

# VERMONT YANKEE NUCLEAR POWER CORPORATION

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WVY 79-94  
PC-81-1

REPLY TO:  
ENGINEERING OFFICE  
TURNPIKE ROAD  
WESTBORO, MASSACHUSETTS 01581  
TELEPHONE 617-366-9011

August 27, 1979

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

Attention: Office of Nuclear Reactor Regulation  
T. A. Ippolito, Chief  
Operating Reactors Branch No. 3  
Division of Operating Reactors

References: (a) License No. DPR-28 (Docket No. 50-271)  
(b) General Electric Licensing Topical Report NEDO-21778-A;  
"Transient Pressure Rises Affecting Fracture Toughness  
Requirements for Boiling Water Reactors", December, 1978.

Dear Sir:

Subject: Reactor Vessel Pressure/Temperature Limitations

Pursuant to Section 50.59 of the Commission's Rules and Regulations, Vermont Yankee Nuclear Power Corporation hereby proposes the following modifications to Appendix A of the Operating License.

## PROPOSED CHANGE:

A change is proposed to Figure 3.6.1 (Reactor Vessel Pressure Temperature Limitations for operation through  $1.3 \times 10^8$  MWH(t)) of the Vermont Yankee Technical Specifications.

The change, included as an attachment to this letter, depicts the revised allowable heatup curves for reactor operation.

## BASIS FOR CHANGE:

The basis for this change is provided in Reference (b) which concluded that the probability of a water solid pressure transient concurrent with a control rod drop accident is sufficiently low such that current vessel pressure-temperature criticality limits may be lowered to allow heat up with nuclear heat.

The attached Figure 3.6.1 thus reflects this change. The criticality curves shown are merely a continuation of the existing curves and are based on Reference (b) and that part of the proposed revision to 10CFR50, Appendix G which requires that the vessel temperature always be 40°F above the AMSE Code, Appendix G calculated curves during criticality.

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REASON FOR CHANGE:

NRC approval of this change will permit the use of nuclear heat at lower temperatures. This can decrease both vessel heatup time during startup and heatup time to reach the temperature needed for operational hydrostatic leak tests, thereby improving plant availability.

SAFETY CONSIDERATIONS:

This Technical Specification change is based on the information contained in NEDO-21778-A, Reference (b); i.e., that this change is acceptable based on the low probability of a water solid pressure transient and the negligible effect of lowering the criticality limits.

One positive aspect of the proposed lowering of the criticality limits is the reduction in time spent at temperatures where fracture is of concern. Such a reduction of time spent in this region would imply less change of occurrence of a maintenance or testing operation that might inadvertently flood up and pressurize the vessel.

This submittal has been reviewed by the Vermont Yankee Nuclear Safety Audit and Review Committee.

FEE DETERMINATION:

This proposed change requires an approval that involves a single safety issue and is deemed not to involve a significant hazards consideration. For these reasons, Vermont Yankee Nuclear Power Corporation proposes this change as a Class III Amendment. A payment of \$4,000.00 is enclosed.

Vermont Yankee believes that the NRC revised fee schedule is illegal. We are aware that this fee schedule is being contested before the U.S. Court of Appeals for the Fifth Circuit and therefore submit the enclosed fee under protest without waiving its right to contest the validity of this fee or the entire NRC fee schedule, and without waiving any right to recover, in whole or in part, all fees paid or to be paid under the invalid fee schedule.

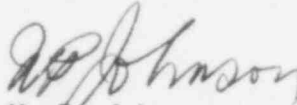
SCHEDULE OF CHANGE:

The proposed change will be incorporated in to the Technical Specifications as soon as possible following receipt of your approval.

We trust this submittal is acceptable to you; however, should you have any questions, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION



W. E. Johnson  
Vice President

dmp

Attachment

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COMMONWEALTH OF MASSACHUSETTS)

) ss.

COUNTY OF WORCESTER )

Then personally appeared before me, W. P. Johnson, who, being duly sworn, did state that he is Vice President of Vermont Yankee Nuclear Power Corporation, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Vermont Yankee Nuclear Power Corporation, and that the statements therein are true to the best of his knowledge and belief.



Robert H. Groce                      Notary Public  
My Commission Expires September 14, 1984

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Figure 3.6.1  
 Reactor Vessel Pressure  
 Temperature Limitations  
 for Operation Through  $1.3 \times 10^8$  MWH(t)  
 $RT_{NDT}$  @  $1/4t = +70^\circ\text{F}$  @  $3/4t = +65^\circ\text{F}$

