



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAY 8 1965

MEMORANDUM FOR: T. M. Novak, Assistant Director
for Licensing, DL

FROM: L. S. Rubenstein, Assistant Director
for Core and Plant Systems, DSI

SUBJECT: TECHNICAL SPECIFICATION FOR RIVER BEND

The Core Performance Branch has reviewed the Final Draft copy of the proposed Technical Specifications for River Bend Station. The list of Specifications reviewed is given in Enclosure 1. Enclosure 2 contains our comments on the proposed Specifications.

A handwritten signature in cursive script, appearing to read "L. S. Rubenstein", with a long horizontal line extending to the right.

L. S. Rubenstein, Assistant Director
for Core and Plant Systems, DSI

Enclosures:
As stated

cc: R. Bernero
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Enclosure 1

List of Specifications Reviewed - River Bend

Definitions	Specifications
1.2	2.1.2
1.3	2.2.1 (IRM and APRM)
1.7	3/4.1.1
1.8	3/4.1.2
1.9	3/4.1.3.1(except 4.1.3.1.4)
1.15	3/4.1.3.2
1.16	3/4.1.3.4
1.21	3/4.1.3.5
1.22	3/4.1.3.6
1.25	3/4.1.4.1
1.29	3/4.1.4.2
1.34	3/4.2.1
1.37	3/4.2.2
1.40	3/4.2.3
1.45	3/4.2.4
--	Table 3.3.1-1 (IRM and APRM only)
	Table 3.3.1-2 (IRM and APRM only)
	3/4.3.6 (except Table 4.3.6-1)
	3/4.3.7.6
	3/4.3.7.7
	3/4.3.7.9
	3/4.4.1.2
	3/4.4.1.1
	3/4.4.1.2
	3/4.9.1
	3/4.9.2
	3/4.9.10.1
	3/4.9.10.2
	3/4.10.2
	3/4.10.3
	5.3
	5.6

Enclosure 2

Comments on Technical Specifications - River Bend

Specification 3/4.2.1 and Figure 3.2.3-2

There are MAPLHGR curves for five different fuel enrichments given in this Specification. However, Chapter 4.3 of the FSAR lists only 3 enrichments in the core. It is our understanding that a revision to the FSAR is being prepared to correct the confusion. It should be noted that the generic Rod Withdrawal Error analysis which is the basis of Technical Specification Figure 3.2.3-2 is not valid for the five enrichment core loading. A compliance check must be provided for this analysis as part of the FSAR revision.

Specification 3/4.4.1.1

This specification as written does not address the issue of monitoring core stability in accordance with the recommendations of GE letter SIL-380. We require such monitoring and the inclusion of the requirement in the Technical Specifications. An acceptable Specification is attached. It is our understanding that the applicant is currently performing the analysis to support the inclusion of the revised Specification.

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM

RECIRCULATION LOOPS

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LIMITING CONDITION FOR OPERATION

3.4.1.1 Two reactor coolant system recirculation loops shall be in operation with:

- a. Total core flow greater than or equal to 45% of rated core flow, or
- b. THERMAL POWER less than or equal to the limit specified in Figure 3.4.1.1-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1* and 2*.

ACTION:

- a. With one reactor coolant system recirculation loop not in operation, immediately initiate action to reduce THERMAL POWER to less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours and initiate measures to place the unit in at least HOT SHUTDOWN within the next 12 hours.
- b. With no reactor coolant system recirculation loops in operation, immediately initiate action to reduce THERMAL POWER to less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours and initiate measures to place the unit in at least STARTUP within 6 hours and in HOT SHUTDOWN within the next 6 hours.
- c. With two reactor coolant system recirculation loops in operation and total core flow less than 45% of rated core flow and THERMAL POWER greater than the limit specified in Figure 3.4.1.1-1:
 1. Determine the APRM and LPRM** noise levels (Surveillance 4.4.1.1.2):
 - a) At least once per 8 hours, and
 - b) Within 30 minutes after the completion of a THERMAL POWER increase of at least 5% of RATED THERMAL POWER.
 2. With the APRM or LPRM** neutron flux noise levels greater than three times their established baseline noise levels, immediately initiate corrective action to restore the noise levels to within the required limits within 2 hours by increasing core flow to greater than 45% of rated core flow or by reducing THERMAL POWER to less than or equal to the limit specified in Figure 3.4.1.1-1.

*See Special Test Exception 3.10.4.

**Detector levels A and C of one LPRM string per core octant plus detectors A and C of one LPRM string in the center of the core should be monitored.

REACTOR COOLANT SYSTEM

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SURVEILLANCE REQUIREMENTS

4.4.1.1.1 Each reactor coolant system recirculation loop flow control valve shall be demonstrated OPERABLE at least once per 18 months by:

- a. Verifying that the control valve fails "as is" on loss of hydraulic pressure at the hydraulic control unit, and
- b. Verifying that the average rate of control valve movement is:
 1. Less than or equal to 11% of stroke per second opening and
 2. Less than or equal to 11% of stroke per second closing.

4.4.1.1.2 Establish a baseline APRM and LPRM* neutron flux noise value within the regions for which monitoring is required (Specification 3.4.1.1, ACTION c) within 2 hours of entering the region for which monitoring is required unless baselining has previously been performed in the region since the last refueling outage.

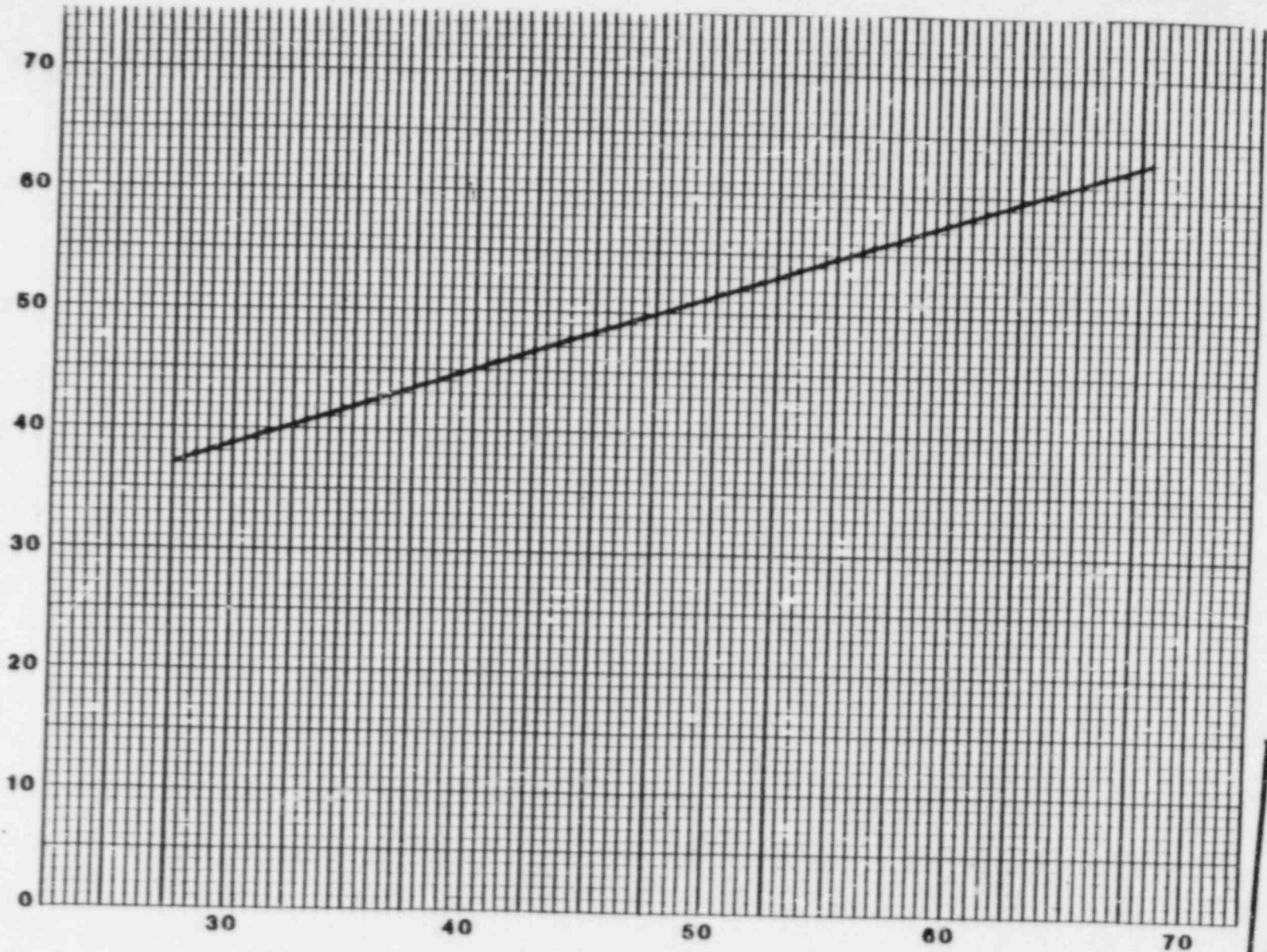
*Detector levels A and C of one LPRM string per core octant plus detectors A and C of one LPRM string in the center of the core should be monitored.

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THERMAL POWER (% RATED)



CORE FLOW (% RATED)
THERMAL POWER VERSUS CORE FLOW

FIGURE 3.4.1.1-1

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