NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
VERMONT YANKEE NUCLEAR POWER STATION	0 5 0 0 0 2 7 1	1 OF 0 4

TITLE (4) PROCEDURAL (TECHNICAL SPECIFICATIONS) INTERPRETATION LEADS TO DEGRADED CONDITION DURING REFUELING

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 NAMES	DOCKET NUMBER(S)
									N/A	0 5 0 0 0
0 8	2 0	8 7	8 7	— 0 1 1	— 0 0	0 9	1 9	8 7	N/A	0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(a)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	X 50.36(a)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
JAMES P. PELLETIER, PLANT MANAGER	8 0 2 2 5 7 - 7 7 1 1

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	
D	E I	B T R Y	C 1 7 3	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

ABSTRACT

On August 18, 1987 at 1107, with the Reactor Mode Switch in Refuel Mode, the "A" Station Battery (EIIS=EJ) was taken out of service for testing.

On August 20, 1987 at 1640, the Control Room Operators determined that with "A" Battery out, the diesel DG-1-1B (EIIS=EK) could not be considered operable because battery backup control power was not available.

At this time it was determined that from August 18, 1987 (1107) to August 20, 1987 (1640), the requirements of Technical Specification (Tech. Spec.) Section 3.5.H.4 for minimum subsystems required for refueling, were not satisfied.

All fuel movement was halted immediately and the mode switch placed in shutdown.

The root cause of this event was procedural error in interpretation of the Tech. Spec. requirements during refuel mode.

Corrective action involves further clarification for required equipment during refueling and operation.

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NRC Form 366A (9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

DESCRIPTION OF EVENTS

On August 9, 1987 at 0940 with the reactor shutdown and the mode switch in Refuel, "A" RHR (LPCI) loop (EIIS=BO) was taken out of service for maintenance. At this time, the requirements of Tech. Spec. Section 3.5.H.4 require that both core spray and both diesels be operable to continue refueling.

On August 18, 1987 at 1107, with the reactor shutdown and the mode switch still in Refuel, "A" Station Battery (EIIS=EJ) was taken out of service for discharge testing. The DC bus associated with the "A" Station Battery (DC-1) was powered from the battery charger (DC-1A) at this time.

On August 20, 1987 at 1640 an operator noted that even though DC-1 was energized, a loss of normal power (LNP) would render Diesel Generator "B" (DG-1-B) (EIIS=EK) inoperable because the DC Control Power came from DC-1 which had no battery back-up.

This meant that during the time from August 18, 1987 at 1107 to August 20, 1987 at 1640, DG-1-1B should have been considered inoperable. Tech. Spec. Section 3.5.H.4 requires that during refueling with the RHR/LPCI system inoperable, both core spray loops (EIIS=BM) and both diesel generators must be operable.

All fuel movement was immediately halted and the mode switch was placed in shutdown. The Plant remained in shutdown mode until August 21, 1987 at 0026, when the "A" Battery had been restored to service and refueling continued.

CAUSE OF THE EVENT

ROOT CAUSE - Procedural (Technical Specification) Weakness

Misinterpretation of the following Technical Specifications resulted from a weakness in clarity.

1. Technical Specification, Section 3.10 titled "Auxiliary Electrical Power System" which covers the diesels and batteries does not address the minimum electrical requirements for shutdown or refueling modes. Section 3.10.A.2, "Batteries", states that 2 of the 3 battery chargers shall be operable. With the "A" Battery out, all three chargers were operable.

   The normally supplied power for the DG "B" comes from DC 1, with a backup (emergency) supply coming from DC 2 which can be tied to the DG with a manual knife switch in the DG control panel. DC 1 is also powered from several sources of power which include the "A" Station Battery, the Normal "A" Battery battery charger (CA-1), and a spare battery charger (CAB) which can be tied to DC 1 or DC 2 buses.

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ROOT CAUSE (Cont.)

2. Technical Specification, Section 1.K titled "Definitions" states that a system is operable when it is capable of performing its specified function if it has all the necessary instrumentation, controls, normal and emergency electrical power sources. Therefore, the Operators felt the "A" Battery charger (which was energized) would be considered the normal source, and the "B" Battery and battery charger could be considered the emergency source because it was available via the manual transfer switches. The Shift Supervisor was cautioned to place the mode switch to shutdown which would suspend fuel movement if the normal power to the "B" DG were lost for any reason. During this same period of time the "A" LPCI loop was still inoperable.

ANALYSIS OF EVENT

There were no adverse safety consequences from this event for the following reasons:

1. Should any event other than a LNP have occurred, the "A" Battery Charger (CA-1) would have provided DC control power for DG-1-1B and 4KV Bus 3. Under this condition, both Core Spray Loops, the "B" RHR (LPCI) and both diesel generators would have been operable.

2. Should an LNP have occurred the "A" Diesel Generator would start automatically providing power for the "A" Core Spray Loop and one pump in the "B" RHR (LPCI) Loop which was being used for shutdown cooling during this time period. DC Control Power for DG-1-B and Bus 3, could have been restored by manually transferring the control power to the alternate source off the "B" station Battery. Additionally, power was available from the Tie Line with the Vernon Hydro Electric Station and could have been used within 5 to 10 minutes to power 4KV Bus 3 had the need arose.

A review of past LER's indicate that there has been no similar event within the past five years.

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CORRECTIVE ACTIONS

IMMEDIATE ACTIONS

1. All refueling operations were stopped and the mode switch returned to shutdown mode.

2. Plant Management has issued an interim memo which clarifies the normal and emergency DC supply for the diesels. This memo is derived from a review of the plant DC supply system and has concluded that the Batteries, and not the Chargers, are the normal and emergency supply for the Diesels. This memo has been added to the operator night orders.

SUBSEQUENT ACTIONS

1. Plant Management will investigate further clarifications necessary to avoid future misinterpretation of the Technical Specifications.

2. The above management clarification memo will be submitted to the training department and will be included in operator training.

VERMONT YANKEE NUCLEAR POWER CORPORATION

P. O. BOX 157
GOVERNOR HUNT ROAD
VERNON, VERMONT 05354

September 19, 1987

VYV 87-200

U.S. Nuclear Regulatory Commission
Document No. 50-271
Washington, D.C. 20555

REFERENCE: Operating License DPR-28
Docket No. 50-271
Reportable Occurrence No. LER 87-11.

Dear Sirs:

As defined by 10CFR50.73, we are reporting the attached Reportable Occurrence as LER 87-11.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

James P. Pelletier
Plant Manager

cc: Regional Administrator
USNRC Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

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