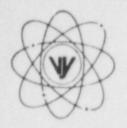
VERMONT YANKEE NUCLEAR POWER CORPORATION



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

FVY 87-64

REPLYTO

ENGINEERING OFFICE

1671 WORCESTER ROAD FRAMINGHAM, MASSACHUSETTS 01701 TELEPHONE 617-872-8100

June 11, 1987

U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Attn:

Office of Nuclear Reactor Regulation

Dr. Thomas E. Murley

References:

- a) License No. DPR-28 (Docket No. 50-271)
- Letter, USNRC to All Holders of Operating Licenses, NVY 87-47, dated 3/13/87

Dear Sir:

Subject:

Response to Generic Letter 87-06, Periodic Verification of Leak-Tight Integrity of Pressure Isolation Valves

By Generic Letter 87-06, dated March 13, 1987 [Reference b)], Vermont Yankee was requested to submit a list of all Pressure Isolation Valves (PIVs) at the plant and describe the periodic tests or other measures performed to assure the integrity of each valve as an independent barrier at the Reactor Coolant Pressure Boundary (RCPB), including applicable acceptance criteria for leakage, operational limits, and frequency of test performance. Accordingly, Vermont Yankee herein responds to the subject Generic Letter request pursuant to 10CFR50.54(f).

Vermont Yankee has reviewed the primary high pressure reactor coolant piping systems (RCS) at the plant for PIV configurations as defined in Reference b), wherein PIVs are defined for each interface as any two valves in series within the RCPB which separate the RCS from an attached low pressure system. These valves are normally closed during power operation. Enclosure 1 to this letter provides a list of those valves, consistent with current plant licensing commitments at Vermont Yankee, and summarizes the periodic tests performed for each and/or other features which assure pressure boundary integrity.

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We trust that the above information adequately addresses your request; however, should you have questions or desire additional information, please do not hesitate to contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Warren F. Murphy Vice President and

Manager of Operations

/dm

STATE OF VERMONT)

)ss

HOTARY

PUBLIC

WINDHAM COUNTY)

Then personally appeared before me, Warren P. Murphy, who, being duly swo , did state that he is Vice President and Manager of Operations of Vermont Yar ee Nuclear Power Corporation, that he is duly authorized to execute and file the foregoing document in the name and on the behalf of Vermont Yankee Nuclear lower Corporation and that the statements therein are true to the best of his knowledge and belief.

Diane M. McCue

Notary Public

My Commission Expires February 10, 1991

Pressure Isolation Valve	Valve Type	Service	Test	Other Features
MOV-10-18	Ga te	RHR Shutdown Cooling Isolation (Inboard)/ Primary Containment Isolation	Value presently exempted from leak testing per Technical Specification, Section 4.7.2. Value cannot be exercised during power operation since there is a 100 psig interlock that prevents opening during power operation. Value is exercised during cold shutdowns and refueling outages in accordance with ISI Program.	High downstream pressure (100 psi) annunciated in Control Room, thus providing continuous monitoring for leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.
MOV-10-17	6a te	RHR Shutdown Cooling Isolation (Outboard)/ Primary Containment Isolation	Valve presently exempted from leak testing per Technical Specification, Section 4.7.2. Valve cannot be exercised during power operation since there is a 100 psig interlock that prevents opening during power operation. Valve is exercised during cold shutdowns and refueling outages in accordance with ISI Program.	High downstream pressure (100 psi) annunciated in Control Room, thus providing continuous monitoring for leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.
V10-46A	Check	RHR (LPCI "A" Loop Injection (Inboard)	Valve cannot be manually exercised during operation because it is inside containment. Exercising by system flow is not	A pressure gauge is installed on a drain line located between the check valve and downstream MOV which will provide an indication of check valve

leakage and is checked during monthly

RHR MOV testing.

because pump discharge head can-

not overcome reactor pressure. Valve manually full stroke exercised during shutdowns when

possible during power operation

drywell is accessible and during

refueling outages in accordance

with ISI Frogram.

ENCLOSURE 1 (Continued)

Pressure Isolation Valve	Valve Type	Service	Test Requirements	Other Features
MOV-10-27A	Globe	RHR (LPCI) "A" Loop Injection (Outboard)	Valve exercised monthly per Technical Specification, Section 4.5.A.1. Stroke time measured quarterly in accordance with ISI Program. (This testing would also detect a stuck open/ gross leakage condition of the upstream check valve.)	High downstream pressure annunciated in Control Room thus providing continuous monitoring of leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.
V10-46B	Check	RHR (LPCI) "B" Loop Injection (Inboard)	Valve cannot be manually exercised during operation because it is inside containment. Exercising by system flow is not possible during power operation because pump discharge head cannot overcome reactor pressure. Valve manually full stroke exercised during shutdowns when drywell is accessible and during refueling outages, in accordance with ISI Program.	A pressure gauge is installed on a drain line located between the check valve and downstream MOV which will provide an indication of check valve leakage and is checked during monthly RHR MOV testing.
MOV-10-27B	Globe	RHR (LPCI) "B" Loop Injection (Outboard)	Valve exercised monthly per Technical Specification. Section 4.5.A.1. Stroke time measured quarterly in accordance with ISI Program. (This testing would also detect a stuck open/ gross leakage condition of the upstream check valve.	High downstream pressure annunciated in Control Room thus providing continuous monitoring of leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.

ENCLOSURE 1 (Continued)

Pressure Isolation Valve	Valve Type	Service	Test Requirements	Other Features
V14-13A	Check	Core Spray "A" Loop Injection (Inboard)	Valve cannot be manually exercised during operation because it is inside containment. Exercising by system flow is not possible during power operation because pump discharge head cannot overcome reactor pressure. Valve manually full stroke exercised during shutdowns when drywell is accessible and during refueling outages in accordance with ISI Program.	
MOV-14-12A	Gate	Core Spray "A" Loop Injection (Outboard)	Valve exercised monthly per Technical Specification, Section 4.5.A.1. Stroke time measured quarterly in accordance with ISI Program. (This testing would also detect a stuck open/ gross leakage condition of the upstream check valve.	High downstream pressure annunciated in Control Room thus providing continuous monitoring for leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.
V14-13B	Check	Core Spray "B" Loop Injection (Inboard)	Valve cannot be manually exercised during operation because it is inside containment. Exercising by system flow is not possible during power operation because pump discharge head cannot overcome reactor pressure. Valve manually full stroke exercised during shutdowns when drywell is accessible and during refueling outages in accordance with ISI Program.	

ENCLOSURE 1 (Continued)

Pressure Isolation Valve	Valve Type	Service	Test Requirements	Other Features
MOV-14-12B	Gate	Core Spray "B" Loop Injection (Outboard)	Valve exercised monthly per Technical Specification, Section 4.5.A.1. Stroke time measured quarterly in accordance with ISI Program. (This testing would also detect a stuck open/ gross leakage condition of the upstream check valve.)	High downstrem pressure annunciated in Control Room thus providing continuous monitoring for leakage at this pressure boundary. Pressure relief valve provided downstream, tail pipe flow also detectable during normal surveillance.
MOV-2-74	Gate	Main Streamline Drains (Inboard)	Valve Type C leak rate tested in accordance with Appendix J (Technical Specification, Section 4.7.2).	
MOV-2-77	Gate	Main Streamline Drains (Outboard)	Valve Type C leak rate tested in accordance with Appendix J (Technical Specification, Section 4.7.2).	
FCV-2-39	Globe	Recirculating Loop Sample (Inboard)	Valve Type C leak rate tested in accordance with Appendix J (Technical Specification, Section 4.7.2).	
FCV-2-40	Gate	Recirculating Loop Sample Outboard	Valve Type C leak rate tested in accordance with Appendix J (Technical Specification, Section 4.7.2).	

NOTE:

Pairs of isolation valves, both of which are inside containment, in vent and drain lines open to containment atmosphere are interpreted to be outside the scope of Generic Letter 87-06 and, therefore, have not been included.