

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8711170276 DOC. DATE: 87/11/13 NOTARIZED: NO DOCKET #
 FACIL: 50-263 Monticello Nuclear Generating Plant, Northern States 05000263
 AUTH. NAME: MUSOLF, D. AUTHOR AFFILIATION: Northern States Power Co.
 RECIP. NAME: Northern States Power Co. RECIPIENT AFFILIATION: Office of Nuclear Reactor Regulation, Director (Post 870411)

SUBJECT: Part 21 rept re defective Limitorque SMB-00 dc motor operators. Initially reported on 871106. Defective motor operators will be returned to mfg for repair.

DISTRIBUTION CODE: IE19D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 4
 TITLE: Part 21 Rept (50 DKT)

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-3 LA	1	PD3-3 PD	1
	SCALETTI, D	1		
INTERNAL:	AEOD/DOA	1	AEOD/DSP/TPAB	1
	ARM TECH ADV	1	NRR CRUTCHFIELD	1
	NRR VARGA, S	1	NRR/DEST/ADE	1
	NRR/DEST/ADS	1	NRR/DLPQ/QAB	1
	NRR/DOEA/EAB	1	NRR/DOEA/GCB	1
	NRR/DRIS/VIB	1	NRR/PMAS/ILRB	1
	<u>REG FILE</u> 01	1	RES DEPY GI	1
	RES/DE/EIB	1	RGN1	1
	RGN2	1	RGN3	1
	RGN4	1	RGN5	1
EXTERNAL:	INPO RECORD CTR	1	LPDR	1
	NRC PDR	1	NSIC SILVER, E	1



Northern States Power Company

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

November 13, 1987

10 CFR Part 21

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

Report of Defective Component (SSH-M-87/01)

The following information is reported in accordance with 10 CFR Part 21, Section 21.21(b)(3). Three copies of this report are being provided. Northern States Power Company has determined that motor operators purchased for use in safety-related applications at the Monticello Nuclear Generating Plant were manufactured with a defect which may have presented a substantial safety hazard.

The defective components were Limitorque SMB-00 DC motor operators intended to replace existing DC motor operators of an older design during the current refueling outage. The defect was discovered during post-installation testing. Defective components will be repaired by the manufacturer and reinstalled.

The following information is provided related to this defect:

1. Name and Address of Individual Informing the Commission

David Musolf, Manager Nuclear Support Services
Northern States Power Company
414 Nicollet Mall, IN04
Minneapolis, MN 55401

2. Identification of the Facility and Defective Components

a) Monticello Nuclear Generating Plant.

b) Limitorque SMB-00 Motor Operators. These operators were purchased to replace existing DC Rotork valve operators on High Pressure Coolant Injection (HPCI) suction supply valves MO-2061, MO-2062, and MO-2063, and Residual Heat Removal

8711170276 871113
PDR ADDOCK 05000263
S PDR

IE 19
/10

(RHR) to Radwaste isolation valve MO-2407. Two of four Limitorque SMB-00 valve operators purchased for non-safety related applications in the Reactor Core Isolation Cooling System (RCIC) were also found to be defective.

3. Identification of the Firm Supplying the Defective Components

Limitorque Corporation supplied the defective safety related motor operators to the William Powell Company and Anchor Darling Valve Company for Northern States Power Company Purchase Orders E35102CQ and E35045CQ, respectively.

4. Nature of Defect and Safety Hazard

Motor lead wires were found with abrasion damage to the insulation. This defect is considered a manufacturing assembly problem and not a design defect.

Failure of these motor operators would have degraded the ability of the affected plant safety systems to mitigate an accident. The affected HPCI suction supply valves are required to function to assure the transfer of HPCI suction supply from the condensate storage tanks to the suppression pool when low level is reached in the tanks. The function of the RHR to radwaste isolation valve is to isolate the RHR system from the radwaste system.

5. Date on Which Information Was Obtained

On November 3, 1987 a defect was identified with motor leads associated with a new Limitorque motor operator installed on a non-safety related valve. During plant testing, a motor lead wire defect resulted in a battery ground. Closer inspection of the motor lead wire showed one lead was pinched between the motor mounting flange and the Limitorque housing. The insulation and multiple wire strands were broken. Inspection of the other motor lead wires showed indications of abrasion damage.

The decision was made to inspect all Limitorque operators purchased for replacement of Rotork operators, which included four safety related operators.

The inspection was completed on November 6, 1987. Five additional operators were found with similar defects. The NRC Regional Office in Glen Ellyn, Illinois was notified on

that date and informed that a potential 10 CFR Part 21 reportable defect had been identified.

On November 9, 1987 an analysis of reportability under 10 CFR Part 21 was completed which recommended that this defect be reported to the Commission. This recommendation was concurred in by the NSP Nuclear Engineering and Construction (NE&C) Technical Review Board.

6. Number of Components and Location

Eight Limitorque DC motor operators were purchased. Six were found to be defective as detailed below:

Equipment ID	System	Function	Status
MO-2061	HPCI	Safety	Defective
MO-2062	HPCI	Safety	Defective
MO-2063	HPCI	Safety	Defective
MO-2096	RCIC	Non-Safety	Defective
MO-2100	RCIC	Non-Safety	Acceptable
MO-2101	RCIC	Non-Safety	Defective
MO-2102	RCIC	Non-Safety	Acceptable
MO-2407	RHR	Safety	Defective

7. Corrective Action Taken

NE&C Nonconformance Report No. 234 was issued to document the defective motor operators. Defective motor operators will be returned to the manufacturer for repair.

Upon return from the manufacturer, the motor operators will be receipt inspected by NE&C Quality Control.

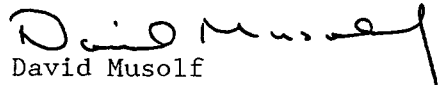
The NSP Supplier Quality Assurance Department will investigate the cause of the damage at the Limitorque plant.

8. Advice Related to Defect Given to Purchasers or Licensees

As an end user, NSP cannot offer direct advice on this matter to other purchasers or licensees. Discussions with Limitorque related to resolution of NCR No. 234 will address needed actions by the manufacturer to prevent future delivery of defective motor operators.

Director of NRR
November 13, 1987
Page 4

Please contact us if you require additional information related to this defect.


David Musolf
Manager Nuclear Support Services

c: Administrator Region III, NRC
Resident Inspector, NRC
NRR Project Manager, NRC
G Charnoff