). Steam pressure control was switched to the backup mechanical pressure regulator (MPR) and power was returned to 100 percent. On August 20, power was reduced to 97 percent and the EPR was returned to service to support troubleshooting. On August 28, steam pressure control was again shifted to the MPR and power was returned to 100 percent. At the close of the inspection period the licensee was working with a vendor representative to develop a corrective action plan.

I. Operations

O1 Conduct of Operations¹

O1.1 Observation of Routine Shift Operations

a. Inspection Scope (71707)

Routine tours of the control room were made to assess the conduct of activities, verify safety system alignments, and determine compliance with Technical Specification (TS) requirements. Event Reports used to document plant deficiencies were reviewed, and discussed with shift supervision, to evaluate both the equipment condition discussed and the licensee's initial response to the issue.

b. Observations and Findings

Control room access and activities were well controlled. Operators were observed communicating the status of plant evolutions and appropriately implementing actions in response to conditions which alarmed in the control room. No problems were identified with safety system alignments and equipment taken out of service for maintenance was appropriately tracked in the TS Limiting Condition for Operations log.

On two occasions, the inspector observed that communications between the Operations and System Engineering departments was incomplete.

- On July 28, the "A" standby liquid control pump was unintentionally run with inadequate net positive suction head during a surveillance test (see Section O4.1). The inspector noted that Operations decided to re-perform

¹Topical headings such as O1, M8, etc., are used in accordance with the NRC standardized reactor inspection report outline. Individual reports are not expected to address all outline topics.

the surveillance without consulting the System Engineering organization regarding the potential for pump damage. The inspector discussed this observation with VY management; the licensee acknowledged the issue and stated that it was being addressed as part of their corrective actions for the event.

- On August 10, 1998, Event Report (ER) 98-1696 identified that the procedure for diesel generator heat exchanger inspections did not provide adequate as-found acceptance criteria. Although the ER provided a basis for operability of the "B" diesel generator, the "A" diesel generator was not addressed. Based on discussions with the Shift Supervisor, the inspector concluded that the generic implications of the issue had not been well communicated. The Operations manager raised similar questions during his review of the ER and subsequently a more complete operability assessment was developed.

c. Conclusions

The routine conduct of activities in the control room was well controlled. Operators responded appropriately to conditions which alarmed in the control room and the status of plant evolutions was promptly communicated to shift supervision. On two occasions, the communication between Operations and System Engineering regarding adverse equipment conditions was not complete however, equipment operability was not affected.

O4 Operator Knowledge and Performance

O4.1 Standby Liquid Control System Surveillance Test Setup

a. Inspection Scope (71707, 61726)

Implementation of VY procedure OP-4114, "Standby Liquid Control System Surveillance," was observed. The licensee's use of the test procedure and the performance of the equipment was evaluated.

b. Observations and Findings

OP-4114 establishes a test loop which starts and ends at the demineralized water test tank. A caution in OP-4114 states, "The test tank level must be periodically monitored as a stuck open relief valve could lead to pumping the SLC test tank down." During this test, the sodium pentaborate storage tank is isolated from the test loop but, the relief valve discharge is vented back to the storage tank.

The auxiliary operators began to throttle the "A" SLC pump's discharge flow to the test tank, while monitoring the discharge line pressure, in order to establish the desired test parameters. However, the discharge pressure was inadvertently raised above the pump's relief valve setpoint and was not noticed. Consequently, demineralized water from the test tank was pumped to the sodium pentaborate

storage tank through the relief valve. Operators identified the problem when investigating the significant decrease in the system flow noise that occurred when the SLC pump lost net positive suction head (NPSH).

After identifying that the test tank level was significantly lower than expected (i.e., at the SLC pump's suction line), the operators began to add demineralized water to the test tank. A few minutes later, the test was stopped. Although the sodium pentaborate solution in the storage tank was diluted, the inspector verified that VY evaluated the concentration and that it was within TS requirements.

The retest of the "A" SLC pump was successful; pump performance parameters and vibration data were consistent with previous performance. The SLC system surveillance was completed and the system was declared operable within the applicable TS time constraints.

In order to provide a thorough followup to this event, VY replaced the "A" SLC pump relief valve and performed a bench test to verify the valve's setpoint. The relief valve's initial lift was within the setpoint range specified in VY's inservice test procedure.

c. Conclusions

Auxiliary operators experienced problems conducting the quarterly standby liquid control system surveillance and were slow to respond to abnormal conditions observed during the test. Although approximately 375 gallons of demineralized water was unintentionally transferred to the SLC storage tank through a relief valve, the sodium pentaborate concentration remained within Technical Specification limits.

08 Miscellaneous Operations Issues

08.1 Review of Open Items (92901)

The following open items were reviewed for closure based on a sampling of the licensee's corrective actions.

(Closed) VIO 97-04-01: Violation of TS 6.5, Plant Operating Procedures

On April 24, 1997, a reactor scram occurred when a licensed operator placed two average power range monitors (APRMs) in service with their mode switches set to "zero" rather than "operate". The reactor engineer performing a surveillance test failed to follow the procedure, failed to stop when expected indications were not present, and the operator missed an opportunity to prevent the scram because of inadequate self checking. VY's response to this violation, dated July 29, 1997, was reviewed. Corrective actions to prevent recurrence included lessons learned training, staff meetings regarding plant management's expectations for procedural adherence, and development of an Operations standard for self-verification. Based on a sample review of the licensee's commitment tracking system, the inspector

verified VY's long term actions have been implemented. Based on a review of VY's completed corrective actions, reflected in the July 29, 1997, VY letter, this violation is closed.

(Closed) VIO 97-05-01: Violation of Technical Specification 3.7.A.7.b

In May 1997, the licensee failed to ensure the torus air space oxygen concentration was reduced to less than four percent within 24 hours after the reactor mode switch was placed in "RUN". VY responded to the violation by letter dated September 18, 1997. The letter states that the violation was caused by an inadequate procedure which led to insufficient nitrogen purge flowrate. The inspector reviewed OP-2115, "Primary Containment," revision 39, to verify the implementation of the procedure changes described as "Corrective Steps That Have Been Taken" in VY's letter. No problems were identified during the inspector's review and therefore, this violation is closed.

(Closed) VIO 97-11-01: Violation of Technical Specification 6.5.A

In November 1997, a reactor scram occurred due to an electrical fault that occurred during manipulation of a line disconnect in the 345 kV switchyard at VY. The failure to have reviewed and approved the switching orders was cited as a violation of TS 6.5, which requires detailed written procedures be prepared, approved, and adhered to for maintenance which could have an effect on the safety of the reactor. VY responded to the violation in a letter dated January 22, 1998. VY attributed the event to a lack of clear definition of the shift supervisors's oversight responsibility and a lack of understanding of potential risks involved in uncoupling motor operated disconnects.

The inspector reviewed changes to the 345 and 115 kV operating procedures, OP-2140, revision 24, and OP-2141, revision 17, respectively. Requirements were added which require advanced review and approval by the Operations Planning Group and, the Shift Supervisor and Senior Control Room Operator who will perform the work. Based on VY's corrective actions documented in the January 22, 1998, violation response and these procedure changes, this violation is closed.

08.2 In-Office Review of LERs Related to Operations (90712)

An in-office review of the following licensee event reports (LERs) was performed to assess whether further NRC actions were required. The adequacy of the overall event description, immediate actions taken, cause determination, and corrective actions were considered during this review. The following issues were closed-out based on the in-office review.

(Closed) LER 98-003-00: Failure of the Operating Crew to Recognize TS Requirements Regarding Gaseous Effluent Flowrate Results in the Flowrate Not Being Estimated as Required by TSs

The inspectors performed an in-office review of the issue. The event was discussed in NRC Inspection Report 50-271/98-01. The LER appropriately described the event, the root causes were clearly specified, and corrective actions adequately addressed the issue. The issue was properly reported per 10 CFR 50.73 requirements.

(Closed) LER 97-012-01: Residual Heat Removal Service Water Flow Could be Potentially Less Than the Design Basis Flow due to Instrument Inaccuracies

The inspectors performed an in-office review of the issue. LER 97-012 was previously reviewed by the inspectors as documented in NRC Inspection Reports 50-271/97-04 and 97-08, and was assigned an inspection follow item (IFI 97-04-04). In revision 1 to this LER, the root cause evaluation was completed and additional long term corrective actions were added. The inspectors will further evaluate the licensee's actions through IFI 97-04-04.

08.3 (Closed) LER 97-018: Four Unused One Inch Containment Isolation Valves were Found Out of Position due to an Inadequate Procedure (92700)

The inspectors performed an onsite inspection to follow-up on this event. On September 18, 1997, the licensee identified four primary containment isolation valves in the open position. The valves had been opened for performance of a reactor vessel hydrostatic test on October 21, 1996, but were not specified to be closed as part of the restoration lineup. The valves are on 1-inch lines in series with an excess flow check valve and a threaded pipe cap. The lines tap off of the reactor water level reference legs and the recirculation pump suctions. No leakage was identified past the pipe caps.

TS 3.7.A.2 requires that primary containment integrity shall be maintained when the reactor is critical. Primary containment integrity, as defined in TS 1.0, requires that all manual containment isolation valves on lines connecting the reactor coolant system which are not required to be open during accident conditions are closed.

VY identified and properly reported that four instrument line isolation valves were not closed as required by Technical Specifications. The hydrostatically tested lines were capped and also contained excess flow check valves. A sample of VY's corrective actions were reviewed and found to adequately address the root cause. This licensee-identified, non-repetitive, and corrected violation is being treated as a non-cited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (**NCV 98-11-01**). Because no additional inspection is necessary for this non-cited violation, "NCV 98-11-01: Manual Containment Isolation Valves Not Closed" is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Maintenance Observations

a. Inspection Scope (62707)

The inspector observed portions of plant maintenance activities to verify that the correct parts and tools were utilized, the applicable industry code and TS requirements were satisfied, adequate measures were in place to ensure personnel safety and prevent damage to plant structures, systems, and components, and to ensure that equipment operability was verified upon completion of post maintenance testing.

b. Observations, Findings, and Conclusions

The inspector observed all or portions of the following maintenance activities:

- Reactor building closed cooling water system heat exchanger annual cleaning, observed August 19

The inspector observed torquing of the heat exchanger end plate. No problems were noted.

- Bench testing of standby liquid control (SLC) relief valve SR-11-39A, performed under work order 98-06956-01

This activity was observed to be performed in accordance with OP-4261, "Safety and Relief Valve Testing." The test was performed as part of VY's response to the valve's inadvertent operation during SLC system surveillance testing on July 28, as discussed in Section 04.1 of this report.

- Calibration of Bus No. 2 Relay, observed August 17

This preventive maintenance was performed in accordance with OP-5266, and no problems were noted.

- Troubleshooting of EPR oscillations, observed August 22 and 28

The purpose of this troubleshooting effort was to collect data to determine whether the source of the oscillations was an EPR malfunction or, if it was an oscillation from some other source, causing the EPR to respond. Once the test equipment was connected, steam pressure control was switched to the EPR and power was slowly increased until steam flow oscillations were observed. Data was obtained from plant instrumentation and numerous points in the EPR circuitry, and recorded using high speed multi-channel strip chart recorders. The August 22 effort identified the need for an additional

high resolution strip chart recorder. When this was obtained, the troubleshooting was repeated, and an oscillation was successfully recorded on August 28. From analysis of this data, VY and the vendor representative were able to determine that a malfunctioning EPR feedback circuit was the apparent cause of the oscillations.

The inspector observed various aspects of the preparation and conduct of this troubleshooting activity, and determined that it was well planned and well controlled.

M1.2 Surveillance Observations

a. Inspection Scope (61726)

The inspector observed portions of surveillance tests to verify proper calibration of test instrumentation, use of approved procedures, performance of work by qualified personnel, conformance to Limiting Conditions for Operations (LCOs), and correct post-test system restoration.

b. Observations, Findings, and Conclusions

The inspectors observed portions of the following surveillance testing activity:

- Reactor core isolation cooling system surveillance, OP-4121, observed July 24

As a part of this test, data was collected to re-baseline the turbine vibration data for ASME Section XI testing.
- Emergency diesel generator monthly surveillance, observed July 21, August 18, and August 19, no significant problems were identified
- Residual heat removal (RHR) and RHR service water surveillance, OP-4124, observed August 4, no problems were identified
- Main Steam Line Radiation Monitor Calibration, OP-4315, observed August 17, no problems were identified
- High pressure coolant injection (HPCI) steam line high flow instrument calibration, OP-4356, observed on August 25

The as-found settings were slightly high, technicians adjusted to within the required as-left tolerance. The inspector verified that Electrical & Controls department has a process for tracking and review out-of-tolerance instruments to monitor for conditions adverse to quality.

M8 Miscellaneous Maintenance Issues**M8.1 Review of Open Items (92902)**

(Closed) VIO 97-02-04: Violation of TS 6.5 and AP-0125

On November 25, 1996, the condensate demineralizers automatically isolated, causing a plant transient, as the result of planned maintenance. A violation was issued because the shift supervisor failed to ensure a detailed review of loads to be de-energized with bus No. 6 was conducted in accordance with AP-0125, "Plant Equipment Control."

VY's response to the notice of violation, issued on May 9, 1997, committed to procedure changes and communication of VY management expectations regarding removal of equipment from service. The inspector reviewed the root cause evaluation for ER 96-1131 and a sample of the procedure revisions/enhancements associated with VY's corrective actions. Guidance was added to AP-0125 to clarify the requirements for a step-by-step sequence of events, independent review of the sequence, and approval by the shift supervisor. The inspector concluded that VY had taken reasonable corrective actions to address the root causes of the problem and therefore this violation is closed.

(Closed) VIO 97-05-02: Violation of 10 CFR 50 Appendix B

Six equipment deficiencies were identified by the inspectors that were not identified in the licensee's corrective action system. These observations cumulatively represented a failure of the plant staff to assure that conditions adverse to quality are promptly identified and corrected via an established quality assurance process. VY responded to the violation by letter dated September 18, 1998, and commissioned a multi-disciplined task team to systematically assess the existing material condition of the plant. In August 1997, this team performed walkdown inspections of all accessible safety related plan areas and identified 824 individual items. These issues were documented in Work Order Requests and Event Reports as applicable. The inspector reviewed the summary of VY's findings and determined that a low threshold had been established for identifying discrepancies. No items were identified that appeared to impact plant safety or equipment operability. Based on VY's thorough and aggressive response, this violation is closed.

M8.2 In-office Review of LERs Related to Maintenance (90712)

An in-office review of the following licensee event reports (LERs) was performed to assess whether further NRC actions were required. The adequacy of the overall event description, immediate actions taken, cause determination, and corrective actions were considered during this review. The following issues were closed-out based on the in-office review.

(Closed) LER 98-015-00: Contactor Failure Results in Invalid ESF Actuation including a SGTS Start, a Containment Vent and Purge Isolation, and a Reactor Building Ventilation Isolation

The inspectors performed an in-office review of the event. On May 23, 1998, the licensee experienced a loss of power to the "B" reactor protection system (RPS) electrical distribution bus. The loss of the bus resulted in an engineered safety feature actuation including a standby gas treatment start, a containment vent and purge isolation, and a reactor building ventilation isolation. At the time of the event, the unit was shut down for a normal refueling outage. The cause of the event was an electrical short in a contactor coil in the "B" RPS motor generator control circuit. The inspectors determined the LER accurately described the details of the event and the root cause. The corrective actions were adequate; however, the long term corrective actions described in a separate event report were not included in the LER. No other significant issues were identified and this item is closed.

M8.3 (Closed) LER 98-004: Seven Day Diesel Generator LCO Exceeded due to Inadequate Instructions in the Work Control Process Regarding Block Walls

a. Inspection Scope (92700)

The inspectors performed onsite inspection to follow-up on this LER. The inspector performed an inspection to verify the LER description of the event, the root cause evaluation and the corrective actions. In addition, cognizant licensee personnel were interviewed.

b. Observations and Findings

On February 26, 1998, the licensee determined the block wall in the "B" emergency diesel generator (EDG) room did not meet seismic qualification requirements and initiated an Event Report. Maintenance personnel were in the process of performing corrective maintenance to replace grout in the block wall. Operators, in discussions with the Operations Manager, Plant Manager, and engineering personnel, determined the "B" EDG had become inoperable that day (February 26) due to the final removal of grout. The grout was replaced and the diesel generator was declared operable on March 1. Based on the time VY concluded the EDG was inoperable, the EDG was inoperable for less than the seven-day outage time allowed by TS 3.5.H.1.

During the subsequent ER investigation, the licensee determined that the EDG should have been declared inoperable on February 19, when the replacement of the grout was started. VY engineering personnel concluded that the effect of the missing grout on the seismic capability of the block wall was indeterminate; therefore, VY conservatively concluded the EDG should have been considered inoperable on February 19. Based on this conclusion, VY reported this event as past operation in a condition prohibited by TS as required by 50.73.

NRC Inspection Manual Part 9900, "Technical Guidance, Standard Technical Specifications Sections 3.0 and 4.0," dated July 22, 1987, provides guidance concerning when a TS action statement is to be entered. It states that, "...the time limitation is applicable from the time it is recognized that the limiting condition for operation is not met." Therefore, VY's decision to enter the seven day LCO on February 26 (ie., on the day that the condition was recognized) was consistent with the NRC guidance. However, since the actual time of inoperability exceeded the allowable outage time, this event constituted a violation of TS 3.5.H.1. This event was of minimal safety risk because the "B" EDG itself remained functional throughout the event. The "A" EDG, all emergency core cooling systems and the Vernon Dam tie, were also available during this period of time. Therefore, this licensee-identified, non-repetitive, and corrected violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (**NCV 98-11-02**). Because no additional inspection is necessary for this non-cited violation, "NCV 98-11-02: Seismic Wall Qualification Impacts EDG LCO" is closed.

VY concluded that the cause of this event was inadequate guidance in the work planning procedure when planning work that affects block walls. Long term corrective action consisted of revising the work planning process to include information pertinent to work that may affect block walls. The inspector verified that administrative procedure AP-0048, "Work Planning," had been revised to include this information.

c. Conclusions

VY identified that grout removal from a seismically qualified block wall caused the "B" emergency diesel generator (EDG) to be inoperable after the work was in progress. Later, VY identified that the EDG should have been declared inoperable when the work began and consequently, the EDG was inoperable for longer than allowed by Technical Specifications. The event was appropriately reported and corrective actions were adequate. This non-repetitive, licensee-identified and corrected violation was not cited in accordance with the NRC Enforcement Policy.

III. Engineering

E8 Miscellaneous Engineering Issues

E8.1 Review of Open Items (92903)

(Closed) URI 97-201-07: RHR Minimum Flow Protection

NRC Inspection Report (IR) 50-271/97-201 identified that VY took credit for operator action in BMO 97-29 as a compensatory measure for a degraded condition but did not perform a safety evaluation to assess whether this change constituted an unreviewed safety question. In response to this issue VY revised BMO 97-29 to eliminated the reliance on operator action and revised the BMO guideline to require use of a safety evaluation to support interim compensatory actions. The failure to

document a 50.59 safety evaluation for the compensatory action (later determined to be unnecessary) was the result of a procedure weakness which was corrected. This failure constitutes a violation of minor significance and is not subject to formal enforcement action. The adequacy of the VY's overall response to the RHR minimum flow issue was previously evaluated in NRC IR 50-271/97-10 and a violation (EA 97-531-08014) was cited for inadequate corrective action. This unresolved item is closed.

(Closed) URI 97-201-12: Room Cooler Test Measurement Inaccuracies

NRC IR 50-271/97-201 identified a question regarding the adequacy of test instrumentation used for room cooler performance monitoring. This item was updated in IR 50-271/97-10 and the inspector concluded that although adequate instrument accuracy had been used in the room cooler thermal performance testing, the differential pressure test method could not produce reliable results. The item was left open pending NRC review of VY's revised thermal performance testing process and results.

VY revised OP-4181, "Service Water/Alternate Cooling System Surveillance," to incorporate a new thermal performance monitoring methodology on February 26, 1998. The inspector reviewed the test procedure, a thermal performance test report dated April 30, 1998, and discussed the March 1998 thermal performance test results with the cognizant system engineer. Results from the March testing show that RRU-7 and RRU-8 are performing very well and these results correspond to the results of the licensee's visual inspection. The inspector concluded that VY has taken appropriate steps to ensure accurate performance monitoring for these room coolers. VY plans to continue this level of monitoring until sufficient data is developed to reduce the test frequency. Based on review of the licensee's new thermal performance monitoring process, and the previous NRC conclusion regarding instrument measurement inaccuracies reached in IR 50-271/97-10, no violations were identified. This unresolved item is closed.

E8.2 In-office Review of LERs Related to Engineering (90712)

An in-office review of the following licensee event reports (LERs) was performed to assess whether further NRC actions were required. The adequacy of the overall event description, immediate actions taken, cause determination, and corrective actions were considered during this review. The following issues were closed-out based on the in-office review.

(Closed) LER 98-002-00: Lack of Specificity in Licensing Basis Documents Results in Operating Procedures Which Do Not Adequately Address Pump Minimum Flow Requirements as Described in IEB 88-04 Due to Instrument Inaccuracies

The inspectors performed an in-office review of this event. The issues described in LER 98-002 are addressed in NRC Inspection Reports 50-271/97-201 and 97-10. Detailed evaluations of root causes and corrective actions will be completed in a closeout of the following violations and an unresolved item: EA 97-531, item 4014,

item 8014, and item 10014, and URI 50-271/97-201-07. The issue was adequately described and reported in accordance to 10 CFR 50.73 requirements. The failure initially to report this issue was addressed as part of the above violations.

(Closed) LER 97-001-01: Inadequate Design/Procedural Coordination Allows Operation Under Condition Where a Single Postulated Electrical Failure Coincident With a LOCA Could Result in Containment Overpressure

The inspectors performed an in-office review of the issue. LER 97-001 was previously reviewed and closed by the inspectors as documented in NRC Inspection Reports 50-271/97-02 and 97-10. The supplement provided additional information which clarified and expanded on the previous corrective actions. The inspectors determined that the supplement did not change the significance of the issue or the previous NRC conclusion.

(Closed) LER 97-014-01: Lack of Understanding of Plant Licensing and Design Basis Results in an Inadequate Response to Industry Operating Experience Which Allowed Resumption of Plant Operations Inconsistent With Its Design Basis

The inspectors performed an in-office review of the issue. LER 97-014 was previously reviewed by the inspectors as documented in NRC Inspection Reports 50-271/97-06 and 97-08. The supplement added appropriate clarification and details on additional engineering analysis. Corrective actions were modified to address the engineering analysis results. The inspectors reviewed a sample of the corrective actions in NRC Inspection Report 50-271/98-80 in closing out of the violation (VIO 97-06-03) associated with the LER. The inspectors determined that the supplement did not change the significance of the issue or the previous NRC conclusion.

(Closed) LER 97-003-01: Overpressure Protection Not Provided for Turbine Building As Described in the VY FSAR due to an Unknown Cause

The inspectors performed an in-office review of the issue. LER 97-001 was previously reviewed by the inspectors as documented in NRC Inspection Reports 50-271/97-02, 97-03 and 97-10. The supplement added details on the root cause evaluation and long term corrective actions. The inspectors determined that the supplement did not change the significance of the issue or the previous NRC conclusion.

IV. Plant Support

S1 Conduct of Security and Safeguards Activities

S1.1 Response to Public Demonstration (71750)

On August 27, 1998, a public demonstration was held at the main entrance to the Vermont Yankee site. The inspector observed portions of the licensee's planning

and preparation based on the potential for the demonstrator's "planned acts of non-violent civil disobedience" to affect NRC regulated activities. The inspector noted VY's plans were appropriately focused on the responsibilities of the Physical Security Plan.

V. Management Meetings

X1 Exit Meeting Summary

The resident inspectors met with licensee representatives periodically throughout the inspection and following the conclusion of the inspection on September 29, 1998. At that time, the purpose and scope of the inspection were reviewed, and the preliminary findings were discussed. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ITEMS OPENED, CLOSED, AND DISCUSSED

OPENED

none

CLOSED

- VIO 97-04-01: Violation of TS 6.5, Plant Operating Procedures (page 3)
- VIO 97-05-01: Violation of Technical Specification 3.7.A.7.b (page 4)
- VIO 97-11-01: Violation of Technical Specification 6.5.A (page 4)
- LER 98-003-00: Failure of the Operating Crew to Recognize TS Requirements Regarding Gaseous Effluent Flowrate Results in the Flowrate Not Being Estimated as Required by TSs (page 4)
- LER 97-012-01: Residual Heat Removal Service Water Flow Could be Potentially Less Than the Design Basis Flow due to Instrument Inaccuracies (page 5)
- LER 97-018: Four Unused One Inch Containment Isolation Valves were Found Out of Position due to an Inadequate Procedure (page 5)
- VIO 97-02-04: Violation of TS 6.5 and AP-0125 (page 8)
- VIO 97-05-02: Violation of 10 CFR 50 Appendix B (page 8)
- LER 98-015-00: Contactor Failure Results in Invalid ESF Actuation including a SGTS Start, a Containment Vent and Purge Isolation, and a Reactor Building Ventilation Isolation (page 9)
- LER 98-004: Seven Day Diesel Generator LCO Exceeded due to Inadequate Instructions in the Work Control Process Regarding Block Walls (page 9)
- URI 97-201-07: RHR Minimum Flow Protection (page 10)
- URI 97-201-12: Room Cooler Test Measurement Inaccuracies (page 11)
- LER 98-002-00: Lack of Specificity in Licensing Basis Documents Results in Operating Procedures Which Do Not Adequately Address Pump Minimum Flow Requirements as Described in IEB 88-04 Due to Instrument Inaccuracies (page 11)
- LER 97-001-01: Inadequate Design/Procedural Coordination Allows Operation Under Condition Where a Single Postulated Electrical Failure Coincident With a LOCA Could Result in Containment Overpressure (page 12)
- LER 97-014-01: Lack of Understanding of Plant Licensing and Design Basis Results in an Inadequate Response to Industry Operating Experience Which Allowed Resumption of Plant Operations Inconsistent With Its Design Basis (page 12)
- LER 97-003-01: Overpressure Protection Not Provided for Turbine Building As Described in the VY FSAR due to an Unknown Cause (page 12)

NON-CITED VIOLATIONS OPENED/CLOSED

- NCV 98-11-01: Manual Containment Isolation Valves Not Closed (page 5)
- NCV 98-11-02: Seismic Wall Qualification Impacts EDG LCO (page 10)

LIST OF ACRONYMS USED

BMO	Basis for Maintaining Operation
CFR	Code of Federal Regulation
CR	control room
CS	core spray
EDCR	Engineering Design Change Request
EDG	emergency diesel generator
ER	Event Report
GE	General Electric
GL	Generic Letter
HPCI	high pressure coolant injection
IFI	Inspector follow item
IN	Information Notice
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LPCI	low pressure coolant injection
MCC	motor control center
NNS	Non-nuclear safety
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
PORC	Plant Operations Review Committee
QA	Quality Assurance
RHR	residual heat removal
RP	radiation protection
SER	Safety Evaluation Report
SGTS	Standby Gas Treatment System
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
URI	unresolved item
VY	Vermont Yankee