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i

Amendment No.

3.3.C Scram Insertion Time

    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% Inserted From Fully Withdrawn	Avg. Scram Insertion Time Sec.
10	.58
30	1.35
50	2.12
90	5.30

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

D. Control Rod Accumulators

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

    1. Inoperable accumulator.

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

    3. Scram insertion time greater than the maximum permissible insertion time.

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.

4.3.C Scram Insertion Time

    2. At 16 week intervals, 50% of the control rod drives shall be tested as in 4.3.C.1 so that every 32 weeks all of the control rods shall have been tested. Whenever 50% of the control rod drives have been scram tested, an evaluation shall be made to provide reasonable assurance that proper control rod drive performance is being maintained.

D. Control Rod Accumulators

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

E. Reactivity Anomalies

The reactivity equivalent of
the difference between the
actual critical rod configur-
ation and the expected con-
figuration during power
operation shall not exceed 1%
ΔK. If this limit is exceed-
ed, the reactor will be shut
down until the cause has been
determined and corrective ac-
tions have been taken if such
actions are appropriate.

F. If Specifications 3.3.A
through D above cannot be met,
an orderly shutdown shall be
initiated and the reactor
shall be in the Cold Shutdown
condition within 24 hours.
Specifications 3.3.A through
D above do not apply when
there is no fuel in the
reactor vessel.

G. Scram Discharge Volume

1. The scram discharge
volume drain & vent
valves shall be operable
whenever more than one
operable control rod is
withdrawn.

2. If any of the scram dis-
charge volume drain or
vent valves are made or
found inoperable an
orderly shutdown shall be
initiated and the reactor
shall be in Cold Shutdown
within 24 hours.

E. Reactivity Anomalies

During the startup test program
and startups following refuel-
ing outages, the critical rod
configurations will be compared
to the expected configurations
at selected operating conditions.
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
critical rod configuration will
be compared to the configuration
expected based upon appropriately
corrected past data. This com-
parison will be made at least
every full power month.

·G. Scram Discharge Volume

1. The scram discharge volume
drain and vent valves shall
be verified open at least once
per month. Each valve shall
be cycled quarterly. These
valves may be closed intermit-
tently for testing under
administrative control.

2. 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.

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INSTRUMENTATION THAT INITIATES ROD BLOCKS

Minimum # of Operable Instrument Channels Per Trip Systems (1)	Instrument	Trip Level Setting
2	APRM Upscale (Flow Biased)	$(0.65W + 42) \left[\dfrac{FRP}{MFLPD} \right]$ (2)
2	APRM Downscale	2.5 indicated on scale
1 (7)	Rod Block Monitor (Flow Biased)	$(0.65W + 42) \left[\dfrac{FRP}{MFLPD} \right]$ (2)
1 (7)	Rod Block Monitor Downscale	5/125 of full scale
3	IRM Downscale (3)	5/125 of full scale
3	IRM Detector not in Startup Position	(8)
3	IRM Upscale	$\leq 108/125$ of full scale
2 (5)	SRM Detector not in Startup Position	(4)
2 (5) (6)	SRM Upscale	$\leq 10^5$ counts/sec.
1.(9)	Scram Discharge Volume Water Level-High	≤ 18 gallons

NOTES FOR TABLE 3.2.C

1. For the startup and run positions of the Reactor Mode Selector Switch, there shall be two operable or tripped trip systems for each function. The SRM and IRM blocks need not be operable in "Run" mode, and the APRM and REM rod blocks need not be operable in "Startup" 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 percent of drive flow required to produce a rated core flow of 69 M lb/hr. Trip level setting is in percent of design power (1998 MWt).

3. IRM downscale is bypassed when it is on its lowest range.

4. This function is bypassed when the count rate is $\geq$ 100 cps.

5. One of the four SRM inputs may be bypassed.

6. This SRM function is bypassed when the IRM range switches are on range 8 or above.

7. The trip is bypassed when the reactor power is $\leq$ 30%.

8. This function is bypassed when the mode switch is placed in Run.

9. If the number of operable channels is less than required by the minimum number of operable instrument channels per trip system requirement, place the inoperable channel in the tripped condition within one hour.

TABLE 4.2.C
MINIMUM TEST AND CALIBRATION FREQUENCY FOR CONTROL ROD BLOCKS ACTUATION

Instrument Channel	Instrument Functional Test	Calibration	Instrument Check
1) APRM - Downscale	(1) (3)	Once/3 months	Once/day
2) APRM - Upscale	(1) (3)	Once/3 months	Once/day
3) IRM - Upscale	(2) (3)	Startup or Control Shutdown	(2)
4) IRM - Downscale	(2) (3)	Startup or Control Shutdown	(2)
5) RBM - Upscale	(1) (3)	Once/6 months	Once/day
6) RBM - Downscale	(1) (3)	Once/6 months	Once/day
7) SRM - Upscale	(2) (3)	Startup or Control Shutdown	(2)
8) SRM - Detector Not in Startup Position	(2) (3)	Startup or Control Shutdown	(2)
9) IRM - Detector Not in Startup Position	(2) (3)	Startup or Control Shutdown	(2)
10) Scram Discharge Volume Water Level-High	Once/3 Months	Refuel	N/A

Logic System Functional Test (4) (6)

(1) System Logic Check   Once/6 Months