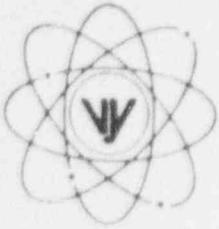


# VERMONT YANKEE NUCLEAR POWER CORPORATION



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

January 29, 1997  
BVY 97-19

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

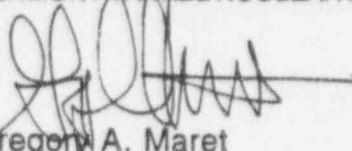
Reference: (a) License No. DPR-28 (Docket No. 50-271)

Subject: Reportable Occurrence No. LER 96-14 rev. 1.

As defined by 10CFR50.73, we are reporting the attached Reportable Occurrence as LER 96-14 rev. 1.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION



Gregory A. Maret  
Plant Manager

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

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PDR ADOCK 05000271  
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## LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1) VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NUMBER ( )  
05000271PAGE (3)  
01 OF 03

TITLE (4) Tornado protection not provided for diesel generator rooms as specified in the Final Safety Analysis Report due to failure to implement plant construction/configuration change documents.

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)
06	04	96	96	-- 14 --	01	01	29	97	N/A	05000
OPERATING MODE (9)		N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: CHECK ONE OR MORE (11)						
POWER LEVEL (10)		100		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
				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)		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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MO	DAY	YEAR
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## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 6/4/96, while operating at 100% power, during a review of NRC Information Notice 96-06 Vermont Yankee identified that the Final Safety Analysis Report (FSAR) requirements for venting capability of the diesel generator rooms in the event of a tornado were not being met. FSAR section 12.2.1 states that large venting areas are provided to vent the diesel generator rooms to the turbine building in the event of a tornado. No dedicated venting areas are provided in the diesel generator room walls to the turbine building. Investigation to date has been unable to identify the exact method of venting assumed when the FSAR was written. Construction documents describe venting of the diesel day tank rooms through blowout panels to the A diesel generator room and the diesel generator rooms being vented through blowout panels in the outside walls. These documents predate the FSAR and since these panels were not installed and the FSAR describes a different means of venting the rooms, it is reasonable to assume that an alternate means of venting the rooms was intended however documentation of how this was to be accomplished has not been found. Investigations are complete. The cause was determined to be the failure to implement the appropriate configuration change documents. Compensatory measures are in place to address this issue. Permanent plant configuration changes are planned to correct the deficiency. Since there have been no identified occurrences of tornadoes in the immediate vicinity of the plant since construction, this design deficiency is deemed to have presented no increased risk to the health or safety of the public.

NRC Form 366 U.S. NUCLEAR REGULATORY COMMISSION (4-95)		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)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REV #	
VERMONT YANKEE NUCLEAR POWER CORPORATION	05000271	96	-- 14 --	01	02 OF 03

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

#### DESCRIPTION OF EVENT

On 6/4/96, while operating at 100% power, during review of NRC Information Notice 96-06 Vermont Yankee identified that the Final Safety Analysis Report (FSAR) requirements for venting capability of the diesel generator (E1IS=EK) rooms in the event of a tornado were not being met. FSAR section 12.2.1 states that large venting areas are provided to vent the diesel generator rooms to the turbine building (E1IS=NM) in the event of a tornado. No dedicated venting areas are provided in the diesel generator room walls to the turbine building. Investigation was unable to identify the exact method of venting assumed when the FSAR was written. Construction documents describe venting of the diesel day tank rooms through blowout panels to the A diesel generator room and the diesel generator rooms being vented through blowout panels in the outside walls. These documents predate the FSAR and since these panels were not installed and the FSAR describes a different method of venting the rooms, it is reasonable to assume that an alternate means of venting the rooms was to be provided. VY was unable to find documentation of the decision to provide a different method of venting the diesel rooms or any of the specifics as to how it was to be accomplished.

#### CAUSE OF EVENT

The cause was determined to be the failure to implement the appropriate configuration change documents.

Due to the age of the event it was not possible to determine why the configuration change was not implemented..

#### ANALYSIS OF EVENT

The tornado design basis of the plant is that all structures and equipment necessary to initiate and maintain a safe plant shutdown are designed to withstand short term loading as a result of a tornado.

The plant is designed assuming a 3 psi pressure drop associated with the passage of a tornado. The diesel generator rooms and diesel day tank rooms are in the Turbine Building. In the wall of the diesel rooms to the turbine building there are large double doors. Large single doors exist in the wall to each diesel day tank room from the turbine building. Opening these doors provides large venting areas into the Turbine Building. Since the siding on the Turbine Building will blow off with winds such as those associated with a tornado, pressure equalization is accomplished by venting to the interior of the building.

An informal calculation was performed to estimate the pressure differential required to open the doors or ventilation dampers. These investigations cannot, with certainty, conclude that they are intended to, or in fact do, demonstrate compliance with the original design calculations. However it is recognized that the doors and dampers are not airtight and therefore do accommodate some amount of venting capability. Also, the structural capacity of the walls comprising the enclosures is inherently greater than either the doors or damper assemblies. Therefore, it is reasonable to expect that these structurally weaker elements would fail prior to a failure of the walls.

Immediate compensatory measures were taken to block open the diesel generator room and diesel day tank room doors into the turbine building and station personnel at the doors to address security, fire, and environmental qualification (EQ) concerns. This provided venting such that the tornado design basis had been satisfied thereby mitigating any possible structural failures. Subsequent actions included blocking open EDG room ventilation exhaust dampers to allow closing the EDG room doors. VY has since restored the affected exhaust dampers to their normal configuration and established a requirement for plant operations personnel to open EDG room doors in the event of a tornado.

In addition to the compensatory measures taken to bring the enclosures into compliance with their tornado design basis, the Vernon tie line has recently been upgraded to demonstrate compliance with 10CFR50.63 - Station Blackout (SBO). This upgrade provides an alternate AC source equivalent to one diesel generator in the event of a loss of normal power in conjunction with the loss of both diesel generators. Therefore, this feature provides an available redundant power source which incorporates severe weather related events into its design.

Additionally there have been no identified occurrences of tornados in the immediate vicinity of the plant since construction.

Based upon the above it is determined that there has been no threat to public health or safety as a result of this event.

NRC Form 366  
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)

VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NUMBER (2)

05000271

LER NUMBER (6)

YEAR

96

SEQUENTIAL NUMBER

-- 14

REV #

-- 01

PAGE (3)

03 OF 03

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

CORRECTIVE ACTIONS

1. Immediate compensatory measures were taken to block open the doors between the affected rooms and the turbine building and station personnel at the doors to address security, fire, and environmental qualification concerns (this compensatory measure has since been terminated).
2. On 6/14/96 a temporary modification was installed to block the exhaust fan louvers in the normally open position to provide a vent path for the diesel generator rooms in the event of a tornado and the doors were reclosed (this compensatory measure has been terminated to support cold weather operations).
3. A Basis for Maintaining Operation (BMO) evaluation was developed concluding that continued operation in the existing configuration was justified. This BMO has been revised to document the acceptability of plant operation with the affected doors closed and additional administrative controls in place.
4. Long term solution:  
A design change will be implemented which will provide tornado protection for the EDG and EDG Day Tank room enclosures. The expected completion date is July 31, 1997.

ADDITIONAL INFORMATION

Current provisions and restrictions within VY engineering procedures and processes are adequate to prevent the recurrence of this event.

There have been no previous LER's reported to the NRC regarding a failure to satisfy design basis tornado protection requirements in the past five years.