DOCKET NO. 50-245

ATTACHMENT

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1

PROPOSED TECHNICAL SPECIFICATION CHANGES

FOR SCRAM DISCHARGE VOLUME SYSTEM

OCTOBER, 1980

DESCRIPTION OF CHANGES AND SAFETY EVALUATION SUMMARY

The proposed changes include adding scram discharge volume (SDV) rod block functions and surveillance requirements for SDV vent and drain valves to the Technical Specifications. The two (2) conditions for initiation of control rod block that have been added to the Technical Specifications are for high water level in the SDV system and when the SDV scram trip is bypassed. The inclusion of the above SDV rod block functions in the Technical Specifications provides additional limiting conditions of operation. The proposed surveillance requirements will increase the reliability of the SDV system.

Pursuant to 10CFR50.59, these changes have been reviewed and it has been determined that they do not involve any unreviewed safety questions in that they do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment, create a possibility for a different type of accident or malfunction, or reduce the margin of safety as defined in the Technical Specifications.

TABLE 3.2.3

INSTRUMENTATION THAT INITIATES ROD BLOCK

Minimum Number of Operable Instrument Channels per Trip System(1)	Instrument	Trip Level Setting
2	APRM Upscale (Flow Biased)	See Specification 2.1.2B
2	APRM Downscale	$\geq$ 3/125 Full Scale
1 (6)	Rod Block Monitor Upscale (Flow Biased)	$\leq$ .65 w + 42 (2)
1 (6)	Rod Block Monitor Downscale	$\geq$ 3/125 Full Scale
3	IRM Downscale (3)	$\geq$ 3/125 Full Scale
3	IRM Upscale	$\leq$ 108/125 Full Scale
2	SRM Detector not in Startup Position	(4)
2 (5)	SRM Upscale	$\leq 10^5$ counts/sec.
1	Scram Discharge Volume - Water Level High	$\leq$ 18 gallons
1	Scram Discharge Volume - Scram Trip Bypassed	N/A

(1) For the Startup/Hot Standby and Run positions of the Reactor Mode Selector Switch, there shall be two operable or tripped trip systems for each function except the SRM rod blocks; IRM downscale are not operable in the RUN position and APRM downscale need not be operable in the Startup/Hot Standby mode. If the first column cannot be met for one of the two trip systems, this condition may exist for up to seven days provided that during that time the operable system is functionally tested immediately and daily thereafter; if this condition lasts longer than seven days, the system shall be tripped. If the first column cannot be met for both trip systems, the systems shall be tripped.

(2) W is the total core flow in percent of design (69 x 10^6 #/hr.). Trip level setting is in percent of full power.

(3) IRM downscale may be bypassed when it is on its lowest range.

(4) This function may be bypassed when the count rate is $\geq$ 100 cps or when all IRM range switches are above Position 2.

(5) One of these trips may be bypassed. The SRM function may be bypassed in the higher IRM ranges when the IRM upscale rod block is operable.

Table 3.2.3 Continued
Instrumentation That Initiates Rod Block

(6) The trip may be bypassed when the reactor power is $\leq$ 30% of rated. An RBM 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 INSTRUMENTATION ROD BLOCKS AND ISOLATIONS

Instrument Channel	Instrument Functional Test(2)	Calibration(2)	Instrument Check(2)
ECCS Instrumentation			
1. Reactor Low-Low Water Level	(1)	Once/3 Months	--
2. Drywell High Pressure	(1)	Once/3 Months	--
3. Reactor Low Pressure (Pump Start)	(1)	Once/3 Months	--
4. Reactor Low Pressure (Valve Permissive)	(1)	Once/3 Months	--
5. APR LP Core Cooling Pump Interlock	(1)	Once/3 Months	--
6. Containment Spray Interlock	(1)	Once/3 Months	--
7. Loss of Normal Power Relays	Refueling Outage	None	--
8. Power Available Relays	(1) (5)	None	--
9. Reactor High Pressure		Once/3 Months	--
Rod Blocks			
1. APRM Downscale	(1) (3)	Once/3 Months	(1)
2. APRM Flow Variable	(1) (3)	Once/3 Months	(1)
3. IRM Upscale	(6)	(6)	(6)
4. IRM Downscale	(6)	(6)	(6)
5. RBM Upscale	(1) (3)	Once/3 Months	(1)
6. RBM Downscale	(1) (3)	Once/3 Months	(1)
7. SRM Upscale	(6)	(6)	(6)
8. SRM Detector not in Startup Position	(6)	(6)	(6)
9. Scram Discharge Volume - Water Level High	Refueling Outage	Refueling Outage	--
10. Scram Discharge Volume - Scram Trip Bypassed	Refueling Outage	None	--
Main Steam Line Isolation			
1. Steam Tunnel High Temperature	Refueling Outage	Refueling Outage	--
2. Steam Line High Flow	(1)	Once/3 Months	Once/Day
3. Steam Line Low Pressure	(1) (3)	Refueling Outage	None
4. Steam Line High Radiation	(1) (3)	Once/3 Months(4)	Once/Day

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
5. During operation with limiting control rod patterns, as determined by the reactor engineer, either: a. Both RBM channels shall be operable; or b. Control rod withdrawal shall be blocked; or c. The operating power level shall be limited so that the MCPR will remain above 1.06 assuming a single error that results in complete withdrawal of any single operable control rod.	4. Prior to control rod withdrawal for startup or during refueling, verify that at least two source range channels have an observed count rate of at least three counts per second. 5. When a limiting control rod pattern exists, an instrument functional test of the RBM shall be performed prior to withdrawal of the designated rod(s) and daily thereafter.
C. Scram Insertion Times	C. Scram Insertion Times
1. The average scram insertion time, based on the deenergization of the scram pilot valve solenoids as time zero, of all operable control rods in the reactor power operation condition shall be no greater than: % Inserted From Fully Withdrawn / Average Scram Insertion Times (Sec.) 5 / 0.375 20 / 0.900 50 / 2.000 90 / 3.500	1. During each operating cycle, each operable control rod shall be subjected to scram time tests from the fully withdrawn position. If testing is not accomplished during reactor power operation, the measured scram insertion times shall be extrapolated to the reactor power operation condition utilizing previously determined correlations. 2. The scram discharge volume drain and vent valves shall be verified open at least once per month. 3. The following conditions of operability of the scram discharge volume drain and vent valves shall be verified at least once per operating cycle in accordance with Section 3.13, Inservice Inspection:

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
	a. Closing time after signal for control rods to scram and b. Verification of opening when scram signal is reset and when the scram discharge volume trip is bypassed.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT

2. The average of the scram insertion times for the three fastest control rods of all groups of four control rods in a two by two array shall be no greater than:

% Inserted From Fully Withdrawn	Average Scram Insertion Times (sec.)
5	0.398
20	0.954
50	2.120
90	3.800

3. a. The maximum scram insertion time for 90% insertion of any operable control rod shall not exceed 7.00 seconds.

   b. The scram discharge volume drain and vent valves will close in less than 30 seconds after receipt of a signal for control rods to scram.

D. Control Rod Accumulators

At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around this rod has a:

1. Inoperable accumulator.

2. Directional control valve electrically disarmed while in a non-fully inserted position.

3. Scram insertion greater than maximum permission insertion time.

D. Control Rod Accumulators

Once a shift, check the status in the control room of the pressure and level alarms for each accumulator.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
If a control rod with an inoperable accumulator is inserted "full-in" and its directional control valves are electrically disarmed, it shall not be considered to have an inoperable accumulator.	