VERMONT YANKEE
NUCLEAR POWER CORPORATION

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March 5, 1993

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

REFERENCE: Operating License DPR-28
Docket No. 50-271
Reportable Occurrence No. LER 93-003

Dear Sirs:

As defined by 10 CFR 50.73, we are reporting the attached Reportable Occurrence as LER 93-003.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Robert J. Wanczyk

Robert J. Wanczyk
Plant Manager

cc: Regional Administrator
USNRC
Region I
475 Allendale Road
King of Prussia, PA 19406

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NRC Form 366 U.S. NUCLEAR REGULATORY COMMISSION
(6-89)

LICENSEE EVENT REPORT (LER)

APPROVED OMS NO. 3150-0104
EXPIRES 4/30/92
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3160-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20603.

FACILITY NAME (1)	DOCKET NO. (2)	PAGE (3)
VERMONT YANKEE NUCLEAR POWER STATION	0 5 0 0 0 2 7 1	0 1 OF 0 4

TITLE (4) FAILURE TO PROPERLY LEAKAGE RATE TEST PORTIONS OF THE PRIMARY CONTAINMENT HYDROGEN / OXYGEN MONITORING SYSTEM

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ #	REV#	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NO. (8)
0 2	0 5	9 3	9 3	- 0 0 3	- 0 0	0 3	0 5	9 3		0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO REQ'MTS OF 10 CFR §: CHECK ONE OR MORE (11)							
POWER LEVEL (10)	1 0 0		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
			20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER:
			20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NO.
ROBERT J. WANCZYK, PLANT MANAGER	AREA CODE 8 0 2 2 5 7 - 7 7 1 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYST		COMPONENT	MFR	REPORTABLE TO NPRDS		CAUSE	SYST		COMPONENT	MFR	REPORTABLE TO NPRDS	
	N	A						N	A				

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MO	DAY	YR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approx. fifteen single-space typewritten lines) (16)

On 02/05/93, with the reactor operating at 100% power, a review of the primary containment isolation requirements for the Hydrogen/Oxygen (H_2/O_2) Monitoring System (EIIS=IP) identified that portions of the System had not been leakage rate tested as required by the Vermont Yankee Appendix J Program and Technical Specifications.

The H_2/O_2 Monitoring System was immediately declared inoperable and the H_2/O_2 Monitors, SAH-VG-5A&B, were isolated from the primary containment. Subsequent leak rate testing was acceptable and SAH-VG-5A and SAH-VG-5B were returned to service on 02/06/93 and 02/07/93, respectively.

The root cause for this event has been determined to be an inadequate procedure. Procedure OP 4029, "Type A - Primary Containment Integrated Leak Rate Testing", did not provide the proper instructions for leakage rate testing of the H_2/O_2 Monitoring System. Procedure OP 4029 has been revised to provide the proper instructions for leakage rate testing of the entire H_2/O_2 Monitoring System.

TEXT (If more space is required, use additional NRC Form 366A) (17)

DESCRIPTION OF EVENT

On 02/05/93, with the reactor operating at 100% power, a review of the primary containment isolation requirements for the Hydrogen/Oxygen (H_2/O_2) Monitoring System (EIIS=IP) identified that portions of the System had not been leakage rate tested as required by the Vermont Yankee Appendix J Program and Technical Specifications.

The H_2/O_2 Monitoring System is designed to provide continuous, real-time information of the hydrogen (H_2) and oxygen (O_2) gas concentrations in the primary containment. The H_2/O_2 Monitoring System consists of two H_2/O_2 monitors, SAH-VG-5A&B, which can be aligned to pump gas from one or all three drywell and/or the torus sample points through its respective analyzer and back to the torus or Reactor Building Ventilation Exhaust System (EIIS=VA). The H_2/O_2 Monitoring System is considered an extension of primary containment not requiring automatic system isolation and remaining open in a post-accident condition.

Leakage rate testing of the primary containment system is performed in accordance with the requirements of Vermont Yankee Technical Specifications Section 4.7.A.2, the Vermont Yankee Appendix J Program and 10 CFR 50, Appendix J. In accordance with 10 CFR 50, Appendix J, Type A Integrated Leakage Rate Testing (ILRT) is performed in accordance with ANS N45.4-1972, "Leakage Rate Testing of Containment Structures for Nuclear Reactors". In accordance with both Appendix J and Section 4.5 of ANS N45.4-1972, local leak rate tests may be employed and corrections to the results of the Type A ILRT performed for those portions of the primary containment not in the normal post accident configuration during the Type A ILRT.

Local leak testing is employed for the H_2/O_2 Monitoring System. In accordance with procedure OP 4029, "Type A - Primary Containment Integrated Leak Rate Testing", the H_2/O_2 monitors are isolated during the Type A ILRT. This requires that the H_2/O_2 monitors be local leakage rate tested subsequent to the Type A ILRT and the Type A ILRT results corrected to include the leakage from the local tests.

Contrary to these requirements, a review of the valve lineup and instructions contained in procedure OP 4029 indicated that portions of the H_2/O_2 monitors were not exposed to the test pressure during the performance of the local leakage rate testing. This condition had existed since initial installation of the present H_2/O_2 monitors in 1982.

On 02/05/93, the H_2/O_2 Monitoring System was immediately declared inoperable and the H_2/O_2 monitors were isolated from the primary containment. Following a revision to procedure OP 4029, leakage rate testing of the H_2/O_2 monitors was performed and the results evaluated to be acceptable. The H_2/O_2 monitors, SAH-VG-5A and SAH-VG-5B were returned to service on 02/06/93 and 02/07/93, respectively.

TEXT (If more space is required, use additional NRC Form 366A) (17)

CAUSE OF EVENT

Vermont Yankee has performed a Root Cause Analysis for this event has determined both the root cause and additional areas where enhancements are needed.

The root cause for this event has been determined to be an inadequate procedure. Procedure OP 4029, "Type A - Primary Containment Integrated Leak Rate Testing", did not provide the proper instructions for leakage rate testing of the H_2/O_2 Monitoring System. Human error occurred during the initial development of the instructions provided in OP 4029. These errors were carried forward in subsequent revisions to the procedure.

The need for enhancements in the following areas has also been determined:

1. Revision to administrative procedures to explicitly require that consideration be given to the component testing requirements and revisions to the component testing programs, including the Vermont Yankee Appendix J Program.

2. Revision to the Vermont Yankee Appendix J Program to provide a single, easily retrievable source for the technical bases and requirements for the Type A ILRT.

3. Performance of a field walkdown and technical review of the primary containment boundaries to ensure the correctness and completeness of the Type A ILRT valve lineup provided in OP 4029.

ANALYSIS OF EVENT

The events of this report did not have adverse safety implications. Primary containment integrity was maintained throughout the event. This was confirmed by subsequent local leakage rate testing.

CORRECTIVE ACTIONS

Immediate:

1. The H_2/O_2 Monitoring System was immediately declared inoperable and the H_2/O_2 monitors were isolated from the primary containment on 02/05/93.

2. Procedure OP 4029 was revised to provide proper instructions for leakage rate testing of the H_2/O_2 monitors.

3. Leakage rate testing of the H_2/O_2 monitors was performed and the results evaluated to be acceptable. The H_2/O_2 monitors, SAH-VG-5A and SAH-VG-5B were returned to service on 02/06/93 and 02/07/93, respectively.

CORRECTIVE ACTIONS (Continued)

Subsequent:

1. Administrative procedures will be revised to explicitly require that consideration be given to the component testing requirements and revisions to the component testing programs, including the Vermont Yankee Appendix J Program.

2. The Vermont Yankee Appendix J Program will be revised to provide a single, easily retrievable source for the technical bases and requirements for the Type A ILRT.

3. A field walkdown and technical review of the primary containment boundaries will be performed to ensure the correctness and completeness of the Type A ILRT valve lineup provided in OP 4029.

These actions will be completed on or before December 31, 1994. The next Type A ILRT is scheduled for the Spring 1995 Refueling Outage.

ADDITIONAL INFORMATION

No similar events have been reported to the Commission in the last five years.