



# VERMONT YANKEE NUCLEAR POWER CORPORATION

SEVENTY SEVEN GROVE STREET

RUTLAND, VERMONT 05701

2.C.2.1

81-176

REPLY TO:

ENGINEERING OFFICE

1671 WORCESTER ROAD

FRAMINGHAM, MASSACHUSETTS 01701

TELEPHONE 617-872-8100



December 21, 1981

United States Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

References: a) License No. DPR-28 (Docket No. 50-271)  
b) USNRC Letter to VYNPC, dated July 20, 1981

Dear Sir:

Subject: Response to Information Request Regarding  
Station Blackout

The attached, completed questionnaires, regarding the reliability of the onsite diesel generators, are being submitted in response to the request contained in Reference (b).

We trust the information supplied is responsive to your request; however, should you desire additional information, do not hesitate to call.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

*E.W. Jackson*  
E.W. Jackson  
Manager of Operations

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TABLE 1  
 Diesel Generator Operations Data  
 Calendar Year 1976

Reason for DG Operation, & scheduled Duration of Run Tech. Spec Req'd Test	DG No.	Number of Starts	Number of Failures	Percent Loading of DG (KW)	Duration of Run Before Stop For Each DG Failure	Identification of Failure (Refer to attached LERs or Table 3)
Monthly Surveillance (8 hours) (1 Start/Test)	1A	12	0	83%		
	1B	12	1	83%	Trip on Start	LER 76-10
Once Per Cycle ECCS Test (< 1 hour) (1 Start/Test)	1A	1	0	As Required		
	1B	1	0	As Required		
DC Actual Demand Starts not for Testing	1A	2	0	As Required		
	1B	2	0	As Required		
1 Start on LNP 1 Start on False LoLo Rx Water Level During Surveillance	1A	24	0	83%		
	1B	25	0	83%		
Miscellaneous Tests (Specify Type) Test to Demonstrate Operability 1 Hour 1 Start/Test	1A	24	0	83%		
	1B	25	0	83%		



TABLE 1  
 Diesel Generator Operations Data  
 Calendar Year 19 78

Reason for DG Operation, & scheduled Duration of Run Tech. Spec Req'd Test	DG No.	Number of Starts	Number of Failures	Percent Loading of DG (KW)	Duration of Run Before Stop For Each DG Failure	Identification of Failure (Refer to attached LERs or Table 3)
Monthly Surveillance	1A	12	2	83%	7 hrs 44 min & trip on start	LER 78-2, Trip on start after annual maintenance during refueling shutdown-No LER.
8 Hours 1 Start/Test	1B	12	0	83%		
Once Per Cycle ECCS Test	1A	1	0	As Required		
1 Hour 1 Start/Test	1B	1	0	As Required		
DG Actual Demand Starts not for Testing						
LNP Start	1B	1	0	As Required		
Miscellaneous Tests (Specify Type)						
Test to Demonstrate Operability	1A	11	0	83%		
1 Hour 1 Start/Test	1B	9	0	83%		

TABLE I  
 Diesel Generator Operations Data  
 Calendar Year 19 79

Reason for DG Operation, & scheduled Duration of Run Tech. Spec Req'd Test	DG No.	Number of Starts	Number of Failures	Percent Loading of DG (KW)	Duration of Run Before Stop For Each DG Failure	Identification of Failure (Refer to attached LERs or Table J)
Monthly Surveillance 8 Hours 1 Start/Test	1A	12	0	83%		
	1B	12	0	83%		
ECCS Test < 1 Hour 1 Start/Test	1A	1	0	As Required		
	1B	1	0	As Required		
24 Hour Full Load Test 24 Hours 1 Start/Test	1A	1	0	100%		
	1B	1	0	100%		
DC Actual Demand Starts not for Testing LNP	1A	1	0	As Required		
	1B	1	0	As Required		
Miscellaneous Tests (Specify Type) Test to Demonstrate Operability 1 Hour 1 Start/Test	1A	12	0	83%		
	1B	11	0	83%		















TABLE 3

Diesel Generator Unscheduled Downtime Record  
 Calendar Year 19 76

Enclosure 1 - Page 3  
 Plant Name Vermont Yankee  
 Unit No. 1

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc	Repair/replace	
Abstract No. 5	.3				
Abstract No. 4	3				
LER 76-28	6.25				

TABLE 3

Diesel Generator Unscheduled Downtime Record  
Calendar Year 19 77

Enclosure 1 - Page 3  
Plant Name Vermont Yankee  
Unit No. 1

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc	Repair/replace	
Abstract No. 3	2.5				
Abstract No. 2	3.5				
LER 77-36	1.5				

TABLE 3

Diesel Generator Unscheduled Downtime Record  
Calendar Year 1978

Enclosure 1 - Page 3  
Plant Name Vermont Yankee  
Unit No. 1

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc.	Repair/replace	
Abstract No. 1	3				

TABLE 3

Diesel Generator Unscheduled Downtime Record  
Calendar Year 19 79

Enclosure 1 - Page 3  
Plant Name Vermont Yankee  
Unit No. 1

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Part Delivery, etc	Repair/replace	
NONE					

TABLE 3

Diesel Generator Unscheduled Downtime Record  
Calendar Year 19 80

Enclosure 1 - Page 3  
Plant Name Vermont Yankee  
Unit No. 1

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc.	Repair/replace	
NONE					



TABLE 4

Onsite Emergency Diesel Generator and  
Auxiliary Equipment Modification RecordEnclosure 1 - Page 4  
Plant Name Vermont Yankee  
Unit No. 1

Equipment or procedure modified	Date of Mod.	Reason for Modification and Desired Improvement	Description of Modification
1A Diesel Generator Room Inlet Damper	10/14/80	To change the damper to fail open on loss of air or power.	Relocation of the inlet damper operating piston to provide fail open feature
Diesel Lube Oil Temperature Indicator	10/20/80	Provide improved lube oil temperature indication.	Relocate lube oil temperature indicators.
Fan Damper Control Switch	1/16/80	To prevent governor malfunction due to low room temperatures.	Add a thermostat to the diesel room fans so they shut off on low room temperature.
Diesel Generator Voltage Regulator	10/6/79	Insure the auto and manual voltage regulator reostats are set to provide sufficient excitation.	Change the reostat indicating lights to illuminate when within the required setting to maintain diesel generator voltage within the normal operating range.
Diesel Generator Field Flashing Power Supply	2/7/76	Upgrade the field flashing power supply to safety grade.	Change the field flashing power supply to the station batteries.