

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

SUBJECT: Provides supplemental response to RAI re proposed amend 150 to plant TSS, requesting one hour LCO action statement when filing SI accumulators.

NOTES :

RECIPIENT		COPIES		RECIPIENT		COPIES	
ID	CODE/NAME	LTTR	ENCL	ID	CODE/NAME	LTTR	ENCL
PD3-3	LA	1	1	PD3-3	PD	1	1
LONG, W		1	1				
INTERNAL:	ACRS	1	1		FILE CENTER 01	1	1
	NRR/DE/ECGB/A	1	1		NRR/DE/EMCB	1	1
	NRR/DRCH/HICB	1	1		NRR/DSSA/SPLB	1	1
	NRR/DSSA/SRXB	1	1		NUDOCS-ABSTRACT	1	1
	OGC/HDS2	1	0				
EXTERNAL:	NOAC	1	1		NRC PDR	1	1

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS
OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL
DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 14 ENCL 13

C
A
T
E
G
O
R
Y
1

D
O
C
U
M
E
N
T

Public Service

Wisconsin Public Service Corporation

(a subsidiary of WPS Resources Corporation)

600 North Adams Street

P.O. Box 19002

Green Bay, WI 54307-9002

1-920-433-5544 fax

September 21, 1998

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

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Proposed Amendment 150 to the Kewaunee Nuclear Power Plant Technical Specifications -
Supplemental Information

Reference: 1) Letter from C. R. Steinhardt (WPSC) to Document Control Desk (NRC)
dated March 4, 1998.

On March 4, 1998, Wisconsin Public Service Corporation (WPSC) submitted a proposed Technical Specification (TS) amendment to add a limiting condition of operation during the filling of the emergency core cooling system accumulators (Reference 1). In order to complete review of the proposed TS amendment, the NRC staff, in a telecon on July 16, 1998, requested additional information. The attachment to this letter provides our response to that request.

Please contact Jay Dressen of my staff at (920) 388-8233, if you have any questions or require additional information.

Sincerely,

Mark L. Marchi

for Mark L. Marchi
Site Vice President-Kewaunee Plant

JDD/jmf

Attach.

cc - US NRC Senior Resident Inspector
US NRC Region III

9809250162 980921
PDR ADDCK 05000305
P PDR

ATTACHMENT

Letter from Mark L. Marchi (WPSC)

To

Document Control Desk (NRC)

Dated

September 21, 1998

**Supplemental Information Related to
Proposed Technical Specification Amendment 150**

This attachment provides additional information requested by the NRC staff during a telecon on July 16, 1998.

Kewaunee Nuclear Power Plant Technical Specification proposed amendment (PA)150 was sent to the NRC on March 4, 1998. This proposed amendment requested a one hour limiting condition for operation (LCO) action statement when filling the Safety Injection (SI) accumulators. During the NRC evaluation of the PA, questions were raised about SI pump run out conditions during an accumulator fill concurrent with a large break loss of coolant accident (LOCA). This topic was discussed in a teleconference on July 16, 1998.

During the teleconference it was decided that a calculation be performed to provide added assurance that with two SI pumps running during an accumulator fill concurrent with a large break LOCA that run out conditions would not be a concern.

WPSC has performed the needed calculation. The calculation assumes SI pumps A and B providing flow to a depressurized Reactor Coolant System, the pumps recirculation flow path and to a depressurized accumulator. Flow to each of these was determined as described below and then compared to the individual pump run out flow value.

The pump head used in this calculation was determined by using the upper flow limit allowed in the Inservice Testing Program to account for potential pump degradation and instrument accuracies. This results in a conservatively higher pump flow due to the assumed increase head of the pumps. The assumed pump flow curve was then doubled to account for parallel pump operation.

The recirculation flow used in the calculation was conservatively determined by using single pump recirculation flow and then that value was doubled to account for two pump operation. Actual recirculation flow would be less than twice the single pump flow due to increased head losses in the common recirculation piping. The recirculation flow used, in the calculation, is conservative, because it results in higher total flow.

The SI flow to a depressurized accumulator was determined from actual data gathered in 1997, using operations procedure N-SI-33, "Filling, Draining, Pressurizing and Venting SI Accumulators." This procedure is used to fill a SI accumulator which is vented to containment atmosphere. The measured flow (approximately 273 gpm) is conservative due to the accumulator being the only available flow path during the filling evolution.

In conclusion, the calculation performed is conservative in that it assumes a pump curve which is higher than the SI pump A and B pump curves which results in higher than expected flow. In addition, it assumes that recirculation flow is twice the value expected for single pump operation. Doubling the flow of this assumed curve to account for parallel pump operation and plotting it along with the system curve, results in an operating point of approximately 757 gpm which is less than the run out flow (approximately 835 gpm) for each pump. Therefore, with both SI pumps, operating pump run out is not a concern during an accumulator fill concurrent with a Design Basis LOCA.