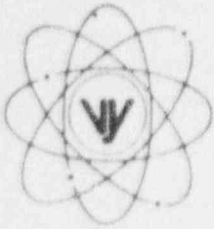


VERMONT YANKEE NUCLEAR POWER CORPORATION



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

November 6, 1995
BVY 95-121

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

References: Operating License DPR-28
Docket No. 50-271
Reportable Occurrence No. LER 95-019

Dear Sir:

As defined by 10 CFR 50.73, we are reporting the attached Reportable Occurrence as LER 95-019.

Very truly yours,

Robert J. Wanczyk
Plant Manager

RJW/dm

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

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NRC Form 366 (4-95)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98						
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 ()		PAGE (3)	
								05000271		01 OF 04	
TITLE (4) Vital fire door declared inoperable due to inability to satisfy surveillance acceptance criteria.											
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)	
10	06	95	95	-- 019 --	0	11	06	95	N/A	05000	
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)		X		50.73(a)(2)(i)		50.73(a)(2)(viii)	
POWER LEVEL (10)		20.2203(a)(1)		20.2203(a)(3)(i)				50.73(a)(2)(ii)		50.73(a)(2)(x)	
100		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)			
ROBERT J. WANCZYK, 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
N/A	N/A	N/A	N/A	N/A
SUPPLEMENTAL REPORT EXPECTED (14)											
X	YES				NO	EXPECTED SUBMISSION DATE (15)			MO	DAY	YEAR
	(If yes, complete EXPECTED SUBMISSION DATE)								03	31	96

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

On 10/06/95, with the plant operating at 100% power, a vital fire door subject to the requirements of plant Technical Specifications was determined to be inoperable. The door functions in tandem with a second door as part of a secondary containment airlock entrance to the Reactor Building. The door is required to be operable at all times under Technical Specification §3.13.E.1. The applicable fire door surveillance procedure requires that fire doors be capable of closing and latching as conditions of operability. Contrary to this requirement, the door was not equipped with a latching mechanism.

Immediately following this determination, the door was declared inoperable and a continuous fire watch was established within one hour as required by Technical Specification §3.13.E.2. An approved latch mechanism was installed. The apparent causes for this event include inadequate administrative controls related to design control, documentation and surveillance testing/inspection. The investigation of the root cause(s) for this event continues and a supplemental LER will be submitted to document the results of this investigation.

Similar events related to deficient design control and documentation processes, and to surveillance test/procedure inadequacies, were reported within the last five years as LER 93-001, LER 95-003 and LER 95-010.

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

DESCRIPTION OF EVENT

Background:

On 10/06/95, with the plant at 100% power, an inspection of all plant vital doors was in progress to document the as-found condition of all vital fire doors for follow-up evaluation and disposition of potential qualification issues.

Vermont Yankee (VY) Technical Specifications (TS) do not explicitly address fire doors. Such requirements are extrapolated from TS §3.13.E.1, which requires that "vital fire barrier penetration seals protecting the Reactor Building ... shall be intact". Fire doors are interpreted to function in a capacity analogous to that of fire-rated penetration seals in personnel access/egress openings in rated fire barriers.

Personnel access to the Reactor Building (EIS=NG) is effected via two air locks, one each on the North and West walls of the building. Both walls are classified as vital fire barriers and barrier penetrations are fire sealed to maintain the 3 hour rating for each of these barriers. Each air lock is configured with two doors in series connected by a small chamber of masonry construction. The outer door in each air lock is classified as 3 hour fire rated while the inner doors are not fire rated. All airlock doors are electrically supervised to provide local visual indication (lights) when any door is open. A local audible alarm actuates when both doors in an airlock are opened. This arrangement serves to administratively control secondary containment integrity in the Reactor Building during personnel access and egress.

The fire barriers are also classified as vital Security barriers and one door in each air lock is access controlled (electrically supervised and latched/unlatched). In the West wall airlock, the outer door functions as both the access control and the fire door and is therefore latchable; the inner door is not equipped to latch. In the North wall air lock, the outer door functions as the fire rated door, and the inner door functions as the Security door. Only the inner door is equipped with a latch. The outer (fire) door is maintained closed by the combined forces of a strong door closure device and the differential air pressure across the air lock; closure is electrically supervised locally for secondary containment control.

Plant vital fire doors are inspected on a semiannual basis in accordance with procedure OP 4019 (Surveillance of Vital Fire Barriers And Fire Rated Assemblies). OP 4019 includes the requirement that "If the door does not close and latch properly, it is non-functional". This requirement is based upon standard configurations for fire door qualification testing, e.g. by Underwriters' Laboratories (UL). Although the inability of the door to latch was previously known, it was believed that this condition had been determined acceptable during previous engineering evaluation(s). However, the inspection and acceptance criteria of procedure OP 4019 had not been revised to distinguish an exception to the latching requirement for this door. This door was apparently determined to be satisfactory during all subsequent surveillances based upon review of past inspection forms. During the most recent surveillance in July, 1995, the lack of a latch was noted on the surveillance form, but the door was still determined to be operable.

Event Description:

On 10/06/95, during the conduct of the door evaluation described above, the air lock door latch issue was brought to the attention of the VY Fire Protection Coordinator (FPC) who initiated an immediate search for documentation related to the past engineering evaluation(s). Based upon the inability to locate any documentation pertinent to this issue, the FPC declared the door inoperable and a continuous fire watch was established at the door within one hour, as required by TS §3.13.E.2. Approved latching hardware was then procured and installed on the door. The door was determined to otherwise be a qualified fire door. Following verification of the ability to latch, the door was declared operable and the fire watch was terminated on 10/13/95.

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CAUSE OF EVENT

Investigation to date has determined that the subject door originally was equipped with a remotely-actuated, electrically-operated latch which was removed during Security modifications in 1975. Prior to removal, latch actuation was effected from the Control Room in response to personnel requests for access to the Reactor Building. During the Security modifications, access control devices were installed on the inner door, which was not classified as a fire rated door, and the outer door was left without any latching hardware. However, there were no fire protection requirements for the door at this time.

The door was in this configuration during the subsequent walkdowns, analyses and evaluations associated with the 1978 Safety Evaluation against the requirements of USNRC Branch Technical Position 9.5-1, Appendix A and with the 1983 Safety Evaluation against the requirements of 10CFR50, Appendix R. No deficiencies or required modifications specific to this door were identified as a result of either Safety Evaluation. The VY Fire Hazards Analysis (FHA), Rev 0, was developed as the basis for the 1978 Safety Evaluation and did not classify the airlock doors as vital fire doors. The current FHA revision describes this door as being "considered a vital fire door" but does not classify it as a fire rated door.

A specific inspection procedure for all plant vital fire doors was not developed until 1990 (OP 4019). Previously, doors were inspected as part of the operating cycle fire barrier and penetration seal surveillance; however, these inspections did not include latching ability as an inspection criterion. The latching criterion is believed to have been introduced in the original OP 4019 procedure and remained unchanged in all subsequent procedure revisions. An exception to the latching criterion for the North air lock door was not documented in the original or any subsequent procedure revision.

Based upon the investigation to date, the apparent causes for this event appear to encompass deficiencies in the fire protection design basis documentation and in the administrative controls related to design control and surveillance conduct. The investigation is continuing and the root cause(s) for this event will be reported in a supplement to this LER

ANALYSIS OF EVENT

The fire barrier in which this door is installed separates Reactor Building EI. 252'-6" from the Radwaste Building (EIS = NE), the Control Building (EIS = NA) and an access corridor connecting the Turbine Building (EIS = NM) to the Radwaste Building. The door is located in the barrier section common to the corridor. The corridor contains minimal in-situ combustible materials and no fixed ignition sources. Due to its narrow width and regular foot traffic, the corridor is generally devoid of transient combustibles. There are no in-situ combustible materials or ignition sources in the airlock and, again, due to geometry and regular foot traffic, is completely devoid of transient combustibles and ignition sources.

At the time of the event, continuous fire watches were established on the Reactor Building side of the barrier and in the Control Building section common to this barrier as compensatory measures for deficiencies related to the VY 10CFR50, Appendix R design base (reported as LER 95-014). Because the inner airlock door obscured the outer door from the direct view of this compensatory watch, an additional continuous fire watch was established outside the outer door.

Additional compensatory actions related to the Appendix R issues were in effect at the time which included removal of most transient combustible materials from the Reactor Building side of the barrier and more restrictive controls for ignition source work plant wide. This area is also partially equipped with automatic suppression and detection in the Reactor Building, but not along the full length of the barrier and not in the area of the air lock. Finally, VY maintains a five-person shift fire brigade capable of responding promptly to a fire in this area.

Therefore, based upon the absence of significant combustible materials and ignition sources in the corridor and in the air lock, the presence of the on-site shift fire brigade, and the establishment of the continuous fire watch for this door, this event did not pose a threat to the health and safety of the public.

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CORRECTIVE ACTIONS

Immediate

1. The door was declared inoperable and a continuous fire watch was established on one side within one hour.
2. Approved, rated latch hardware was installed on the door and latching ability was verified.

Long Term:

3. The baseline fire door inspection and evaluation continues and is expected to be completed by 12/31/95. Identified concerns related to door operability will be addressed as they are found. The evaluation results will be assessed for other actions or enhancements related to door modifications, replacements, documentation development or surveillance conduct, etc. These assessments are expected to be completed by February, 1996.
4. A proposed Fire Protection Improvement Project (FPIP) was approved by plant management prior to this event. The FPIP scope includes comprehensive evaluation and, as necessary, revision of primary fire protection program elements, e.g. design and commitment/licensing bases, management oversight and coordination functions, personnel qualifications, surveillance procedures, etc. The results of the baseline door evaluation (#3, above) will be factored into the FPIP work planning schedule for 1996 and beyond, as warranted. Discrepancies related to design basis concerns will be addressed on an expedited schedule as appropriate.
5. A supplement to this LER will be submitted which will report: the root causes identified during the on-going investigation of this event; any pertinent related issues identified during the baseline door evaluation; and, other planned corrective actions relevant to this event or enhancements to be accomplished within the scope of the FPIP. The supplement is expected to be submitted by 3/31/96.

ADDITIONAL INFORMATION

Similar events related to fire protection design base documentation, design control deficiencies and surveillance test/procedure inadequacies were reported within the past 5 years as LERs 93-001, 95-003 and 95-010.