



Northern States Power Company

Monticello Nuclear Generating Plant
2807 West Hwy 75
Monticello, Minnesota 55362-9637

November 14, 1994

Report Required by
10 CFR Part 50, Section 50.73

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

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

LER 94-014

Missed Procedural Step While Switching the Power Supply to the
Reactor Protection System to the Alternate Source
Causes a Partial Containment Isolation

The Licensee Event Report for this occurrence is attached. This report contains no new NRC commitments.

Please contact Tom Parker at (612) 295-1014 if you require further information.

Roger O Anderson for ROA

Roger O Anderson
Director
Licensing and Management Issues

c: Regional Administrator - III NRC
Sr Resident Inspector, NRC
NRR Project Manager, NRC
State of Minnesota,
Attn: Kris Sanda

Attachment

180037

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S PDR

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NRC FORM 366 (5-92)						U.S. NUCLEAR REGULATORY COMMISSION						APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95																	
LICENSEE EVENT REPORT (LER)																		ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.											
(See reverse for required number of digits/characters for each block)																													
FACILITY NAME (1) MONTICELLO NUCLEAR GENERATING PLANT												DOCKET NUMBER (2) 05000 - 263						PAGE (3) 1 OF 6											
TITLE (4) Missed Procedural Step While Switching the Power Supply to the Reactor Protection System to the Alternate Source Causes a Partial Containment Isolation																													
EVENT DATE (5)			LER NUMBER (6)				REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)																			
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME						DOCKET NUMBER														
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OPERATING MODE (9)		N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																									
				20.402(b)				20.405(c)				X		50.73(a)(2)(iv)				73.71(b)											
POWER LEVEL (10)		0%		20.405(a)(1)(i)				50.36(c)(1)						50.73(a)(2)(v)				73.71(c)											
				20.405(a)(1)(ii)				50.36(c)(2)						50.73(a)(2)(vii)				OTHER											
				20.405(a)(1)(iii)				50.73(a)(2)(i)						50.73(a)(2)(viii)(A)				(Specify in Abstract											
				20.405(a)(1)(iv)				50.73(a)(2)(ii)						50.73(a)(2)(viii)(B)				below and in Text, NRC											
				20.405(a)(1)(v)				50.73(a)(2)(iii)						50.73(a)(2)(x)				Form 366A)											
LICENSEE CONTACT FOR THIS LER (12)																													
NAME Tom Parker												TELEPHONE NUMBER (Include Area Code) 612-295-1014																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																													
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS					CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS																
None																													
SUPPLEMENTAL REPORT EXPECTED (14)																													
YES (IF YES, COMPLETE EXPECTED SUBMISSION DATE)												X NO						EXPECTED SUBMISSION DATE (15)				MONTH	DAY	YEAR					

ABSTRACT LIMIT TO 1400 SPACES, I.E., APPROXIMATELY 15 SINGLE-SPACED TYPEWRITTEN LINES) (16)
NRC FORM 366 (5-91)

While switching power supplies for the Division II Reactor Protection System bus, a procedural step was missed causing the partial containment isolation. The plant was in a refueling outage at the time. The operator was disciplined.

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Description

On October 13, 1994 during a refueling outage, a partial containment isolation (EIS System Code: JM) occurred. While switching power supplies for the Division II Reactor Protection System (EIS System Code: EF) bus (Y-40), a procedural step was missed causing the partial containment isolation.

Each Reactor Protection System has two power supplies: a motor-generator set (EIS Component Code: MG) or a 480/120 VAC transformer (EIS Component Code: XFMR). A mechanical break-before-make switch transfers the supply from the motor-generator set to the transformer. Since the switching causes a momentary loss of power to the Spent Fuel Pool and Reactor Building Exhaust Radiation Monitors (EIS Component Code: MON), bypass switches are installed to prevent containment isolations. Switches are installed in Channel "A" and "B." The switches are key locked and the keys are controlled by the Shift Supervisor. There is one set of keys that will bypass either channel. The keys were installed in Channel "A" (which is associated with Division I equipment) when the Division II Reactor Protection System was switched to the alternate supply. This caused the Division II radiation monitors to trip and initiate a partial containment isolation. The isolation closed the primary containment atmosphere sample valves. The reactor building ventilation was also isolated and the Standby Gas Treatment System (EIS System Code: BH) started.

Cause

The procedure was being performed by a licensed operator. The operator, working the day shift (7am to 7pm), was involved with testing of the 4kV switchgear when called to work on the Reactor Protection System. Division I Reactor Protection System was on the alternate source for the Electrical Protection Assembly (See attached Figure) functional test (#0379) and the operator was asked to place it back on the motor-generator supply. When performing this procedure, the operator went to the Shift Supervisor's Office to obtain the bypass keys, but the bypass keys were not there. The keys were already installed in the Division I switches controlled by a Jumper/Bypass

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Form. The operator properly switched the Division I Reactor Protection System to the motor-generator supply, as the testing of the Electrical Protection Assemblies had been completed.

Prior to completing the procedure, i.e., removing and returning the keys to the shift supervisors office, the operator was asked to place the Division II Reactor Protection System on the alternate supply. Maintenance personnel were waiting to test the Division II Electrical Protection Assemblies. The operator felt a self-perceived urgency to perform the switching as personnel were waiting for the equipment to be removed from service. When beginning to perform the Division II procedure, the operator thought that, "the bypass keys are already installed, no need to do anything with the switches" and proceeded with the procedure. This error, not removing the keys from the Division I bypass switches and installing them in the Division II bypass switches, caused the radiation monitor trips to initiate containment isolations when the mechanical break-before-make switch transferred Division II to the alternate power supply.

Several errors were made:

The operator should have removed the bypass keys from the Division I Bypass Switches when completing that operation.

The shift supervision should not have assigned the operator the job of taking the Division II Electrical Protection Assemblies out of service until the bypass keys for Division I were returned and the Jumper/Bypass Form cleared. Then, a new Jumper/Bypass Form would be initiated for Division II. The form requires independent verification of the placement of the bypass keys.

The operator should have verified the bypass keys location with the procedure when taking the Division II Electrical Protection Assemblies out of service. The operator failed to "self check."

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Analysis

This event is reportable per 10 CFR Part 50, Section 50.73(a)(2)(iv) since an automatic actuation of a Engineered Safety Feature occurred. The signal was invalid but valves changed position and some of these valves were not part of the exempted systems:

Reactor water clean-up system;
 Control room emergency ventilation system;
 Reactor building ventilation system;
 Fuel building ventilation system;
 or
 Auxiliary building ventilation system.

The valves that closed were the primary containment atmospheric sample valves. There are no consequences associated with closing these valves during a refueling outage.

Corrective Actions

1. Containment Isolation signals were reset and isolated systems were returned to service as necessary.
2. The company Positive Discipline Program will be implemented and the operator will be disciplined.
3. Shift Supervisors will review this Licensee Event Report.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		94	014	00	

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Failed Component Identification

None

Previous Similar Events

None

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FIGURE 1: DIVISION II REACTOR PROTECTION SYSTEM

