

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8302150505 DOC. DATE: 83/02/07 NOTARIZED: NO DOCKET #
 FACIL: 50-263 Monticello Nuclear Generating Plant, Northern States 05000263
 AUTH. NAME AUTHOR AFFILIATION
 MUSOLF, D. Northern States Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 Office of Nuclear Reactor Regulation, Director

SUBJECT: Responds to 830105 request for addl info re increased allowable deviation for main steam line area temp switch setpoint. Since entire steam tunnel reaches 212 F for small break, 200 F setpoint provides adequate protection.

DISTRIBUTION CODE: A001S COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 2
 TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT		COPIES			RECIPIENT		COPIES	
	ID CODE/NAME		LTR	ENCL		ID CODE/NAME		LTR	ENCL
	NRR ORB2 BC	01	7	7					
INTERNAL:	ELD/HDS1		1	0	NRR/DE/MTEB		1	1	
	NRR/DL DIR		1	1	NRR/DL/ORAB		1	0	
	NRR/DSI/MTEB		1	1	NRR/DSI/RAB		1	1	
	REG FILE	04	1	1	RGN3		1	1	
EXTERNAL:	ACRS	09	6	6	LPDR	03	1	1	
	NRC PDR	02	1	1	NSIC	05	1	1	
	NTIS		1	1					

TOTAL NUMBER OF COPIES REQUIRED: LTR 25 ENCL 23



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401
Telephone (612) 330-5500

February 7, 1983

Director
Office of Nuclear Reactor Regulation
U S Nuclear Regulatory Commission
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Response to January 5, 1983 Request
for Additional Information Related to Increased Allowable
Deviation for Main Steam Line Area Temperature Switch Setpoint

In a letter dated January 5, 1983 from Mr Dominic B Vassallo, Chief, Operating Reactors Branch #2, Division of Licensing, we were requested to provide additional information related to our September 24, 1982 request for an increase in the allowable deviation specified in the Technical Specifications for the main steam line area temperature switch setpoint. The purpose of this letter is to provide the requested information.

Our September 24, 1982 request was an attempt to define a more realistic "as found" trip point at which the main steam tunnel temperature switches would be considered inoperable. As presently written, the Technical Specifications define an inoperable temperature switch as one with an "as found" trip point greater than 202°F. The EDS analysis which accompanied our submittal shows that any temperature switch which trips at 212°F or less would adequately perform its safety function. The proposed Technical Specification change would still require a setpoint of 200°F or less, but would increase the maximum "as found" trip point to 210°F for purposes of defining inoperability.

Our main steam tunnel temperature switches have proved to be extremely rugged and reliable devices, but they do experience setpoint drift because of their wide operating range and inherent accuracy. On occasion "as found" trip points have exceeded 202°F and we have reported these switches as being inoperable. Based on the EDS safety analysis, 210°F is an appropriate "as found" upper limit for operability.

Two areas of concern were identified with the proposed change to the Technical Specifications. To address the first concern, we must point out that the value of 10°F is not the maximum expected drift but rather, the allowable deviation above the specified setpoint to establish the upper limit of operability. The second concern appears to confuse Technical Specification limits with operating setpoints. The Technical Specification limits are based on the safety analyses performed for the plant. A setpoint of 200°F or less with an allowable deviation of 10°F are conservative when compared to the required limit of 212°F defined in the EDS safety analysis. The recommendations in ISA Standard S67.04

8302150505 830207
PDR ADDCK 05000263
PDR

A001

NORTHERN STATES POWER COMPANY

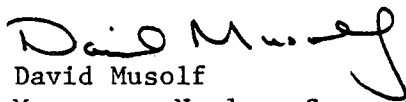
Director of NRR

Feb 7, 1983

Page 2

should be considered by licensees when establishing operating setpoints based on the Technical Specification requirements. Our operating setpoint for the main steam line temperature switches is less than 200°F. However, for the purposes of responding to your concern, we have evaluated the safety significance of operating with our temperature switches set at 200°F. The standard deviation for the temperature switch setpoint drift is 3.8°F based on the calibration history since 1971 (a sample size of 144 points). This data follows a Gaussian probability distribution curve with "as found" setpoints falling above and below the mean. The probability that a temperature switch trip point will drift above 210°F is 5×10^{-3} . The logic system is wired with four temperature switches in series per subchannel, such that any one of the four switches can initiate a subchannel trip. The probability that all four switches will drift above 210°F is extremely small. Since the entire steam tunnel reaches 212°F for a small break, a 200°F setpoint provides adequate protection. The effects due to calibration accuracy and harsh environment are negligible.

Please contact us if you have any questions related to the information we have provided.



David Musolf

Manager - Nuclear Support Services

cc: Regional Administrator - III
NRR Project Manager, NRC
Resident Inspector, NRC
G Charnoff