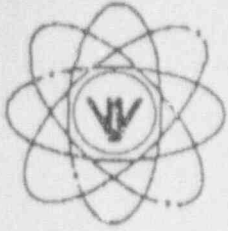


VERMONT YANKEE NUCLEAR POWER CORPORATION



Ferry Road, Brattleboro, VT 05301-7002

BYY 92-074

REPLY TO

ENGINEERING OFFICE

580 MAIN STREET

BOLTON, MA 01740

(508) 779-6711

June 29, 1992

United States Nuclear Regulatory Commission
Regional I
475 Allendale Road
King of Prussia, PA 19406

Attn: Regional Administrator

References: a) License No. DPR-28 (Docket No. 50-271)
b) NRC Memorandum from T.E. Murley, Director, Office of Nuclear Reactor Regulation, "Temporary Waivers of Compliance", dated 2/22/90

Dear Sir:

Subject: Request for Temporary Waiver of Compliance from Technical Specification LCO Requirements Pertaining to Emergency Diesel Generator

The purpose of this letter is to document our request, in accordance with the guidance provided in Reference b), for a temporary waiver of compliance from Technical Specification LCO requirements for Emergency Diesel Generator operability.

1. Requirements to be Waived:

Vermont Yankee Technical Specification 3.5.H.1 states:

During any period when one of the standby diesel generators is inoperable, continued reactor operation is permissible only during the succeeding seven days, provided that all of the Low Pressure Core Cooling and Containment Cooling Subsystems connecting to the operable diesel generator shall be operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

Vermont Yankee is requesting relief from the 7-day Limiting Condition for Operation of Section 3.5.H.1 for a period of 48 additional hours with an emergency diesel generator (EDG) inoperable. The waiver would extend the available time to replace engine components and thoroughly test the unit prior to a return to operable status.

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2. Discussion of Circumstances

The "A" Emergency Diesel Generator was declared inoperable on June 23, 1992 at 0457 a.m. During a routine monthly EDG surveillance, the engine tripped approximately 90 minutes into its scheduled 8-hour run from low jacket cooling system pressure.

Due to extensive rework earlier in June to troubleshoot and replace two cylinder liners, leaking cylinder adapters were considered suspect. After an investigation of torque values for adapters, lapping of cylinder liner sealing surfaces and installation of new gaskets, hydro tests of the jacket cooling system failed repeatedly. At this point, cylinder integrity was suspect and it was found that the #10 cylinder was leaking. A crack was discovered that originates in the threaded adapter connection in the cylinder liner.

Vermont Yankee determined that the most conservative approach to the repair of this diesel engine was to replace eleven of the twelve cylinder liners with new improved liners. The twelfth liner in cylinder #3 was replaced a month ago.

3. Compensatory Actions

As required by Technical Specifications, the alternate EDG was satisfactorily tested and all of the Low Pressure Core Cooling and Containment Cooling Subsystems connected to this operable EDG were verified as operable. Additionally, the Vernon Hydro Station was notified of this situation and the dedicated tie-line to Vermont Yankee was verified as being available. The Station Manager concurred with our request not to do anything that would jeopardize the tie-line availability as well as to notify Vermont Yankee of any change in the tie-line status.

It should be noted that use of the Vernon tie-line is addressed in operating procedures and operators are trained in its use.

A thorough review of all planned surveillance activities was conducted and only those determined to be of low risk will be allowed. Based upon the short duration of this request, additional alternate testing of the "B" EDG and its subsystems was considered, and determined not to be necessary.

4. Safety Significance and Potential Consequences

The proposed 48 hour extension has no impact on the consequences of any previously analyzed event if off-site power remains available. The alternate EDG was tested for operability prior to requesting the 48 hour extension period. This gives assurance that the available EDG would function, if required. In addition, the Vernon tie-line, which has historically demonstrated a very high reliability, is available to supply power to the emergency bus. The requirements of the Technical Specifications also require that during the LCO period, all remaining Low Pressure Core Cooling and Containment Cooling systems connected to the operable EDG will remain operable. The proposed extension would allow the "A" EDG to remain inoperable for 48 additional hours. Any accident which could occur during this 48 hour period could have occurred in the previous seven-day period also. Therefore, the proposed change does not significantly increase the probability of an accident. Since this is an extension of only 48 hours, the increased risk associated with an accident during this period is not significant.

5. Duration of Request

The proposed waiver of compliance is for approval of reactor operation for up to nine (9) days with the EDG inoperable. The current Vermont Yankee Technical Specifications allow reactor operation for seven (7) days with the EDG inoperable. Vermont Yankee believes that the additional 48 hours will provide sufficient margin to repair and thoroughly test the EDG without compromising the continued safe operation of the plant. It should be noted that a significant portion of the extra LCO time would be for "run-in" of the new components and operability testing. The EDG would be available during this period, but not considered operable.

Following approximately nine (9) hours of continuous operation at 70, 75, 87.5 and 100% load, it is our intent to allow the EDG to cooldown for a minimum of twelve (12) hours. The return of the "A" EDG to operable status would then occur after a successful eight (8) hour operability run. Following restoration of the "A" diesel generator to operable status it is our intent to conduct an additional surveillance test of the "A" diesel generator within one week. This testing would be conducted with careful monitoring of key diesel engine parameters to further substantiate satisfactory operation. Additionally, if any significant, related problems are discovered during these test periods, such that the jacket cooling system problems do not appear to be corrected, an orderly shutdown of the plant would be initiated.

The "B" EDG will also be tested for eight hours, after declaring the "A" EDG operable, per the normal monthly surveillance procedure.

6. Significant Hazards Consideration

Vermont Yankee has concluded that the request does not involve a significant hazards consideration in that the request would not:

- (i) involve a significant increase in the probability or consequences of an accident previously evaluated. As discussed in section 4, a 48 hour extension to an already existing seven (7) day Limiting Condition for Operation would involve an insignificant increase in the probability of occurrence and consequences of a design basis accident during the extension period.
- (ii) create the possibility of a new or different kind of accident from those previously evaluated. The proposed change can have no impact on the possibility of a new or different initiating event. Any previously analyzed event postulated during the 48 hour extension period can be mitigated by the systems powered by the Vernon tie-line.
- (iii) involve a significant reduction in the margin of safety. As discussed above, approval of this request involves an insignificant reduction in the margin of safety because of the availability of other plant electrical systems and the short duration of the extension period.

In summary, the waiver of compliance would provide approval of reactor operation for up to an additional 48 hours with the "A" EDG inoperable. The waiver of compliance would extend the existing Technical Specification LCO through July 2, 1992 at 0457 am. The waiver of compliance will allow an additional 48 hours to repair components and thoroughly test the EDG prior to returning it to service.

The Vermont Yankee Plant Operations Review Committee (PORC) and Nuclear Safety Audit and Review Committee (NSARC) have reviewed this request for a temporary waiver of compliance and concur with the determinations presented.

7. Environmental Consequences

No environmental consequences will result from approval of this request.

8. Notification of State

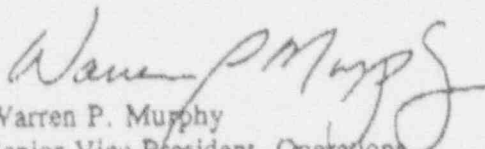
Vermont Yankee has notified the State of Vermont of the content of this request and has forwarded a copy of this document to the Vermont State Nuclear Engineer.

It is our understanding that this request for a 48 hour temporary waiver of compliance has been authorized by telecon on June 29, 1992 by James C. Linville (USNRC) to Donald A. Reid (VYNPC).

We trust that the information provided adequately supports our request; however should you have any questions regarding this matter, please contact this office.

Very truly yours,

Vermont Yankee Nuclear Power Corporation


Warren P. Murphy
Senior Vice President, Operations

WFM/dtr

cc: USNRC Document Control Desk
USNRC Director, NRR
USNRC Director, Reactor Projects, NRR
USNRC Director, Office of Enforcement
USNRC Technical Assistant, Reactor Projects, NRR
USNRC Resident Inspector, VYNPS
USNRC Project Manager, VYNPS
VT Department of Public Service