

Mr. Donald A. Reid  
Vice President, Operations  
Vermont Yankee Nuclear Power Corporation  
Ferry Road  
Brattleboro, VT 05301

November 5, 1996

SUBJECT: SAFETY EVALUATION OF THE POWER/FLOW EXCLUSION REGION CALCULATION METHOD USING THE LAPUR5 COMPUTER CODE AND IMPLEMENTATION OF THE SOLOMON STABILITY MONITOR FOR VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. M94207)

Dear Mr. Reid:

By letter dated October 31, 1995, as supplemented on November 3, 1995, Vermont Yankee Nuclear Power Corporation submitted a validation report, YAEC-1926, "Method for Power/Flow Exclusion Region Calculation Using the LAPUR5 Computer Code," which is Yankee Atomic Electric Company's application of Boiling Water Reactor Owners Group (BWROG) stability exclusion region methodology for implementation of long-term solution Option 1-D at Vermont Yankee Nuclear Power Station (VYNPS). As discussed in the enclosed safety evaluation (SE), the NRC staff finds that (1) the proposed method for power/flow exclusion region calculation using the LAPUR5 computer code, and (2) the VYNPS implementation of the SOLOMON stability monitor are acceptable. The NRC staff's SE is based, in part, on the attached technical evaluation report (TER) by Oak Ridge National Laboratory.

Prior to incorporating a power/flow exclusion region calculated by this methodology into the plant Core Operating Limits Report, this approved methodology should be referenced in the plant Technical Specifications.

Sincerely,

ORIGINAL SIGNED BY:

C. Craig Harbuck, Acting Senior Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure: Safety Evaluation  
w/attached TER

cc: See next page

DISTRIBUTION:

Docket File	JZwolinski	OGC	RJones
PUBLIC	SBajwa	ACRS	
PDI-1 Reading	SLittle	LDoerflein, RGN-I	
SVarga	CHarbuck	THuang	

DFC 1/1

DOCUMENT NAME: G:\VERMONT\VY94207.LTR

**NRC FILE CENTER COPY**

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	PM:PDI-1	E	LA:PDI-1	D:PDI-1	BC:SRXB	N
NAME	CHarbuck:rsi		SLittle	SBajwa	RJones	
DATE	10/28/96		10/31/96	10/31/96	11/05/96	10/ /96

9611080207 961105  
PDR ADOCK 05000271  
P PDR

cial Record Copy



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 5, 1996

Mr. Donald A. Reid  
Vice President, Operations  
Vermont Yankee Nuclear Power Corporation  
Ferry Road  
Brattleboro, VT 05301

SUBJECT: SAFETY EVALUATION OF THE POWER/FLOW EXCLUSION REGION CALCULATION METHOD USING THE LAPUR5 COMPUTER CODE AND IMPLEMENTATION OF THE SOLOMON STABILITY MONITOR FOR VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. M94207)

Dear Mr. Reid:

By letter dated October 31, 1995, as supplemented on November 3, 1995, Vermont Yankee Nuclear Power Corporation submitted a validation report, YAEC-1926, "Method for Power/Flow Exclusion Region Calculation Using the LAPUR5 Computer Code," which is Yankee Atomic Electric Company's application of Boiling Water Reactor Owners Group (BWROG) stability exclusion region methodology for implementation of long-term solution Option 1-D at Vermont Yankee Nuclear Power Station (VYNPS). As discussed in the enclosed safety evaluation (SE), the NRC staff finds that (1) the proposed method for power/flow exclusion region calculation using the LAPUR5 computer code, and (2) the VYNPS implementation of the SOLOMON stability monitor are acceptable. The NRC staff's SE is based, in part, on the attached technical evaluation report (TER) by Oak Ridge National Laboratory.

Prior to incorporating a power/flow exclusion region calculated by this methodology into the plant Core Operating Limits Report, this approved methodology should be referenced in the plant Technical Specifications.

Sincerely,

C. Craig Harbuck, Acting Senior Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure: Safety Evaluation  
w/attached TER

cc: See next page

D. Reid  
Vermont Yankee Nuclear Power  
Corporation

Vermont Yankee Nuclear Power Station

cc:

Regional Administrator, Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

G. Dana Bisbee, Esq.  
Deputy Attorney General  
33 Capitol Street  
Concord, NH 03301-6937

R. K. Gad, III  
Ropes & Gray  
One International Place  
Boston, MA 02110-2624

Resident Inspector  
Vermont Yankee Nuclear Power Station  
U.S. Nuclear Regulatory Commission  
P.O. Box 176  
Vernon, VT 05354

Mr. Richard P. Sedano, Commissioner  
Vermont Department of Public Service  
120 State Street, 3rd Floor  
Montpelier, VT 05602

Chief, Safety Unit  
Office of the Attorney General  
One Ashburton Place, 19th Floor  
Boston, MA 02108

Public Service Board  
State of Vermont  
120 State Street  
Montpelier, VT 05602

Mr. David Rodham, Director  
ATTN: James Muckerheide  
Massachusetts Civil Defense Agency  
400 Worcester Rd.  
P.O. Box 1496  
Framingham, MA 01701-0317

Chairman, Board of Selectmen  
Town of Vernon  
P.O. Box 116  
Vernon, VT 05354-0116

Mr. Raymond N. McCandless  
Vermont Division of Occupational  
and Radiological Health  
Administration Building  
Montpelier, VT 05602

Mr. Jay Thayer, Vice President  
Vermont Yankee Nuclear Power  
Corporation  
Ferry Road  
Brattleboro, VT 05301

Mr. J. J. Duffy  
Licensing Engineer  
Vermont Yankee Nuclear Power  
Corporation  
580 Main Street  
Bolton, MA 01740-1398

Mr. Robert J. Wanczyk, Plant Manager  
Vermont Yankee Nuclear Power Station  
P.O. Box 157, Governor Hunt Road  
Vernon, VT 05354

Mr. Ross B. Barkhurst, President  
Vermont Yankee Nuclear Power Corporation  
Ferry Road  
Brattleboro, VT 05301