



May 29, 2002

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 2002-004

Unplanned Loss of Both Trains of Control Room Ventilation During Auto Start Testing Due to Timing Circuit Relay Failure

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

Contact Paul Hartmann at (763) 271-5172 if you require further information.

Jeffrey S. Forbes
Site Vice President
Monticello Nuclear Generating Plant

Enclosure

c: Regional Administrator - III NRC
NRR Project Manager, NRC
Resident Inspector, NRC
Minnesota Department of Commerce

IE22

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Monticello Nuclear Generating Plant	2. DOCKET NUMBER 05000263	3. PAGE 1 OF 4
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4. TITLE
Unplanned Loss of Both Trains of Control Room Ventilation During Auto Start Testing Due to Timing Circuit Relay Failure

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	01	2002	2002	- 004	- 00	05	29	2002	FACILITY NAME	DOCKET NUMBER
										05000
										05000

9. OPERATING MODE	N	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)								
		20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)		
10. POWER LEVEL	100	20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)		
		20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)		
		20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)		
		20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)				OTHER Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)				
		20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		X 50.73(a)(2)(v)(D)				
		20.2203(a)(2)(v)		50.73(a)(2)(i)(B)		50.73(a)(2)(vii)				
		20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)				
		20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)				

12. LICENSEE CONTACT FOR THIS LER	
NAME Paul Hartmann	TELEPHONE NUMBER (Include Area Code) 763-271-5172

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT										
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	
B	VI	RLY	Struthers Dunn	Y						

14. SUPPLEMENTAL REPORT EXPECTED					15. EXPECTED SUBMISSION DATE			
YES (If yes, complete EXPECTED SUBMISSION DATE).				X	NO	MONTH	DAY	YEAR

16. ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On April 1, 2002 both trains of the Control Room Ventilation (CRV) System were found to be inoperable during annual low flow testing due to a timing circuit relay failure. The inoperability of both trains of CRV occurred when B train was made inoperable by procedure to simulate low system flow and test the auto start feature of A train. The A train failed to auto start in response to simulated low flow.

In response, the control room operators manually started the A train of CRV. Within two hours, B train was returned to operable status. The affected train (CRV-A) was repaired in about 24 hours.

The safety significance was minimal since one train was manually started when the failure to auto start was identified. No Limiting Conditions of Operation were violated as a result of the failure or subsequent actions.

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		2002	- 004	- 0	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Description

While operating at 100% power, at 1436 on April 1, 2002, both trains (A & B) of the Control Room Ventilation (CRV)¹ System became inoperable for a short period of time. The loss of both trains of CRV occurred during a scheduled annual test. The test demonstrates the low system flow auto start feature of CRV and Emergency Filtration Treatment (EFT) via system logic and instrumentation manipulation, one train and one system (CRV versus EFT) at a time.

In accordance with the annual test, one train of CRV and EFT is made inoperable to induce a low system flow to allow the testing of the auto start on low system flow feature of the redundant train of CRV and EFT. The air conditioning unit receives the auto start signal for the CRV system (V-EAC-14A for train A and V-EAC-14B for train B). By the same procedure, similar auto start testing is separately performed on the EFT system fans (V-ERF-11 for EFT Train A, V-ERF-12 for EFT Train B) and applicable Limiting Conditions of Operations (LCOs) are entered.

At 1401 the A train of CRV was made inoperable (entering a 30 day LCO TS 3.17.A.2.a) and the B train of CRV successfully auto started on a low system flow signal. At 1430 the A train of CRV was restored to operability and the 30 day LCO was exited. At 1434 the B train of CRV was made inoperable (entering the 30 day LCO) in preparation to test the auto start on low flow for train A. The A train of CRV did not start on low system flow. In response, after 153 seconds, the attendant control room operator manually started the A train of CRV in accordance with the test procedure and the test was discontinued. With both trains of CRV inoperable, an unplanned 24 hour LCO (TS 3.17.A.3.a) was entered at 1436.

At 1600, following system restoration, the B train of CRV was declared operable. The plant exited the 24 hour LCO, but remained in the 30 day LCO due to A train inoperability.

On April 2, 2002, following troubleshooting, replacement and operability testing of the A train CRV auto start relay², the 30 day LCO for A train of CRV inoperability was exited at 1350. The annual test of CRV-EFT low flow was completed at 1825.

Event Analysis

Analysis of Reportability

The event is reportable under 10 CFR 50.73(a) (2)(v)(D), as both trains of a system designed to control the consequences of an accident were unavailable.

¹ EIS System Code: VI

² Component Identifier: 2

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The event is a safety system functional failure.

Safety Significance

The safety significance of the event is considered low. The auto start function on low system flow was tested successfully on the B train of CRV initially, demonstrating the operability of the auto start feature of that train. The loss of the auto start feature for both trains of CRV occurred per procedure for a short time interval between when the testing began on April 1, 2002 until the B train of CRV was restored to operable status (less that two hours).

The PRA group reviewed the event and concluded the event was of low safety significance. The basis of this conclusion was: the threat of a chemical or radiological air contamination issue affecting control room habitability was very small, significant radiological habitability issues for the main control room would only occur following some core damages scenarios and therefore Core Damage Frequency (CDF) was unaffected by this event, and the Large Early Release Frequency (LERF) was unaffected because the automatic initiation of the EFT upon a high radiation conditions remained functional and the standby EFT train was available by manual initiation.

Cause

The cause of the event was failure of the timing circuit relay failure in the A train of CRV.

Corrective Actions

The relay was replaced and the system was successfully tested for auto start on low system flow.

Test method changes to eliminate the susceptibility of the loss of both trains are being investigated for the annual low flow test.

Failed Component Identification

Struthers Dunn Timing Circuit Relay
Model Number 236ABX138NE

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Previous Similar Events

None

LER 2000-015 reported Struthers-Dunn relay failures, but those failures are unrelated to this event. The function and type of the involved relays were different in the earlier event.