



Northern States Power Company

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

July 23, 1997

10 CFR Part 50
Section 50.73

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

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

LER 97-009

Partial Primary Containment Isolation Due to Voltage Transient
During Severe Weather

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.

William J Hill
Plant Manager
Monticello Nuclear Generating Plant

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

Attachment

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NRC FORM 366 (4-95)		U.S. NUCLEAR REGULATORY COMMISSION				APPROVED BY OMB NO. 3150-0104 EXPIRES 4/30/98						
LICENSEE EVENT REPORT (LER)												
(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 4				
TITLE (4) Partial Primary Containment Isolation Due to Voltage Transient During Severe Weather												
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		
07	01	97	97	009	00	07	23	97	FACILITY NAME	DOCKET NUMBER		
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
POWER LEVEL (10)		0 %	20.402(b)	20.405(a)(1)(i)			20.405(c)		<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	73.71(b)		
			20.405(a)(1)(ii)	20.405(a)(1)(iii)			50.36(c)(1)		50.73(a)(2)(v)	73.71(c)		
			20.405(a)(1)(iv)	20.405(a)(1)(v)			50.36(c)(2)		50.73(a)(2)(vii)	OTHER		
			20.405(a)(1)(v)				50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)		
							50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)			
							50.73(a)(2)(iii)		50.73(a)(2)(x)			
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			
SUPPLEMENTAL REPORT EXPECTED (14)												
YES (IF YES, COMPLETE EXPECTED SUBMISSION DATE)				<input checked="" type="checkbox"/> NO				EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR

ABSTRACT LIMIT TO 1400 SPACES, I.E., APPROXIMATELY 15 SINGLE-SPACED TYPEWRITTEN LINES; (16)
NCR FORM 366 (4-95)

During severe weather, a fault occurred on one of the 345 kV transmission lines coming into the Monticello substation. The plant electrical system experienced a voltage drop, causing the Reactor Protection System relays on one division to de-energize and re-energize. The momentary dropout of the Division "A" logic initiated the following actions: a half scram, a partial containment isolation (Partial Group II Isolation), a Reactor Building isolation, and the control room ventilation switched to the high radiation mode. Division "B" relays were not affected.

Systems were restored to the conditions that existed prior to the event. The damaged 345 kV line is being repaired.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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.

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Conditions Prior to the Event

The plant was in cold shutdown for an outage to replace Emergency Core Cooling System suction strainers.

Containment isolation (EISS System Code: JM) valves (EISS Component Code: VALVE) were not required to be operable. Most containment isolation valves were closed, except for the suppression chamber purge and vent valves. These valves were open to supply ventilation to personnel working in the suppression chamber.

Control Room ventilation (EISS System Code: VI) was in its normal mode. The Standby Gas Treatment System (EISS System Code: BH) was not required to be operable and was removed from service. Reactor Building (EISS System Code: NG) ventilation was operating normally.

Division "A" of the Reactor Protection System (EISS System Code: JD) logic was not being fed from its normal supply (a motor-generator) (EISS Component Code: 88), but was fed from the alternate source, a transformer (EISS Component Code: XFMR) supplied from Load Center 101. The Division "A" motor-generator was removed from service due to construction activities near the motor generator. Division "B" of the Reactor Protection System logic was fed from its normal source, a motor-generator.

Event Description

On July 1, 1997, during a severe weather storm, a fault occurred on one of the 345 kV transmission lines connected to the Monticello substation. A substation breaker (EISS Component Code: BKR) properly isolated the line from the Monticello substation. The substation remained energized from other transmission lines connecting the Monticello substation to the rest of the grid. After 15 seconds, the tripped breaker auto-closure feature attempted to reclose the breaker. As the transmission line had been severely damaged, the breaker immediately reopened.

During the reclosure, the plant electrical system experienced a voltage drop, causing the relays (EISS Component Code: RELAY) supplied by the Division "A" Reactor Protection System to de-energize (dropout) and re-energize upon subsequent trip of the substation breaker. The momentary dropout of the Division "A" logic initiated the

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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 (MNEB 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.

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following actions: a half scram, a partial containment isolation (Partial Group II Isolation), a Reactor Building isolation, and the control room ventilation switched to the high radiation mode. Division "B" relays were not affected, since voltage was maintained by its motor-generator.

Cause:

The severe weather caused a fault on the 345 kV line. Several miles of the transmission line had been destroyed by the storm.

Analysis of Reportability

This event is reportable per 10 CFR Part 50, Section 50.73(a)(2)(iv) since an automatic actuation of an Engineered Safety Feature occurred. The signal was invalid; no high radiation condition existed. Actuation of certain systems are exempted from reporting. However, the Suppression chamber vent and purge valves are not part of the systems exempted by Section 50.73(a)(2)(iv).

Safety Significance

There were no safety consequences to the actions initiated by the momentary loss of voltage.

Actions**Immediate Actions**

Systems were restored to the conditions that existed prior to the event.

Corrective Actions

The damaged 345 kV line is being repaired.

Preventative Actions

The plant's normal practice is to minimize operation of a Reactor Protection System bus on the alternate source. In this case, it was prudent to remove the Division "A" motor-generator from service due to work taking place near the motor-generator. No preventative actions are necessary.

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Failed Component Identification - None

Similar Events -

Although, several containment isolations have occurred in the past, none are similar to this event.