

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Mohawk 05000410
 AUTH. NAME: AUTHOR AFFILIATION
 MANGAN, C.V. Niagara Mohawk Power Corp.
 RECIP. NAME: RECIPIENT AFFILIATION
 BUTLER, W. Licensing Branch 2

SUBJECT: Forwards FSAR changes requested by Singh. Changes provided to close out SER Open Item 12 re alternate shutdown capability. Future amend of FSAR will incorporate changes.

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September 4, 1985
(NMP2L 0486)

Mr. Walter Butler, Chief
Licensing Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Butler:

Re: Nine Mile Point Unit 2
Docket No. 50-410

Enclosed are changes requested by Mr. Singh of your staff. The changes are provided to close out Safety Evaluation Report Open Item 12.

These changes will be incorporated into a future amendment of the Final Safety Analysis Report.

Very truly yours,

C. V. Mangan
C. V. Mangan
Senior Vice President

BB/r1a
Enclosure
0925G

xc: R. A. Gramm, NRC Resident Inspector
Project File (2)

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7.4 SYSTEMS REQUIRED FOR SAFE SHUTDOWN

7.4.1 Description

This section discusses the instrumentation and controls of the following systems which can be used for safe plant shutdown:

1. Reactor core isolation cooling system (RCIC).
2. Standby liquid control system (SLCS).
3. RHR shutdown cooling mode (RSCM).
4. Remote shutdown system (RSS).

The sources that supply power to the safe shutdown systems originate from onsite ac/dc safety-related buses. Refer to Chapter 8 for a complete discussion of the safety-related power sources.

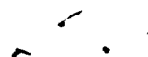
7.4.1.1 Reactor Core Isolation Cooling System

System Function The RCIC system is designed to assure that sufficient reactor water inventory is maintained in the reactor vessel thus assuring continuity of core cooling. Reactor vessel water is maintained or supplemented by the RCIC system during the following conditions:

1. When the reactor vessel is isolated and maintained in the hot standby condition.
2. When the reactor vessel is isolated and accompanied by a loss of normal coolant flow from the reactor feedwater system.
3. When a complete plant shutdown under conditions of loss of normal feedwater system is started before the reactor is depressurized to a level where the reactor shutdown cooling mode of the RHR system can be placed into operation.

System Operation

Schematic arrangements of system mechanical equipment and instrumentation and a description of system design and operation are provided in Section 5.4.6. The instrumentation specifications are listed in Table 7.4-1. The control logic is shown on Figure 7.4-1.



As shown on FSAR Figure 9B.4-2, the approach used for NMP2 is similar to that described above. The reactor is either manually or automatically scrammed. Then one of four trains are used to provide makeup water and decay heat removal. Either HPCS or RCIC is used for high pressure makeup. If a blowdown were to occur either through the ADS or relief valves, makeup would be provided using the lowpressure systems (LPCS or LPCI). Additionally, decay heat removal is provided by the RHR system.

In the event of a fire in the control room or relay room which forces evacuation of the control room, sufficient equipment to enable hot and cold shutdown is provided at the remote shutdown panels (FSAR Section 7.4) and through the use of local control. Viability of these circuits is assured by the use of transfer switches which electrically isolate the control room and transfer control to the local panels and the remote shutdown panels. Redundant and isolated fuses are provided (in the emergency switchgear rooms) to maintain the power source to these circuits.

12. The description of the systems or portions thereof used to provide the shutdown capability and modifications required to achieve alternate shutdown capability if required.

Response

Appendix 9B and Section 7.4 of the FSAR provide descriptions of the shutdown systems and modifications and alternate shutdown capability from the remote shutdown room.



High/Low Pressure Interfaces

<u>System Boundaries</u>	<u>Description</u>	<u>Resolution</u>
DER-Reactor Building Equipment Drain 2DER*MOV128	WCS Drain Valve	Note 1
MSS - Main Steam 2MSS*MOV112	Main Steam Drain	Note 1
2MSS*HYV6A,B,C,D	Main Steam Isolation	Note 3
2MSS*HYV7A,B,C,D	Main Steam Isolation	Note 3
RHS - Residual Heat Removal 2RHS*MOV22A,B	Steam Supply to RHS*E1	Note 1
2RHS*MOV80A,B	Steam Supply to RHS*E1	Note 1
2RHS*MOV113	Shutdown Cooling Suction	Note 1
2RHS*MOV67A,B	Shutdown Cooling Return	Note 1
2RHS*MOV32A,B	RHS*E1 Return to ICS	Note 1
WCS - Reactor Water Cleanup 2WCS-MOV106	Drain to Liquid Waste	Note 1
2WCS-MOV107	Drain to Main Condenser	Note 1
2WCS-AOV26A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV28A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV29A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV30A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV44A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV51A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV52A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV53A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV54A,B,C,D	Demineralizer Vent/Drain	Note 2
2WCS-AOV61A,B,C,D	Demineralizer Vent/Drain	Note 2

Notes:

- 1) At least one valve is de-energized and disconnected from power source (breaker open) during normal plant operation.
- 2) No single fire could cause sufficient spurious operations to violate the high/low pressure interface in this flow path since these valves are controlled from local panels which are located in a separate fire area from the control room.
- 3) These valves are normally open. In the event of a control room fire, as defined by the Appendix R criteria, they are closed by the operator and subsequently disconnected from their power source to ensure no spurious operation.

