ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9110040005 DOC.DATE: 91/09/27 NOTARIZED: YES DOCKET #
FACIL:50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Servic 05000305
AUTH.NAME AUTHOR AFFILIATION
STEINHARDT,C.R. Wisconsin Public Service Corp.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Proposed Amend 102 to License DPR-43,changing Tech Spec Table 3.5-2 to revise nomenclature for permissive P-6 setpoint.

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 3+2
TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD3-3 LA	1	1	PD3-3 PD	1	1
	GODY,A.	2	2			
INTERNAL:	ACRS	6	6	NRR/DET/ECMB 7D	1	1
	NRR/DET/ESGB	1	1	NRR/DOEA/OTSB11	1	1
	NRR/DST 8E2	1	1	NRR/DST/SELB 7E	1	1
	NRR/DST/SICB8H7	1	1	NRR/DST/SRXB 8E	1	1
	NUDOCS-ABSTRACT	1	1	OC/LEMB	1	0
	OGC/HDS1	1	0	REG FILE 01	1	1
	RES/DSIR/EIB	1	1			
EXTERNAL:	NRC PDR	1	1	NSIC	1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 24 ENCL 22

R I D S / A D D S

R I D S / A D D S

WPSC (414) 433-1598
TELECOPIER (414) 433-5544

NRC-91-135

EASYLINK 62891993

WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

September 27, 1991

10 CFR 50.90

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Proposed Amendment 102 to the Kewaunee Nuclear Power Plant (KNPP)
Technical Specifications (TS); Request for Additional Information

Reference: 1) Proposed Amendment 102 to the KNPP TS; letter from C. R. Steinhardt (WPSC) to Document Control Desk (NRC) dated June 4, 1991

The above reference proposed a change to the KNPP TSs Table TS 3.5-2 to revise the nomenclature for the permissive P-6 setpoint. This change was requested since the new intermediate range (IR) system, which was installed during the 1991 refueling outage, provides indication in percent power. The old IR system provided indication in amps. During the NRC staff review additional information was requested on determining the basis for the P-6 setpoint and how we determined that an instrumentation reading of 10E-3 amps was equivalent to 100% reactor power.

This additional information was provided to NRC project manager, Mr. Allen Hansen, during telephone conversations on September 5 and September 12, 1991. The purpose of this letter is to document that information.

The permissive P-6 setpoint is the value at which the source range (SR) high neutron flux reactor trip can be bypassed. As stated in our Updated Safety Analysis Report (USAR), the SR high neutron flux reactor trip provides protection during reactor startup and is set between the SR cutoff power level and the maximum SR power level. Westinghouse topical report, WCAP-7669, "Nuclear Instrumentation System", provides the original basis for the P-6 setpoint. This report states in part:

A001

> During reactor startup, the operator will be made aware of satisfactory operation of one or more intermediate range channels by the illumination of the permissive status light for P-6 at the control board. The source and intermediate range flux level information is also readily available on recorders and indicators at the control console. At this time, if the intermediate range channels are functioning properly, the operator would depress the two manual block switches associated with the source range logic circuitry, thus causing cutoff of source range detector voltages and blocking the trip logic outputs. The manual block should not be initiated; however, until at least one decade of satisfactory intermediate range operation is obtained. If one intermediate range channel is not functioning, power could be increased normally, if desired. The permissive P6 visual annunciation is continuously displayed by the control board status lights.

To satisfy this design consideration the P-6 setpoint for the old IR system was 10E-10 amps which was one decade on scale. The new IR fission detectors measure flux over a range of 10E-8% to 200% reactor power. Setting P-6 at 10E-5% reactor power conservatively assures compliance with the above mentioned design considerations by providing 3 decades of on-scale IR operation prior to bypassing the SR trip.

As a part of the safety evaluation for the proposed TS change, we made the statement that an instrumentation reading of 10E-3 amps was equivalent to 100% reactor power. This statement was based on past observations of the IR indication during power operation and projections made from low power physics testing data. During previous operating cycles the IR indication was observed to be approximately 10E-3 amps during 100% reactor power operation.

Additionally, the 1990 power escalation data was reviewed to confirm our statement. During a reactor startup following refueling the nuclear flux IR reactor trip is set in accordance with TSs at $\leq$40% power. Initially the trip point is set very conservative relying on reactor physics calculations. During power escalation the reactor power level is determined by performing a calorimetric at approximately 25% power and again at approximately 40% power. The IR trip point is adjusted accordingly, but maintained at a conservative value. During the 1990 reactor startup the IR reactor trip was set at 39% power which corresponded to 3.2E-4 amps on the IR instrumentation. This IR indication at 39% reactor power extrapolates to 8.2E-4 amps at 100% reactor power.

In addition page 4 of 4 for Table TS 3.5-2 is being resubmitted to correct a typographical error in our proposed amendment submittal. Note 3 is being revised from "When a block conditions exist, ..." to "When a block condition exists, ...".

If you require additional information please contact me or a member of my staff.

Sincerely,

C. R. Steinhardt
Senior Vice President-Nuclear Power

SLB/jms

cc - US NRC - Region III
Mr. Patrick Castleman, US NRC
Mr. R. S. Cullen, PSCW

Subscribed and Sworn to
Before Me This 27th Day
of September 1991

Notary Public, State of Wisconsin

My Commission Expires:
May 3, 1992