



September 18, 2009

L-MT-09-082
10 CFR Part 50.73

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

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed License No. DPR-22

LER 2009-001 Revision 1, "Containment Overpressure not ensured in the Appendix R Analysis"

A revised Licensee Event Report (LER) for this occurrence is attached. The revision of this LER is to correct the Safety Significance for the event.

This letter contains no new commitments and no revisions to existing commitments.

Timothy J. O'Connor
Site Vice President, Monticello Nuclear Generating Plant
Northern States Power - Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC ✓
Resident Inspector, Monticello, USNRC

IER2
NRR

NRC FORM 366 (9-2007)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB NO. 3150-0104 <small>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.</small>	EXPIRES 8-31-2010
LICENSEE EVENT REPORT (LER) <small>(See reverse for required number of digits/characters for each block)</small>			

FACILITY NAME (1) Monticello Nuclear Generating Plant	DOCKET NUMBER (2) 05000263	PAGE (3) 1 of 4
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TITLE (4) Containment Overpressure not Ensured in the Appendix R Analysis

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	02	2009	2009	- 001	- 01	05	29	2009	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)								
			20.2201(b)		20.2203(a)(3)(ii)	<input checked="" type="checkbox"/>	50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)	
POWER LEVEL (10)	0		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)		<small>OTHER Specify in Abstract below or in NRC Form 366A</small>	
			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)		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)			

LICENSEE CONTACT FOR THIS LER (12)	
NAME Ron Baumer	TELEPHONE NUMBER (Include Area Code) 763-295-1357

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		
YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	NO				

ABSTRACT

During the review of calculations to respond to a request for additional information from the NRC in support of the station's Extended Power Uprate license amendment, station personnel discovered that although the plant credits Containment Overpressure the Appendix R analysis does not ensure Containment Overpressure is maintained. The cause of the event was the calculation that credited the Containment Overpressure was either not reviewed by fire protection program personnel or program personnel failed to internalize the need for a revision to the Appendix R analysis. Until the issue is resolved in the station's transition to NFPA-805, compensatory measures have been put in place to address the vulnerabilities.

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

Event Description

On April 2, 2009, the plant was shutdown and in Mode 5 for a refueling outage. During the review of calculations to respond to a request for additional information from the NRC in support of the station's Extended Power Uprate license amendment, station personnel discovered that although the plant credits Containment Overpressure (COP), the Appendix R analysis does not ensure Containment Overpressure is maintained. For certain scenarios, COP is required in order to ensure adequate net positive suction head is available for vessel injection and suppression pool cooling pumps. The station procedure for performing a shutdown from outside the control room did not contain any steps to require operators to ensure adequate net positive suction head was maintained. Although this issue was discovered in April 2009, the issue has existed since design basis accident reanalysis in 2002.

Depending on initial conditions, a fire in the cable spreading room or control room, with or without a fire induced loss of off site power, could cause two in-series valves to spuriously open leading to venting of containment. Venting of containment during this scenario could result in the loss of required net positive suction head (NPSH) for the 12 Core Spray (CS) [BM] and the 12 Residual Heat Removal (RHR) [BO] pumps [P]. With no operator action, inadequate NPSH could prevent vessel injection and or suppression pool cooling.

Event Analysis

The event was reportable under 10 CFR 50.73(a) (2) (ii) Degraded or Unanalyzed Condition. Since the issue was for past operability, there was no 10 CFR 50.72 report for this event.

The event is not considered a safety system functional failure since all required safety related systems would have been available to perform their safety functions.

Safety Significance

There was no impact to the health and safety of the public; and the risk significance is less than the red threshold requirements for 10 CFR 50.48.

Monticello maintains administrative controls for the introduction of combustible materials and ignition sources to limit the probability and severity of a fire. Fire detection equipment or continuous manning is provided in the affected areas for rapid detection. Fire extinguishers and hose stations are in place and fire brigade response is expected to be rapid and successful for any fire in the affected areas. These prevention, detection and suppression measures limit the frequency of fire induced loss of required COP to a very small value.

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A Significance Determination Process (SDP) evaluation was performed per the guidance of NRC Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process. In summary, this analysis determined that the change in Core Damage Frequency attributable to this event is less than the red risk threshold. Accordingly enforcement discretion via the provisions of Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR 50.48) is warranted.

Cause

Fire protection engineering personnel either did not review or were unaware/did not internalize that COP was required for an Appendix R fire and that the Appendix R analysis might require revision to ensure COP was maintained. Although the calculation procedure in 2002 required a fire protection review for the potential to affect the fire protection analysis, the requirements were not clear enough to ensure the personnel performing the calculation revision obtained a fire protection review.

Corrective Action

The calculation process has been revised since 2002. Specifically, completion of a Fire Protection Program checklist is now required by the fleet calculation procedure. Therefore, the process has already been revised to prevent this type of error, and no further action is required to prevent recurrence.

Final resolution of this condition will be completed with station's transition to the risk informed, performance-based fire protection program in NFPA 805. The NFPA 805 transition will either evaluate the non-compliant condition as acceptable due to detailed fire modeling and/or risk assessment or correct the condition via physical modification to the plant.

Procedure C.4-C has been revised to provide guidance to maintain the required NPSH for the CS and RHR pumps.

Until this issue is resolved, compensatory measures will be used to ensure the ability to safely shut down is maintained. Existing transient combustible material control procedures for the CR and CSR are adequate and use will be continued. Additional/new compensatory measures will include:

- No hot work in the CR or CSR without shift manager approval. If hot work is required, SM and work supervisor must walk down the job and ensure adequate compensatory measures are taken.
- The CSR detection and suppression systems and CR smoke detectors will remain functional. If the CSR detection or suppression systems are non-functional, then

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station a continuous fire watch. If the CR smoke detectors are non-functional, station one fire watch to cover all of the affected back panel areas. Even though the CR is continuously manned, one fire watch will be stationed. This fire watch should carefully inspect all the back panel areas at least once every half hour.

Failed Component Identification

None

Previous Similar Events

None.