

# VERMONT YANKEE NUCLEAR POWER CORPORATION



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

FVY 86-19

REPLY TO:

ENGINEERING OFFICE

1671 WORCESTER ROAD

FRAMINGHAM, MASSACHUSETTS 01701

TELEPHONE 617-872-8100

March 10, 1986

United States Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Office of Nuclear Reactor Regulation  
Mr. Vernon L. Rooney, Project Manager  
BWR Project Directorate No. 2  
Division of BWR Licensing

References: (a) License No. DPR-28 (Docket No. 50-271)  
(b) Letter, USNRC to VYNPC, NVY 83-23, Generic Letter 83-08,  
dated February 2, 1983  
(c) Letter, VYNPC to USNRC, FVY 83-36, dated May 11, 1983  
(d) Letter, USNRC to VYNPC, NVY 86-10, dated January 17, 1986

Subject: Modifications of Vacuum Breakers on Mark 1 Containments  
(Generic Letter 83-08)

Dear Sir:

By letter dated January 17, 1983 (Reference (d)), you requested additional information related to the Vermont Yankee torus-to-drywell vacuum breaker modification in order to complete your review initiated under Generic Letter 83-08 (Reference (b)). In response to your request, attached please find the information requested in the enclosure to your letter.

We trust this information is satisfactory; however, should you have any questions or require additional information, please contact this office.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

R. W. Capstick  
Licensing Engineer

RWC/no

Attachment

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PDR ADOCK 05000271  
P PDR

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Response to NRC Request for Additional Information Related to the Modification of Vacuum Breakers on Mark I Containment at Vermont Yankee Nuclear Power Station.

Question 1: Is the chugging source rate used in the Vermont Yankee evaluation the same as the one developed in CDI Report (#84-3)? If not the same, provide the chugging source rate with the supporting justification.

Answer: Yes. The methodology followed in CDI Report Number 84-3 (Reference 1) is identical to the methodology used in the Vermont Yankee evaluation (Reference 2 - attached) and detailed in response to NRC Question Number 5 in Reference 3.

Question 2: Did the Vermont Yankee calculation apply the 1.07 load factor to account for the uncertainty in calculating the underpressure (Section IV of the staff's generic evaluation).

Answer: A load factor, used to assure conservative prediction of the underpressure and detailed in response to NRC Question 2 in Reference 3, was applied to the Vermont Yankee evaluation (Reference 2). In fact, the load factor used in the plant unique evaluation was 1.06 and yields a conservative prediction of the underpressure.

Question 3: Have the Vermont Yankee calculations used the drywell model which results in the most conservative prediction (Section V of the generic evaluation)?

Answer: Yes. Drywell modeling was examined in response to NRC Question 6 in Reference 3. For the Vermont Yankee evaluation (Reference 2), the capacitance model results in a more conservative forcing function, and was therefore used.

REFERENCES

1. "Mark I Wetwell to Drywell Vacuum Breaker Load Methodology, Revision 0," Continuum Dynamics, Inc., Report Number 84-3, February 1984.
2. "Mark I Wetwell to Drywell Differential Pressure Load and Vacuum Breaker Response for the Vermont Yankee Generation Station, Revision 0," Continuum Dynamics, Inc., Technical Note Number 84-24, January 1985
3. "Response to NRC Request for Additional Information on Mark I Containment Program Wetwell to Drywell Vacuum Breaker Load Methodology, Revision 0," Continuum Dynamics, Inc. Technical Note Number 84-11, October 1984