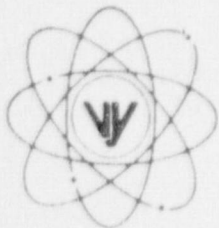


VERMONT YANKEE NUCLEAR POWER CORPORATION



P.O. Box 157, Governor Hunt Road
Vernon, Vermont 05354-0157
(802) 257-7711

July 14, 1998
BVY 98-104

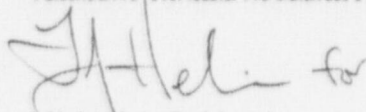
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington D.C. 20555

**Subject: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
Reportable Occurrence No. LER 98-20, Rev. 0**

As defined by 10CFR50.73, we are reporting the attached Reportable Occurrence as LER 98-20, Rev. 0.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION


Michael A. Balduzzi
Plant Manager

cc: USNRC Region I Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS
VT Dept. of Public Service

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NRC Form 366 (4-95)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.					
LICENSEE EVENT REPORT (LER)										
FACILITY NAME (1) VERMONT YANKEE NUCLEAR POWER STATION					DOCKET NUMBER (2) 05000271		PAGE (3) 01 OF 3			
TITLE (4) OUT OF POSITION ISOLATION VALVES ALLOW DEGRADATION OF PRIMARY CONTAINMENT INTEGRITY. CAUSE FOR VALVES OUT OF POSITION IS UNDER INVESTIGATION.										
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) 05000
06	14	98	98	20	00	07	14	98	N/A	
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: CHECK ONE OR MORE (11)								
N		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)		
POWER LEVEL (10)		04		20.2203(a)(1)		20.2203(a)(3)(i) X		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) X		50.73(a)(2)(v)		
				20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		
LICENSEE CONTACT FOR THIS LER (12)										
NAME MICHAEL A. BALDUZZI, PLANT MANAGER								TELEPHONE NO. (Include Area Code) 802-257-7711		
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	.....	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
NA					.....	NA				
NA					.....	NA				
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)		MO	DAY	YEAR
X	YES (If yes, complete EXPECTED SUBMISSION DATE)				NO			09	15	98

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

On 06/14/98 Vermont Yankee (VY) was verifying the positions of locked valves as a corrective action for a valve locking device discovered to be missing. The locked valve surveillance identified two valves out of position. The two valves were normally closed drain valves between the torus hardened vent rupture diaphragm and its downstream isolation valve. Were the plant to have experienced its design basis loss of coolant accident (LOCA), it is possible that primary containment pressure could have exceeded the rupture diaphragm setpoint. This is because the Emergency Operating Procedures which control the containment flooding evolution allow containment pressure to reach 62 psig prior to requiring operators to take action to limit/reduce that pressure. The Torus Vent System (TVS) rupture diaphragm is set to actuate at 59 +/- 3 psig. Were a design basis LOCA to have occurred with the system in its approved alignment, flow through the torus vent would have been prevented by normally closed isolation and drain valves. With the drain valves open (as-found), the suppression pool water would have leaked out of the primary containment and into the secondary containment. A primary containment breach resulting from a LOCA is in conflict with the primary containment design bases. VY has closed the drain line isolation valves to ensure that containment integrity is maintained consistent with VY design bases. The need for additional corrective actions are being evaluated. The rate of water loss would have been greatly exceeded by the makeup capacity available, allowing containment flooding to continue. The secondary containment would have remained intact and accessible. This would have allowed the operating crew to isolate the leak in a timely fashion. Therefore this event did not present a significant increase in risk to public health or safety.

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LICENSEE EVENT REPORT (LER)						
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)		PAGE (3)
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						02 OF 3

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

EVENT DESCRIPTION

On 06/14/98 with the plant at approximately 4% reactor power, in the midst of a reactor plant startup, VY operations personnel were verifying the positions of locked valves as a corrective action for a valve locking device having been discovered to be missing.

The locked valve surveillance identified two valves out of position. The two valves were normally closed isolation valves (EIS=ISV) in a 3/4 inch drain line between the torus vent rupture diaphragm (EIS=RPD) and its downstream isolation valve. Were the plant to have experienced its postulated design basis LOCA, it is possible that primary containment (EIS=NH) pressure could have exceeded the rupture diaphragm setpoint. This is because the Emergency Operating Procedures which control the containment flooding evolution allow containment pressure to reach 62 psig prior to requiring operators to take action to limit/reduce that pressure. The Torus Vent System (TVS) rupture diaphragm is set to actuate at 59 +/- 3 psig. With the TVS in its approved alignment, flow through the torus vent would be prevented by normally closed drain and isolation valves. With the drain valves open (as-found), and the rupture diaphragm having actuated, the suppression pool water would leak out of the primary containment and into the secondary containment. A primary containment breach resulting from a LOCA is in conflict with the primary containment design bases. VY has closed the drain line isolation valves to ensure containment integrity is maintained consistent with VY design bases.

ROOT CAUSE OF EVENT

The cause of the valves being out of position is unknown at this time. The cause investigation continues. The results of that investigation will be communicated in a supplement to this report.

The locked valve surveillance showed this to be an isolated event.

ANALYSIS OF EVENT

The VY containment systems provide a multiple barrier pressure suppression containment which employs defence in-depth principles in the design. The fuel, fuel cladding, and reactor pressure vessel provide additional barriers against the release of fission products.

The primary containment consists of a drywell, which encloses the reactor vessel and recirculation system, a pressure suppression chamber which stores a large volume of water, a connecting vent system between the drywell and the suppression chamber, isolation valves, containment cooling systems, and other service equipment.

The purpose of the secondary containment is to minimize the ground level release of airborne radioactive material and to control this release should an accident occur. The secondary containment system consists of the reactor building, the standby gas treatment system, the reactor building normal heating ventilating and air conditioning system, and the reactor building penetrations.

The resulting containment outleakage would have been retained within the secondary containment and/or processed as required by the reactor building equipment and floor drain collecting systems. The rate of water loss allowed by the open drain valves, would have been greatly exceeded by the makeup capacity available, allowing containment flooding to continue. The secondary containment would have remained intact and accessible to plant personnel. This would have allowed the operating crew to isolate the leak in a timely fashion. Therefore this event did not present a significant increase in risk to public health or safety.

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

CORRECTIVE ACTIONS

Immediate Actions:

1. A VY internal event report was initiated to perform a root cause determination and generate corrective action recommendations. This initiation is complete. The investigation is ongoing.
2. The drain valves were closed as required by plant procedures. This action was complete on 06/14/98.
3. Valve line-ups were performed on the High Pressure Coolant Injection System and on Primary Containment Penetration isolation valves to confirm the mispositioned TVS valves to be an anomaly. No valves were found out of position during these two valve line-ups. This action was completed on 06/18/98.

Long Term Corrective Actions:

Long term corrective actions for this event will be determined as part of the VY Event Report process. The investigation is currently ongoing. The conclusions of that evaluation will be published in a supplement to this report.

ADDITIONAL INFORMATION:

VY reported a similar event as LER 98-10. Additional events considered to be similar will be determined as part of the ongoing event investigation and will be communicated in a supplement to this report as applicable.