

EXHIBIT A

MONTICELLO NUCLEAR GENERATING PLANT

License Amendment Request dated October 10, 1980

Proposed Changes to the Technical Specifications  
Appendix A of Operating License DPR-22

Pursuant to 10 CFR 50.59 and 50.90, the holders of Operating License DPR-22 hereby propose the following changes to Appendix A, Technical Specifications:

1. Page 34, Table 4.1.1, Scram Instrument Functional Tests

PROPOSED CHANGE

Change the minimum frequency from "Note 1" to "once each month" for the High Water Level in Scram Discharge.

REASON FOR CHANGE

Staff request (Reference 1)

SAFETY EVALUATION

Since this is only a change in surveillance frequency, this change should have no net effect on safety.

2. Page 58, Table 3.2.3 continued, Instrumentation that Initiates Rod Block

PROPOSED CHANGE

Add function 5 to be titled "Scram Discharge Volume" including an additional rod block, and associated conditions. The scram trip bypassed rod block was not added since it would be required to be operable under circumstances the plant is presently prevented from operating in.

REASON FOR CHANGE

Staff request (Reference 1)

SAFETY EVALUATION

This change will add scram discharge volume rod blocks to the Technical specifications. This change is only administrative in nature. The block set point of  $\leq 18$  gallons will provide adequate margin to the high level scram setpoint.

3. Page 61, Table 4.2.1, Minimum Test and Calibration Frequency For Core Cooling Rod Block and Isolation Instrumentation.

PROPOSED CHANGE

Add rod block, Number 9, testing and calibration frequency.

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REASON FOR CHANGE

Staff request (Reference 1)

SAFETY EVALUATION

This change will include surveillance already being done at the plant to the Technical Specifications and should have no net effect on safety.

4. Page 70, Bases for Section 3.2

PROPOSED CHANGE

Add Scram Discharge Volume instrument setpoint deviation of + 1 gallon.

REASON FOR CHANGE

Staff request (Reference 1)

SAFETY EVALUATION

This is the same deviation allowed for the Scram Discharge Volume Scram, page 41.

5. Pages 81 & 87, Control Rod System LCO's and associated bases

PROPOSED CHANGE

Re-letter paragraph "F" to be paragraph "G".

Add new paragraph F titled, "Scram Discharge Volume".

REASON FOR CHANGE

Staff request (Reference 1)

SAFETY EVALUATION

This change will verify proper operation of the scram discharge volume valves.

6. Page i, Table of Contents

Table of contents has been revised.

REFERENCES

1. Letter D G Eisenhut (NRC) to All Operating Boiling Water Reactors dated July 7, 1980.

EXHIBIT B

License Amendment Request dated October 10, 1980

Docket No. 50-263  
License No. DPR-22

Exhibit B consists of revised pages of Appendix A Technical Specifications as listed below:

Pages

i  
34  
58  
61  
70  
81  
81A (new page)  
87

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TABLE 4.1.1

SCRAM INSTRUMENT FUNCTIONAL TESTS

MINIMUM FUNCTIONAL TEST FREQUENCIES FOR SAFETY INSTRUMENTATION AND CONTROL CIRCUITS

<u>INSTRUMENT CHANNEL</u>	<u>GROUP*</u>	<u>FUNCTIONAL TEST</u>	<u>MINIMUM FREQUENCY (4)</u>
High Reactor Pressure	A	Trip Channel and Alarm	Note 1
High Drywell Pressure	A	Trip Channel and Alarm	Note 1
Low Reactor Water Level (2)	A	Trip Channel and Alarm	Note 1
High Water Level in Scram Discharge	A	Trip Channel and Alarm	Once each month
Condenser Low Vac	A	Trip Channel and Alarm	Note 1
Main Steam Line Isolation Valve Closure	A	Trip Channel and Alarm	Note 1
Turbine Stop Valve Closure	A	Trip Channel and Alarm	Note 1
Manual Scram	A	Trip Channel and Alarm	Note 1
Turbine Control Valve East Closure	A	Trip Channel and Alarm	Note 1
APRM/Flow Reference (5)	B	Trip Output Relays	Once each week
IRM (5)	C	Trip Channel and Alarm	Note 3
High Steam Line Rd (5)	B	Trip Channel and Alarm	Once each week
Mode Switch in Shutdown	C	Place mode switch in shutdown	Each refueling outage

Table 3.2.3 - Continued  
Instrumentation That Initiates Rod Block

Function	Trip Settings	Reactor Modes in Which Function Must Be Operable or Operating and Allowable Bypass Conditions**			Total No. of Instrument Channels per Trip system	Min. No. of Operable or Operating Instrument Channels Per Trip System (Notes 1,6)	Required Conditions*
		Refuel	Startup	Run			
4. <u>RBM</u>							
a. Upscale (flow referenced)	$<65W + 43$ (Note 2)			X(c)	1	1 (Note 5)	D or E
b. Downscale	$>3/125$ full			X(c)	1	1 (Note 5)	D or E
5. <u>Scram Discharge Volume</u>							
Water Level- High	$<18$ gal		X	X	1	1	B and D, or A

Notes:

- (1) There shall be two operable or operating trip systems for each function. If the minimum number of operable or operating instrument channels cannot be met for one of the two trip systems, this condition may exist up to seven days provided that during this time the operable system is functionally tested immediately and daily thereafter.
- (2) "W" is the reactor recirculation driving flow in percent.
- (3) Only one of the four SRM channels may be bypassed.
- (4) There must be at least one operable or operating IRM channel monitoring each core quadrant.
- (5) One of the two RBMs may be bypassed for maintenance and/or testing for periods not in excess of 24 hours in any 30 day period. An REM channel will be considered inoperable if there are less than half the total number of normal inputs from any LPRM level.

Table 4.2.1  
Minimum Test and Calibration Frequency For Core Cooling  
Rod Block and Isolation Instrumentation

Instrument Channel	Test (3)	Calibration (3)	Sensor Check (3)
<u>ECCS INSTRUMENTATION</u>			
1. Reactor Low-Low Water Level	Note 1	Once/3 months	Once/day
2. Drywell High Pressure	Note 1	Once/3 months	None
3. Reactor Low Pressure (Pump Start)	Note 1	Once/3 months	None
4. Reactor Low Pressure (Valve Permissive)	Note 1	Once/3 months	None
5. Undervoltage Emergency Bus	Refueling Outage	Refueling Outage	None
6. Low Pressure Core Cooling Pumps Discharge Pressure Interlock	Note 1	Once/3 months	None
7. Loss of Auxiliary Power	Refueling Outage	Refueling Outage	None
<u>ROD BLOCKS</u>			
1. APRM Downscale	Notes (1,5)	Once/3 months	None
2. APRM Flow Variable	Notes (1,5)	Once/3 months	None
3. IRM Upscale	Notes (2,5)	Note 2	Note 2
4. IRM Downscale	Notes (2,5)	Note 2	Note 2
5. RBM Upscale	Notes (1,5)	Once/3 months	None
6. RBM Downscale	Notes (1,5)	Once/3 months	None
7. SRM Upscale	Notes (2,5)	Note 2	Note 2
8. SRM Detector not in Start-up Position	Note 2	Note 2	Note 2
9. Scram Discharge Volume-High Level	Once/3 months	Refueling outage	None
<u>MAIN STEAM LINE ISOLATION</u>			
1. Steam Tunnel High Temperature	Refueling Outage	Refueling Outage	None
2. Steam Line High Flow	Note 1	Once/3 months	Once/day

Table 3.2.6 - Continued  
 Trip Function and Deviations

	Trip Function	Deviation
Instrumentation That Initiated Emergency Core Cooling Systems Table 3.2.2	Low-Low Reactor Water Level	-3 Inches
	Reactor Low Pressure (Pump Start) Permissive	-10 psi
	High Drywell Pressure	+1 psi
	Low Reactor Pressure (Valve Permissive)	-10 psi
Instrumentation That Initiates Rod Block Table 3.2.3	IRM Downscale	-2/125 of Scale
	IRM Upscale	+2/125 of Scale
	APRM Downscale	-2/125 of Scale
	APRM Upscale	See Basis 2.3 - Page 24
	RBM Downscale	-2/125 of Scale
	RBM Upscale Scram Discharge Volume-High Level	Same as APRM Upscale + 1 gallon
Instrumentation That Initiates Recirculation Pump Trip	High Reactor Pressure	+ 12 psi
	Low Reactor Water Level	-3 Inches

A violation of this specification is assumed to occur only when a device is knowingly set outside of the limiting trip settings, or, when a sufficient number of devices have been affected by any means such that the automatic function is incapable of operating within the allowable deviation while in a reactor mode in which the specified function must be operable or when actions specified are not initiated as specified.



### 3.0 LIMITING CONDITIONS FOR OPERATION

#### E. Reactivity Anomalies

At a specific steady state base condition of the reactor actual control rod inventory will be periodically compared to a normalized computed prediction of the inventory. If the difference exceeds one per cent,  $\Delta k$ , reactor power operation shall not be permitted until the cause has been evaluated and appropriate corrective action has been completed.

#### F. Scram Discharge Volume

The scram discharge volume drain and vent valves shall be operable whenever more than one operable control rod is withdrawn (not including rods removed per Specification 3.10.E or inoperable rods allowed by 3.3.A.2).

2. If the scram discharge volume drain or vent valve is made or found inoperable, at least all but one operable control rods (not including rods removed per Specification 3.10.E or inoperable rods allowed by 3.3.A.2) shall be fully inserted within ten hours.

3.3/4.3

### 4.0 SURVEILLANCE REQUIREMENTS

#### E. Reactivity Anomalies

During the startup test program and at each startup following refueling outages, the actual rod inventory shall be compared to a normalized computed prediction of the inventory. These comparisons will be used as base data for reactivity monitoring during subsequent power operation throughout the fuel cycle. At specific power operating conditions, the actual rod configuration will be compared to the configuration expected based upon appropriately corrected past data. This comparison will be made at least every equivalent full power month.

#### F. Scram Discharge Volume

1. The scram discharge volume drain and vent valves shall be verified open at least once per month. These valves may be closed intermittently for testing under administrative control.

During each refueling outage verify the scram discharge volume drain and vent valves,

- a. Close within 30 seconds after receipt of a reactor scram signal, and
- b. Open when the scram is reset

3.0 LIMITING CONDITONS FOR OPERATION

4.0 SURVEILLANCE REQUIREMENTS

G. Required Action

If Specifications 3.3.A through D above are not met, an orderly shutdown shall be initiated and have reactor in the cold shutdown condition within 24 hours.

3.3/4.3

81A  
REV

Bases Continued 3.3 and 4.3

Deviations beyond this magnitude would not be expected and would require thorough evaluation. One per cent reactivity limit is considered safe since an insertion of this reactivity into the core would not lead to transients exceeding design conditions of the reactor system.

As was noted above reactivity anomalies can be found by comparison of the actual control rod inventory to the predicted inventory at a selected base condition. For example, the predicted control rod inventory at 100% power at a specified point in time can be compared to the actual control rod inventory at 100% power and at the specified time to determine if a reactivity anomaly exists. The Monticello Plant has been designed to increase or decrease power level as the system load demand changes. For this type of plant an equilibrium condition of the variables important to making a control rod inventory prediction, specifically the reactivity effects of the xenon, is rarely achieved. The uncertainties of calculating the control rod inventory with no-equilibrium xenon conditions can result in errors which can be misconstrued as reactivity anomalies. Therefore, this specification calls for performing of rod inventory comparisons at a time when xenon will not be a source of error.

- F. The closure time of 30 seconds was based on a letter dated 7/25/80 to J G Keppler (Region III) from D E Gilberts (NSP) concerning IE Bulletin no. 80-14. Ten hours to insert the required rods will allow time to shutdown in a controlled manner without causing an undue rate of change of the discharge channel temperature.
- G. Whenever a specification (or specifications) cannot be met for a particular mode of operation, the reactor would be placed in a mode for which the specification (or specifications) are not required. This requires immediate initiation of a reactor shutdown upon discovery that specifications 3.3A through 3.3D are not met.