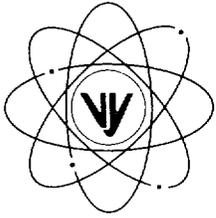


VERMONT YANKEE NUCLEAR POWER CORPORATION



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July 6, 2000
BVY 00-63

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 2000-03, Rev. 0**

As defined by 10CFR50.73, we are reporting the attached Reportable Occurrence as LER 2000-03, 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

IE22

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

VERMONT YANKEE NUCLEAR POWER CORPORATION (VY)

DOCKET NUMBER (2)

05000271

PAGE (3)

Page 1 of 3

TITLE (4)

Inadequate Change Management Results in the Failure to Test Primary Containment Vacuum Breakers at the Required Frequency.

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 NUMBER
06	08	00	2000	03	00	07	06	00	N/A	

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)								
N	100	20.2201(b)		20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	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)				
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)				Specify in Abstract below or in NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME: Michael A. Balduzzi, Plant Manager
 TELEPHONE NUMBER (Include Area Code): (802) 257-7711

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (12)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
N/A					N/A				
N/A					N/A				

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On 06/08/00, while reviewing a surveillance procedure, the VY IST Coordinator determined that the approach used to test torus-to-drywell vacuum breakers did not fully meet code requirements. Specifically, the force required to unseat the check valves that perform this function in the VY containment system had not been measured on a quarterly basis. Rather, the required measurement had been taken every six months. The unseating force had been measured within 3 months of the time of discovery. Therefore, the operability of the vacuum breakers was not in question. The code testing requirements for vacuum relief devices (per OM-1) have consistently been met for the subject vacuum breakers. However, the quarterly code testing requirement for measuring the unseating force per OM-10 was not met. The failure to perform quarterly testing on the torus-to-drywell vacuum breakers was caused by inadequate change management between the VY IST program improvement team and the test implementing department. The error resulted in an October, 1996 procedure change that allowed the reportable condition. The implementing procedure is being revised to ensure that the test will be performed on a quarterly basis in the future. Other administrative controls are being evaluated to identify and/or prevent similar events. Testing, performed each 6 months, verified that the unseating force was consistent with quarterly test acceptance values, demonstrating that the subject vacuum breakers were operable throughout this time period. Therefore, this event caused no increased risk to public health and safety.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

DESCRIPTION

On 06/08/00, while operating at rated power, the VY in-service testing (IST) Coordinator was reviewing the surveillance procedure for torus-to-drywell vacuum breakers (EIS=VACB). The subject testing is governed by VY Operating Procedure 4115, "Primary Containment Surveillance". During the review, the IST Coordinator determined that the frequency at which VY had been testing its torus-to-drywell vacuum breakers did not meet code requirements.

Specifically, the force required to unseat the simple check valves that perform this function in the VY containment system (EIS=BF, BD) had not been measured on a quarterly basis as required by the applicable code. Rather, the required measurement had been taken every six months. A review of test records showed that the unseating force had been measured within 3 months previous to the time of discovery. The unseating force had been properly measured on 04/08/00. The code would not have required the test to be performed again until 07/08/00. Therefore, the operability of the vacuum breakers was not in question.

ASME/ANSI OMa-1988 parts 1 and 10 (OM-1 and OM-10) establish the requirements for IST testing of the torus-to-drywell vacuum breakers. Part 1 establishes the testing requirements for these components as vacuum breakers. Part 10 establishes the testing requirements for these components as check valves.

US NRC Nureg 1482 provides guidance for licensees in meeting in-service testing. The Nureg guidance identifies that the primary containment vacuum breakers should be tested both as vacuum breakers, and as check valves.

Until the fourth quarter of 1996, the VY IST Program Plan (ISTPP) deferred the subject testing of the torus-to-drywell vacuum breakers to a cold shutdown frequency. The ISTPP acknowledged the need to meet the requirements of both OM-1 and OM-10. At that time, VY personnel evaluating the IST program determined that the justification for deferring the testing to a cold shutdown frequency was weak. VY concluded that it would be prudent to commence testing torus-to-drywell vacuum breakers at power.

Therefore, a change to the affected IST program implementing procedure was developed. It was understood by members of the IST program improvement team that the torus-to-drywell vacuum breakers were to be tested in accordance with both OM-1 and OM-10. The need to change the implementing procedure for the subject testing was communicated to the implementing department (Operations Department).

On July 10, 1996, VY IST personnel wrote a memo to VY Operations Department personnel identifying the need to change OP 4115. The memo did not contain the information necessary to ensure that the testing requirements of OM-10 would be met. Specifically, there was no mention of a need to test vacuum breaker unseating force on a quarterly basis.

CAUSE

The root cause of this event was inadequate change management in 1996 while informing the plant Operations Department of changes necessary in torus to vacuum breaker testing.

This error was related to a procedural inadequacy in the ISTPP that allowed a lack of rigor in the implementing procedure change process.

ANALYSIS

The VY containment systems provide a multiple barrier pressure suppression containment that employs defense in-depth principles in the design. The 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.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

The subject vacuum breakers are installed in the vent system that connects the drywell to the suppression chamber gas/air volume. The vacuum breakers are 18 inch Atwood & Morrill Model 20751-H check valves. With torus gas/air chamber pressure $\leq 1/2$ psi greater than drywell pressure, the vacuum breakers will close (remain closed), ensuring that any steam or gases being directed from the drywell to the torus, via the vent system, is directed into the suppression pool. The vacuum breakers open to allow gas to flow from the suppression chamber (torus) gas/air chamber should torus gas pressure exceed drywell pressure by approximately $1/2$ psi. Therefore the subject vacuum breakers have safety functions to both open and close.

Because the testing performed each 6 months verified that the unseating force was consistent with test acceptance values, it has been demonstrated that the subject vacuum breakers were operable throughout the duration of this event. Therefore, this event caused no increased risk to public health and safety.

CORRECTIVE ACTIONS

1. A VY internal Event Report was generated to ensure that a root cause analysis was performed and appropriate corrective action recommendations developed.
2. A note is being added to the IST Program Plan for the affected vacuum breakers (and other similar components, as necessary) to clearly delineate the test methods to be applied.
3. VY will conduct a review of the ISTPP to identify other components which may have dual code requirements and ensure that the requirements of each applicable code are being met.
4. VY will conduct a review of the ISTPP to identify components subject to the requirements of OM-10, section 4.3.2.4(b) and ensure that each is being properly tested.
5. Procedure OP 4115 and the surveillance tracking database are being revised to require that the break away force test will be conducted on a quarterly basis.

The current VY IST implementing procedure change process is not vulnerable to similar failures. Since the 1996 change that resulted in the inadequate testing frequency, changes made to the process would preclude such errors.

ADDITIONAL INFORMATION

VY has previously identified missed/inadequate IST surveillance testing in the following LER's.

- LER 95-17 Technical Specification 4.6.E Not Met Due to Components Not Included in the IST Program Scope
- LER 96-01 Technical Specification 4.6.E Not Met Due to Components Not Included in the IST Program Scope
- LER 96-11 Failure to Perform IST Testing on Valves that Should Have Been Included in the IST Program
- LER 98-21 Inadequate Licensing Basis Documentation Retrievability Results in the Failure to Meet IST Requirements for Diesel Fuel Oil Day Tank Level Control Valves.