UNITED STATES

NUCLEAR REGULATORY COMMISSION

In the Matter of )
Niagara Mohawk Power Corporation )
(Nine Mile Point Unit 2) )

Docket No. 50-410

APPLICATION FOR EXEMPTION
FROM CERTAIN REQUIREMENTS
OF
10 CFR 50 APPENDIX A

Pursuant to Section 50.12 of the Commission's Regulations (10 CFR 50.12), Niagara Mohawk Power Corporation, holder of a facility construction permit authorizing the construction of the Nine Mile Point Nuclear Station Unit 2 (Docket No. 50-410), hereby makes application for exemption from certain provisions of 10 CFR 50 Appendix A "General Design Criteria for Nuclear Power Plants." The specific exemptions requested are stated below. Justification demonstrating that the proposed exemption will not endanger life or property or the common defense and security and is otherwise in the public interest is included.

Appendix A of 10 CFR 50 requires under General Design Criterion 55 that a simple check valve may not be used as an outside isolation valve. Niagara Mohawk proposes to utilize two simple outside isolation check valves in the control rod drive hydraulics line to the reactor recirculation seal purge equipment. Niagara Mohawk Power Corporation hereby requests exemption from the design requirements set forth in 10 CFR 50 Appendix A for the isolation valves in the Control Rod Drive Hydraulic line to Reactor Recirculation Seal Purge equipment. The justification for this requested exemption is provided in Attachment A.

WHEREFORE, the Applicant respectfully requests that the proposed exemption to the requirements of 10 CFR 50 Appendix A for said isolation valves be granted.

NIAGARA MOHAWK POWER CORPORATION

By C. Mangan

Subscribed and sworn to before me on this 14th day of May 1985

Janis M. Macro
Notary Public

JANIS M. MACRO
Notary Public in the State of New York
Qualified in Onondaga County No. 4784555
My Commission Expires March 30, 1987

ATTACHMENT A

# Control Rod Drive Hydraulic Lines to the Reactor Recirculation Seal Purge Equipment

## System Description

The control rod hydraulic system supplies water to the recirculation system for purging of the pump seals. This water cleans and cools the seal area to ensure proper operation during normal plant conditions. Continued recirculation pump seal purge is necessary whenever reactor coolant temperature is above 200°F and the pump is not isolated. This prevents premature aging and possible damage to the pump seals due to high temperature. Figure 1 attached shows the isolation arrangement, consisting of three check valves in series in the 3/4" diameter piping. The check valves provide automatic containment isolation while permitting seal purge, if available. The check valves are designed such that they are held shut by a spring under no-flow conditions. This isolation valve arrangement for the seal purge line is similar to other BWR-5 plants.

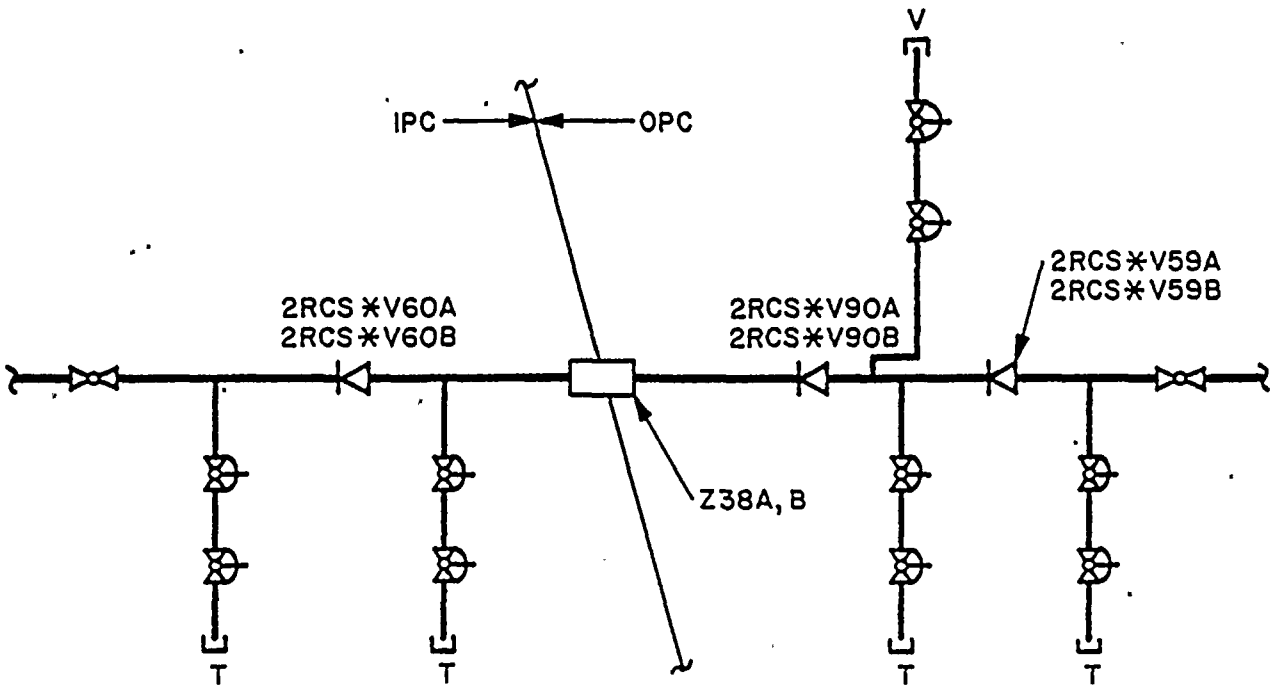
The system leakage boundary leak path does not directly communicate with the environment following a loss-of-coolant accident. The system leakage boundary piping/components are designed in accordance with Quality Group B standards as defined by Regulatory Guide 1.26. The system leakage boundary is designed to meet Seismic Category I design requirements. The system leakage boundary is designed to at least the primary containment pressure and temperature design conditions. The system leakage boundary is designed for protection against pipe whip, missiles and jet forces in a manner similar to that for engineered safety features. The system leakage boundary is continually pressurized to reactor pressure, and therefore system integrity is continually demonstrated during normal plant operations.

## Isolation and Testing Capabilities

General Design Criterion 55 of Appendix A to 10 CFR 50 requires that a simple check valve may not be used as an outside isolation valve. Niagara Mohawk proposes to utilize two simple outside isolation check valves (spring loaded to close) in the control rod drive hydraulic line to the reactor recirculation seal purge equipment. These isolation valves will be subject to periodic Type C leakage tests.

## Conclusion

These lines should, therefore, be exempted from the requirements of GDC55.




## Z-38A, 38B RDS TO RECIRCULATION PUMP SEALS

FIGURE 1