VERMONT YANKEE
NUCLEAR POWER CORPORATION

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January 13, 1997
BVY 97-06

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

Reference: (a) License No. DPR-28 (Docket No. 50-271)

Subject: Reportable Occurrence No. LER 96-030

As defined by 10CFR50.73, we are reporting the attached Reportable Occurrence as LER 96-030.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Gregory A. Maret
Plant Manager

c: USNRC Region 1 Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS

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NRC Form 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER ( )	PAGE (3)
VERMONT YANKEE NUCLEAR POWER STATION	05000271	01 OF 3

TITLE (4) Transversing In-Core Probe Purge Solenoid Isolation Valve not Tested In accordance with Appendix J due to Redesignation of the Containment Isolation Valves.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NO.(S)
12	12	96	96	-- 030 --	00	01	13	97	N/A	05000

OPERATING MODE (9)	N
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. CHECK ONE OR MORE (11)

	20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
	20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
	20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		(Specify in Abstract below or in NRC Form 366A)
	20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NO. (Include Area Code)
GREGORY A. MARET, PLANT MANAGER	802-257-7711

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
NA					NA				
NA					NA				

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MO	DAY	YEAR
X	YES (If yes, complete EXPECTED SUBMISSION DATE)		NO		02	26	97

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 12/12/96 with the plant at 100% power, while addressing an Inservice Testing (IST) Program question, it was determined that due to a change in designation of containment isolation valves in the Transversing In-Core Probe (TIP) (EIIS=IG) Purge System, the outboard solenoid operated isolation valve, originally specified as a containment isolation valve, had not been leak rate tested in accordance with Appendix J since the 1987 refueling outage.

Originally, the outboard solenoid valve and the outboard check valve were designated as the containment isolation valves for the TIP Purge System. Starting in the 1984 refueling outage, these valves were tested as part of the Appendix J Program. In 1987, a design change was completed that redesignated the isolation valves to one check valve inside and one check valve outside the containment thus deleting the test of the solenoid operated valve.

The root cause investigation for this event is in progress. A supplemental License Event Report (LER) will be submitted upon completion of the root cause analysis.

As part of the immediate corrective action process, a Basis for Maintaining Operations (BMO) was approved which concluded the plant could continue to operate safely. Additionally, the logic circuit for the outboard solenoid isolation valve was verified to receive an isolation signal from the Reactor Protection System and could still function to isolate the purge line. Long term corrective actions will install new valves with appropriate test connections during the next refueling outage.

This event had no impact on plant operations and posed no danger to the health and safety of the public.

DESCRIPTION OF EVENT

On 12/12/96, with the plant at 100% power, while addressing an Inservice Testing (IST) Program question on a containment penetration, it was determined that in 1987 the containment isolation valves for the Traversing In-Core Probe (TIP) Purge System had been redesignated to one check valve inside the containment and one check valve outside the containment instead of the originally designated solenoid valve and check valve located outside of the containment. In 1983 the, Primary Containment Isolation Valve Matrix, which was subsequently approved, listed the first isolation valve as the purge solenoid valve and the second isolation valve as the purge line check valve, both located outside of the containment. In 1987, a design change that installed a new pressure control unit between the penetration and the TIP equipment also redesignated the containment isolation valves for this system. The purge line check valve outside the containment was designated as the second isolation valve and the check valve in the pressure control unit as the first isolation valve. Subsequently, the solenoid valve was not included as part of the Appendix J Program and has not been leak rate tested since 1987. The solenoid valve was leak rate tested during the 1984 and 1985/1986 Refueling Outages as part of the Appendix J Program. Both designated check valves are leak rate tested as part of the present Appendix J Program.

In addition, further review of the solenoid identified that it did not meet Reg Guide 1.97 position indication requirements for containment isolation valves.

CAUSE OF EVENT

The root cause of this event is under investigation. A supplemental License Event Report will be submitted once the root cause has been determined.

ANALYSIS OF EVENT

The TIP Purge System provides low pressure nitrogen to the TIP indexers to ensure that the dry lubricant inside the indexers and the TIP System remains dry. The purge system tubing is connected to the nitrogen system outside of the primary containment and penetrates the containment through penetration X-35E.

Appendix J requires specific primary containment isolation valves to be leak rate tested to ensure that leakage from the primary containment during a loss of coolant accident is less than that analyzed for off-site dose consequences.

It should be noted that the design of the penetration is the same as the original accepted design with the only physical difference being that the solenoid valve has not been tested in accordance with Appendix J. This particular valve has been successfully leak rate tested in the past, is a small diameter normally open, fail close, fast acting valve. Such valves typically exhibit low levels of leakage. The valve is located outside of the containment and protected from any mechanical damage that would result from a potential accident. The valve still receives an isolation signal, based on containment high Drywell pressure, which will isolate the valve for any accident condition that required containment isolation.

The check valve, also located outside of the containment, has always demonstrated acceptable leakage since testing of that component began in 1984. Additionally, the tubing from the penetration to the outboard check valve is seismically qualified.

Nitrogen pressure on the purge system is typically held at greater that 44 PSIG; the expected peak containment pressure during an accident. Therefore, with the system intact, any leakage through the solenoid valve would be into the containment.

Although the solenoid valve has not been leak rate tested in accordance with Appendix J, the facts stated above provide assurance that any leakage would be mitigated by the design of the system and valves. Therefore any leakage induced by an accident would be expected to be minimal and have no adverse affect on the health and safety of the public.

CORRECTIVE ACTIONS

IMMEDIATE CORRECTIVE ACTIONS

1) A point-to-point check was performed on the logic for the solenoid valve to ensure that it still receives an isolation signal.

2) A Basis for Maintaining Operation (BMO) was written, reviewed by the PORC and approved by plant management to assure continued plant operation.

LONG TERM CORRECTIVE ACTIONS

1) A Root Cause Analysis will be completed to investigate this event and determine why the check valves in the TIP Purge line were redesignated as containment isolation valves as part of a design change.

2) The Mechanical Engineering Group will perform an evaluation of the as-built condition of the TIP Purge line from the penetration through the structural boundary of the TIP Purge equipment to ensure that the TIP Purge equipment will remain intact following a seismic event. This will be completed by 1/31/97.

3) A Temporary Modification (TM) will be written to replace the TIP Purge solenoid valve with a safety class solenoid, redesignate the solenoid valve as a containment isolation valve and install a rotometer to allow for alternative Reg. Guide 1.97 position indication. This will be implemented during the next cold shutdown.

4) The Type B and C Leak rate test procedures will be revised and a test of the solenoid valve will be performed during the next cold shutdown.

5) The Appendix J Program will be revised to reflect the Temporary Modification and BMO. This will be completed by 1/31/97.

6) An item will be added to the 1998 outage work list to prepare and implement a modification package to resolve this issue. This will be completed prior to starting up from the 1998 Refueling Outage.

ADDITIONAL INFORMATION

Similar events regarding the IST program and testing requirements have been reported as LER's 93-03 and 96-04.